

# 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.



David Kitto  
Executive Director  
Resource Assessments and Business Systems

Sydney

5 APRIL

2016

### SCHEDULE 1

Application Number:	SSD-5285
Applicant:	Iluka Resources Limited
Consent Authority:	Minister for Planning
Land:	See Appendix 1
Development:	Balranald Mineral Sands Project

Blue type represents the December 2022 modification (MOD 1)

***The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.***

***The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.***

**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
Notification of Department	6
Structural Adequacy	6
Demolition	6
Protection of Public Infrastructure	6
Operation of Plant and Equipment	6
Updating & Staging of Strategies, Plans or Programs	6
Community Enhancement	7
<b>ENVIRONMENTAL PERFORMANCE CONDITIONS</b>	<b>8</b>
Acquisition Upon Request	8
Additional Noise Mitigation Upon Request	8
Noise	8
Air Quality	9
Meteorological Monitoring	10
Water	10
Biodiversity	13
Heritage	14
Transport	16
Visual	18
Bushfire Management	18
Dangerous Goods	19
Waste	19
Rehabilitation	19
<b>ADDITIONAL PROCEDURES</b>	<b>21</b>
Notification of Landowners/Tenants	21
Independent Review	21
Land Acquisition	21
<b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	<b>23</b>
Environmental Management	23
Reporting	24
Auditing	24
Access to Information	25
<b>APPENDIX 1: SCHEDULE OF LAND</b>	<b>26</b>
<b>APPENDIX 2: GENERAL LAYOUT OF DEVELOPMENT</b>	<b>27</b>
<b>APPENDIX 3: GENERAL TERMS OF VPA</b>	<b>32</b>
<b>APPENDIX 4: RECEIVER LOCATION PLAN</b>	<b>33</b>
<b>APPENDIX 5: NOISE COMPLIANCE ASSESSMENT</b>	<b>34</b>
<b>APPENDIX 6: ABORIGINAL HERITAGE SITES AND SUBSURFACE EXCAVATION AREAS</b>	<b>35</b>
<b>APPENDIX 7: ROAD MAINTENANCE COSTING MODEL FRAMEWORK</b>	<b>42</b>
<b>APPENDIX 8: ROAD HAULAGE ROUTES</b>	<b>43</b>
<b>APPENDIX 9: REHABILITATION PLAN</b>	<b>46</b>

## DEFINITIONS

Aboriginal stakeholders	Aboriginal stakeholders registered for cultural heritage consultation for the development
Applicant	Iluka Resources Limited, or any other person/s who rely on this consent to carry out the development that is subject to this consent
ARI	Average Recurrence Interval
BCA	Building Code of Australia
Bulk Sampling Activity	The activity described in the EIS (specifically the supplementary information provided by EMGA Mitchell McLennan dated 12 November 2015), involving extraction of up to 100,000 tonnes of mineral ore within the disturbance area for the West Balranald Mine (as shown on the applicable figure in Appendix 2)
BCS	<a href="#">Biodiversity Conservation and Science Directorate within the Department</a>
BVT	Biometric Vegetation Type, as defined in OEH's <i>Framework for Biodiversity Assessment</i> (2014, or as updated)
Conditions of this consent	Conditions contained in Schedules 1 to 5 inclusive
Council	Balranald Shire Council
Day	The period from 7.00 am to 6.00 pm on Monday to Saturday, and 8.00 am to 6.00 pm on Sundays and Public Holidays
Department	Department of Planning & Environment
Development	The development as described in the EIS
DPI	Department of Primary Industries
DPE Water	<a href="#">Water Group within the Department</a>
EIS	Environmental Impact Statement titled <i>Balranald Mineral Sands Project Environmental Impact Statement</i> , dated May 2015, associated response to submissions titled <i>Balranald Mineral Sands Project Response to Submissions</i> , dated November 2015, and supplementary information provided by EMGA Mitchell McLennan dated 12 November 2015, <a href="#">as modified by</a> ; <ul style="list-style-type: none"> <li>the Modification report titled <i>Balranald Mineral Sands Project Modification 1 Modification Report</i> dated March 2022 and the Submissions Reports titled <i>Balranald Mineral Sands Project Modification 1 Submissions Report – Part A</i> dated August 2022 and <i>Balranald Mineral Sands Project Modification 1 Submissions Report – Part B</i> dated August 2022 and additional information</li> </ul>
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
<a href="#">EP&amp;A Regulation</a>	<a href="#">Environmental Planning and Assessment Regulation 2021</a>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6.00 pm to 10.00 pm
Exploration activities	Prospecting operations, as defined under the <i>Mining Act 1992</i>
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
Fisheries NSW	Fisheries NSW, within DPI
Ha	Hectare
<a href="#">Heritage NSW</a>	<a href="#">Heritage NSW within the Department</a>
<a href="#">Heritage item</a>	An Aboriginal object, an Aboriginal place, or a place, building, work, relic, moveable object, tree or precinct of heritage significance, that is listed under any of the following: <ul style="list-style-type: none"> <li>the State Heritage Register under the <i>Heritage Act 1977</i>;</li> <li>a state agency heritage and conservation register under section 170 of the <i>Heritage Act 1977</i>;</li> <li>a Local Environmental Plan under the EP&amp;A Act;</li> <li>the World Heritage List;</li> <li>the National Heritage List or Commonwealth Heritage List under the EPBC Act; or</li> <li>anything identified as a heritage item under the conditions of this consent</li> </ul>
HMC	Heavy mineral concentrate
Incident	A set of circumstances that: <ul style="list-style-type: none"> <li>causes or threatens to cause material harm to the environment; and/or</li> <li>breaches or exceeds the limits or performance measures/criteria in this consent</li> </ul>

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 5 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm	Is harm to the environment that: <ul style="list-style-type: none"> <li>involves actual or potential harm to the health or safety of human beings or to the environment 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> This definition excludes "harm" that is authorised under either this consent or any other statutory approval.
MEG	Mining, Exploration and Geoscience within the Department of Regional NSW
Mine water	Water that accumulates within active mining and infrastructure areas
Mining operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of ore 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 prior to or during those impacts occurring
MSP	Hamilton mineral separation plant
Negligible	Small and unimportant, such as to be not worth considering
Nepean mine	The Nepean mineral sands mine and associated infrastructure as described in the EIS and shown on the applicable figure in Appendix 2
Night	The period from 10pm to 7am on Monday to Saturday, and 10.00 pm to 8.00 am on Sundays and Public Holidays
NP&W Act	<i>National Parks &amp; Wildlife Act 1974</i>
Open Cut Mining Operations	Open cut mining of mineral sands in the West Balranald mine and Nepean mine
PAX	Potassium amyl xanthate
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 a mining company (or its subsidiary)
Public infrastructure	Linear and related infrastructure and the like 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 to ensure it is safe, stable and non-polluting
Resources Regulator	NSW Resources Regulator
RFS	Rural Fire Service
Secretary	The Secretary of the Department of Planning and Environment, or nominee
Secretary Industry	The Secretary of NSW Department of Industry, or equivalent position
Site	All land to which the development application applies, including the land listed in Appendix 1 and shown in Appendix 2
SMCA	Southern Mallee Conservation Area
TfNSW	Transport for NSW
Underground Mining Trial	The underground mining trial within the West Balranald Mine, as described in Modification 1, and shown on Figure 2A in Appendix 2.
VPA	Voluntary Planning Agreement
West Balranald Mine	The West Balranald mineral sands mine including the area of the Underground Mining Trial, associated infrastructure and processing area as described in the EIS and shown on the applicable figure in Appendix 2, but excluding the Bulk Sampling Activity

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance measures and criteria established under this consent, the Applicant **must** implement all reasonable and feasible measures to prevent and/or minimise any 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 above documents, the more 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 **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 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 for 16 years from the date of the commencement of the construction of the West Balranald mine.

*Notes:*

- *Under this consent, the Applicant is required to decommission and rehabilitate the site and carry out other requirements in relation to mining operations. Consequently, this consent will continue to apply in all respects other than to permit the carrying out of mining operations until the rehabilitation of the site and other requirements have been carried out to the required standard.*
- *Mining operations and rehabilitation are also regulated under the Mining Act 1992*

#### Ore Extraction & Transport – Bulk Sampling Activity

6. The Applicant **must** not extract more than 100,000 tonnes of mineral ore as part of the bulk sampling activity, and **must** not transport this material offsite until the necessary road upgrades have been completed, unless otherwise agreed by the Secretary.

#### Mineral Concentrate Production and Transport - Open Cut Mining Operations

7. In relation to Open Cut Mining Operations:
  - (a) the Applicant **must** not produce on the site more than 500,000 tonnes of HMC and/or more than 600,000 tonnes of ilmenite, in any calendar year; and
  - (b) the Applicant **must** not transport from the site more than 500,000 tonnes of HMC and/or more than 600,000 tonnes of ilmenite, in any calendar year.

#### Underground Mining Trial

8. The Applicant may carry out the Underground Mining Trial on the site for a period of six years from the date of its commencement.
- 8A. During the Underground Mining Trial:
  - (a) the Applicant **must** not produce a combined total of more than 700,000 tonnes of HMC and Ilmenite in any calendar year; and
  - (b) the Applicant **must** not transport a combined total of more than 700,000 tonnes of HMC and Ilmenite from the site in any calendar year.

## Workforce Accommodation Facility

9. The Applicant may construct a workforce accommodation facility on the site that accommodates no more than 350 workers. The facility must be constructed within the area identified in Figure 2A in Appendix 2. Detailed plans of the facility must be prepared in consultation with Council, and a copy of the final plans must be submitted to the Secretary.
10. The Applicant must prepare a Workforce Accommodation Plan to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with Council;
  - (b) identify options for constructing or providing a workforce accommodation facility in the Balranald town, having regard to workforce requirements over the various stages of the project life;
  - (c) include consideration of engineering and economic implications of the identified options;
  - (d) provide detail of intended plans for the onsite accommodation facilities; and
  - (e) identify a preferred approach, including justification and timing.

The Application must not commence Open Cut Mining Operations until the Secretary approves the Workforce Accommodation Plan.

## NOTIFICATION OF DEPARTMENT

11. The Applicant must notify the Department prior to the:
  - (a) commencement of the bulk sampling activity;
  - (b) construction of the Underground Mining Trial;
  - (c) construction of the processing area in the West Balranald Mine;
  - (d) commencement of the Underground Mining Trial;
  - (e) construction and commencement of Open Cut Mining Operations in the West Balranald mine and Nepean mine; and
  - (f) decommissioning of the West Balranald mine and Nepean mine.
12. If the carrying out of the development is to be staged, then the Applicant must notify the Department in writing prior to the commencement of the relevant stage, and clearly identify the development that would be carried out in the relevant stage.

## STRUCTURAL ADEQUACY

13. The Applicant **must** ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures that are part of the development, are constructed in accordance with the relevant requirements of the BCA.

### Notes:

- Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.
- The Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 sets out the requirements for the certification of the development.

## DEMOLITION

14. 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

15. 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.

This condition does not apply to the upgrade and maintenance of the road network, which is expressly provided for in the conditions of this consent.

## OPERATION OF PLANT AND EQUIPMENT

16. The Applicant **must** ensure that all plant and equipment used on site, or in connection with the development, is:
  - (a) maintained in a proper and efficient condition; and

- (b) operated in a proper and efficient manner.

### UPDATING & STAGING OF STRATEGIES, PLANS OR PROGRAMS

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

To ensure these strategies, plans or programs are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of 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 ENHANCEMENT

18. Prior to the commencement of construction of the West Balranald Mine, unless the Secretary agrees otherwise, the Applicant **must** enter into a VPA with the Council in accordance with:

- (a) Division 6 of Part 4 of the EP&A Act; and  
(b) the terms of the Applicant's offer in Appendix 3.
-



### SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

#### ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant **must** acquire the land in accordance with the procedures in conditions 3 and 4 of Schedule 4.

Table 1: Land subject to acquisition upon request

Acquisition Basis	Property
Noise	R5

Note: To interpret the land referred to in Table 1, see the figure in Appendix 4.

#### ADDITIONAL NOISE MITIGATION UPON REQUEST

2. Upon receiving a written request from an owner of the land listed in Table 1 (unless the landowner has requested acquisition), the Applicant **must** implement additional noise mitigation measures (such as double glazing, insulation and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the development on the residence commensurate with the level of impact in accordance with the *Voluntary Land Acquisition and Mitigation Policy* (November 2014).

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

#### NOISE

##### Operational Noise Criteria

3. Except for the noise-affected land in Table 1, the Applicant **must** ensure that the noise generated by the development does not exceed the noise criteria in Table 2.

Table 2: Noise criteria dB(A)

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

Noise generated by the development must be monitored and measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the *NSW Noise Policy for Industry* (EPA, 2017).

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

4. The Applicant must:
  - (a) implement all reasonable and feasible measures to minimise the construction, operational and road noise of the development;
  - (b) **minimise the noise impacts of the development during adverse meteorological conditions; and**
  - (c) undertake regular attended monitoring of the noise of the development, to ensure compliance with the relevant conditions of this consent.

##### Noise Management Plan

5. 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 the EPA;



- (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent;
- (c) include a noise monitoring program for evaluating and reporting on:
  - compliance against the noise criteria in this consent; and
  - compliance against the noise operating conditions; and
- (d) defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

5A. The Applicant must not commence construction until the Noise Management Plan is approved by the Secretary.

5B. The Applicant must implement the Noise Management Plan as approved by the Secretary.

## AIR QUALITY

### Odour

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

### Air Quality Criteria

- 7. 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 Tables 3 and 4 at any residence on privately owned land.

Table 3: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	<sup>a,d</sup> Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	25 µg/m <sup>3</sup>
Particulate matter < 2.5 µm (PM <sub>2.5</sub> )	Annual	8 µg/m <sup>3</sup>

Table 4: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	<sup>b</sup> Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>
Particulate matter < 2.5 µm (PM <sub>2.5</sub> )	24 hour	25 µg/m <sup>3</sup>

Table 5: Deleted

### Notes

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

### Operating Conditions

- 8. The Applicant must:
  - (a) implement all reasonable and feasible measures to minimise the:
    - off-site odour and dust emissions of the development; and
    - release of greenhouse gas emissions from the development;
  - (b) minimise any visible off-site air pollution generated by the development;
  - (c) minimise the surface disturbance of the site;
  - (d) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 3-4); and
  - (e) assess air quality monitoring data to determine whether the development is complying with the relevant conditions of this consent and, if necessary, adjust the scale of operations on site to meet the criteria in this consent.

## Air Quality Management Plan

9. 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;
  - (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
  - (c) include an air quality monitoring program for evaluating and reporting on:
    - compliance against the air quality criteria in this consent;
    - compliance against the air quality operating conditions;
    - compliance with the applicable emissions criteria for the Ilmenite Separation Plant; and
  - (d) 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.

9A. The Applicant **must not commence construction until the Air Quality Management Plan is approved by the Secretary.**

9B. The Applicant **must implement the Air Quality Management Plan as approved by the Secretary.**

## METEOROLOGICAL MONITORING

10. During the life of the development, the Applicant **must** ensure that there is a suitable meteorological 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 Supply

11. 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 the necessary water licences for the development.*

### Water Pollution

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

### Compensatory Water Supply

13. The Applicant **must** provide a compensatory water supply to the owner or leaseholder of any privately-owned land 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 **DPE Water**, 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 should be provided (at least on an interim basis) as soon as practicable from the loss being identified, unless otherwise agreed with the landowner.

If the Applicant and the landowner cannot agree on **whether the loss of water is attributed to the development or** 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.

#### Notes:

- *The Water Management Plan (see condition 15) is required to include trigger levels for investigating potentially adverse impacts on water supplies.*
- *The burden of proof that any loss of surface water or groundwater access is not due to mining impacts rests with the Applicant.*

## Water Management Performance Measures

14. The Applicant **must** comply with the performance measures in Table 6, to the satisfaction of the Secretary.

Table 6: Water Management Performance Measures

Feature	Performance Measure
Water management – General	<p>Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site</p> <p>Minimise the need for make-up water from external supplies</p>
Loxton Parilla Sands and Shepparton alluvial aquifers	<p>Negligible environmental consequences to the alluvial aquifer beyond those predicted in the EIS, including:</p> <ul style="list-style-type: none"> <li>negligible change in groundwater levels beyond those predicted;</li> <li>negligible change in groundwater quality beyond those predicted; and</li> <li>negligible impact to other groundwater users levels beyond those predicted</li> </ul>
Construction and operation of infrastructure	<p>Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1</i>, <i>Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i></p> <p>Design, install and maintain infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version</p> <p>Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions</p>
Clean water diversion & storage infrastructure	<p>Design, install and maintain the clean water system to capture and convey the 100 year ARI flood.</p> <p>Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site</p>
Sediment dams	<p>Design, install and/or maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i></p>
Mine water storages	<p>Design, install and/or maintain mine water storage infrastructure to ensure no discharge of mine water or saline water off-site (except in accordance with an EPL)</p> <p>On-site storages (including mine infrastructure dams, groundwater storage and treatment dams) are suitably designed, installed and/or maintained to minimise permeability, where practicable</p>
Flood mitigation measures	<p>Design, install and maintain flood mitigation measures including bunds to exclude flows from inundating the mining areas for all flood events up to and including the Probable Maximum Flood level</p> <p>Manage any residual downstream impacts in an appropriate manner</p>
Overburden emplacements	<p>Design, install and maintain emplacements to encapsulate and prevent any off-site migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material</p> <p>Design, install and maintain emplacements to prevent off-site migration of saline groundwater seepage</p>
Chemical and hydrocarbon storage	<p>Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards</p>

## Water Management Plan

15. The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with DPE Water and the EPA;
  - (b) include a:
    - (i) 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;
        - reporting procedures, including the preparation of a site water balance for each calendar year; and
      - investigates and implements all reasonable and feasible measures to minimise clean water use and to recycle water;
    - (ii) 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;
        - erosion and sediment controls; and
        - mine water management system, including a description on the measures that would be implemented to manage drilling fluids and muds;
      - detailed plans, including design objectives and performance criteria for the:
        - emplacement areas for tailings, acid forming and potentially acid forming materials, and saline and sodic materials;
        - reinstatement of drainage lines on the rehabilitated areas of the site; and
        - final void;
      - surface water assessment criteria, including trigger levels for investigating any potentially adverse impacts associated with:
        - the water management system;
        - surface water users supplies;
        - downstream surface water quality;
        - downstream flooding impacts; and
      - a program to monitor and report on:
        - the effectiveness of the water management system; and
        - surface water flows and water quality (if any); and
        - downstream flooding impacts;
      - reporting procedures for the results of the monitoring program; and
      - a plan to respond to any exceedances of the surface water assessment criteria, and mitigate any adverse impacts of the development;
    - (iii) 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;
      - a detailed description of the groundwater management system on site;
      - detailed plans, including design objectives and performance criteria for the:
        - emplacement areas for tailings, acid forming and potentially acid forming materials, and saline and sodic materials;
        - groundwater dewatering and reinjection system; and
        - final void;
      - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts associated with:
        - alluvial aquifers including the Loxton Parilla and Shepparton aquifers;
        - groundwater users bores;
        - groundwater dewatering and reinjection system;
        - seepage/leachate from water storages, emplacements, backfilled voids and the final void;
        - groundwater dependent ecosystems; and
        - reinjection of process water (including PAX) during the underground mining trial;
      - a program to monitor and report on:
        - groundwater inflows to the mining operations;
        - background changes in groundwater yield/quality against mine-induced changes;
        - the impacts of the development on the regional and local (including alluvial) aquifers;
        - impacts on the groundwater supply of potentially affected landowners/leaseholders;

- groundwater levels and quality at the dewatering and reinjection sites;
- impacts on groundwater quality as a result of reinjection of process water (including PAX) during the underground mining trial;
- seepage/leachate from water storages, emplacements, backfilled voids and the final void;
- groundwater dependent ecosystems; and
- post-mining groundwater recovery;
- 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, and mitigate any adverse impacts of the development.

15A. The Applicant must not commence construction until the Water Management Plan is approved by the Secretary.

15B. The Applicant must implement the Water Management Plan as approved by the Secretary.

## BIODIVERSITY

### Retirement of Credits

16. The Applicant must retire the biodiversity offset credits specified in **Table 7** in accordance with the Biodiversity Offsets Scheme of the *Biodiversity Conservation Act 2016*.

For the area based offset requirements in **Table 7**, the Applicant must convert the offset area to ecosystem credits in consultation with BCS. If there is any dispute in the calculation of these credit requirements, either party may refer the matter to the Secretary for resolution.

*Table 7: Ecosystem credit requirements*

Vegetation Community	Code (BVT)	Credits Required		
		Stage 1	Stage 2	Stage 3
Black Bluebush Low Open Shrubland	LM102	967	9,047	-
Black Box Grassy Chenopod Open Woodland	LM105	203	73	-
Belah – Pearl Bluebush Woodland	LM107	90	5,276	272
Belah – Chenopod Woodland	LM108	15	9,679	13,863
			-	207 hectares
Bladder Saltbush Low Open Shrubland	LM110	-	14,929	-
Chenopod Sandplain/Swale Mallee Woodland	LM116	5,280	83,817	7,152
			1,424 hectares	139 hectares
Flat Open Claypan / Derived Sparse Shrubland/Grassland	LM124	2,932	-	-
Old Man Saltbush Shrubland	LM137	976	-	-
Pearl Bluebush Low Open Shrubland	LM138	14,399	25,053	-
Spinifex Dune Mallee Woodland	LM130	1,646	13,593	8,194
			167 hectares	104 hectares

*Notes:*

*The credits in Table 7 were calculated in accordance with Framework for Biodiversity Assessment of the NSW Biodiversity Offset Policy for Major Projects (OEH, 2014) and would need to be converted to reasonably equivalent 'biodiversity credits', within the meaning of the Biodiversity Conservation Act 2016. Following repeal of the Threatened Species Conservation Act 1995 on 25 August 2017, credits created under that Act are taken to be "biodiversity credits" under the Biodiversity Conservation Act 2016 by virtue of clause 22 of the Biodiversity Conservation (Savings and Transitional) Regulation 2017.*

## Staged Retirement

- 16A. Within 24 months of the commencement of disturbance within the Stage 1 offset area (as shown on Figure 18 in Appendix 10), the Applicant must retire the Stage 1 credits as specified in Table 7.
- 16B. Prior to the commencement of disturbance within the Stage 2 offset area (as shown on Figure 18 in Appendix 10), the Applicant must retire the Stage 2 credits as specified in Table 7.
- 16C. Prior to the commencement of disturbance within the Stage 3 offset area (as shown on Figure 18 in Appendix 10), the Applicant must retire the Stage 3 credits as specified in Table 7.
- 16D. The Applicant may carry over surplus retired credits to satisfy the credit requirements of a later stage. This may occur, for example, where approved clearing for an earlier stage was not undertaken, but the impact has already been offset.
- 16E. With the agreement of the Planning Secretary in consultation with BCS, biodiversity credits associated with any undisturbed areas agreed under condition 16D as not to be subject to any surface disturbance may be removed from the total credit obligations in Table 7 (subject to recalculation and possible reduction).

## Biodiversity Management Plan

- 17. The Applicant **must** prepare a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with BCS;
  - (b) describe the short, medium, and long term measures that would be implemented to:
    - manage the remnant vegetation and fauna habitat on the site;
    - integrate the implementation of biodiversity management to the greatest extent practicable with the rehabilitation of the site;
  - (c) include a detailed description of the measures that would be implemented over the next 3 years for:
    - minimising the amount of clearing within the approved development footprint as far as practicable;
    - rehabilitating and revegetating temporary disturbance areas;
    - protecting vegetation and fauna habitat outside the approved disturbance area on-site;
    - enhancing the quality of existing vegetation and fauna habitat on the site;
    - maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse on site;
    - collecting and propagating seed;
    - minimising the impacts on fauna on site, including undertaking pre-clearance surveys (with an emphasis on tree hollows, raptor nests and Malleefowl mounds) and implementing a fauna rescue strategy;
    - managing salinity using best practice dryland salinity management revegetation measures;
    - controlling weeds and feral pests;
    - controlling erosion;
    - controlling access; and
    - bushfire management;
  - (d) include a specific Malleefowl management and monitoring plan, consistent with the 'National Manual for the Malleefowl Monitoring System' and the 'National Recovery Plan for Malleefowl';
  - (e) include a seasonally-based program to monitor and report on the effectiveness of these measures;
  - (f) identify the potential risks to the successful implementation of the biodiversity management plan, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
  - (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.
- 17A. The Applicant must not commence any surface disturbance until the Biodiversity Management Plan is approved by the Secretary.
- 17B. The Applicant must implement the Biodiversity Management Plan as approved by the Secretary.



## HERITAGE

### Protection of Aboriginal Sites

18. The Applicant **must** ensure that the development does not cause any direct or indirect impact on the identified Aboriginal heritage sites located outside the approved disturbance area for the project.

Notes:

- Identified Aboriginal heritage items and risk areas are shown on the figures in Appendix 6.
- This condition does not preclude the Applicant from applying to impact the sites under a separate approvals process.

### Aboriginal Cultural Heritage Working Group

19. The Applicant **must** establish and maintain an Aboriginal Cultural Heritage Working Group for the development to the satisfaction of the Secretary. This group must:
- be established in consultation with [Heritage NSW](#) and local Aboriginal stakeholders prior to the construction of the West Balranald mine;
  - be comprised of a range of Aboriginal cultural heritage experts/stakeholders from the local Aboriginal groups, the Applicant (and its heritage experts) and government (if available), whose appointments have been approved by the Secretary;
  - meet at least 2 times a year, unless the Secretary agrees otherwise; and
  - provide advice on project-related Aboriginal cultural heritage management issues, including:
    - preparation and/or implementation of the Aboriginal Cultural Heritage Management Plan (see condition 20 below);
    - Aboriginal heritage site monitoring; and
    - Aboriginal heritage site salvage, excavation, storage and management.

*Note: The Aboriginal Cultural Heritage Working Group is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this approval.*

### Aboriginal Cultural Heritage Management Plan

20. The Applicant **must** prepare an Aboriginal Cultural Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with [Heritage NSW](#), local Aboriginal stakeholders and the Aboriginal Cultural Heritage Working Group (if established), and be approved by the Secretary prior to the undertaking any development on site;
  - include:
    - a Geomorphic Assessment to assist in the development of the Subsurface Archaeological Testing Program and other management plan components (see below);
    - a Subsurface Archaeological Testing Program, that includes provisions for:
      - sub-surface investigation of the excavation areas identified in Appendix 6 prior to any development within 250 metres of the excavation areas;
      - assessment of the archaeological and cultural heritage significance of any Aboriginal sites or megafauna assemblages (found in conjunction with cultural heritage values) identified during the sub-surface investigations, including consideration of cumulative impact;
      - involvement in the survey and investigation works by local Aboriginal stakeholders and the Aboriginal Cultural Heritage Working Group (if established);
    - an Archaeological Salvage Program for Aboriginal sites/objects within the project disturbance area (including those identified following the additional testing program above), including methodology and procedures/protocols for:
      - salvage, excavation and/or management of sites within the disturbance area;
      - site assessment and reporting;
      - research objectives to inform knowledge of Aboriginal occupation;
      - protection, storage and management of salvaged Aboriginal objects;
      - addressing relevant statutory requirements under the NP&W Act; and
      - long term protection of salvaged Aboriginal objects;
    - Trigger Action Response Plans (including stop work provisions, notification protocols and significance assessment protocols) for managing key risks to Aboriginal heritage, including:
      - the discovery of any potential human remains;
      - the discovery of previously unidentified Aboriginal objects or megafauna assemblages (found in conjunction with cultural heritage values) on site; and
      - managing unauthorised ground disturbance;
    - a Cultural Heritage Management Program, including a description of the measures that would be implemented for:
      - protecting, monitoring and managing Aboriginal sites outside the project disturbance area;
      - maintaining and managing reasonable access for Aboriginal stakeholders to cultural heritage items on site;



- ongoing consultation with the Aboriginal Cultural Heritage Working Group and other local 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 activities which may disturb Aboriginal sites, and that suitable records are kept of these inductions; and
- the long term management of the Aboriginal cultural heritage values of the site.

20A. The Applicant must not commence any surface disturbance until the Aboriginal Cultural Heritage Management Plan is approved by the Secretary.

20B. The Applicant must implement the Aboriginal Cultural Heritage Management Plan as approved by the Secretary.

*Note: For the purposes of condition 21 below, the plan will need to define what constitutes an Aboriginal site of high and very high cultural heritage significance.*

## Additional Aboriginal Heritage Approval

21. The Applicant **must** not disturb any site/s of high or very high cultural heritage significance identified during the implementation of the programs/plans identified in condition 20(b) or during the carrying out of the development without the prior written approval of the Secretary.

In seeking this approval, the Applicant **must** submit a report to the Secretary. This report must:

- be prepared in consultation with **Heritage NSW** and the Aboriginal Cultural Heritage Working Group;
- assess the heritage significance of the site/s and their context;
- justify why impacts to the site cannot be avoided; and
- describe in detail the proposed salvage and/or management measures that would be implemented during any disturbance of the site, and incorporated into the Aboriginal Cultural Management Plan.

*Note: For the avoidance of doubt, this condition does not apply to sites identified in the EIS.*

## TRANSPORT

### Road Upgrades

22. **Within 12 months of the** commencement of construction of the West Balranald Mine, **unless otherwise agreed by the Secretary**, the Applicant **must** implement the road upgrade works detailed in Table 8 to the satisfaction of the applicable roads authority.

Table 8: Road Upgrade Works

Measures	Applicable Roads Authority
Upgrade Sturt Highway (HW14) and Murray Valley Highway intersection by gravel shoulder widening to accommodate oversize vehicles	TfNSW
Upgrade Piper, O'Connor and Moa Streets and associated intersection by gravel shoulder widening to accommodate oversize vehicles	TfNSW, Council
Upgrade McCabe Street/Balranald-Ivanhoe Road (MR67) intersection to include: <ul style="list-style-type: none"> <li>• Auxiliary Left Turn (AUL) and Basic Right Turn (BAR) treatment in accordance with Austroads intersection design standard</li> <li>• Intersection located, constructed and maintained to provide the required Safe Intersection Sight Distance (SISD), to be certified by appropriately qualified person</li> <li>• Installation of modified advance intersection signage</li> <li>• Intersection design to accommodate road train heavy vehicles (but only if these vehicles are to be used)</li> </ul>	TfNSW, Council
Construct West-Balranald mine access road/Balranald-Ivanhoe Road intersection to an AUL/BAR.	TfNSW, Council
Construct two way access road from Balranald-Ivanhoe Road to the West Balranald Mine including: <ul style="list-style-type: none"> <li>• sealing of the first 100 metres from the Balranald-Ivanhoe Road intersection</li> <li>• an entry gate located at least 40 metres from the Balranald-Ivanhoe Road intersection</li> </ul>	-

Road maintenance to ensure a minimum 8 m wide two lane unsealed road along Burke & Wills Road (12km section) – to continue during the life of the consent (unless the mine is placed on care and maintenance)	Council
Implement recommendations 1.1, 1.2, 1.3, 1.4, 1.5, 2.1 and 2.2 as identified in the Road Safety Audit prepared by Trafficworks Pty Ltd dated December 2012, unless otherwise agreed by the applicable roads authority	TfNSW, Council

23. Prior to the commencement of haulage of any mineral concentrate, the Applicant **must** implement the road upgrade works detailed in Table 9, to the satisfaction of the applicable roads authority.

Table 9: Road Upgrade Works (Prior to Haulage of Mineral Concentrate)

Measures	Applicable Roads Authority
Upgrade the two intersections on Murray Street in Tooleybuc to an asphalt wearing course, unless TfNSW agrees this upgrade is not required	TfNSW
Upgrade the Sturt Highway (HW14) / Balranald-Tooleybuc Road intersection to a CHR (channelised right turn)	TfNSW
Upgrade McCabe Street with asphalt resurfacing and shoulders to Austroads road design standards including a minimum sealed width of 7.2m and pavement upgrades as required	Council
Implement recommendations 3.1, 3.3, 4.1 and 4.2 as identified in the Road Safety Audit prepared by Trafficworks Pty Ltd dated December 2012, unless otherwise agreed by the applicable roads authority	TfNSW, Council

24. Prior to the commencement of construction of the Nepean Mine, the Applicant **must** implement the road upgrade works detailed in Table 10, to the satisfaction of the applicable roads authority.

Table 10 Road Upgrade Works (Prior to Construction of Nepean Mine)

Measures	Applicable Roads Authority
Upgrade intersection of haul road/Burke and Wills Road in accordance with Austroads intersection design standard. Intersection located, constructed and maintained to provide the required SISD. Install appropriate signage and lighting (if required).	Council
Road maintenance to ensure a minimum 8 m unsealed pavement width with 1.5 m shoulders along: Burke & Wills Road (12km section) Marma Box Creek Road (Arumpo Road) (10km section) Maintenance to continue during the life of the consent (unless the mine is placed on care and maintenance)	Council
Upgrade Burke and Wills and Marma Box Creek Road (Arumpo Road) intersection – sealed for 100 m on the two major road intersection approaches and 50 m on the minor intersection approach with appropriate SISD. Install appropriate signage and lighting (if required).	Council
Construct new Marma Box Creek Road (Arumpo Road)/Nepean Mine intersection to an AUL/Basic Right Turn in accordance with Austroads intersection design standard. Intersection located, constructed and maintained to provide the required SISD. Install appropriate signage and lighting (if required).	Council
Construct two way access road from West Balranald Mine to Burke and Wills Road intersection including: • sealing of the first 100 metres from any intersection • gate located at least 40 metres from any intersection	-
Construct a two way access road from Marma Box Creek Road (Arumpo Road) to Nepean Mine in accordance with Austroads intersection design standard. Intersection located, constructed and maintained to provide the required SISD. Install appropriate signage and lighting (if required).	-

## Road Maintenance

25. Prior to the commencement of construction of the West Balranald Mine, unless the Secretary agrees otherwise, the Applicant **must** enter into a road maintenance agreement with Council to provide contributions towards the maintenance of local roads relative to the proportion of project-related traffic on

the roads. The contributions shall be calculated generally in accordance with Council's Road Maintenance Costing Model Framework (see Appendix 7).

If there is a dispute between the Applicant and Council about the implementation of this condition, then either party may refer the matter to the Secretary for resolution.

*Note: Local roads subject to the road maintenance agreement include Balranald-Ivanhoe Road (Main Road 67) and McCabe Street. Burke and Wills Road and Marra Box Creek Road (Arumpo Road) to be maintained as per the requirements in Tables 8-10, and these requirements continue to have effect during the life of the consent. The Applicant and Council have agreed to calculate the annual contributions for the maintenance of Balranald-Ivanhoe Road (Main Road 67) and McCabe Street along the haulage route using Council's Road Maintenance Costing Model Framework, which is reproduced in Appendix 7.*

## Restriction on Transport Routes

26. The Applicant **must** ensure that no project-related traffic uses local roads to access or egress the site, other than those roads that form part of the designated access routes, except:
- (a) in an emergency to avoid loss of life, property and/or to prevent environmental harm;
  - (b) infrequent use of the roads for consultation, environmental monitoring and/or inspection and maintenance of nearby infrastructure;
  - (c) for any employees or contractors that may reside on a local road that does not form part of the haulage route; or
  - (d) infrequent and temporary use during construction of the development, where this use has been approved as part of the traffic management plan (see condition 27 below).

*Note: The designated haulage routes during construction and operation of the development are shown on the figures in Appendix 8.*

## Traffic Management

27. **The** Applicant **must** prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with TfNSW and Council;
  - (b) include:
    - (i) details of all transport routes and traffic types to be used for project-related traffic;
    - (ii) a program to monitor and report on the:
      - amount of mineral concentrate transported from the site; and
      - amount of MSP process waste returned to the site;
    - (iii) a description of 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);
    - (iv) details of reasonable and feasible measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction and decommissioning of the development, including:
      - temporary traffic controls, including detours and signage;
      - notifying the local community about project-related traffic impacts;
      - a traffic management system for managing over-dimensional vehicles;
      - measures to ensure loose surface road material generated by project-related traffic does not cause nuisance or hazard to other road users; and
      - provision of hard stand areas for parking of transport vehicles if required; and
    - (v) 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 routes;
      - 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 of MSP process wastes; and
      - compliance with and enforcement of the protocol.

27A. **The Applicant must not commence construction until the Traffic Management Plan is approved by the Secretary.**

27B. The Applicant must implement the Traffic Management Plan as approved by the Secretary.

## VISUAL

### Operating Conditions

28. The Applicant **must**:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
  - (b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*; and
  - (c) take all practical measures to shield views of mining operations from users of public roads and privately-owned residences.

## BUSHFIRE MANAGEMENT

29. The Applicant **must**:
- (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 in response to fires in the vicinity of the site.

## DANGEROUS GOODS

30. The Applicant **must** 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 **must**:
- (a) implement all reasonable and feasible measures to minimise the waste generated by the development;
  - (b) classify all waste in accordance with the EPA's *Waste Classification Guidelines*;
  - (c) ensure that the waste generated by the development is appropriately stored, handled and disposed of at appropriately licensed waste facilities;
  - (d) manage on-site sewage treatment and disposal in accordance with the requirements of Council and EPA; and
  - (e) manage any radioactive waste on site in accordance with the detailed requirements of any EPL for the development, and the *NSW Radiation Control Act 1990*, *NSW Protection of the Environment Operations (Waste) Regulation 2014* and *Code of Practice and Safety Guide on Radiation Protection and Radioactive waste Management in Mining and Mineral Processing (ARPANSA 2005)*.

## REHABILITATION

### Rehabilitation Objectives

32. The Applicant **must** rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS (and depicted conceptually in the figure in Appendix 9), and comply with the objectives in Table 11.

Table 11: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none"> <li>• Safe, stable &amp; non-polluting</li> <li>• Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site</li> <li>• Final landforms to: <ul style="list-style-type: none"> <li>○ restore native vegetation communities and ecosystem function (in the applicable domains);</li> <li>○ sustain the intended land use for the post-mining domains;</li> <li>○ minimise the visual impacts of the development;</li> <li>○ be generally in keeping with the natural terrain features of the area;</li> <li>○ incorporate micro-relief; and</li> </ul> </li> <li>• incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible</li> </ul>

<b>Feature</b>	<b>Objective</b>
Water quality	<ul style="list-style-type: none"> <li>Water retained on site is fit for the intended land use(s) for the 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> <li>Water management is consistent with the applicable regional catchment strategy</li> </ul>
Final void	<ul style="list-style-type: none"> <li>Minimise: <ul style="list-style-type: none"> <li>the size and depth of the final void</li> <li>the drainage catchment of the final void</li> <li>risk of flood interaction for all flood events up to and including the 1% AEP</li> </ul> </li> </ul>
Surface infrastructure	<ul style="list-style-type: none"> <li>To be decommissioned and removed, unless the Resources Regulator agrees otherwise</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within a reasonable timeframe</li> </ul>
Community	<ul style="list-style-type: none"> <li>Ensure public safety</li> <li>Minimise the adverse socio-economic effects of mine closure</li> </ul>

## Progressive Rehabilitation

33. Deleted

## Rehabilitation Management Plan

34. The Applicant must prepare a Rehabilitation Management Plan for the development, in accordance with the provisions under the *Mining Act 1992*.

## Subsidence

35. The Applicant must:

- ensure that there are no measurable subsidence impacts caused by the Underground Mining Trial in areas outside the West Balranald Mine;
- monitor subsidence impacts of the underground mining trial and report against predictions in the EIS in the Annual Review required under condition 4 of Schedule 5; and
- remediate subsidence impacts to ensure compliance with the long-term rehabilitation objectives in Table 11.

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**SCHEDULE 4  
ADDITIONAL PROCEDURES****NOTIFICATION OF LANDOWNERS/TENANTS**

1. Within 1 month of the commencement of development under this consent, the Applicant **must** notify in writing the owners of the land listed in Table 1 of Schedule 3 that they have the right to require the Applicant to:
  - (a) acquire their land in accordance with the procedures in conditions 3 and 4 below at any stage during the development; and
  - (b) implement additional noise mitigation measures at their residence at any stage during the development.

**INDEPENDENT REVIEW**

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

If the Secretary is satisfied that an independent review is warranted, then the Applicant **must**:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
  - consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in Schedule 3; and
  - if the development is not complying with these criteria then:
    - determine if the 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 a copy of the independent review within 2 months of the Secretary's decision, unless the Secretary agrees otherwise.

**LAND ACQUISITION**

3. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant **must** make a binding written offer to the landowner based on:
  - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements or reasonable costs that have resulted from the implementation of the additional noise mitigation measures in condition 2 of Schedule 3;
  - (b) the reasonable costs associated with:
    - relocating within the Balranald local government area, or to any other local government area determined by the Secretary; and
    - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
  - (c) reasonable compensation for any disturbance caused by the land acquisition process.

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

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

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

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

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

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

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

4. The Applicant **must** pay all reasonable costs associated with the land acquisition process described in condition 3 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.
-



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

**ENVIRONMENTAL MANAGEMENT****Environmental Management Strategy**

1. The Applicant **must** prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be approved by the Secretary prior to the commencement of any development under this consent;
  - (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 consent; and
    - a clear plan depicting all the monitoring to be carried out in relation to the development.
- 1A. The Applicant **must not commence construction until the Environmental Management Strategy is approved by the Secretary.**
- 1B. The Applicant **must implement the Environmental Management Strategy as approved by the Secretary.**

**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 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, to the satisfaction of the Secretary.

**Management Plan Requirements**

3. 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;
  - (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.

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

### Annual Review

4. By the end of March each year, 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.

### Revision of Strategies, Plans and Programs

5. Within 3 months of the submission of:
- (a) annual review under condition 4 above;
  - (b) incident report under condition 6 below;
  - (c) audit under condition 8 below; or
  - (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.

*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.*

## REPORTING

### Incident Notification

6. 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 via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

### Non-Compliance Notification

- 6A. Within seven days of becoming aware of a non-compliance, the Applicant **must** notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website 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.

### Regular Reporting

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

## AUDITING

8. Within 1 year of the commencement of construction, 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, 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: This audit team must be led by a suitably qualified auditor, and include experts in water resources, ecology, Aboriginal heritage and/or any other fields specified by the Secretary.*

9. Within 3 months of commissioning this audit, or as otherwise agreed by 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.

### ACCESS TO INFORMATION

10. The Applicant **must**:
    - (a) make 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, 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;
      - minutes of meetings of the Aboriginal Cultural Heritage Working Group;
      - any independent environmental audit, and the Applicant's response to the recommendations in any audit; and
      - 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**

Lot number	Deposited plan number	Lot number	Deposited plan number
4727	767893	6654	769427
1229	762714	99	751245
1226	762711	1184	762595
1	751182	5501	768410
4808	762298	5332	768243
1224	762709	128	760747
1225	762710	6615	769405
4	751182	5331	768242
1175	762586	5326	768237
5	751182	1174	762585
1227	762712	43	751217
1223	762708	40	751217
88	760470	1	751232
103	751245	31	751217
98	751245	39	751217
73	751245	4812	769046
4864	769099	20	751232
100	751245	4809	762298
104	751214	5325	768236
102	751214	41	751217



APPENDIX 2  
GENERAL LAYOUT OF DEVELOPMENT

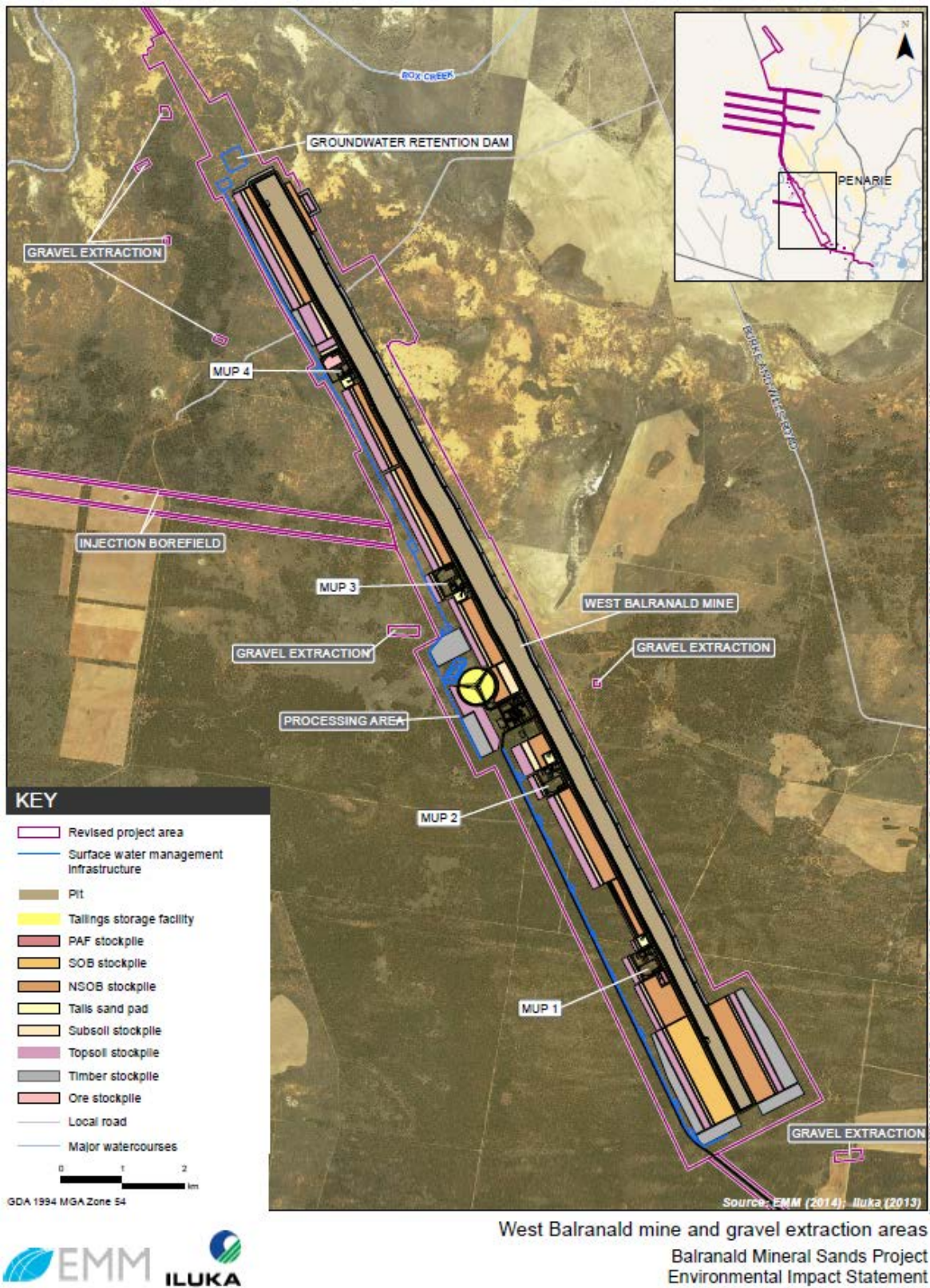


Figure 1: West Balranald Mine



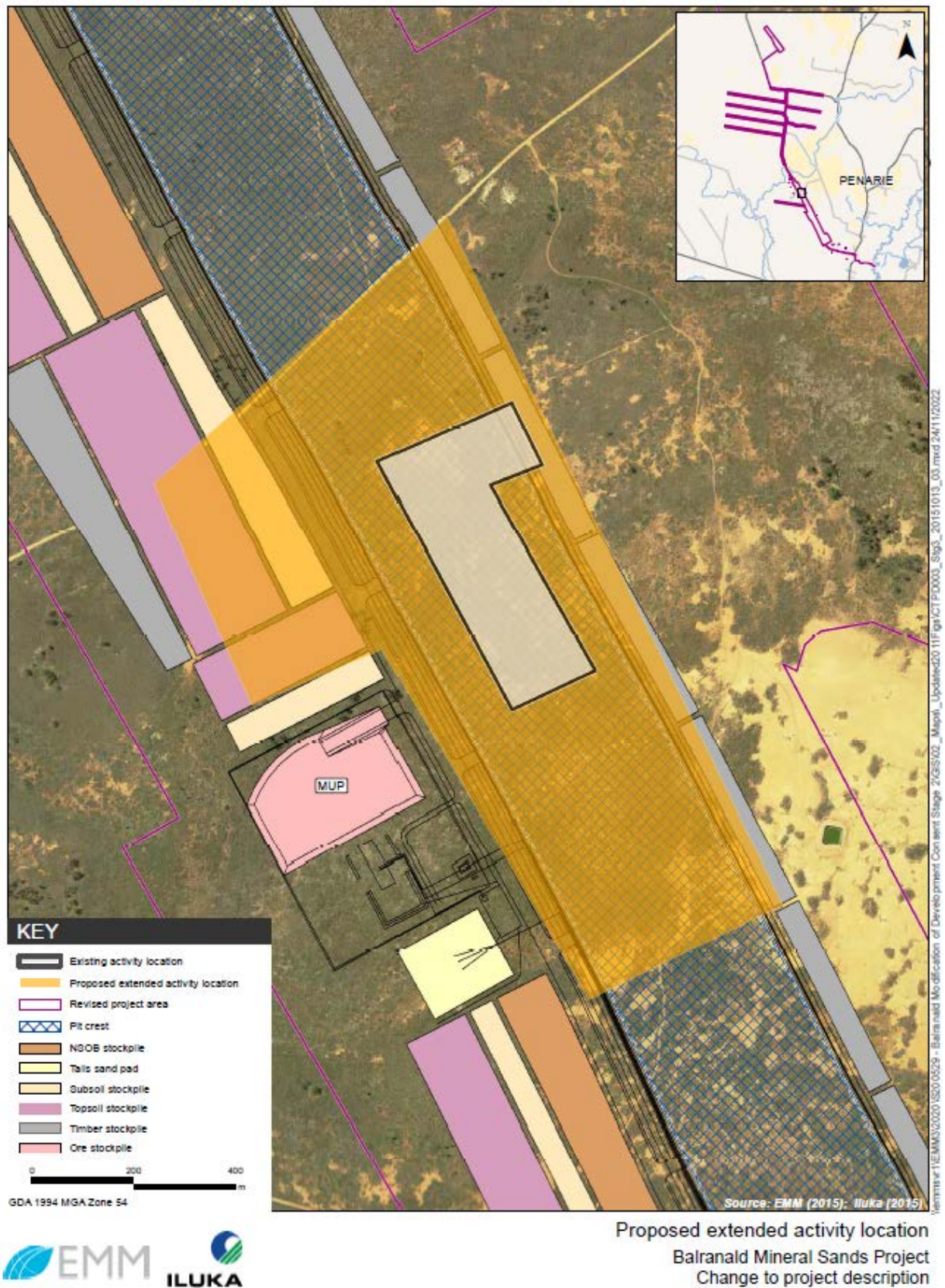


Figure 2: Bulk Sampling Activity Location



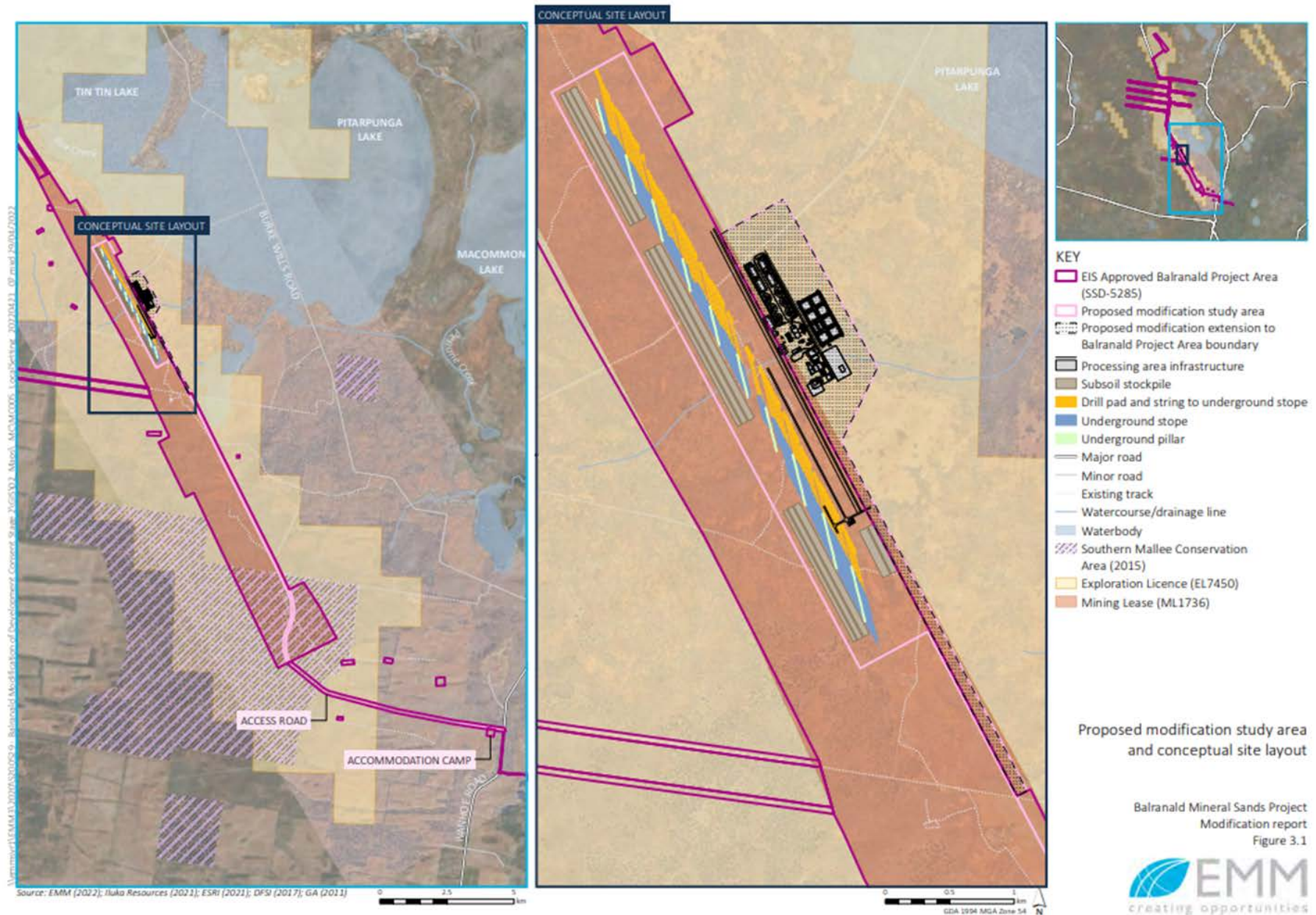


Figure 2A: Underground Mining Trial Site Location



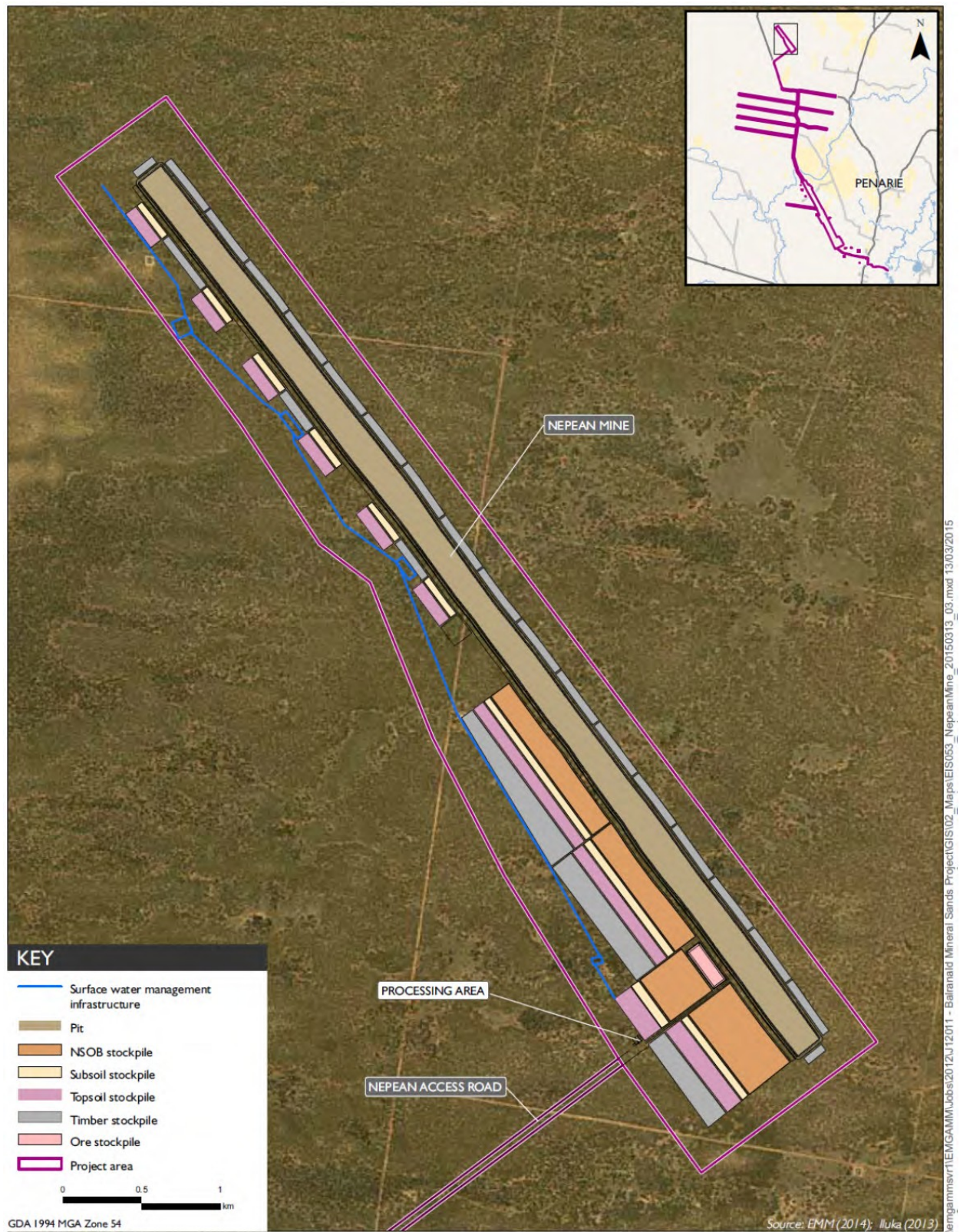


Figure 3: Nepean Mine



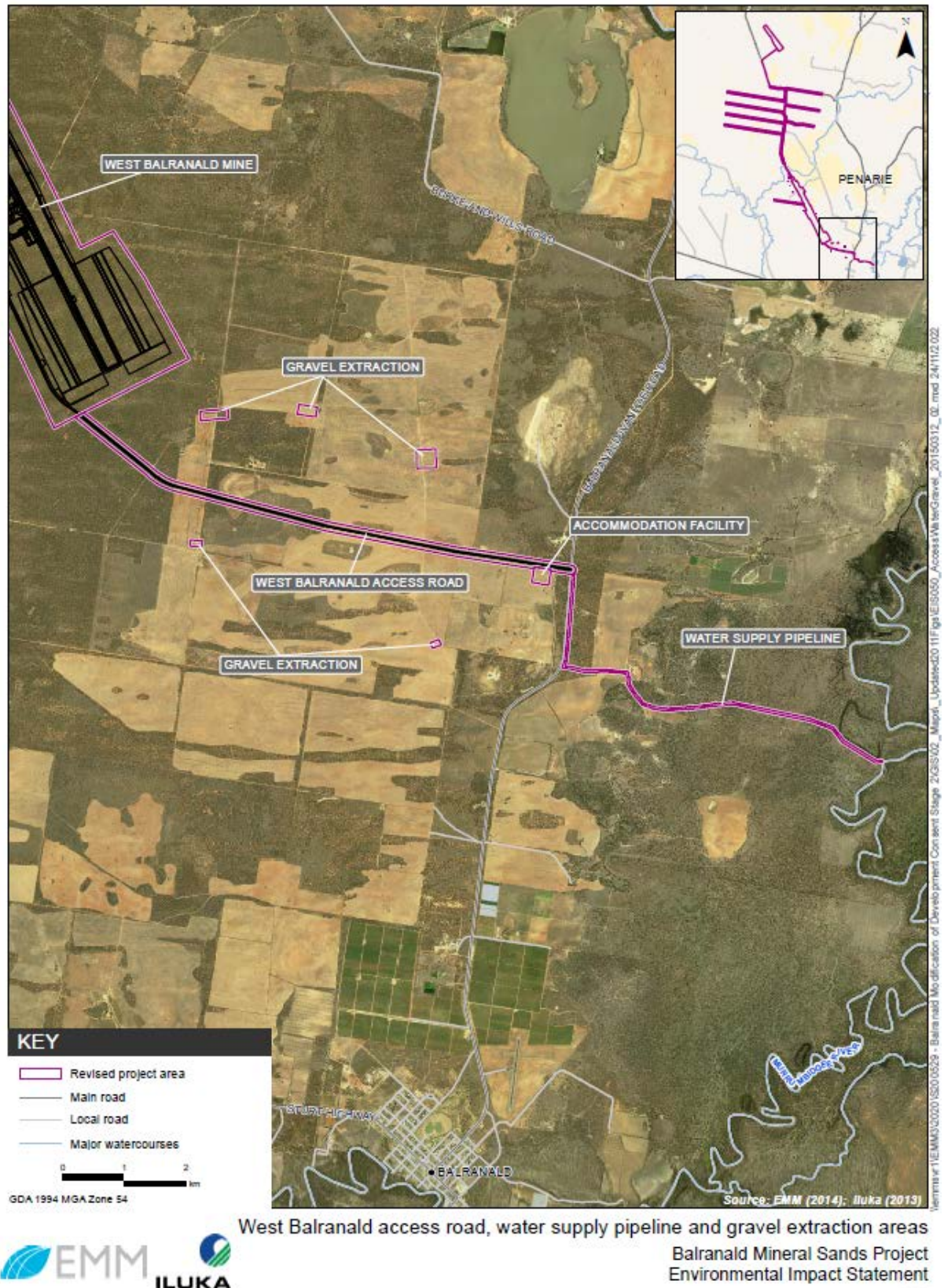


Figure 4: West Balranald Access Road, Water Supply Pipeline and Gravel Extraction Areas



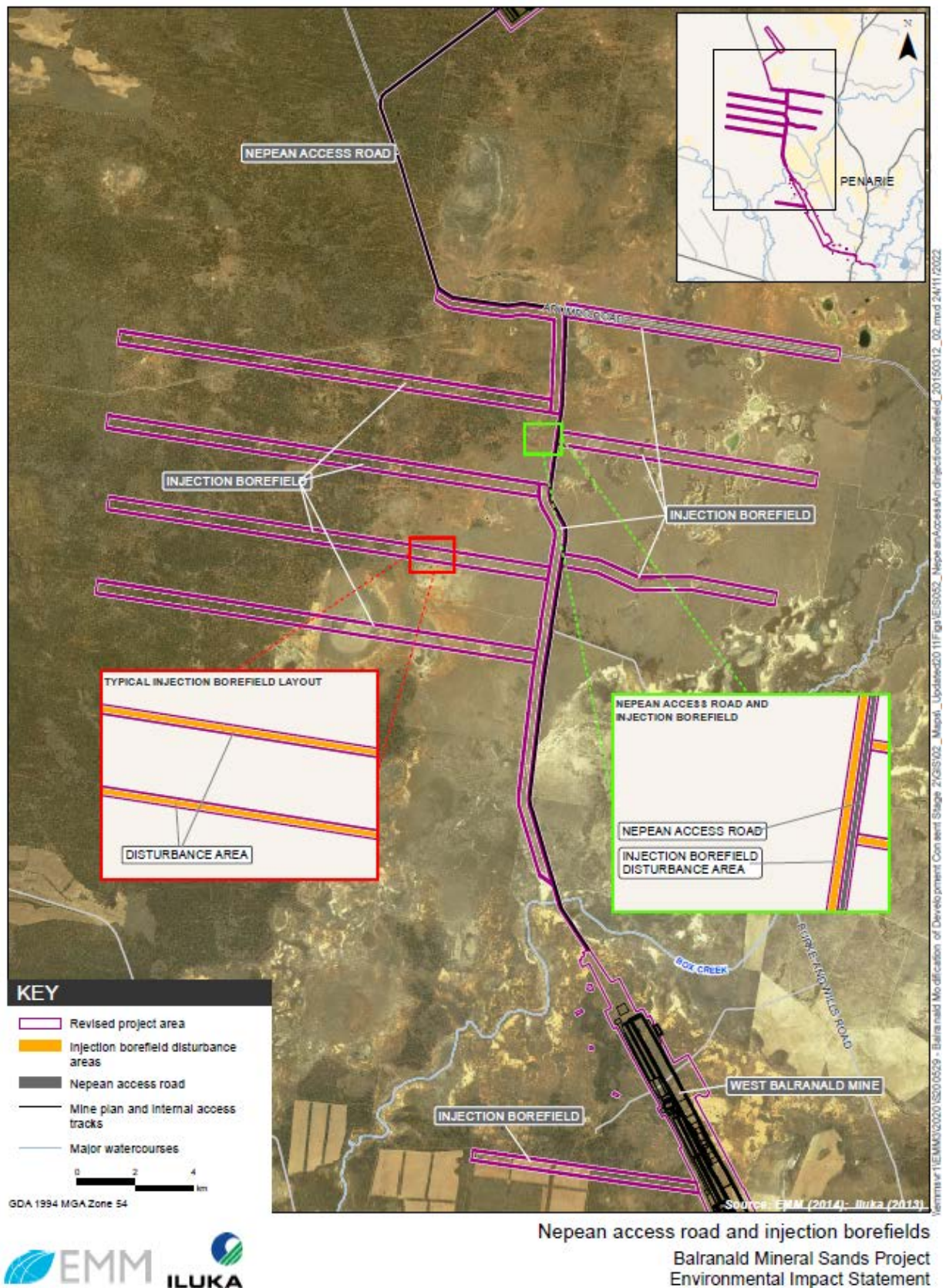


Figure 5: Nepean Access Road and Injection Borefields

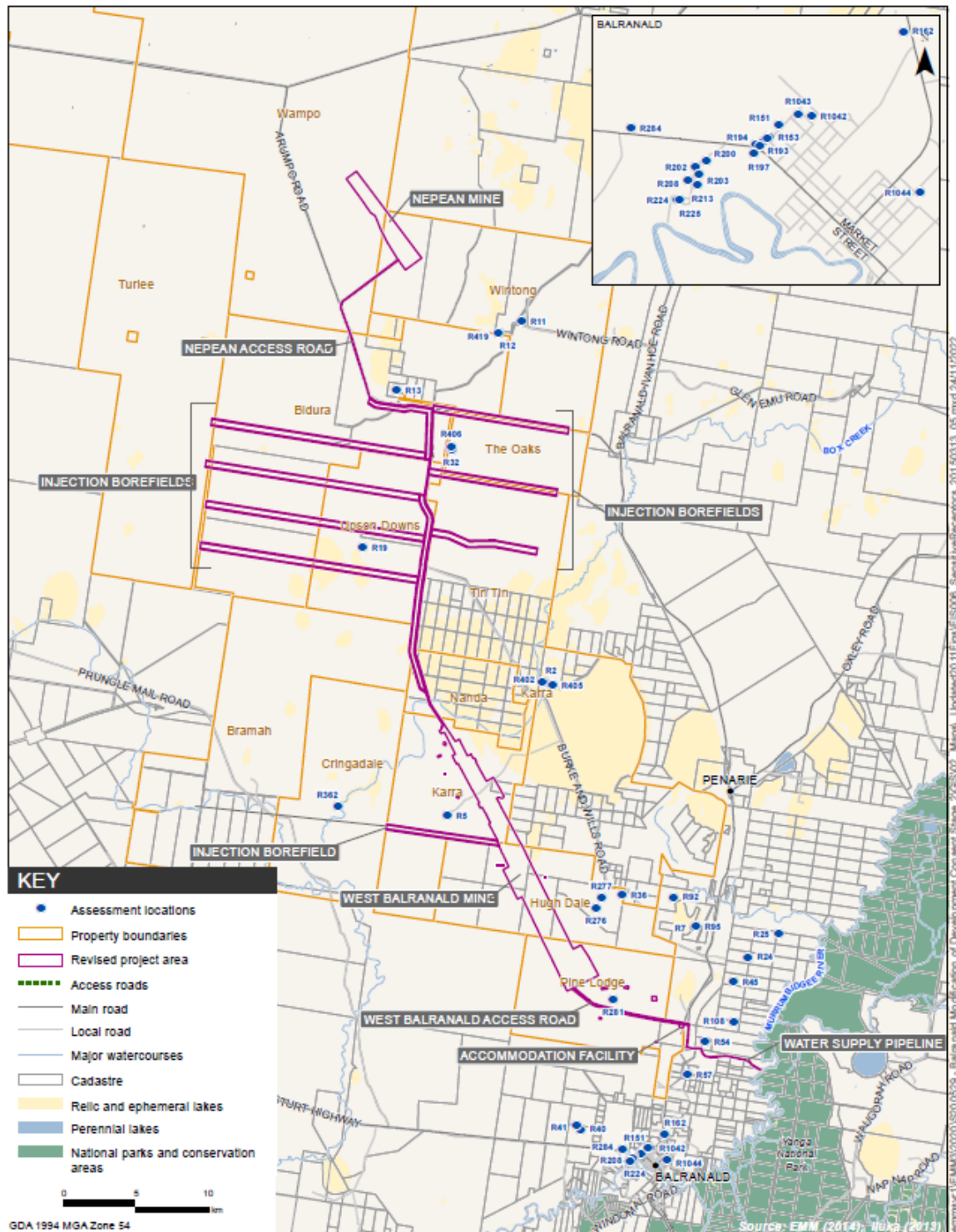
## APPENDIX 3 GENERAL TERMS OF VPA

Funding Area	Applicant Contribution	Timeframe	Responsibility for Administration
Community Support	\$50,000 per year, for up to 10 years	Annually (for each year of construction and operations)	Community Partnerships Committee
	50% of funding for a local project, up to a maximum of \$150,000	Within two years of the commencement of construction of the West Balranald mine	Applicant & Council
Local Employment	Aspirational local employment target of 5% of the total full time equivalent site workforce	To be publically reported annually	Applicant
Youth Training (higher education scholarship fund)	\$4,500 per year, for up to 8 years, with potential for work experience opportunities	Annually (for each year of operations)	Community Partnerships Committee
Employment Study	50% of funding for employment study, up to a maximum of \$50,000	Two years prior to the cessation of mining activities under this consent (as can be reasonably forecasted)	Applicant & Council

*Notes:*

- The general terms of the offer are outlined in the Applicant's letter to Council dated 7 December 2015;
- The Community Partnerships Committee is to be an independent body to be established under the VPA with equal representation from the Applicant, Council and the Community, and chaired by the Applicant;
- Contributions are to be suspended when construction and/or operations cease, and the development is placed on care and maintenance; and
- Contributions are to be made by the Applicant as per the relevant timeframes, unless otherwise agreed by the parties.

# APPENDIX 4 RECEIVER LOCATION PLAN



Assessment locations  
Balranald Mineral Sands Project  
Environmental Impact Statement

Figure 6: Land Ownership and Receiver Location Plan



**APPENDIX 5**  
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APPENDIX 6  
ABORIGINAL HERITAGE SITES AND SUBSURFACE EXCAVATION AREAS

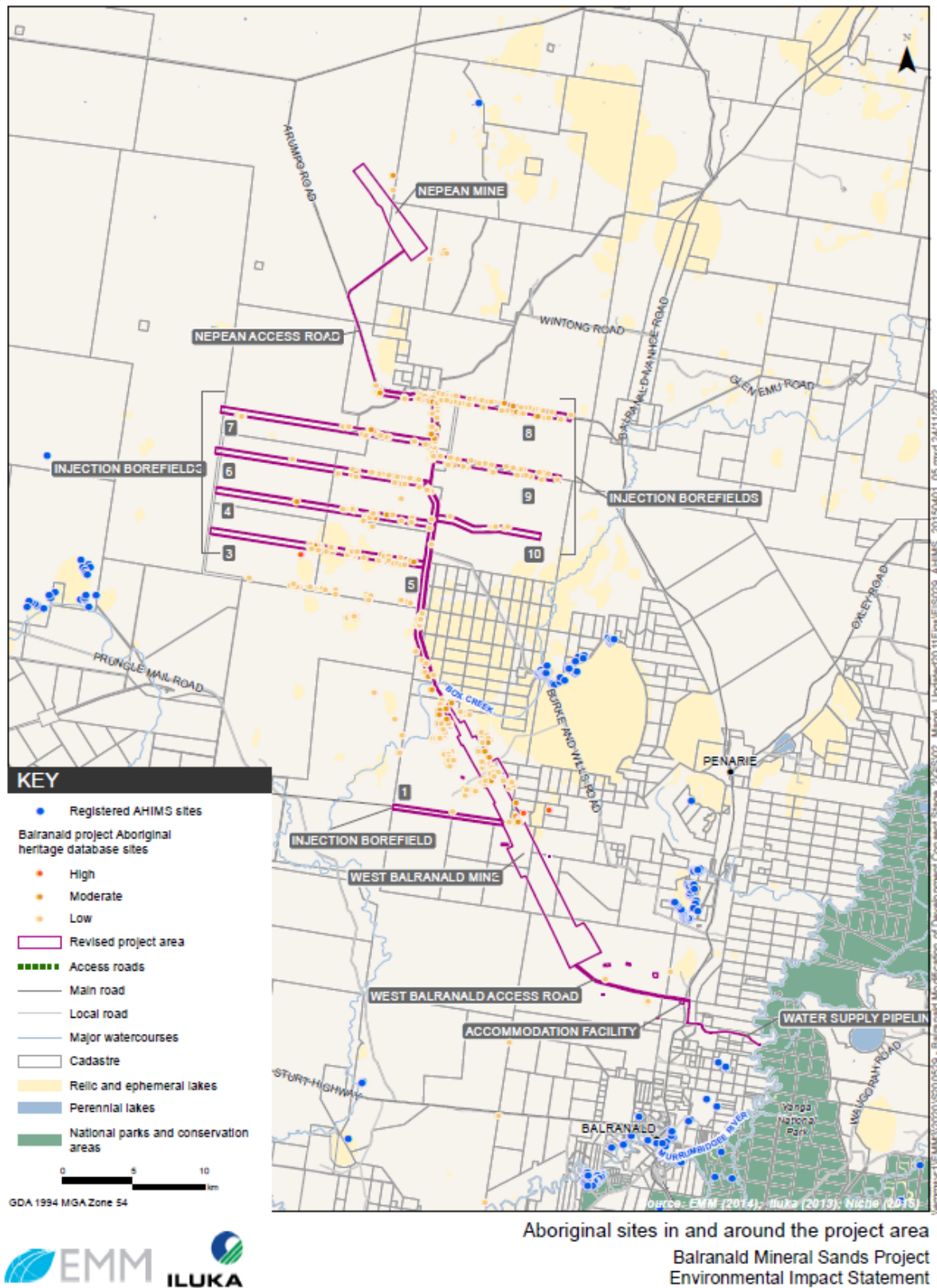


Figure 7: Aboriginal Heritage Sites

Note: Detailed figures and a description of all identified Aboriginal sites is provided in Appendix G of the EIS.

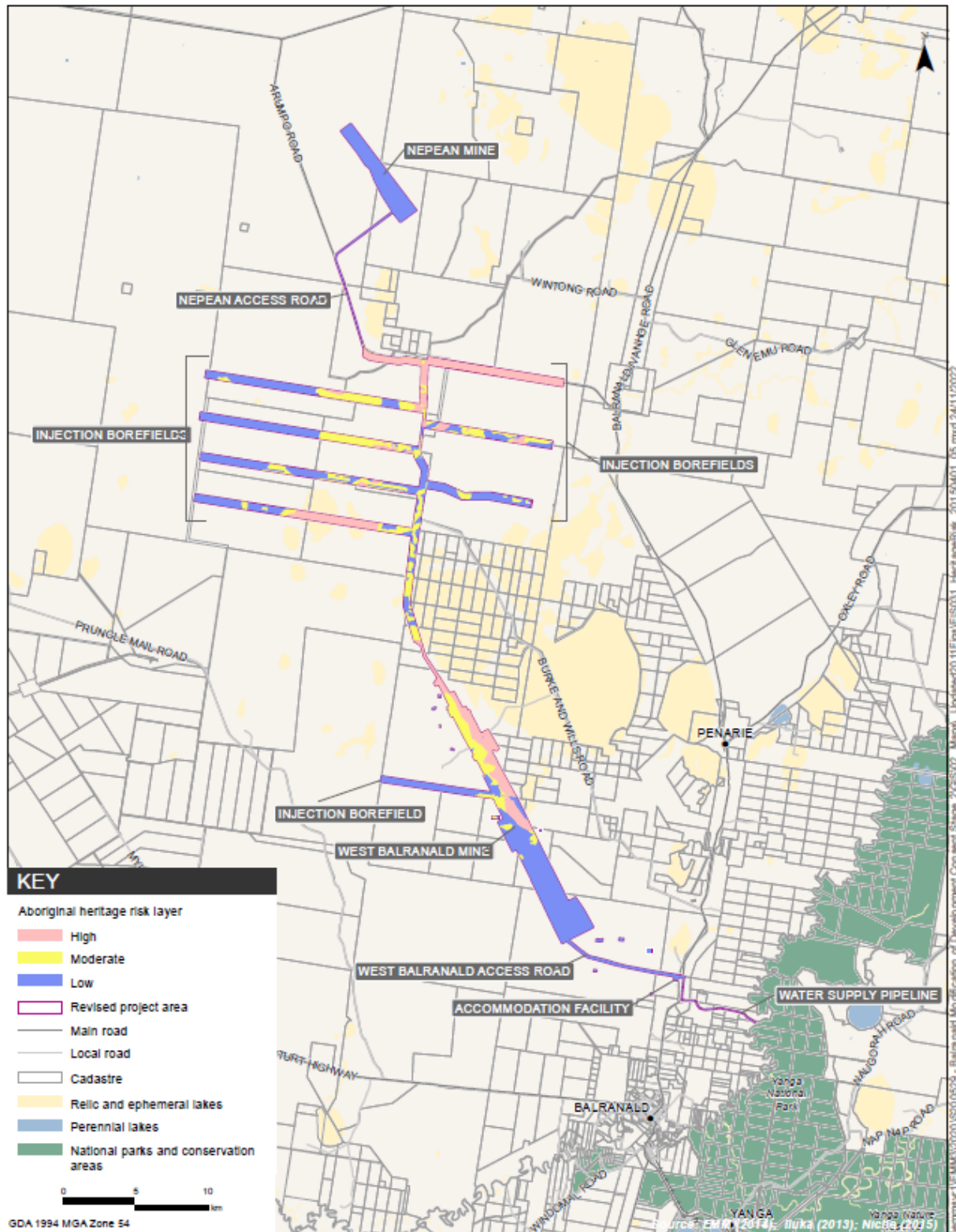


Figure 8: Aboriginal Heritage Risk Layers

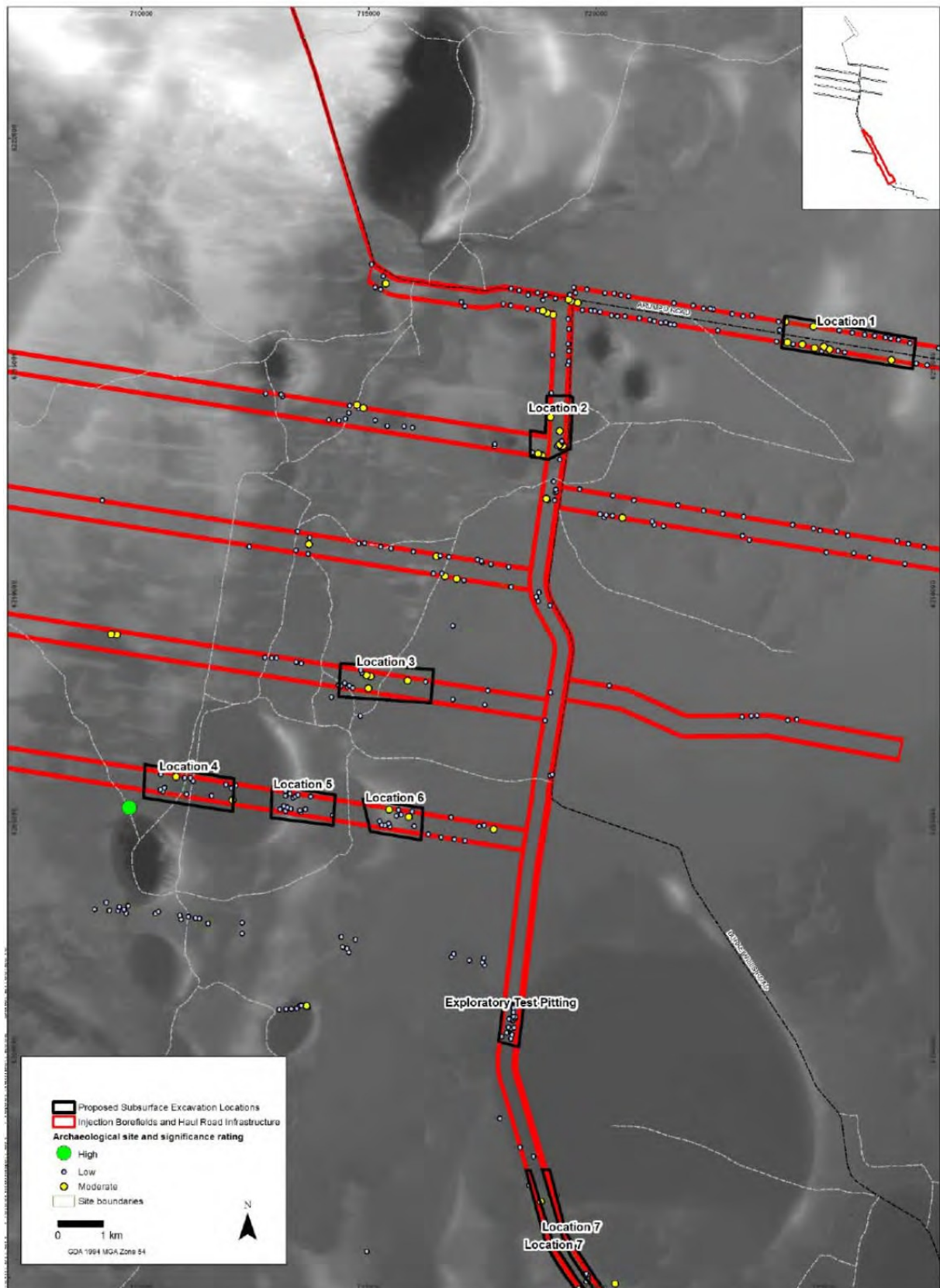


Figure 9: Proposed Subsurface Excavation Program – Injection Borefields and Haul Road



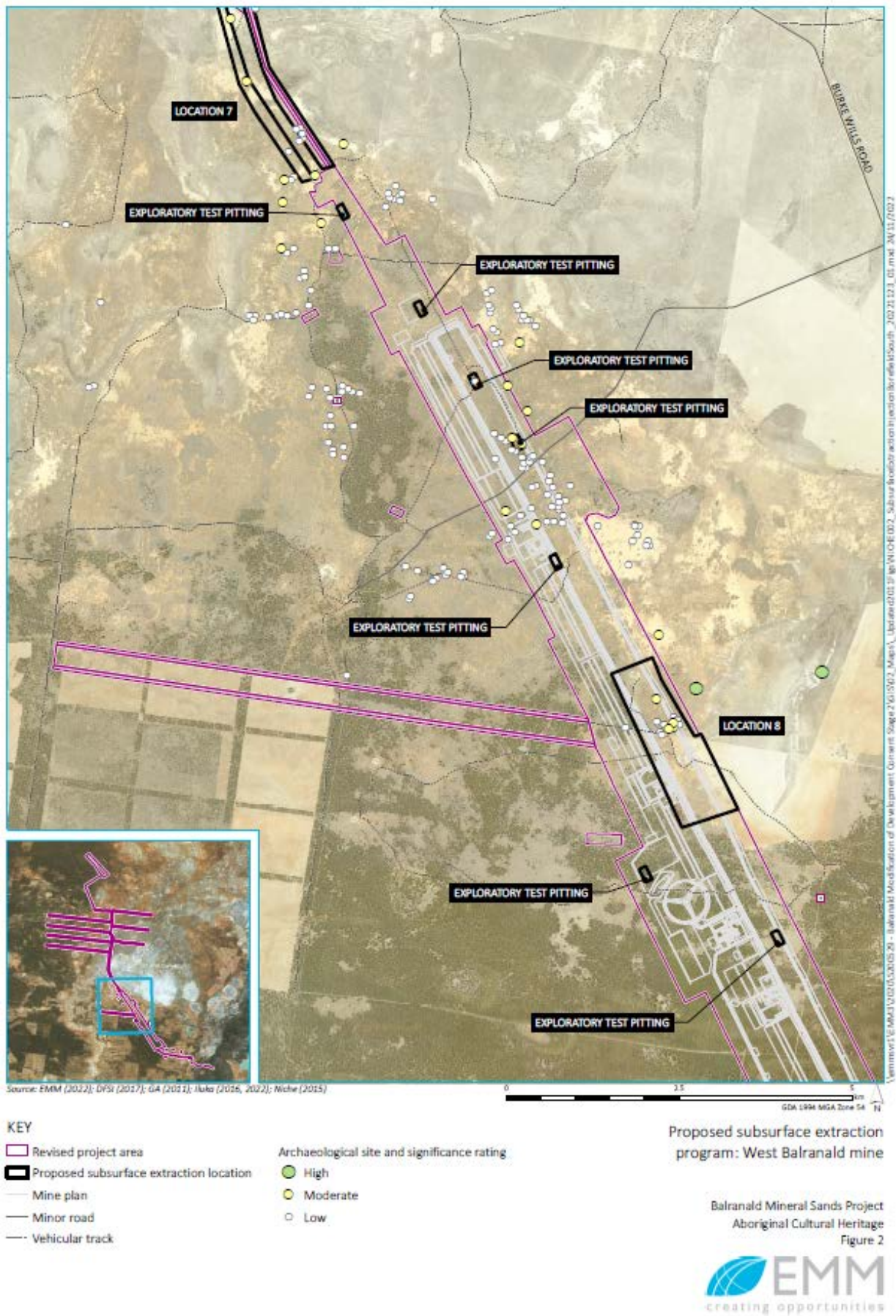


Figure 10: Proposed Subsurface Excavation Program – West Balranald Mine Overview



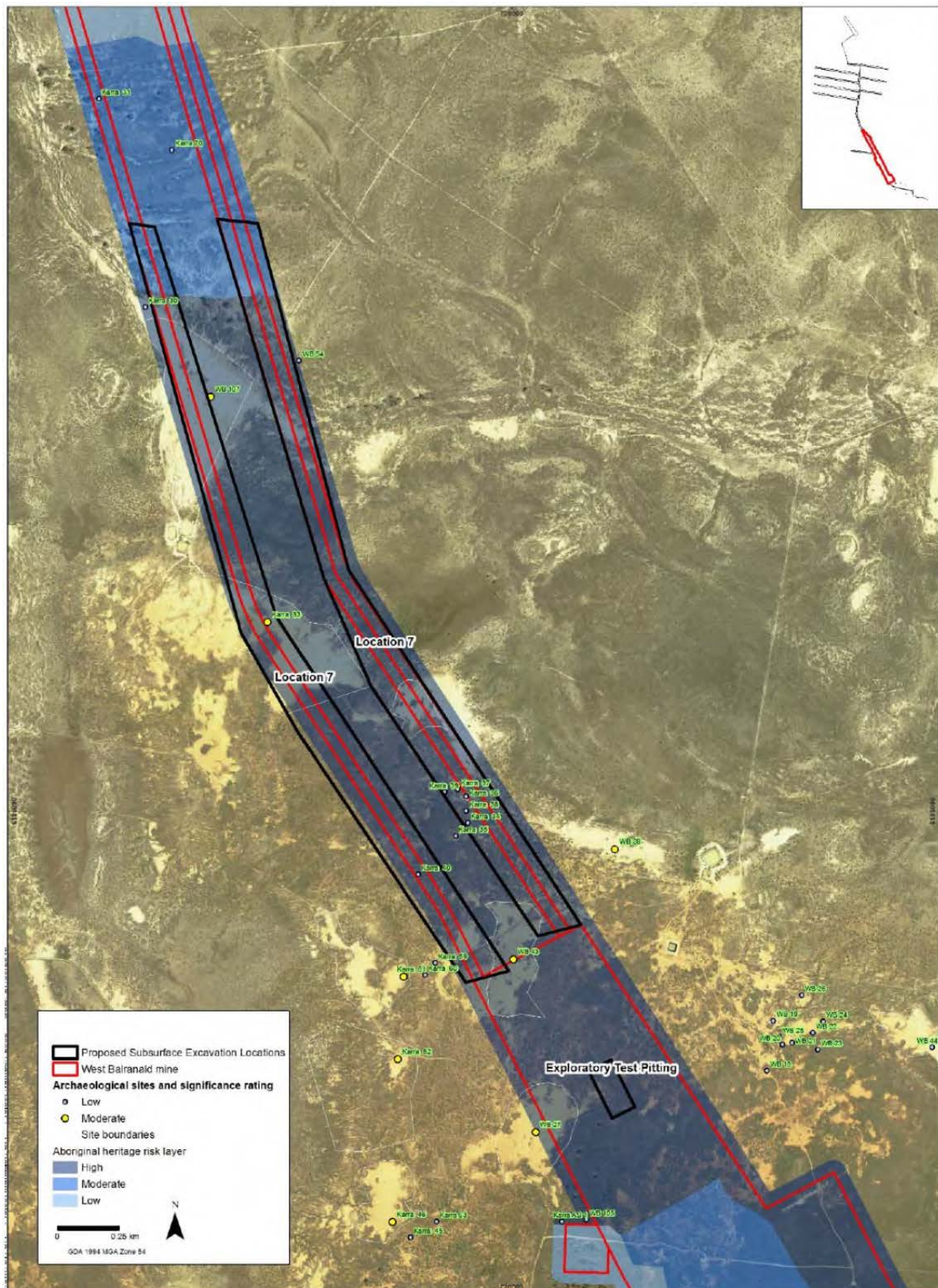


Figure 11: Proposed Subsurface Excavation Program – West Balranald Mine Location 7



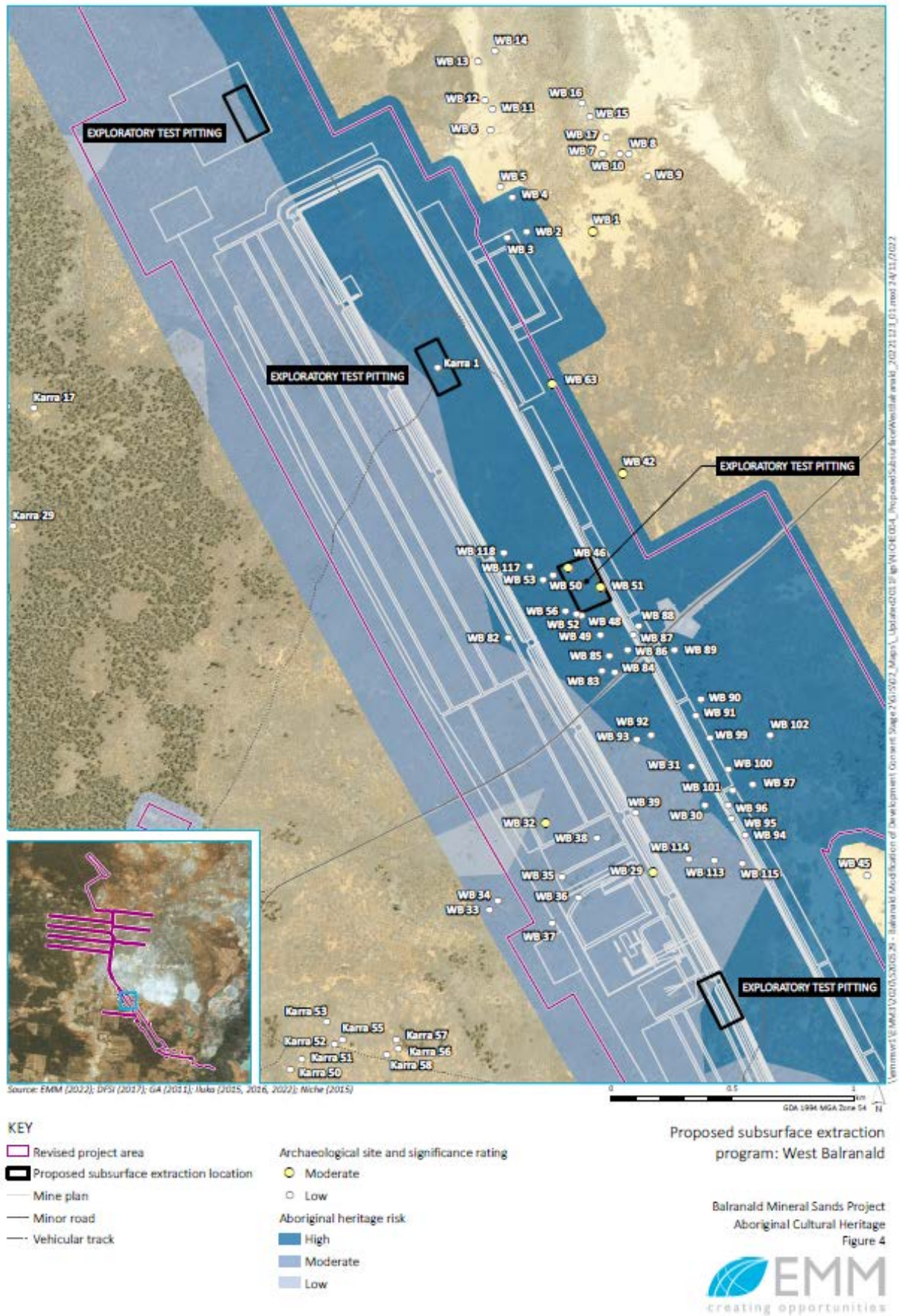


Figure 12: Proposed Subsurface Excavation Program – West Balranald Mine Exploratory Test Pitting



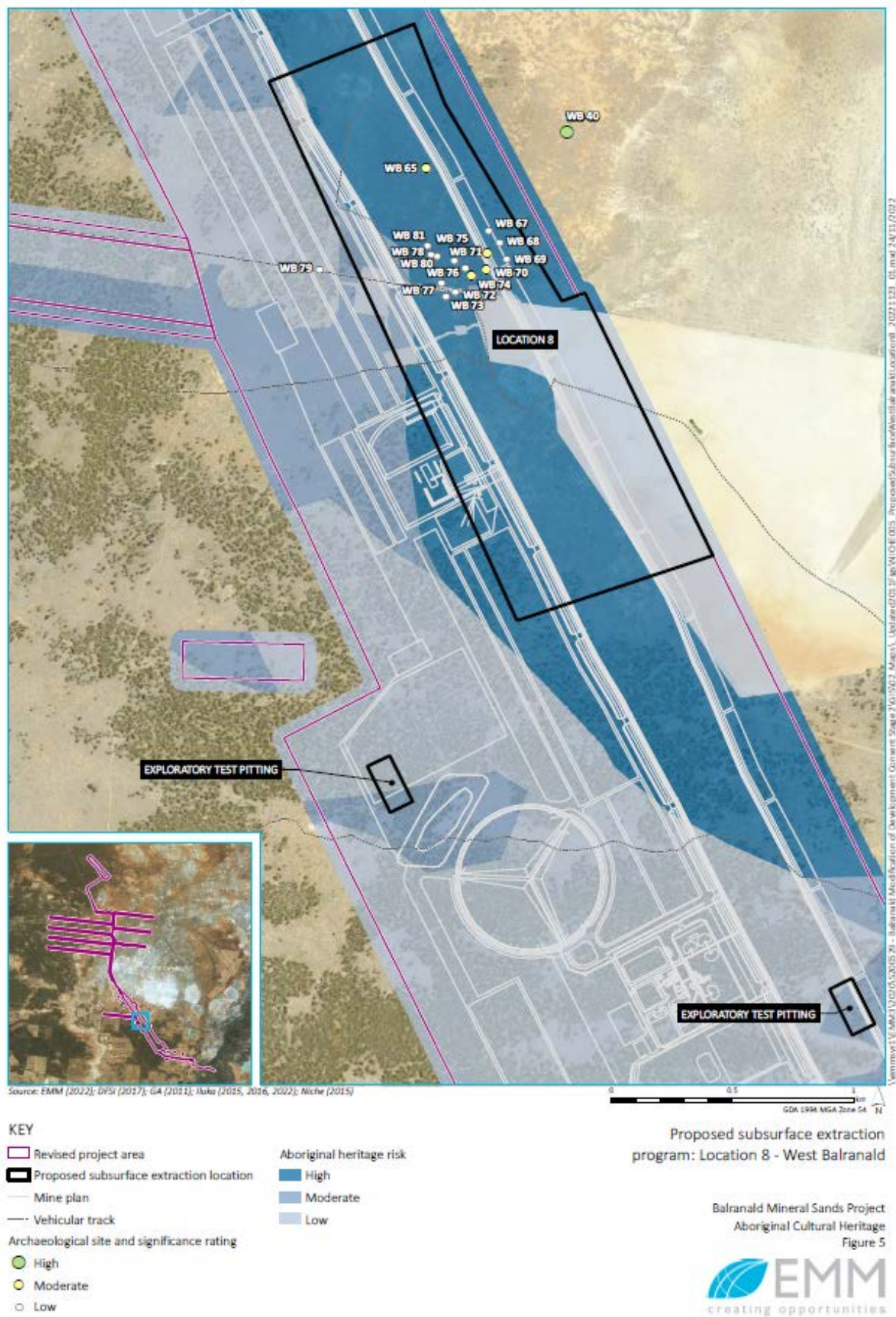
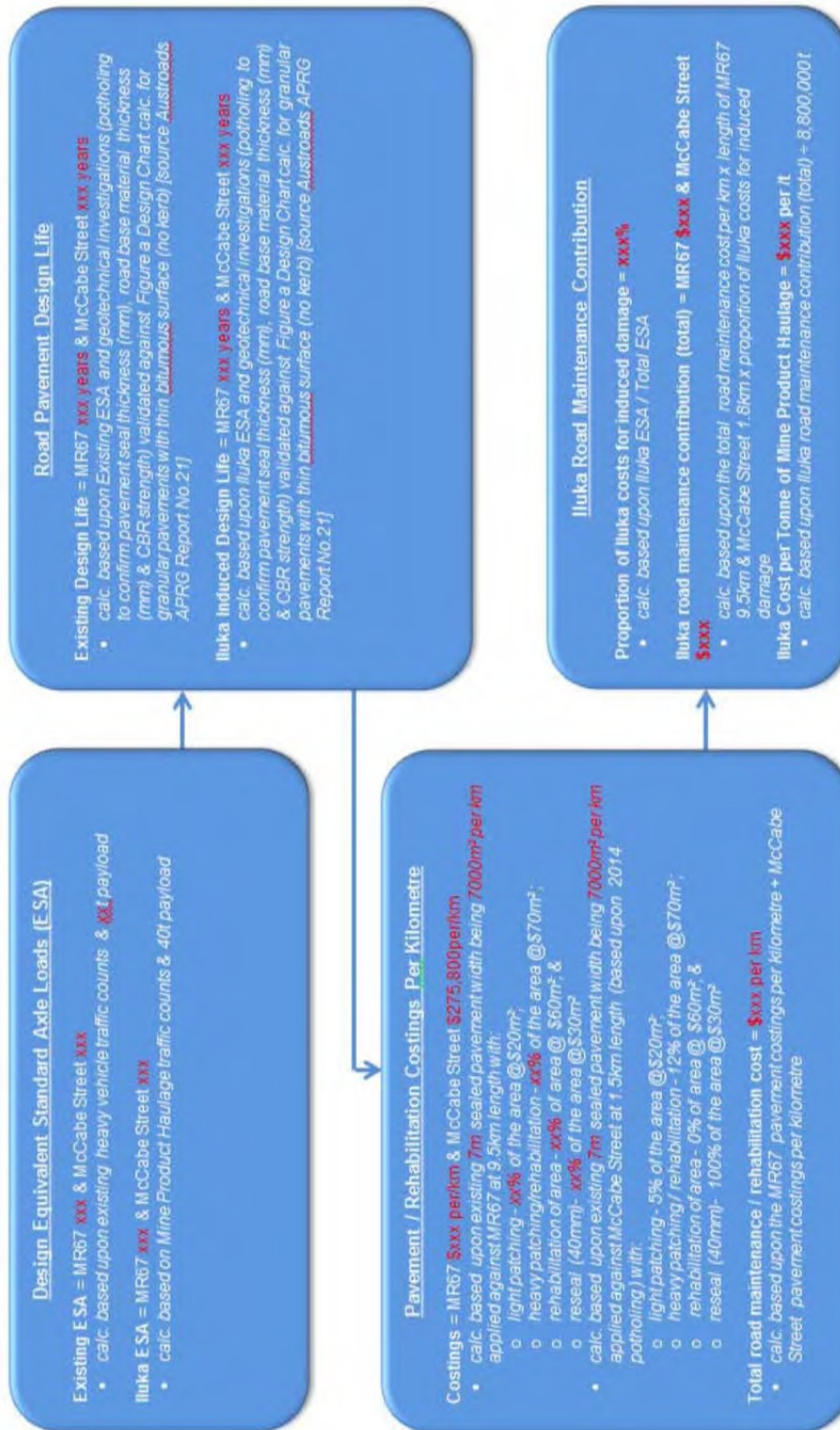


Figure 13: Proposed Subsurface Excavation Program – West Balranald Mine Location 8

APPENDIX 7  
ROAD MAINTENANCE COSTING MODEL FRAMEWORK

Flow chart summarising Council's Development Impact Road Costing Framework to derive the road maintenance contribution for MR67 and McCabe Street – 'red' text highlights key input/assumption to be resolved





APPENDIX 8  
ROAD HAULAGE ROUTES

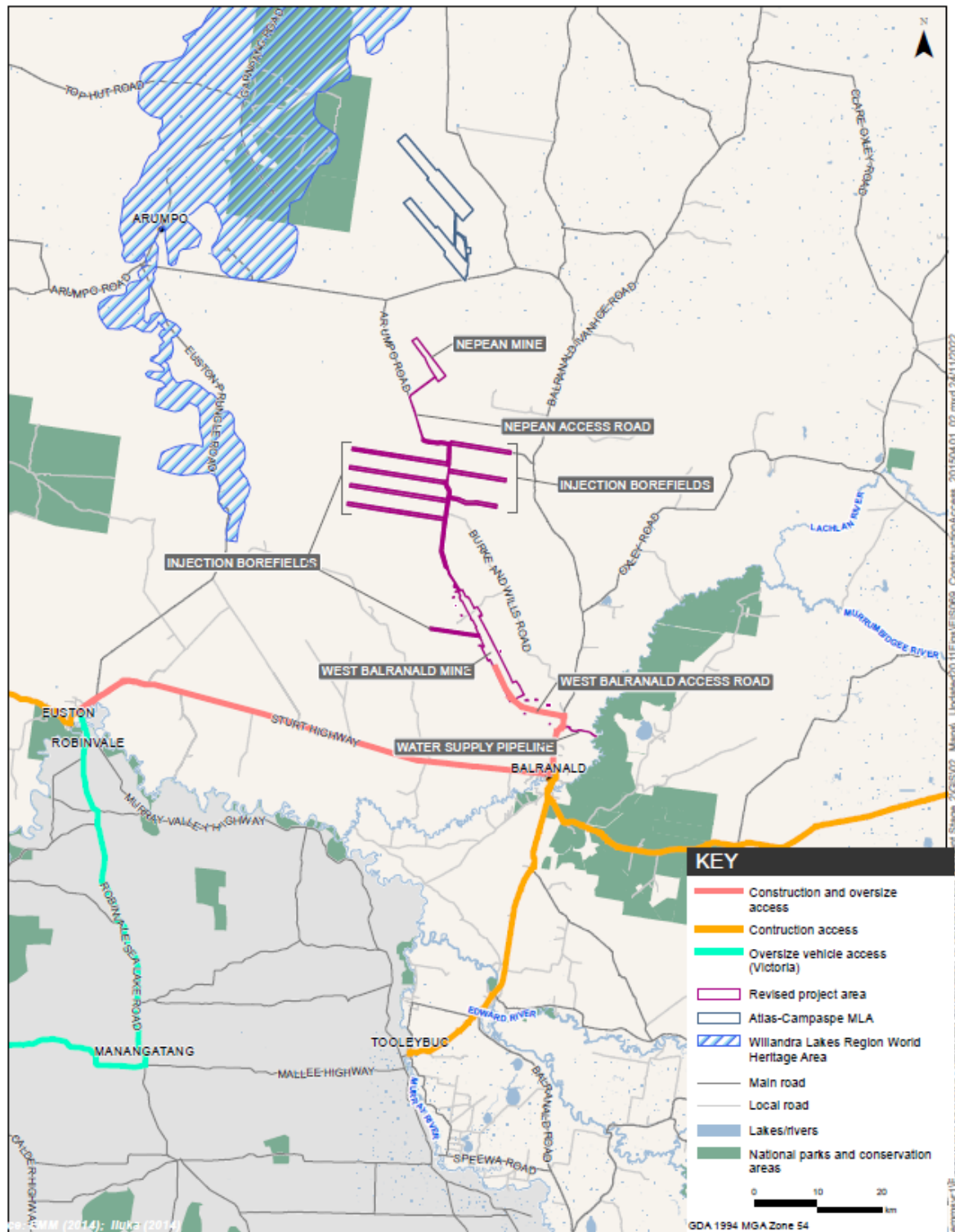


Figure 14: Construction Access Routes

Construction access routes  
Balranald Mineral Sands Project  
Environmental Impact Statement



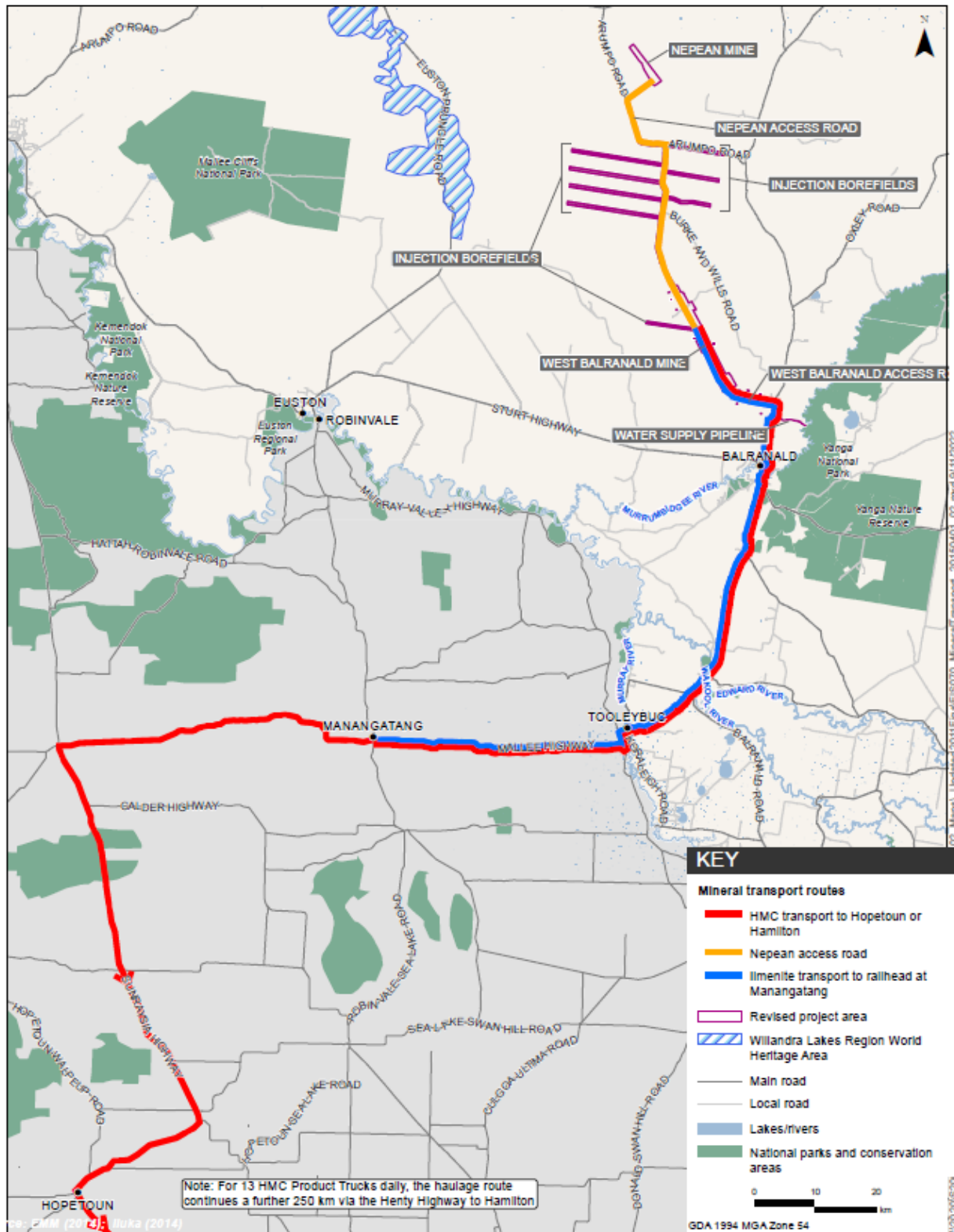


Figure 15: Mineral Transport Routes

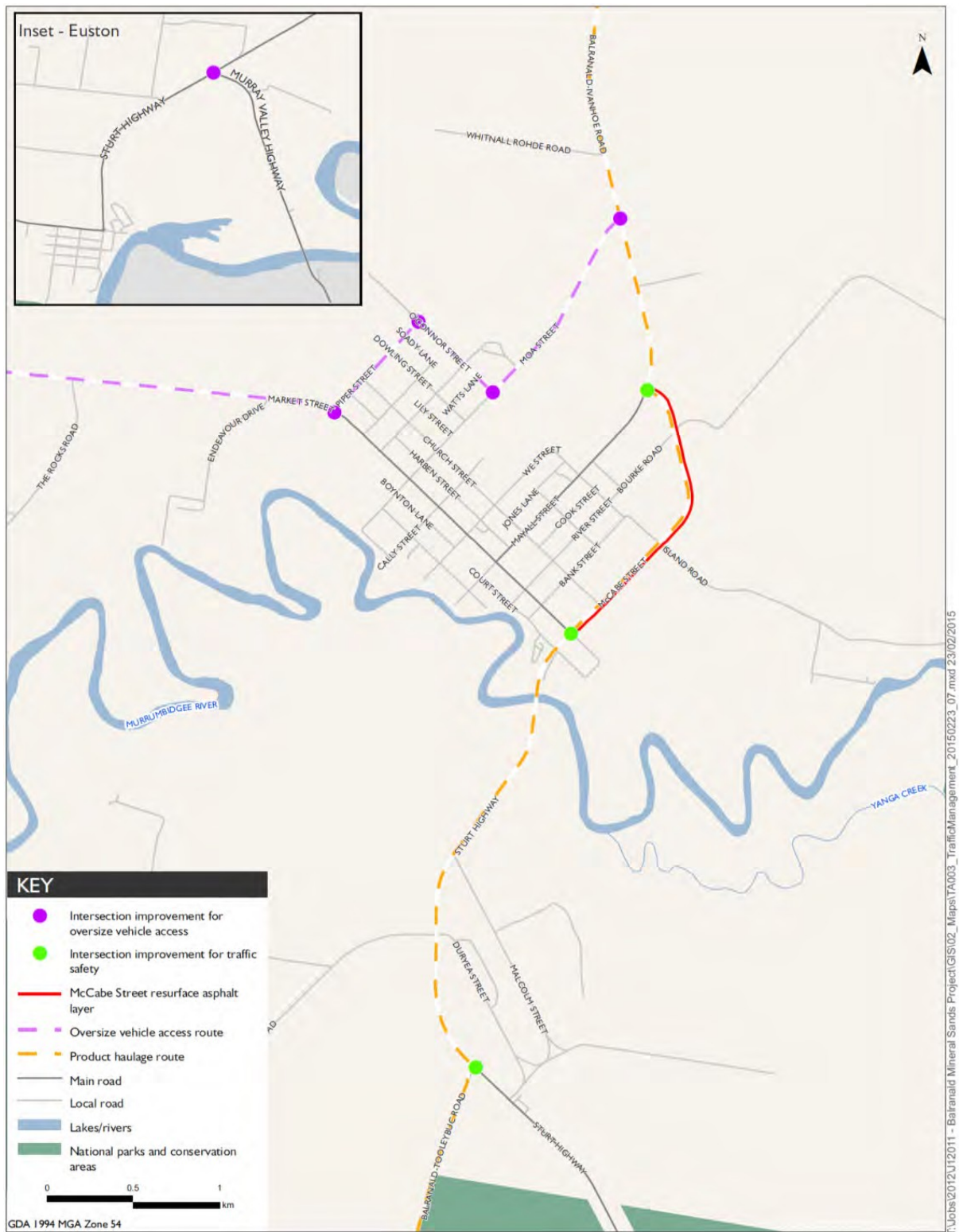


Figure 16: Balranald Town Transport Routes

## APPENDIX 9 REHABILITATION PLAN

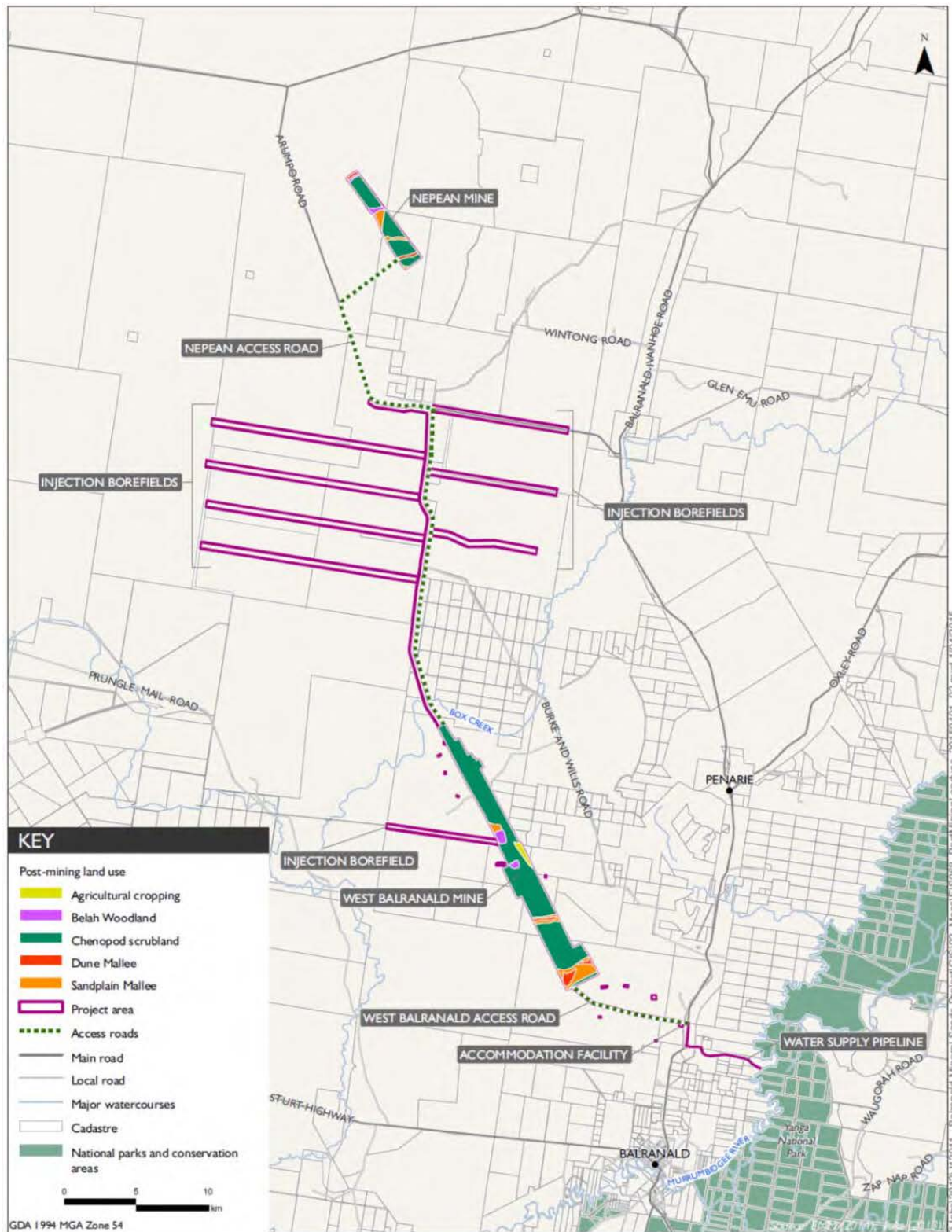


Figure 17: Post Mining Land Use



## APPENDIX 10 BIODIVERSITY OFFSETS

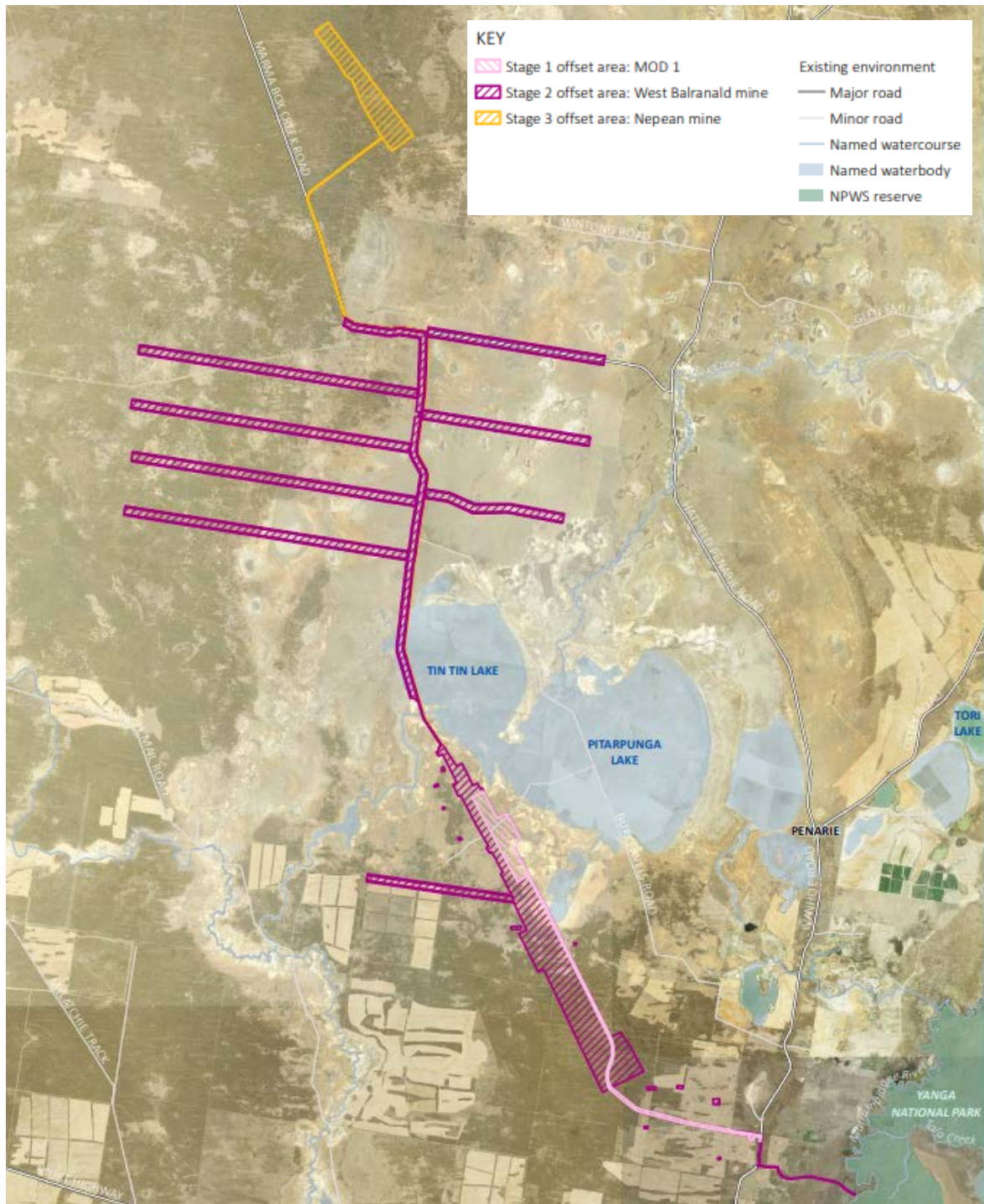


Figure 18: Biodiversity Offset Strategy Map