ATTACHMENT G:

Development Consent

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

As delegate of the Minister for Planning, the Planning Assessment Commission of NSW approves 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.

Member of the Commission **Member of the Commission** **Member of the Commission**

Sydney 2014

SCHEDULE 1

Application Number:	SSD-4975
Applicant:	Shenhua Watermark Pty Limited
Consent Authority:	Minister for Planning
Land:	See Appendix 1
Development:	Watermark Coal Project

TABLE OF CONTENTS

DEFINITIONS

AAO	Australian Astronomical Observatory
Annual review	The review required by condition 4 of schedule 5
Applicant	Shenhua Watermark Pty Limited, or any person who seeks carry out the approved development under this consent
ARI	Average Recurrence Interval
ARTC	Australian Rail Track Corporation Ltd
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in EIS, and depicted conceptually in the figure in Appendix 6
Blast misfire	The failure of one or more holes in a blast pattern to initiate
BSAL	Biophysical Strategic Agricultural Land, as defined in the *New England North West Strategic Regional Land Use Plan* and the *Interim Protocol for Site Verification and Mapping of Biophysical Strategic Agricultural Land*, as may be updated from time to time
CEEC	Critically endangered ecological community, as defined under the TSC Act and/or EPBC Act
CCC	Community Consultative Committee
Conditions of this consent	Conditions contained in schedules 1 to 5 inclusive
Council	Gunnedah Shire Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning & Environment
Development	The development as described in the EIS
DOE	Commonwealth Department of the Environment
DPI	Department of Primary industries
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services
EEC	Endangered ecological community, as defined under the TSC Act and/or EPBC Act
EIS	Environmental Impact Statement titled *Watermark Coal Project Environmental Impact Statement* (11 volumes) dated February 2013 and associated response to submissions titled *Watermark Coal Project Response to Submissions* (3 volumes) dated November 2013
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Heritage item	An item as defined under the *Heritage Act 1977* and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974*
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
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 by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine water	Water that accumulates within, or drains from, active mining and infrastructure areas and any other areas where run-off may have come into contact with coal or carbonaceous material (synonymous with 'dirty water')
Mining operations	Includes the removal and emplacement of overburden and extraction, processing, handling, storage and transport of coal on site
Minister	Minister for Planning & Infrastructure, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays

NOW	NSW Office of Water within the DPI
NP&W Act	*National Parks & Wildlife Act 1974*
OEH	Office of Environment and Heritage within the Department of Premier and Cabinet
POEO Act	*Protection of the Environment Operations Act 1997*
Porous hard rock aquifer	Water regulated under the *Water Sharing Plan for the Murray-Darling Basin Porous Rock Groundwater Sources 2011,* as may be updated from time to time
Potential koala habitat	As defined in SEPP 44
Privately-owned land	Land that is not owned by a public agency or a mining company (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, to ensure it is safe, stable and non-polluting
RFS	Rural Fire Service
RMS	Roads and Maritime Services
ROM	Run-of-mine
Secretary	Secretary of the Department, or delegate
SEPP 44	*State Environmental Planning Policy 44 – Koala Habitat Protection*
Site	The land defined in Appendix 1
Statement of commitments	The management and monitoring summary set out in the EIS, as reproduced in Appendix 3
TSC Act	*Threatened Species Conservation Act 1995*
Upper Namoi alluvial aquifer	Water regulated under the *Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003*, as may be updated from time to time
VPA	Voluntary Planning Agreement

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 generally in accordance with the:
   (a) EIS;
   (b) statement of commitments; and
   (c) conditions of this consent.

   Notes:
   - *The general layout of the development is shown in Appendix 2.*
   - *The statement of commitments is reproduced in Appendix 3.*

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 strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent;
   ~~(a)~~(b) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; and
   ~~(b)~~(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 site until 30 June 2046.

   Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Secretary and DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

Coal Extraction and Transportation

6. The Applicant shall not extract more than 10 million tonnes of ROM coal from the site in any calendar year.

7. The Applicant shall transport all coal from the site by rail.

STRUCTURAL ADEQUACY

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

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

10. 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 condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

11. The Applicant shall 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 STRATEGIES, PLANS OR PROGRAMS

12. 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 the strategies, plans or programs under the conditions of this consent 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 parties under the applicable condition of this consent.

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.*
- *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

13. By the end of December 2014, unless the Secretary agrees otherwise, the Applicant shall enter into VPAs with Gunnedah Shire Council and Liverpool Plains Shire Council in accordance with:
    (a) Division 6 of Part 4 of the EP&A Act; and
    (b) the terms of the Applicant's offers in Appendix 11.

SCHEDULE 3
ENVIRONMENTAL CONDITIONS - GENERAL

ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of schedule 4.

Table 1: Land subject to acquisition upon request

Acquisition Basis	Property
Noise & Air	26W, 27, 28, 32, 62, 103, 125
Noise	20, 61, 65N
Air	60

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

ADDITIONAL NOISE AND AIR QUALITY MITIGATION UPON REQUEST

2. Upon receiving a written request from the owner of the residences listed in Table 2, the Applicant shall implement additional noise and/or air quality mitigation measures (such as double-glazing, insulation, air filters, a first flush roof water drainage system 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 and/or air quality 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 there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Table 2: Land subject to additional noise and/or air quality mitigation upon request

Mitigation Basis	Residence
Noise & Air	25b, 32c, 60, 62a, 62b, 103, 125
Noise	32b, ~~35,~~ 39, ~~40,~~ 41, ~~43~~
Air	-

Note: To interpret the land referred to in Table 2, see the EIS and the figure in Appendix 4.

NOISE

Noise Criteria

3. Except for the noise affected land in Table 1, the Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 3 at any residence on privately-owned land.

Table 3: Noise criteria dB(A)

Residence	Day / Evening / Night $L_{Aeq(15min)}$	Night $L_{A1(1min)}$
39	39	45
25b, 60	38	45
41	37	45
35, 40, 43	36	45
Other privately owned residences	35	45

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

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 5 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land 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 shall:
   (a) implement best management practice to minimise the construction, operational, low frequency, road and rail noise of the development;
   (b) ensure all mobile plant is commissioned as noise attenuated units;
   (c) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
   (d) minimise the noise impacts of the development during meteorological conditions when the noise limits in this consent do not apply (see Appendix 5);
   (e) avoid the use of mobile plant on elevated and exposed sections of the overburden emplacements and in other sensitive areas at night;
   (f) avoid drilling in higher elevations (less than 6 metres below natural ground surface) at night;
   (g) ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142);
   (h) use its best endeavours to ensure that rolling stock is selected to minimise noise;
   (i) co-ordinate noise management with any nearby mines to minimise cumulative noise impacts; and
   (j) carry out regular monitoring 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,

   to the satisfaction of the Secretary.

Noise Management Plan

5. 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 the commencement of any development on site;
   (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this consent;
   (c) describe the noise management system in detail; and
   (d) include a monitoring program that:
      - evaluates and reports on:
        - the effectiveness of the noise management system;
        - compliance with the noise criteria;
        - compliance with the noise predictions in the EIS; and
        - compliance with the noise operating conditions;
      - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this consent and trigger for further attended monitoring); and
      - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

BLASTING

Blasting Criteria

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

Table 4: Blasting criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately owned land [a]	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months
All public infrastructure [b]	-	25	0%
Breeza cemetery	-	2	0%

a Unless otherwise agreed with the relevant owner/s of the residence, and the Applicant has advised the Department in writing of the terms of this agreement.
b Unless otherwise agreed with the relevant infrastructure provider or owner, and the Applicant has advised the Department in writing of the terms of this agreement.

Blasting Hours

7. The Applicant shall only carry out blasting on site between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.

Blasting Frequency

8. The Applicant may carry out a maximum of:
   (a) 1 blast a day; and
   (b) 5 blasts a week, averaged over a calendar year,
   at the site.

   This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine or its workers.

   Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.

Property Inspections

9. If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant shall:
   (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
      - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
      - identify measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and
   (b) give the landowner a copy of the new or updated property inspection report.

   If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.

Property Investigations

10. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant shall:
   (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and
   (b) give the landowner a copy of the property investigation report.

   If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damage to the satisfaction of the Secretary.

   If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

Operating Conditions

11. The Applicant shall:
   (a) implement best management practice to:
      - protect the safety of people and livestock in the surrounding area;
      - protect public or private infrastructure/property in the surrounding area from any damage; and
      - minimise the dust and fume emissions of any blasting;
   (b) ensure that blasting on the site does not damage any heritage items, and develop specific measures to protect:
      - Aboriginal axe grinding groove site WM-GG2-11;
      - historic heritage items on Properties 3, 7 12 and 13;
      - Breeza cemetery;
   (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site;

(d) use reasonable endeavours to co-ordinate the timing of blasting at the site with any nearby mines to minimise cumulative blasting impacts; and
(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.

Notes:

- *To identify the Aboriginal axe grinding grooves sites, see the figure in Appendix 8.*
- *To identify the mine-owned heritage properties, see the figure in Appendix 9.*

12. The Applicant shall not undertake blasting on site within 500 metres of:
(a) any public road;
(b) Breeza State Forest; or
(c) any land outside the site not owned by the Applicant,

unless the Applicant has:

- demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures; and
- updated the Blast Management Plan to include the specific mitigation measures that would be implemented while blasting is being carried out within 500 metres of the infrastructure or land; or
- a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement.

Blast Management Plan

13. The Applicant shall prepare and implement a Blast 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 conducting any blasting on site;
(b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;
(c) include a protocol for minimising blast fume emissions, including avoiding blasts where possible in poor dispersion conditions;
(d) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with RMS and Council;
(e) include blasting criteria for protecting heritage items in the vicinity of the site, based on site specific geotechnical investigation;
(f) describe the specific mitigation measures to be implemented to protect the Aboriginal axe grinding groove site WM-GG2-11 and other Aboriginal and historic heritage items;
(g) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and
(h) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of this consent.

AIR QUALITY

Odour

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

Air Quality Criteria

15. Except for the air quality affected land in Table 1, the Applicant shall 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 5, 6 and 7 at any residence on privately-owned land.

Table 5: Long term impact assessment criteria for particulate matter

Pollutant	***Averaging period***	***[d]Criterion***
Total suspended particulate (TSP) matter	Annual	[a] 90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	[a] 30 µg/m^3

Table 6: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	[d]Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m^3

Table 7: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
[c]Deposited dust	Annual	[b] 2 g/m^2/month	[a] 4 g/m^2/month

Notes to Tables 5-7:

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

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

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

[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.

Mine-owned Land

16. The Applicant shall 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 8, 9 and 10 at any occupied residence on mine-owned land (including land owned by another mining company) unless:
    (a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this consent;
    (b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;
    (c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining company);
    (d) air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of the actual particulate emissions at the residence; and
    (e) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property,

    to the satisfaction of the Secretary.

Air Quality Acquisition Criteria

17. If particulate matter emissions generated by the development exceed the criteria, or contribute to the exceedance of the relevant cumulative criteria, in Tables 8, 9 and 10 at any residence or workplace on privately-owned land, or on more than 25% of any privately-owned land (and a dwelling could be built on that land under existing planning controls), then upon receiving a written request for acquisition from the landowner, the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of schedule 4.

Table 8: Long term land acquisition criteria for particulate matter

Pollutant	Averaging period	[d]Criterion
Total suspended particulate (TSP) matter	Annual	[a] 90 µg/m^3
Particulate matter < 10 µm (PM_{10})	Annual	[a] 30 µg/m^3

Table 9: Short term land acquisition criteria for particulate matter

Pollutant	Averaging period	[da]Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m^3 @ 98.6 percentile[e]

Table 10: Long term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
[c] Deposited dust	Annual	[b] 2 g/m^2/month	[a] 4 g/m^2/month

Notes to Tables 8-10:

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

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

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

[d] *Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.*

[e] *The 98.6 percentile reflects a permitted number of predicted or monitored exceedances (being up to 5) within the 365 24-hour block averages comprising any one year. Where more than 5 exceedances are predicted or recorded, the percentile is exceeded. While the criterion relates to cumulative (i.e. total) impacts, it also excludes contributions from extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents and illegal activities.*

Operating Conditions

18. The Applicant shall:
    (a) implement best management practice to minimise the off-site odour, fume and dust emissions of the development;
    (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
    (c) minimise any visible off-site air pollution generated by the development;
    (d) minimise the surface disturbance of the site;
    (e) install and maintain a water spray/dust suppressant system at the train load out facility;
    (f) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;
    (g) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note d above under Table 10);
    (h) co-ordinate air quality management with any nearby mines to minimise cumulative air quality impacts; and
    (i) carry out regular monitoring 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,

    to the satisfaction of the Secretary.

Air Quality Management Plan

19. 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 the commencement of any development on site;
    (b) describe the 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 in detail;
    (d) include an air quality monitoring program that:
        - evaluates and reports on the:
            - the effectiveness of the air quality management system;
            - compliance with the air quality criteria;
            - compliance with the air quality predictions in the EIS;
            - compliance with the air quality operating conditions; and
        - 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

20. For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:
    (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
    (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy*, unless a suitable alternative is approved by the Secretary following consultation with the EPA.

WATER

Water Supply

21. 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 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.

22. Prior to the commencement of mining operations in each of the three mining areas, the Applicant shall demonstrate that it has adequate water access licences to account for the maximum predicted volume of water to be used by the development for that mining area (and any existing mining areas), to the satisfaction of the Secretary.

Note: The predicted water demand shall be based on updated groundwater and water balance modelling that refines the groundwater inflows and other water use, based on monitoring data.

Compensatory Water Supply

23. The Applicant shall provide a compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted as a result of the development (other than an impact that is predicted in the EIS or is minor or negligible), in consultation with NOW, 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 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.

Note: The Water Management Plan (see condition 26) is required to include trigger levels for investigating potentially adverse impacts on water supplies.

Water Pollution

24. The Applicant shall:
    (a) not discharge any mine water from the site; and
    (b) comply with section 120 of the POEO Act, unless an EPL authorises otherwise.

Water Management Performance Measures

25. The Applicant shall comply with the performance measures in Table 11 to the satisfaction of the Secretary.

Table 11: Water management performance measures

Feature	Performance Measure
Water management – General	Minimise the use of clean water on site Minimise the need for make-up water from external supplies Where required, obtain make-up water preferentially from the porous hard rock aquifer Minimise cumulative water impacts with other nearby mines
Upper Namoi alluvial aquifer	Negligible environmental consequences to the alluvial aquifer beyond those impacts predicted in the EIS, including: • negligible change in groundwater levels beyond those predicted in the EIS; • negligible change in groundwater quality beyond those predicted in the EIS; and • negligible impact to other groundwater users beyond those predicted in the EIS

Feature	Performance Measure
Construction and operation of infrastructure	Design, install and maintain erosion and sediment controls generally in accordance with the series *Managing Urban Stormwater: Soils and Construction* including *Volume 1, Volume 2A – Installation of Services* and *Volume 2C – Unsealed Roads* Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the *Guidelines for Controlled Activities on Waterfront Land (DPI 2007)*, or its latest version Design, install and maintain any creek crossings generally in accordance with the *Policy and Guidelines for Fish Friendly Waterway Crossings* (NSW Fisheries, 2003) and *Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings* (NSW Fisheries 2003), or their latest versions
Clean water diversion & storage infrastructure	Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site
Sediment dams	Design, install and maintain the dams generally in accordance with the series *Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries* Design, install and maintain the dams to minimise increases in salt loads to Watermark Gully, Native Dog Gully and the Mooki River
Mine water storages	Design, install and maintain mine water storage infrastructure to ensure no discharge of mine water off-site On-site storages (including mine infrastructure dams, groundwater storage and treatment dams) are suitably designed, installed and maintained to minimise permeability
Overburden emplacements	Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material Design, install and maintain emplacements to prevent and/or manage long term saline groundwater seepage Adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters
Watermark Gully realignment and flooding	No net loss of creek length Flows to mimic pre-development flows for all flood events up to and including the 1 in 100 year ARI Incorporate erosion control measures based on vegetation and engineering revetments Incorporate persistent/permanent pools for aquatic habitat Revegetate with suitable native species
Flood levees	Design, install and maintain the flood levees to exclude flows for all flood events up to and including the Probable Maximum Flood level
Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards
Aquatic and riparian ecosystem, including the relevant sections of Watermark Gully and Native Dog Gully	Maintain or improve baseline channel stability Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and *Using the ANZECC Guidelines and Water Quality Objectives in NSW* procedures (DECC 2006), or its latest version

Water Management Plan

26. The Applicant 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 NOW, EPA, DPI and Council, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
    (b) be submitted to the Secretary for approval prior to the commencement of any development on site;

(c) in addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include a:

(i) 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;
- describes the measures that would be implemented to minimise clean water use on site;

(ii) Salt Balance that:
- includes details of:
  - sources of saline material on the site;
  - saline material and saline water management on site;
  - reporting procedures, including the preparation of a salt balance for each calendar year; and
- describes the measures that would be implemented to minimise short term and long term discharge of saline water from the site;

(iii) Surface Water Management Plan, that includes:
- detailed baseline data on water flows and quality in the waterbodies that could be affected by the development;
- a detailed description of the water management system on site;
- detailed plans, including design objectives and performance criteria, for the:
  - Watermark Gully realignment;
  - emplacement areas for tailings, acid forming and potentially acid forming materials, and saline and sodic materials;
  - final void (see the Rehabilitation Objectives in Table 15);
- surface water assessment criteria, including trigger levels for investigating any potentially adverse impacts, for the following:
  - the water management system, including mine water storages and sediment dams;
  - surface water users supplies;
  - downstream surface water quality;
  - downstream flooding impacts; and
  - stream and riparian vegetation health;
- a program to monitor and report on:
  - the effectiveness of the water management system;
  - surface water flows and quality, stream and riparian vegetation health in the watercourses that could be affected by the development; and
  - downstream flooding impacts;
- 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;

(iv) 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;
  - final void (see the Rehabilitation Objectives in Table 15);
- groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts, for the following:
  - Upper Namoi alluvial aquifer and Permian hard rock aquifer;
  - groundwater users bores;
  - groundwater inflows to the mining operations;
  - seepage/leachate from water storages, emplacements, backfilled voids and final void; and
  - groundwater dependent ecosystems;
- a program to monitor and report on:
  - groundwater inflows to the mining operations, including monitoring bores both in the vicinity of the mining pits and more distant on the edges of the alluvium;
  - the seepage/leachate from water storages, emplacements, backfilled voids and final void;
  - background changes in groundwater yield/quality against mine-induced changes;
  - impacts of the development on:
    - regional and local (including alluvial) aquifers;

- groundwater supply of potentially affected landowners; and
- groundwater dependent ecosystems and riparian vegetation; and
- post-mining groundwater recovery, with monitoring to continue for at least 10 years following completion of mining operations;

- a plan to respond to any exceedances of the groundwater assessment criteria, and mitigate any adverse groundwater impacts of the development;

(v) a program to validate the water balance, salt balance, surface water model and groundwater model for the development every 3 years, and compare against monitoring results with modelled predictions; and

(vi) a protocol that has been prepared in consultation with the owners of any nearby mines to:

- minimise cumulative water quantity and quality impacts;
- review opportunities of water sharing between the mines;
- co-ordinate water quality monitoring programs where practicable;
- undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and
- co-ordinate modelling programs for validation, re-calibration and re-running of water models.

BIODIVERSITY

Biodiversity Offset Strategy

27. The Applicant shall implement the biodiversity offset strategy described in the EIS, summarised in Table 12 and shown conceptually in Appendix 6, to the satisfaction of the Secretary.

Table 12: Summary of the biodiversity offset strategy

Area	Offset Name	Minimum Size hectares (ha)
On-site Offsets	Mt Watermark Offset Area	296
	Offset Area 6	2,003
	Mooki River Offset Area	44
	Rehabilitation Area Offset	2,384
Off-site Offsets	Barraba Offset Area	2,878
	Mt Erin and Glendowda Offset Area	3,581
Indirect Offsets	Koala Research Project	n/a
	Box Gum Woodland Restoration Research Project	n/a
	Landcare Namoi Biodiversity Habitat Restoration Project/s	n/a
Total Area		***11,186***

The indirect offsets identified in Table 12 must be fully defined in the Biodiversity Management Plan (see condition 32). The research projects may be undertaken as a standalone peer reviewed research project, or via a contribution to an existing research project. The Landcare habitat restoration project/s is to be undertaken as a contribution to an existing or planned Landcare project/s.

Notes:

- *To identify the areas referred to in Table 12, see the applicable figures in Appendix 6.*
- *The Mt Erin and Glendowda Offset Area comprises a total area of 4,095 hectares, however 514 hectares is to remain in agricultural production (see condition 51).*

28. Prior to the commencement of mining operations, unless otherwise agreed by the Secretary, the Applicant shall revise the biodiversity offset strategy to identify an additional offset for the Grey Box Grassy Woodland EEC, in consultation with DOE and to the satisfaction of the Secretary. The offset area shall be of equal or greater in size than that determined by the NSW Biodiversity Banking and Offsets Scheme methodology, and must achieve the outcomes required by the EPBC Act *Environmental Offsets Policy 2012* (or subsequent published revisions) and user guide.

Threatened Species

29. The Applicant shall ensure that the biodiversity offset strategy and/or the rehabilitation strategy for the development focus on the re-establishment of:

(a) Box Gum Woodland EEC/CEEC, including:

- White Box Grassy Woodland;
- Blakely's Red Gum Grassy Woodland;
- Yellow Box Grassy Woodland;
- White Box/Yellow Box/Blakely's Red Gum Woodland;

(b) Inland Grey Box Grassy Woodland EEC;
(c) Weeping Myall Woodland EEC;
(d) Fuzzy Box Woodland EEC; and
(e) potential Koala habitat (see condition 30); and
(f) habitat for other threatened flora and fauna species.

Koala Habitat

30. The Applicant shall ensure that the biodiversity offset strategy and/or the rehabilitation strategy for the development establishes the potential koala habitat areas described in the EIS and summarised in Table 13, to the satisfaction of the Secretary.

Table 13: Koala habitat areas

Area	Offset Name	Minimum Potential Koala Habitat Area (ha)		Total (ha)
		Existing	Revegetation/ Rehabilitation	
On-site Offsets	Mt Watermark Offset Area	192	47	239
	Offset Area 6	874	1,112	1,986
	Mooki River Offset Area	-	44	44
	Rehabilitation Area Offset	-	2,357	2,357
Off-site Offsets	Barraba Offset Area	-	-	-
	Mt Erin and Glendowda Offset Area	2,649	884	3,533
Total (ha)		***3,715***	***4,444***	***8,159***

Notes: To identify the areas referred to in Table 13, see the applicable figures in Appendix 6.

Long Term Security of Offsets

31. The Applicant shall make suitable arrangements to protect the offset areas in perpetuity:
(a) by the end of December 2014 unless the Secretary agrees otherwise, for all On-site and Off-site Offsets in Table 12 excluding the Rehabilitation Area Offset;
(b) within 6 months of identifying the additional offset required under condition 28, for the additional Grey Box offset area; and
(c) by the end of June 2046 unless the Secretary agrees otherwise, for the Rehabilitation Area Offset in Table 12,
to the satisfaction of the Secretary.

Biodiversity Management Plan

32. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
(a) be prepared in consultation with OEH and DPI, and be submitted to the Secretary for approval prior to the commencement of any development on site;
(b) describe the short, medium, and long term measures that would be implemented to:
- manage the remnant vegetation and fauna habitat on the site;
- implement the biodiversity offset strategy;
- establish and/or maintain the potential koala habitat areas identified in Table 13;
- integrate the implementation of the biodiversity offset strategy to the greatest extent practicable with the rehabilitation of the site;

(c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
(d) include a detailed description of the measures that would be implemented over the next 3 years for:
- enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas;
- creating native vegetation and fauna habitat in the biodiversity offset areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);

- maximising the salvage of resources within the approved disturbance area - including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity offset areas or rehabilitation area;
- collecting and propagating seed;
- protecting vegetation and fauna habitat outside the approved disturbance area on-site;
- minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
- managing any potential conflicts between the proposed enhancement works in the biodiversity offset strategy areas and any Aboriginal heritage values (both cultural and archaeological) in these areas;
- managing salinity using best practice dryland salinity management revegetation measures;
- controlling weeds and feral pests;
- controlling erosion;
- managing grazing and agriculture on site;
- controlling access; and
- bushfire management;

(e) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;

(f) 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; and

(g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Koala Technical Working Group

32A. The Applicant shall establish and maintain a Koala Technical Working Group for the development to the satisfaction of the Secretary. This group must:

(a) be established in consultation with OEH and Council, and comprise a range of koala experts from government, the scientific community and local wildlife and/or veterinary practices, whose appointment has been approved by the Secretary;

(b) be established prior to the commencement of any development on site;

(c) meet at least twice a year; and

(c) provide advice on project-related koala management issues, including:

- preparation and implementation of the Koala Plan of Management (see condition 33 below);
- establishment and maintenance of koala habitat areas in the biodiversity offset areas and key koala corridors (see condition 30),
- koala monitoring (see condition 33);
- koala translocation; and
- koala incident risk mitigation and management.

Note: The Koala Technical Working Group is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.

Koala Plan of Management

33. The Applicant shall prepare and implement a Koala Plan of Management for the development to the satisfaction of the Secretary. This plan must:

(a) be prepared by suitably qualified, experienced koala experts whose appointment has been approved by the Secretary in consultation with OEH, ~~and~~ Council and the Koala Technical Working Group (see condition 32A);

(b) be submitted to the Secretary for approval prior to the commencement of any development on site;

(c) be prepared generally in accordance with SEPP 44, the accompanying guidelines provided in *Circular B35 - State Environmental Planning Policy 44 - Koala Habitat Protection*, the *Gunnedah Comprehensive Koala Plan of Management*, the *NPWS Policy and Procedure Statement No. 9 – Policy for the Translocation of Threatened Fauna in NSW* and the draft koala plan of management in the EIS;

(d) include detailed performance and completion criteria for evaluating the performance of the plan, and triggering remedial action (if necessary);

(e) include detailed information on:

(i) baseline data on the resident koala population and potential koala habitat on site and in the biodiversity offset areas and release areas, as well as information on koala distribution in the surrounding region;

(ii) identification of direct and indirect threats to koalas and potential koala habitat on site and in the biodiversity offset areas and release areas;

(iii) measures to mitigate and manage the identified impacts on koalas, including:

- progressive clearing in the project disturbance area;
- early revegetation of potential koala habitat species in the biodiversity offset areas and the key koala corridors;

- speed limits, signage and fencing on roads in key koala habitat and movement areas;
- the proposed rail corridor underpass;
- pest and weed management;
- provision of water stations and other measures to assist in drought periods;
- koala management awareness training for site personnel; and
- a detailed Koala Translocation Management Plan;

(f) include a program to monitor:
- resident koala health, distribution and population size on site and in the biodiversity offset areas;
- translocated koala health and distribution;
- existing and revegetated potential koala habitat; and
- koala-related incidents and injuries;

(g) detail the implementation of the Applicant's commitments to indirect koala mitigation measures, which must include measures of at least equivalence to those identified in the EIS (see notes below);

(h) identify the potential risks to the successful implementation of the plan, and include a description of the contingency measures that would be implemented to mitigate against these risks; and

(i) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Notes:

- *The Koala Plan of Management should be integrated as far as practicable with the Biodiversity Management Plan.*
- *The key koala corridors are shown on the figure in Appendix 7.*
- *With regard to indirect koala mitigation measures, the EIS identified a contribution of $180,000 ($60,000 / year) over the 3 year life of the Australian Research Council (ARC) Linkage Project. The Department acknowledges that this project is yet to be confirmed.*

Conservation Bond

34. Within 3 months of the approval of the Biodiversity Management Plan, unless otherwise agreed by the Secretary, 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 of the bond shall 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 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 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 arrangements for long-term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.*

HERITAGE

Protection of Aboriginal Heritage Items

35. 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 project disturbance area.

Note: Identified Aboriginal heritage items are listed in Appendix 8.

Heritage Conservation Areas

36. The Applicant shall implement the heritage conservation strategy described in the EIS, summarised in Table 14 and shown conceptually in Appendix 8, to the satisfaction of the Secretary.

Table 14: Summary of the heritage conservation strategy

Area	Minimum Size hectares (ha)
Watermark Gully Conservation Area	166
Mooki River Conservation Area	41

Note: To identify the areas referred to in Table 14, see the applicable figure in Appendix 8.

Long Term Security of Heritage Conservation Areas

37. Within 12 months of approval of the Heritage Management Plan, unless the Secretary agrees otherwise, the Applicant shall make suitable arrangements to protect the heritage conservation areas in Table 14 in perpetuity to the satisfaction of the Secretary.

Notes:
- *The location of the conservation areas are shown in the figure in Appendix 8.*
- *The protection of the Aboriginal heritage conservation area/s may be combined with the protection of the biodiversity offset areas required under condition 27 of this consent.*

Heritage Management Plan

38. 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 OEH, Aboriginal stakeholders (in relation to the management of Aboriginal heritage) and local historical organisations (in relation to the management of historic heritage);
   (c) be submitted to the Secretary for approval prior to the commencement of any development on site;
   (d) include a description of the measures that would be implemented for:
      - managing the discovery of human remains or previously unidentified heritage items on site; and
      - 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;
   (e) include the following for the management of Aboriginal heritage:
      - a detailed plan of management for the Watermark Gully and Mooki River conservation areas;
      - a description of the measures that would be implemented for:
         - protecting, monitoring and/or managing (including any proposed archaeological investigations and/or salvage measures) the heritage items identified in the table in Appendix 8;
         - managing the discovery of previously unidentified Aboriginal heritage items on site;
         - conserving the heritage items outside the project disturbance area (see Appendix 8);
         - relocating the two axe grinding grooves sites within the project disturbance area (ie. WM-GG1-11 and WM-GG3-12), and protecting the axe grinding grooves site outside the project disturbance area (ie. WM-GG2-11) from blasting and project-related impacts;
         - additional independent review of the origin of the potential scarred trees within the project disturbance area;
         - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site, the Aboriginal heritage conservation areas and the biodiversity offset areas;
         - ongoing research to interpret the known and unknown distribution of Aboriginal sites across the site and surrounding area;
         - ongoing consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on site, within Aboriginal heritage conservation areas and the biodiversity offset areas; and
      - a strategy for the storage of heritage items salvaged on site, both during the development and in the long term;
   (f) include the following for the management of historic heritage:
      - detailed conservation management plans for Farm Complex 3 – The Wilgas and Farm Complex 7 – Inverness; and
      - a description of the measures that would be implemented for:
         - photographic and archival recording of all heritage items identified in the table in Appendix 9;
         - archaeological test excavation and salvage of the 10 heritage items within the project disturbance area; and

- protecting the other heritage items outside the project disturbance area (including the Watermark Public School site).

TRANSPORT

Monitoring of Coal Transport

39. The Applicant shall:
    (a) keep accurate records of the:
        - amount of coal transported from the site (on a monthly basis);
        - date and time of each train movement generated by the development; and
    (b) make these records available on its website at the end of each calendar year.

Breeza Local Roads

40. The Applicant shall use all reasonable endeavours to ensure that no project-related traffic uses local roads in the Breeza urban area to get to or from the site, except in an emergency to avoid the loss of lives, property and/or environmental harm.

    This condition applies to all local roads in Breeza village (including Maitland St, Hogarth St and associated intersections), but does not apply to any employees that may reside in Breeza village, or to the infrequent use of the roads for consultation, environmental monitoring, and inspection and maintenance of nearby infrastructure.

Traffic Management

41. The Applicant shall:
    (a) prepare and implement the following plans, strategies and programs, in consultation with the nominated authorities and to the satisfaction of the Secretary, prior to the commencement of any development on site:
        (i) construction traffic management plan, in consultation with RMS and Council, including specific measures to manage the site access via Court Lane prior to the completion of the Mine Access Road;
        (ii) road closure management strategy, in consultation with Council, detailing procedures and timing for the permanent road closures required for the development;
        (iii) Breeza local roads strategy, in consultation with Council, detailing measures for preventing project-related traffic from using Breeza's urban area roads, including engineering measures, contractual obligations and awareness training; and
        (iv) traffic monitoring program, in consultation with Council and Liverpool Plains Shire Council, to determine the proportion of project-related traffic on Bulunbulun Road for the purposes of making the road maintenance contributions required under condition 42;
    (b) construct the Kamilaroi Highway deviation, Mine Access Road / Kamilaroi Highway intersection and Kamilaroi Highway road overpass to the satisfaction of the RMS, prior to the commencement of any construction works other than those associated with site establishment, bulk earthworks, infrastructure supply or other works approved in the construction traffic management plan;
    (c) upgrade the Bulunbulun Road / Werris Creek Road intersection to a CHR(S) (channelised right-turn with a short turn bay) to the satisfaction of Liverpool Plains Shire Council, prior to the commencement of mining operations on site (or other timing as may be agreed with Liverpool Plains Shire Council); and
    (d) construct the Cull Road / Werner Road / Clift Road alternative route to the satisfaction of Council, prior to undertaking any mining operations in the Southern Mining Area.

Road Maintenance

42. Prior to the commencement of any development on site, unless the Secretary agrees otherwise, the Applicant shall enter into road maintenance agreements with Gunnedah Shire Council and Liverpool Plains Shire Council to provide contributions towards the maintenance of Bulunbulun Road relative to the proportion of project-related traffic on the road. The agreements shall be generally in accordance with the terms in Appendix 12.

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

VISUAL

Operating Conditions

43. The Applicant shall:
    (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;

(b) minimise the lighting impacts of the development on Siding Springs Observatory, and monitor lighting levels in consultation with AAO;
(c) ensure no fixed outdoor lights shine directly above the horizontal or above the building line or any illuminated structure;
(d) ensure no in-pit mobile lighting rigs shine directly above the pit wall and other mobile lighting rigs do not shine directly above the horizontal;
(e) 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;
(f) maintain the tree screening required under condition 45 until maturity; and
(g) take all reasonable and feasible measures to shield views of mining operations from users of public roads and privately-owned residences,

to the satisfaction of the Secretary.

Additional Visual Impact Mitigation

44. Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on-site during the development, the Applicant shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of the mining operations and infrastructure from the residences on the privately-owned land.

These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe.

If the Applicant and the owner 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.

Notes:

- *The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties.*
- *The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (ie. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts).*
- *Except in exceptional circumstances, the Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 7.5 kilometres from the mining operations.*

45. Prior to commissioning the Mine Access Road, the Applicant shall implement tree screening along visually impacted sections of the Kamilaroi Highway and local roads (including Clift Road, The Dip Road and Nea Siding Road), in accordance with a tree screening plan that has been prepared in consultation with Council and RMS and to the satisfaction of the Secretary.

BUSHFIRE MANAGEMENT

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

WASTE

47. The Applicant shall:
(a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;
(b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
(c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.

REHABILITATION

Rehabilitation Objectives

48. The Applicant shall rehabilitate the site to the satisfaction of DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS (and depicted conceptually in the figure in Appendix 10), and comply with the objectives in Table 15.

Table 15: Rehabilitation objectives

Feature	Objective
Mine site (as a whole)	Safe, stable and non-polluting Constructed landforms drain to the natural environment (excluding the final void) Constructed landforms to mimic natural landforms (including landform micro-relief) as far as practicable Minimise long term groundwater seepage zones Minimise visual impact of final landforms as far as is reasonable and feasible
Final void	Minimise the size and depth of the final void and its drainage catchment as far as is reasonable and feasible, subject to meeting the objectives below Size and depth of the final void must be designed having regard to its function as a long-term groundwater sink Minimise risk of overflow or flood interaction for all flood events up to and including the Probable Maximum Flood level Negligible high wall instability risk
Surface infrastructure	To be decommissioned and removed, unless DRE agrees otherwise
Agriculture	Restore or maintain land capability generally as described in the EIS and shown conceptually in Appendix 10, including at least: • 351 hectares of Class II land capability; and • 3,233 hectares of Class III land capability Establish at least 100 hectares of BSAL Return at least 1,000 hectares of land within the project disturbance area to agricultural land use
Woodland areas and other vegetated land	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems that is comprised of at least: • 1,975 hectares of Box Gum Woodland; • 46 hectares of Inland Grey Box Grassy Woodland; • 36 hectares of Fuzzy Box Woodland; and • 327 hectares of these or other woodland communities Establish areas of self-sustaining: • aquatic habitat, within the diverted creek lines and retained water features; • habitat for threatened flora and fauna species; and • koala and wildlife corridors, generally as shown on the figure in Appendix 7
Community	Ensure public safety Minimise adverse socio-economic effects associated with mine closure

Progressive Rehabilitation

49. The Applicant shall rehabilitate the site progressively 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 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

50. The Applicant shall prepare and implement a Rehabilitation Management Plan for the development to the satisfaction of DRE. This plan must:
(a) be prepared in consultation with the Department, NOW, OEH, DPI, Council and the CCC;
(b) be submitted to DRE for approval prior to the commencement of any development on site under this consent, unless the Secretary agrees otherwise;

(c) be prepared in accordance with any relevant DRE guideline;
(d) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy;
(e) include a detailed soil balance for the development;
(f) include a detailed plan for reinstatement and review of the proposed:
- agricultural land capability across the site, including a protocol for periodic trials to demonstrate that the land capability is being achieved;
- BSAL, including a protocol for verification of the land as BSAL;
- woodland areas and potential koala habitat;

(g) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
(h) 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;
(i) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
(j) 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
(k) build to the maximum extent practicable on the other management plans required under this consent.

AGRICULTURE

51. The Applicant shall use its best endeavours to ensure that the agricultural productivity and production of non-operational project-related land is maintained or enhanced.

This includes properties primarily used for agriculture that are acquired by the Applicant due to noise and/or air quality impacts. However, it does not include land:
- where disturbance is permitted under the conditions of this consent; or
- that forms part of the biodiversity offset strategy, except for the area of existing and/or historical agricultural land in the Mt Erin and Glendowda Offset Area.

Note: The area of existing and/or historical agricultural land in the Mt Erin and Glendowda Offset Area totals approximately 514 hectares, and is shown in red hatching (marked 'Agricultural Land to Remain') on the applicable figure in Appendix 6.

SCHEDULE 4
ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Within 2 months of this consent, the Applicant shall:
   (a) 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 acquire their land at any stage during the development;
      - the residences listed in Table 2 of schedule 3 that they have the right to request the Applicant to ask for additional noise and/or dust mitigation measures to be installed at the residence at any stage during the development; and
      - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;

   (b) notify the tenants of any mine-owned land of their rights under this consent; and
   (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the development.

2. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Applicant, the Applicant shall:
   (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
   (b) advise the prospective tenants of the rights they would have under this consent,

   to the satisfaction of the Secretary.

3. As soon as practicable after obtaining monitoring results showing:
   (a) an exceedance of any relevant criteria in schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and
   (b) an exceedance of the relevant air quality criteria in schedule 3, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

4. If an owner 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 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 a copy of the independent review.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall 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 and air quality mitigation measures in condition 2 of schedule 3;

(b) the reasonable costs associated with:
- relocating within the Gunnedah or Liverpool Plains local government areas, 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 will 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 shall 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 shall 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.

6. The Applicant shall pay all reasonable costs associated with the land acquisition process described in condition 5 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 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 consent; 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 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 shall 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 and meet best management practice standards;
   (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 June each year, or as otherwise agreed by 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 7 below;
   (c) the submission of an audit under condition 9 below; or
   (d) any modification to the conditions of this consent (unless the conditions require otherwise),

   the Applicant shall 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.

Community Consultative Committee

6. The Applicant shall operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and be operating by the end of September 2014.

   The CCC should include representatives from both Gunnedah Shire Council and Liverpool Plains Shire Council, if available.

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

REPORTING

Incident Reporting

7. The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the development, the Applicant shall notify the Secretary and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

8. The Applicant shall 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

9. By the 30 June 2017, 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 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, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);
   (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, noise, air quality, ecology, and any other fields specified by the Secretary.

10. Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

11. 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;
      - minutes of CCC meetings;
      - minutes of Koala Technical Working Group meetings;
      - the last five annual reviews;
      - any independent environmental audit, and the Applicant's response to the recommendations in any audit; and
      - any other matter required by the Secretary;
   (b) keep this information up to date, and
   (c) investigate and report on reasonable and feasible measures to make predictive meteorological data and real time monitoring data publicly available on its website,

   to the satisfaction of the Secretary.

APPENDIX 1
SCHEDULE OF LAND

Lot	DP	Lot	DP
1	1159457	53	755514
1	722523	54	755514
2	722523	55	755514
178	755477	56	755514
1	1152245	58	755486
1	114960	59	755486
1	205657	61	755514
1	250019	73	755486
1	390666	76	755486
1	533460	77	755486
1	800019	78	755486
1	829331	88	755477
2	114901	89	755477
2	205657	99	755477
2	350472	106	755477
2	533460	109	755477
2	633273	110	755477
2	751015	116	755477
2	1152245	117	755477
2	800019	2	1159457
3	205657	125	755477
4	1130609	127	755477
5	114901	128	755477
6	114901	129	755477
7	114901	144	755477
7	755514	155	755477
8	114901	156	755477
8	755514	172	755477
9	114901	173	755477
9	755514	176	755477
17	114901	199	755477
18	114901	540	1028326
20	114901	541	1028326
40	755514	A	188131
41	755514	A	370032
42	755514	B	188131
43	755514	B	370032
45	755477	O	381599
45	755514	P	381598
46	755477	106	665832
47	755477	131	755477
50	755514	7012	92765
51	664450	7021	1054355

Note: The cadastral information for the lands to which the application applies was sourced from the NSW LPI records database in September 2012.

APPENDIX 2
GENERAL LAYOUT OF DEVELOPMENT

Figure 2A: *General Project Layout*

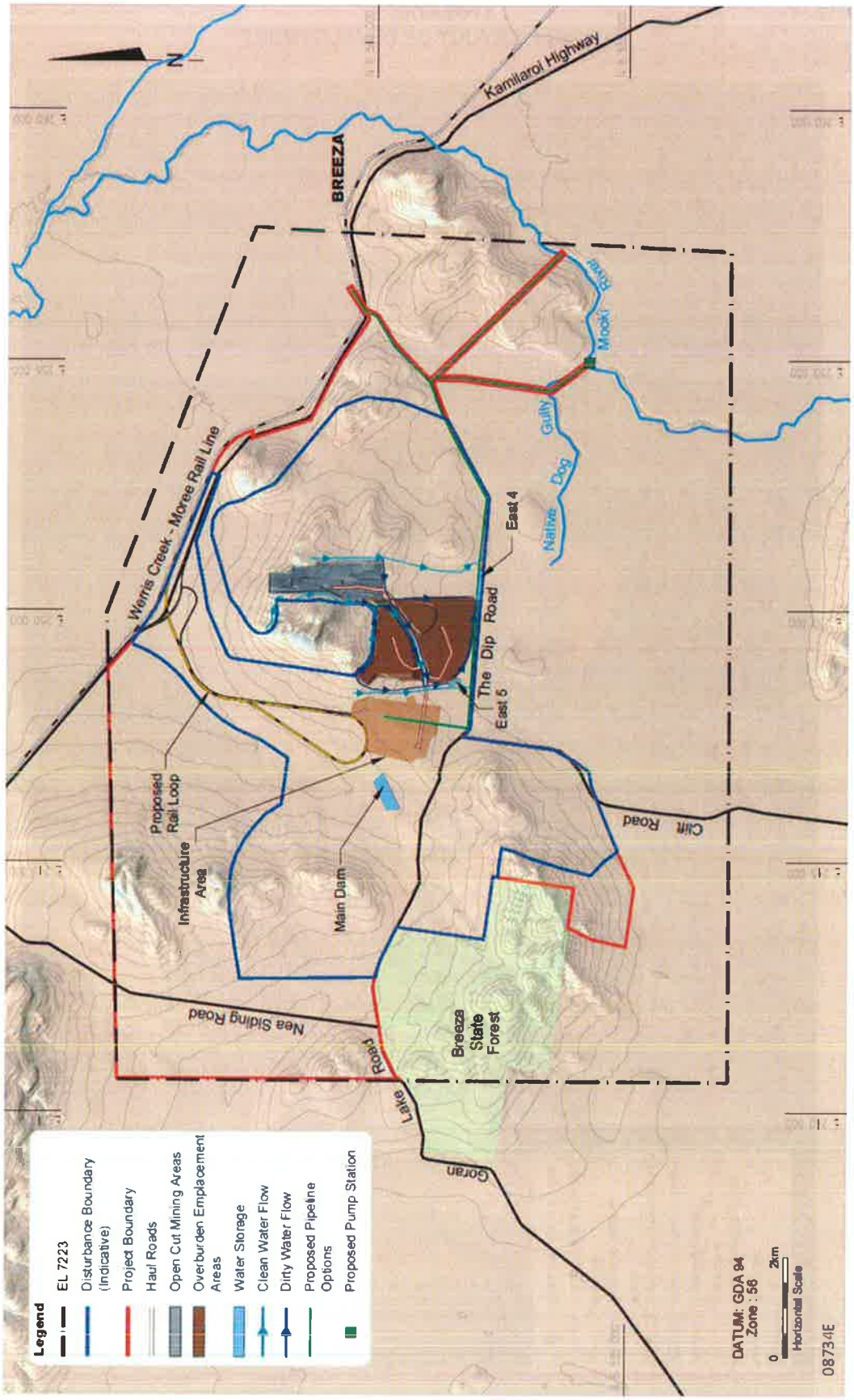

Figure 2B: *Year 2 Mine Plan*

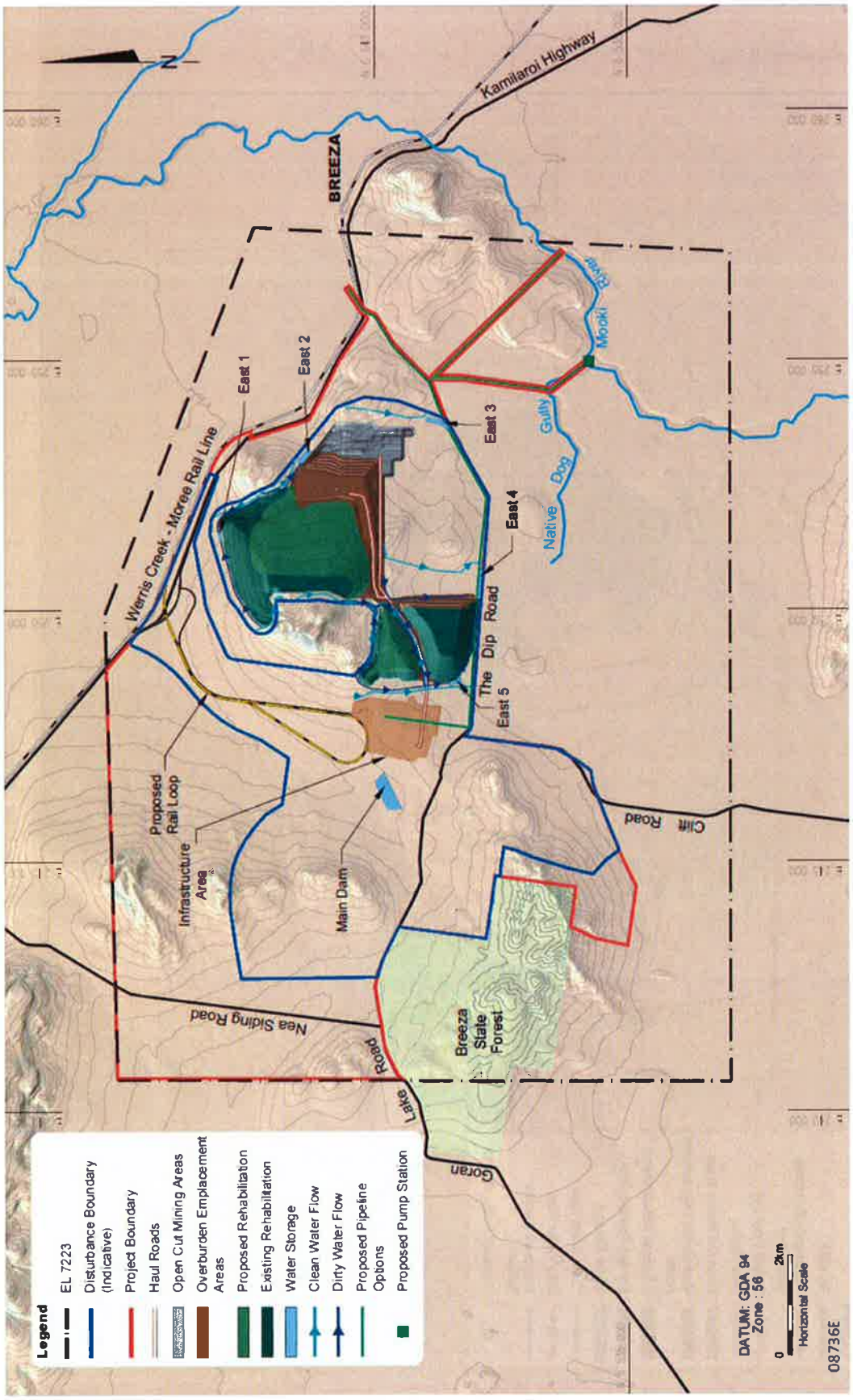

Figure 2C: *Year 10 Mine Plan*

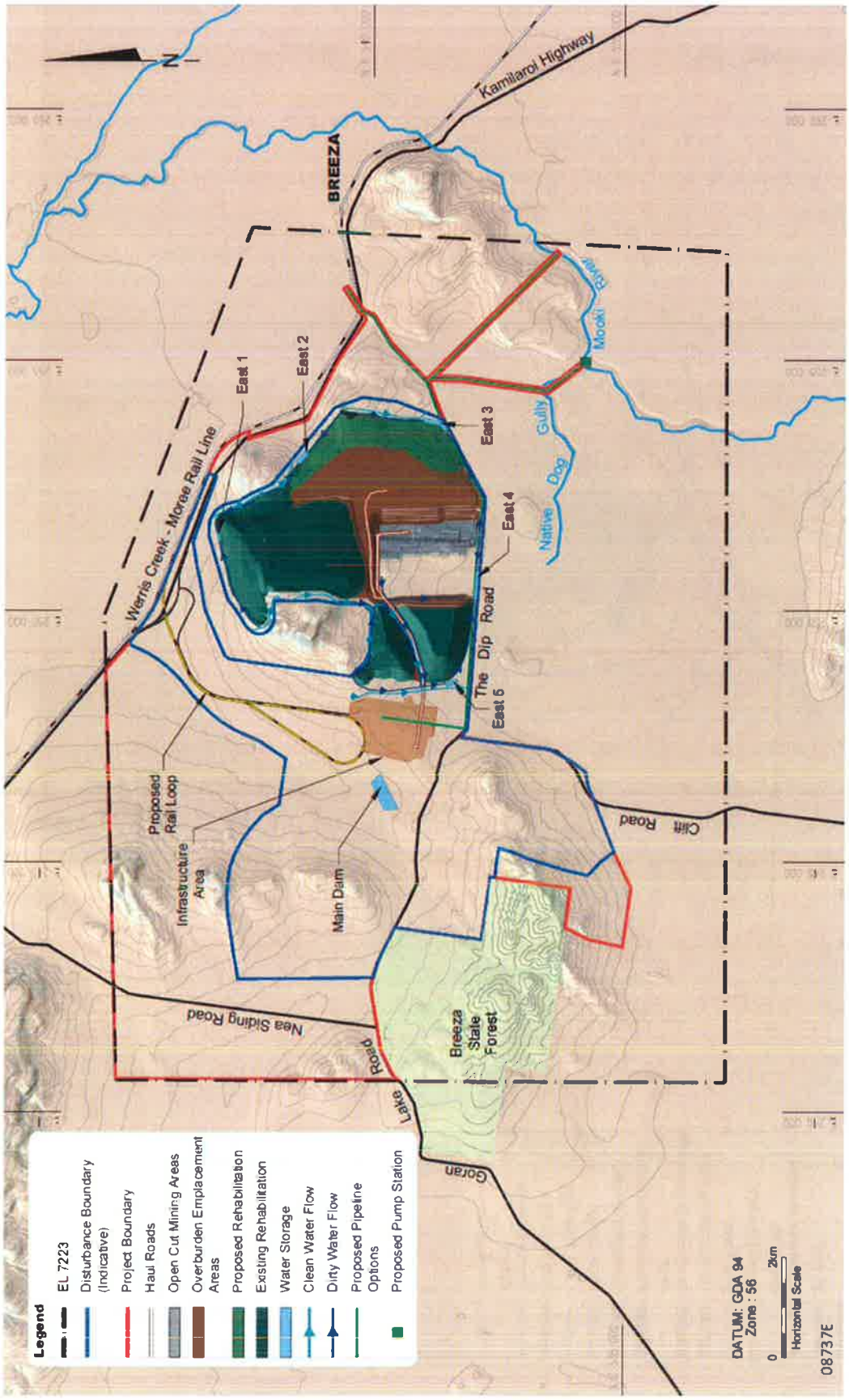

Figure 2D: *Year 15 Mine Plan*

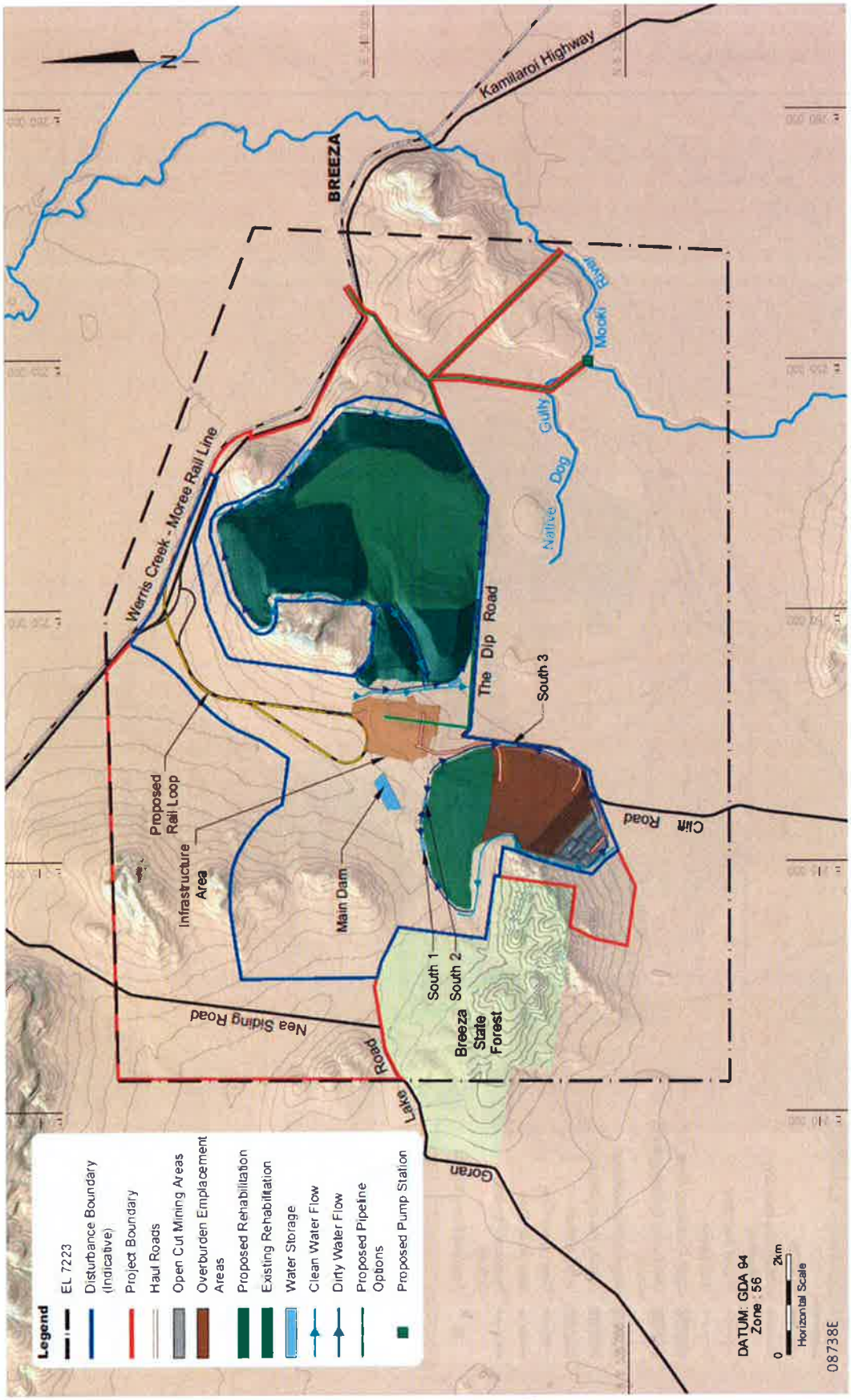

Figure 2E: *Year 21 Mine Plan*

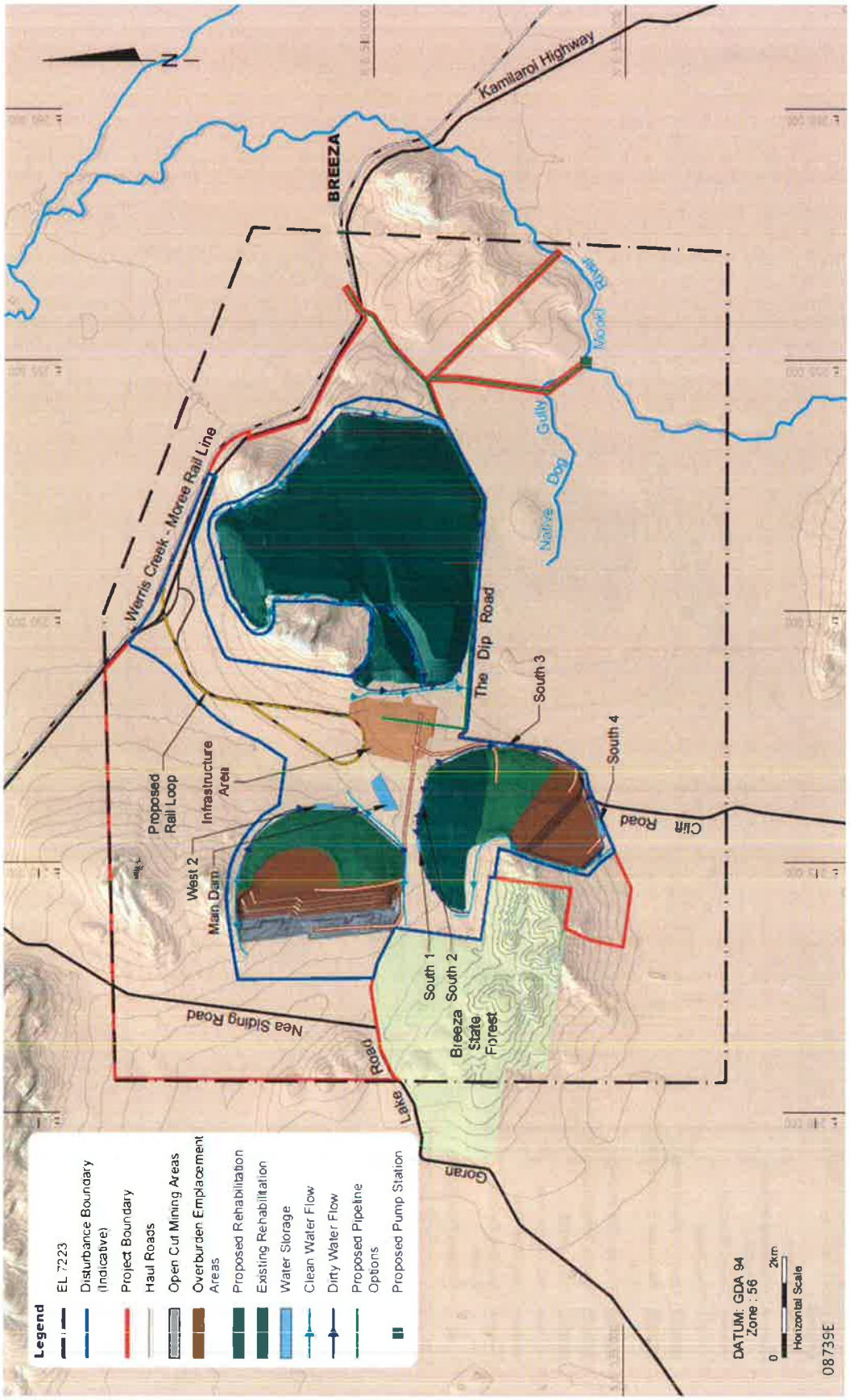

Figure 2F: *Year 25 Mine Plan*

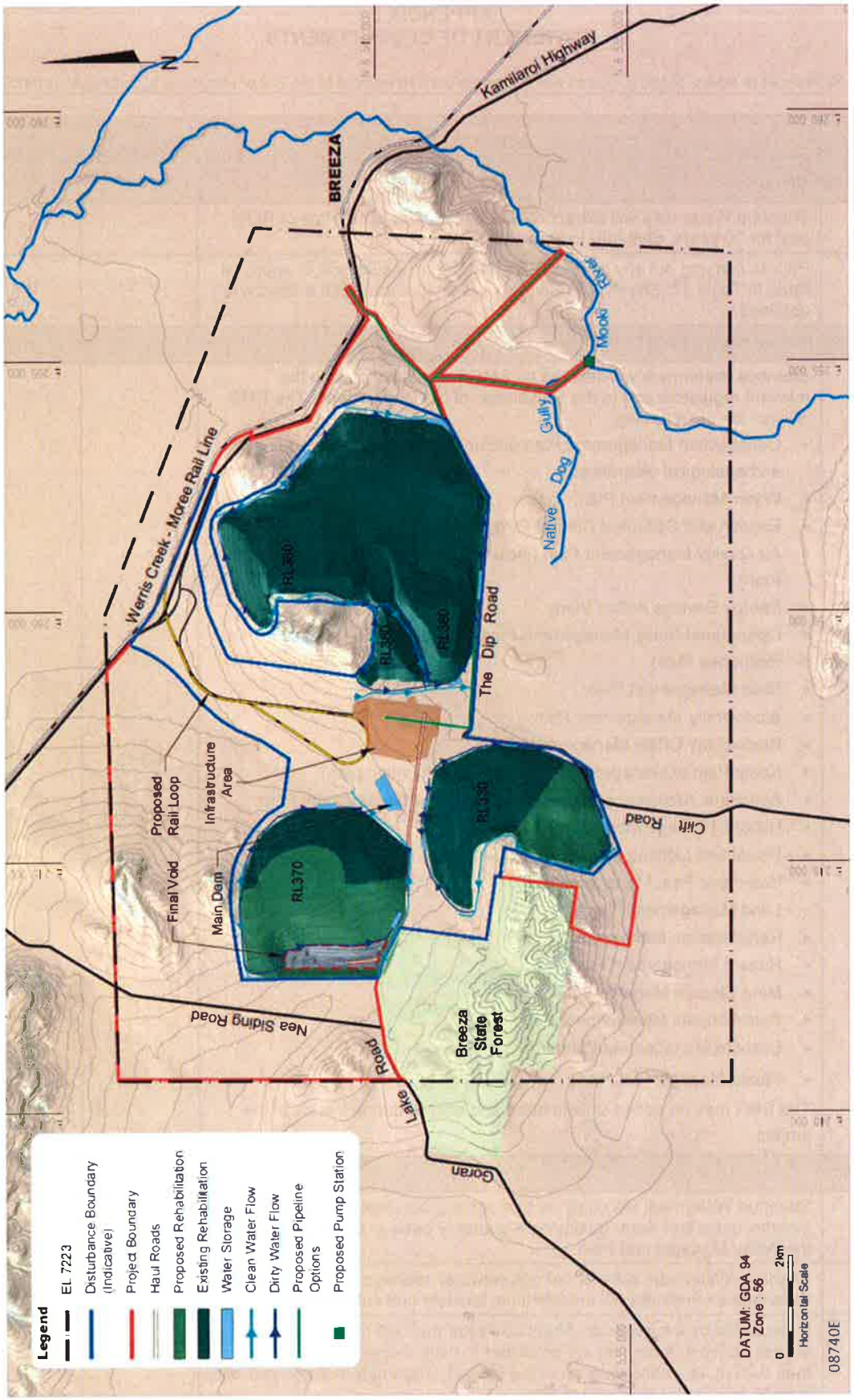

Figure 2G: *Year 30 Mine Plan*

APPENDIX 3
STATEMENT OF COMMITTMENTS

Note: References to tables, sections, figures and appendices are references to the EIS or Response to Submissions (RTS).

Ref.	Item	RTS Section	EIS Section
Mining Operations			
1.	Shenhua Watermark will extract coal at a rate of up to 10 Mtpa of ROM coal for 30 years, generally in accordance with this EIS.		3
2.	Prior to carrying out any development that requires a licence or approval listed in Table 12, Shenhua Watermark will ensure that such a licence is obtained.		4.8
Environmental Management			
3.	Shenhua Watermark will develop an EMS in consultation with the relevant regulators and to the satisfaction of the Department. The EMS will include the following: • Construction Management Plan (including noise and any required archaeological clearances); • Water Management Plan; • Erosion and Sediment Control Plan; • Air Quality Management Plan (including a Trigger Action Response Plan); • Energy Savings Action Plan; • Operational Noise Management Plan (including a Trigger Action Response Plan); • Blast Management Plan; • Biodiversity Management Plan; • Biodiversity Offset Management Plan; • Koala Plan of Management (including translocation plan); • Aboriginal Archaeology and Cultural Heritage Management Plan; • Historic Heritage Management Plan; • Visual and Lighting Management Plan; • Weed and Pest Management Plan; • Land Management Plan; • Rehabilitation Management Plan; • Hazard Management Plan; • Mine Closure Management Plan; • Social Impact Management Plan; • Bushfire Management Plan; and • Waste Management Plan. The EMS may be added to, amended and altered during the life of the project.	4.3.15	7
Water			
4.	Shenhua Watermark will continue to monitor groundwater levels on a monthly basis and water quality on a quarterly basis in accordance with the Water Management Plan.		7.1.4
5.	Shenhua Watermark will monitor groundwater seepage into mining areas. Parameters monitored will include time, location and volume of flow.		7.1.4
6.	If requested by a landowner, Shenhua Watermark will monitor any licensed private bores that are predicted to have a drawdown of greater than 0.25 m as a consequence of the Project. Parameters monitored will include flow, water level and quality.		7.1.4

Ref.	Item	RTS Section	EIS Section
7.	Shenhua Watermark will obtain all necessary water licences for the Project, as required during the life of the Project.	4.2 and 4.3	7.1.4
8.	The Water Management System will be managed generally in accordance with the EIS and in accordance with the Water Management Plan.		7.3.4
9.	Shenhua Watermark will monitor surface water quality in accordance with the Water Management Plan.		7.3.4
10.	The Erosion and Sediment Control Plan will incorporate control measures to separate runoff from disturbed and undisturbed areas and to treat runoff from disturbed areas.		7.3.4
11.	The rehabilitated OEA will include the relevant sediment and erosion controls to maintain the water quality of the existing environment.		7.3.4
Geomorphology			
12.	Erosion controls will be established on the river bank in the vicinity of the pump station(s) on the Mooki River as per the Sediment and Erosion Control Management Plan.		7.5.4
13.	The Water Management Plan will include a Channel Diversion Plan for the portion of Watermark Gully directly affected by the Western Mining Area.		7.5.4
14.	Temporary and permanent vehicle crossings will be appropriately designed and constructed over straight portions of waterways to minimise the risk of erosion.		7.5.4
15.	Vehicle crossings will be designed and constructed in a manner to avoid impeding on watercourse flows and to minimise vegetation clearing.		7.5.4
16.	Where practicable watercourse flows will not be redirected or concentrated at crossing outlets. Where this is not possible, appropriate scour protection will be provided.		7.5.4
17.	Areas disturbed for construction activities will be revegetated as soon as practical following construction to minimise erosion.		7.5.4
18.	Shenhua Watermark will ensure that the Watermark Gully diversion will return the catchment to pre-mine development flood flow rates and velocities.	4.3.12	
Air Quality and Greenhouse Gas			
19.	In accordance with the Air Quality Management Plan Shenhua Watermark will implement the following air quality controls or other similar controls: • Use of water sprays, fabric filters, cyclone and dust aprons when drilling will be employed to deliver practical and safe operations.; • Minimisation to the extent practicable the drop heights from equipment associated with loading and dumping operations for coal and overburden; • Use of speed control signage, water carts and/or suppressants to control emissions from haul roads, working areas and ROM pad; • Delay of blasts in unfavourable weather conditions to avoid dust and blast fume emissions; • Progressive rehabilitation to minimise exposure of disturbed surfaces; • Temporary seeding of overburden areas where practical; • Application of water at the crusher and on conveyor transfer points, as required; • Enclosing conveyor transfers points, where operationally practicable and safe; • Design and construction of a partially enclosed ROM coal hopper;	4.7.11	7.6.4

Ref.	Item	RTS Section	EIS Section
	• Combined use of water, vegetative breaks and other agents at coal handling areas and stockpiles; and • The installation of a water spray / dust suppressant system at the train load out facility for use as deemed necessary.		
20.	Shenhua Watermark will implement a real-time dust monitoring and management system for PM_{10} and $PM_{2.5}$, including a predictive meteorological forecasting system.		7.6.4
21.	Shenhua Watermark will where feasible and practicable, implement the following greenhouse gas mitigation strategies: • Assist in the research and promotion of low emission coal technologies; • Improving energy use and efficiency; • Consideration of the use of alternative fuels where economic to do so. • Ensuring mining practices minimise double handling of materials and ensuring that coal and overburden haulage is undertaken using the most efficient methods; • Conduct regular reviews of haul road maintenance and materials used in main haul roads to reduce rolling resistance and decrease fuel consumption; • Ongoing scheduled and preventative maintenance to ensure that diesel and electrically powered plant operate efficiently; • Development of targets for greenhouse gas emissions and energy use and monitoring and reporting against these; • Implementation of a detailed energy monitoring program. This will include monitoring the electricity and diesel usage on-site to identify the main sources of greenhouse gas emissions and apply appropriate reduction mechanisms where possible; and • Assess lighting plant efficiency.		7.7.4
Noise			
22.	In accordance with the Operational Noise Management Plan, Shenhua Watermark will implement the following noise controls: • Fitting mobile plant with commercially available equipment modifications, to result in the lowest mobile plant sound power levels that can reasonably be achieved; • Designing the CHPP in consideration of the potential for floor, wall and roof vibration; • The CHPP will be clad with steel sheeting on all sides from approximately 4 m above the ground to the roof, with less than 15% of translucent sheeting on each wall to minimise noise transmission; • The CHPP roof will be clad with steel sheeting with no more than 20% translucent sheeting and the minimum of roof vents required to provide adequate ventilation; • Where practical and safe to do so, elevated conveyors will be enclosed; • Regularly monitor the condition of the idler bearings and repair or replace noisy bearings to maintain the adopted conveyor sound power level; • Design the points and crossovers on the rail loop and spur in		7.8.4

Ref.	Item	RTS Section	EIS Section
	consideration of wheel impact noise; and • Large radius bends will be used in the design of the rail loop and spur to minimise wheel and flange noise.		
23.	In accordance with the Operational Noise Management Plan Shenhua Watermark will implement active management of equipment operating locations during periods of strong noise enhancing weather conditions including such measures as: • Mobile machines including trucks, dozers, graders and water carts will operate on elevated and exposed sections of the OEA during the day and early evening and on lower and more shielded sections of the OEA during the sensitive night period; • In-pit haul roads will be located in acoustically shielded areas where possible; • Out of pit haul roads will be located as far from sensitive receivers and through low elevation and shielded areas where possible; • During the sensitive night periods, mining machines (excavators and shovels) will work below the natural ground level. Vegetation clearing, topsoil stripping, stockpiling and rehabilitation will be completed during the day; and • During evening and night, drilling and drill pad preparation will occur at least 6 m below the natural surface.		7.8.4
24.	In accordance with the Operational Noise Management Plan Shenhua Watermark will implement a real time noise monitoring network which is representative of the closest receivers, and will include: • A weather prediction system to identify potentially noise enhancing weather conditions up to 24 hours in advance; • A noise prediction system, linked with the weather prediction system, to provide advanced warning of potential exceedances of relevant noise criteria and advice regarding available equipment relocation options; • Real time noise monitors, of which the data will be transmitted to an onsite office or control room for monitoring and action; and • Quarterly operator attended noise monitoring at a minimum of four locations.		7.8.4
25.	Shenhua Watermark will continue to actively consult with the local community over the Project, in particular landholders affected by noise. If the Project is approved this will be primarily done via a community consultative committee.	4.9.6	
Blasting			
26.	Blasting will not occur closer than 500 m to any occupied or sensitive building or structure, unless adequate controls are implemented to minimise the risk of fly rock.		7.9.4
27.	Shenhua Watermark will provide notification of blast events prior to the blast event with establishment of appropriate signage, as required.		7.9.4
28.	Shenhua Watermark will ensure blast events will be designed to meet the relevant overpressure and ground vibration criteria.		7.9.4
29.	Shenhua Watermark will cover the grinding grooves with flexible mats, sand or other suitable materials during blast events within 500 m of the grooves to minimise risk of flyrock damage.		7.9.4
30.	Shenhua Watermark will commission a qualified geotechnical, building or		7.9.4

Ref.	Item	RTS Section	EIS Section
	engineering expert to inspect historic heritage buildings (within farm complexes 3, 7, 12, 13), owned by Shenhua Watermark and confirm ground vibration and overpressure limits for each building.		
31.	Shenhua Watermark will implement a blast monitoring program which will include: • Monitoring at sensitive receivers to ensure compliance with the relevant blast criteria; • Video recording of selected blasting events; • Three dimensional recording of the wall advance in all open cut mining areas; and • Regular inspections of the active highwall by a qualified geologist and / or geotechnical engineer to identify areas of potential instability.		7.9.4
Ecology			
32.	Shenhua Watermark will progressively rehabilitate mined areas, with an emphasis on re-establishing Box Gum woodland community.		7.10
33.	Shenhua Watermark will implement the biodiversity offset strategy outlined in this EIS for the purposes of initially maintaining and ultimately improving the ecological values of the region.		7.11
34.	In accordance with the Koala Plan of Management Shenhua Watermark will implement the mitigation and management measures for the Koala as outlined in this EIS, including: • Installation of Koala proof fencing where necessary; • Road controls; • Vertebrate pest control; • Bushfire management; • Monitoring of health during translocation; • Promotion of public education; • Encourage staged natural movement of Koalas; • Staged relocation of Koalas if required; • Habitat protection; • Habitat enhancement and revegetation (including revegetation of the Mooki River Offset Area and Onsite Biodiversity Offset Area); • Mine site rehabilitation including species favourable for Koalas; • Population monitoring (SAT method) and reporting within the Project Boundary and Offset Areas; and • Monitoring of performance against Key Performance Indicators.	4.12.2	7.10
Aboriginal Archaeology and Cultural Heritage			
35.	In accordance with the Aboriginal Archaeology and Cultural Heritage Management Plan Shenhua Watermark will complete a surface collection for 25 artefact scatters and isolated finds, which will be directly impacted by the Project, in consultation with the local Aboriginal stakeholders.		7.13.4
36.	In accordance with the Aboriginal Archaeology and Cultural Heritage Management Plan Shenhua Watermark will complete a surface collection and excavation program at two significant artefact scatter sites (WM-AS2-11 and WM-AS5-11). The program will include topographic surveys and a geomorphological assessment, followed by surface collection and test and open area excavations.		7.13.4
37.	In accordance with the Aboriginal Archaeology and Cultural Heritage Management Plan Shenhua Watermark will relocate grinding groove sites WM-GG1-11 and WM-GG3-12. The final resting location and detailed salvage methodologies for each site will be developed and outlined in the		7.13.4

Ref.	Item	RTS Section	EIS Section
	Aboriginal Cultural Heritage Management Plan.		
38.	In accordance with the Aboriginal Archaeology and Cultural Heritage Management Plan Shenhua Watermark will protect 26 sites which will be identified on site plans and fenced, where appropriate.		7.13.4
39.	In accordance with the Aboriginal Archaeology and Cultural Heritage Management Plan Shenhua Watermark will establish the Watermark Gully Aboriginal Cultural Heritage Conservation Area and the Mooki River Aboriginal Cultural Heritage Conservation Area.		7.13.4
40.	Shenhua Watermark will develop an Aboriginal Cultural Heritage Management Plan in consultation with RAPs, OEH and the Department. The plan will include: • A detailed research design for salvage methodologies; • A staged Aboriginal heritage clearance process for all areas to be disturbed; • Provision for all archaeological salvage work to be undertaken by, or under the supervision of qualified archaeologists and RAPs; • Requirements for annual monitoring of protected sites by a qualified archaeologist and RAPs; • Third party review of arborist assessment of scarred trees (as per RAPs request); • Identification of the storage location (keeping place) and procedure for the care of salvaged artefacts in accordance with the Code of Practice for Archaeological Investigation for Aboriginal Objects in New South Wales (DECCW, 2010); • Provisions to facilitate continuing access to identified non-salvaged Aboriginal archaeological sites on Figure 46 for archaeological research purposes; and • Periodic review of the Aboriginal Cultural Heritage Management Plan.		7.13.4
41.	Shenhua Watermark will continue to consult with the RAPs to develop the management measures and the Aboriginal Cultural Heritage Management Plan for the project. The consultation will be undertaken and conducted in accordance with the guiding principle of mutual respect for all cultures.		7.14.5
Historic Heritage			
42.	Historic heritage items will be managed in accordance with a Historic Heritage Management Plan developed in consultation with OEH.		7.15.4
43.	In accordance with the Historic Heritage Management Plan Shenhua Watermark will implement the following at each historic heritage site to be impacted by the Project, where appropriate: • Archival recordings, including scaled drawings and photographs, prepared in accordance with *How to Prepare Archival Records of Heritage Items* (Heritage Office, 1998) and *Photographic Recording of Heritage Items using Film or Digital Capture* (Heritage Office, 2006); • Archaeological test excavation to determine nature, extent and significance of archaeological deposits; and • Archaeological salvage, if warranted by testing.		7.15.4
44.	Shenhua Watermark will prepare a Historic Heritage Conservation Management Plan for Farm Complex 3 – The Wilgas and Farm Complex 7 – Inverness (as part of the Historic Heritage Management Plan).		7.15.4

Ref.	Item	RTS Section	EIS Section
Traffic and Transport			
45.	Shenhua Watermark will implement the following during temporary road closures associated with blasting: • The boundaries of each road closure will be positioned in clear locations; • Long-term signage will be installed at the boundaries of the road closure at key intersections; • Affected residents will be notified of temporary road closures in advance of a blast event; and • A Construction Traffic Management Plan and stage drawings will be prepared in consultation with RMS and GSC in relation to the construction of the Kamilaroi Highway realignment.		7.16.4
46.	Shenhua Watermark will also: • Implement the construction of the Kamilaroi Highway / Mine Access Road intersection in consultation with GSC and RMS as early as practicable; • Install additional signage including reduced speed, curve warnings, give way and T intersection warning (including large electronic signage) whilst the Court Lane / Kamilaroi Highway intersection is being utilised during construction; • Ensure that Project-related traffic will be discouraged from using Hogarth Street to access Breeza- Currabubula Road; and • Install signage to provide warning against short stacking risks at Hogarth Street level crossing.		7.16.4
47.	Shenhua Watermark will consult with GSC, RMS and other local authorities as necessary prior to the movement of oversize loads on public roads.		7.16.4
48.	Shenhua Watermark will commence discussions with the relevant road authorities, including RMS, with the intention of entering any required WADs for the development, adjustment, maintenance, handover and/or decommissioning of any road asset.	4.26.7	
Visual and Lighting			
49.	Shenhua Watermark will create landscape plans to establish visual and ecological landscape patterns that emulate existing forest, woodland and grassland.		7.17.5
50.	Shenhua Watermark will shape the tops of the OEAs to achieve a more natural fit with surrounding landscape as opposed to an extensive 'flat top' development.		7.17.5
51.	Shenhua Watermark will construct infrastructure in forest tones (i.e. green, grey, cream) to blend with the surrounding natural environment, as far as practical.		7.17.5
52.	Shenhua Watermark will design and limit external fixed lighting from being directed above the horizontal.		7.17.5
53.	Shenhua Watermark will use hoods on lights and ensure lights are directed away from sensitive receivers.		7.17.5
54.	Shenhua Watermark will consult with the Australian National University and the AAO during the preparation of its Visual and Lighting Management Plan.		7.17.5
55.	Where requested by the owner of a primary residence which has a moderate to high visual impacts from the Project, Shenhua Watermark will provide landscaping treatments or vegetation screens in a reasonable time frame to reduce the visual impacts. Other than in exceptional circumstances, this is not expected to be required for primary residences		7.17.5

Ref.	Item	RTS Section	EIS Section
	located more than 7.5 km from mining operations.		
56.	As described in the Visual Impact Assessment Shenhua Watermark will establish tree screens along relevant sections of Kamilaroi Highway, Clift Road, The Dip Road and Nea Siding Road.		7.17.5
57.	Shenhua Watermark will investigate whether it is reasonable and feasible to use full cut-off lighting fixtures and low colour-temperature lamps, with such consideration to take account of safety requirements.	4.17.4	
58.	Shenhua Watermark will implement policies to ensure its workforce understands the importance of good lighting practice, potential visual impacts of the Project and practical strategies to reduce light spill.	4.17.4	
Geochemical			
59.	Shenhua Watermark will confirm the occurrence and distribution of potential acid forming material via a sulphur grid / layer geological model which includes updated exploration data.		7.18.4
60.	Shenhua Watermark will selectively handle and cap potential acid forming material with non-acid forming material.		7.18.4
61.	Shenhua Watermark will implement practical site rehabilitation practices for potentially sodic materials to limit the risk of dispersion and erosion of surface materials at emplacement areas (e.g. utilise a topsoil cover as part of final rehabilitation);		7.18.4
62.	Shenhua Watermark will conduct testing as required to confirm spontaneous combustion propensity during the operations phase of the Project.		7.18.4
63.	Shenhua Watermark will monitor runoff and seepage from overburden, interburden and coal rejects on a regular basis.		7.18.4
Soils and Land Capability			
64.	Shenhua Watermark will ensure that all soil materials are stripped to levels specified in this EIS in a slightly moist condition and placed directly onto reshaped areas (i.e. to avoid the requirement for stockpiling), where practical.		7.19.4
65.	Shenhua Watermark will where practicable ensure topsoil is spread to a minimum depth of 100 mm on all re-graded spoil or disturbance areas. Topsoil will be spread, treated with fertiliser and seeded in one consecutive operation, to reduce the potential for topsoil loss to wind and water erosion.		7.19.4
66.	Where materials must be stockpiled, Shenhua Watermark will ensure that all reasonable efforts will be made to reduce compaction by keeping soil in as coarsely textured a condition as possible.		7.19.4
67.	Shenhua Watermark will ensure that any topsoil stockpiles will be a maximum of 3 m in height and if stored for greater than 12 months, seeded and fertilised and treated for weeds prior to respreading.		7.19.4
68.	Shenhua Watermark will develop and maintain an inventory of designated areas and available soil to ensure adequate topsoil and subsoil materials are available for planned rehabilitation activities.		7.19.4
69.	Shenhua Watermark will ensure thorough seedbed preparation is undertaken to ensure optimum establishment and growth of vegetation with all topsoiled areas lightly contour ripped to create a "key" between the soil and the overburden.		7.19.4
70.	Shenhua Watermark will conduct regrading where required to produce slope angles, lengths and shapes that are compatible with the land use and not prone to an unacceptable rate of erosion.		7.19.4
71.	Shenhua Watermark will implement the necessary engineered waterways, spillways and sediment control dams (using erosion blankets, ground cover vegetation and/or rip rap) to capture sediment laden runoff.		7.19.4

Ref.	Item	RTS Section	EIS Section
Agriculture			
72.	In accordance with the Rehabilitation Management Plan, Shenhua Watermark will: • Restore not less than 1,000 ha of the post-mining landform with the aim of achieving Class III rural land capability. This land will be reserved for agricultural purposes. Shenhua Watermark will monitor the success of the rehabilitated agricultural land in accordance with completion criteria. • Manage invasive species and feral animals in accordance with a Weed and Pest Management Plan; and • Enable or establish sustainable farming practices in available agricultural areas within the Project Boundary that are situated outside of the Disturbance Boundary and the onsite biodiversity offset areas.	4.19.7	7.20.5
73.	Shenhua Watermark will maintain 514 ha of existing higher quality agricultural land within the Additional Offsite Biodiversity Offset Area for continued agricultural production.	4.19	
Rehabilitation and Final Landform			
74.	In accordance with the Rehabilitation Management Plan Shenhua Watermark will: • Rehabilitate all mined areas and implement best industry standard soil management measures to minimise degradation of soil reserved for rehabilitation; • Conduct the required rehabilitation and weed/ feral animal management to ensure compliance with the preliminary rehabilitation criteria; and • Conduct the rehabilitation monitoring as specified in Section 7.21.2 of this EIS.		7.21
75.	Shenhua Watermark will contribute to and actively participate in trials and research to improve mine site rehabilitation techniques and enhance performance outcomes.		7.21
Bushfire			
76.	In accordance with the Bushfire Management Plan, Shenhua Watermark, within the project boundary will: • Induct all employees and contractors on bushfire awareness including emergency procedures and responses in event of a bushfire; • Consult with the NSW Rural Fire Service and make sure they are aware of the Koala Plan of Management and Koala offset areas for the Project; • Consult with GSC to ensure the Fire Risk Management Plan for Gunnedah LGA takes into account the location and significance of Koala habitat mapped for the Project; • Manage and monitor fuel levels, via mowing, slashing and ploughing; • Create and maintain firebreaks; • Install general purpose fire extinguishers on all mobile equipment and at other appropriate locations; • Undertake regular inspection and maintenance of all fire management equipment to ensure ongoing effectiveness; • Ensure the storage and handling of all flammable materials is	4.23	7.22.3

Ref.	Item	RTS Section	EIS Section
	conducted in accordance with a valid Dangerous Goods Licence; • Undertake internal monitoring and communication of specific fire danger risks, including hot work; and • Assist the Liverpool Range Zone Rural Fire Service by monitoring and reporting any fires, suspicious behaviour and fuel load on Shenhua owned and managed land.		
Hazards			
77.	In accordance with the Hazard Management Plan, Shenhua Watermark will: • Ensure all hazardous materials associated with the Project will be transported to and from the Project by a licensed contractor in accordance with the relevant Australian Standards and the ADG Code; • Ensure all on site storage facilities for explosives, diesel and other hazardous materials will be designed in accordance with applicable Australian Standards and legislation; • Ensure all onsite storage facilities, vehicles and transport vessels used on site are regularly inspected for leaks, spills and other damage or faults; • Ensure spill kits are available onsite on all transport vehicles used on site for carrying hazardous materials; • Ensure training is provided to onsite personnel regarding the handling and storage of hazardous materials; • Ensure all dangerous goods are securely stored onsite are fenced with restricted access and located a minimum of 200 m from other onsite facilities; and • Develop and maintain a database to assist in the recording and management of chemicals used within the Project Boundary in respect of the Project. The chemical management database will contain Material Safety Data Sheets for all chemicals used within the Project Boundary.		7.23.4
Contamination			
78.	A detailed contamination assessment will be undertaken prior to any disturbance of potential contamination risk areas identified in this EIS.		7.24.4
Waste			
79.	In accordance with the Waste Management Plan, Shenhua Watermark will: • Ensure where practicable that each major waste stream is segregated in the appropriate receptacles for recycling, reuse and / or disposal; • Ensure training is provided to onsite personnel to improve efficiency in the minimisation of waste streams, reuse and recycling options; • Ensure an independent waste contractor working within the provisions of the POEO Act will remove and report on wastes removed from the Project Boundary; and • Ensure regular inspections and monitoring will be conducted by qualified personnel to ensure adequate maintenance and operation of the on-site waste facilities.		7.25.3

Ref.	Item	RTS Section	EIS Section
Social			
80.	If the Project is approved Shenhua Watermark shall use its best endeavours to: (a) enter into negotiations with GSC, LPSC and TRC to establish a VPA in accordance with Division 6 of Part 4 of the EP&A Act; and (b) conclude this VPA on mutually agreed terms within 6 months of the date of this approval. The purpose of the VPA is to mitigate any increase in the demand for public amenities and public services within the Gunnedah, Liverpool Plains and Tamworth LGAs caused by the Project.		7.26.5
81.	Shenhua Watermark will implement the social management and mitigation measures listed in Table 82 of Section 7.26.5.		7.26.5
Reporting			
82.	Shenhua Watermark will prepare an Annual Review (which reports monitoring results and evaluates performance), to be distributed to the relevant regulatory authorities and the Watermark Community Consultative Committee.		7

APPENDIX 4
RECEIVER LOCATION PLANS

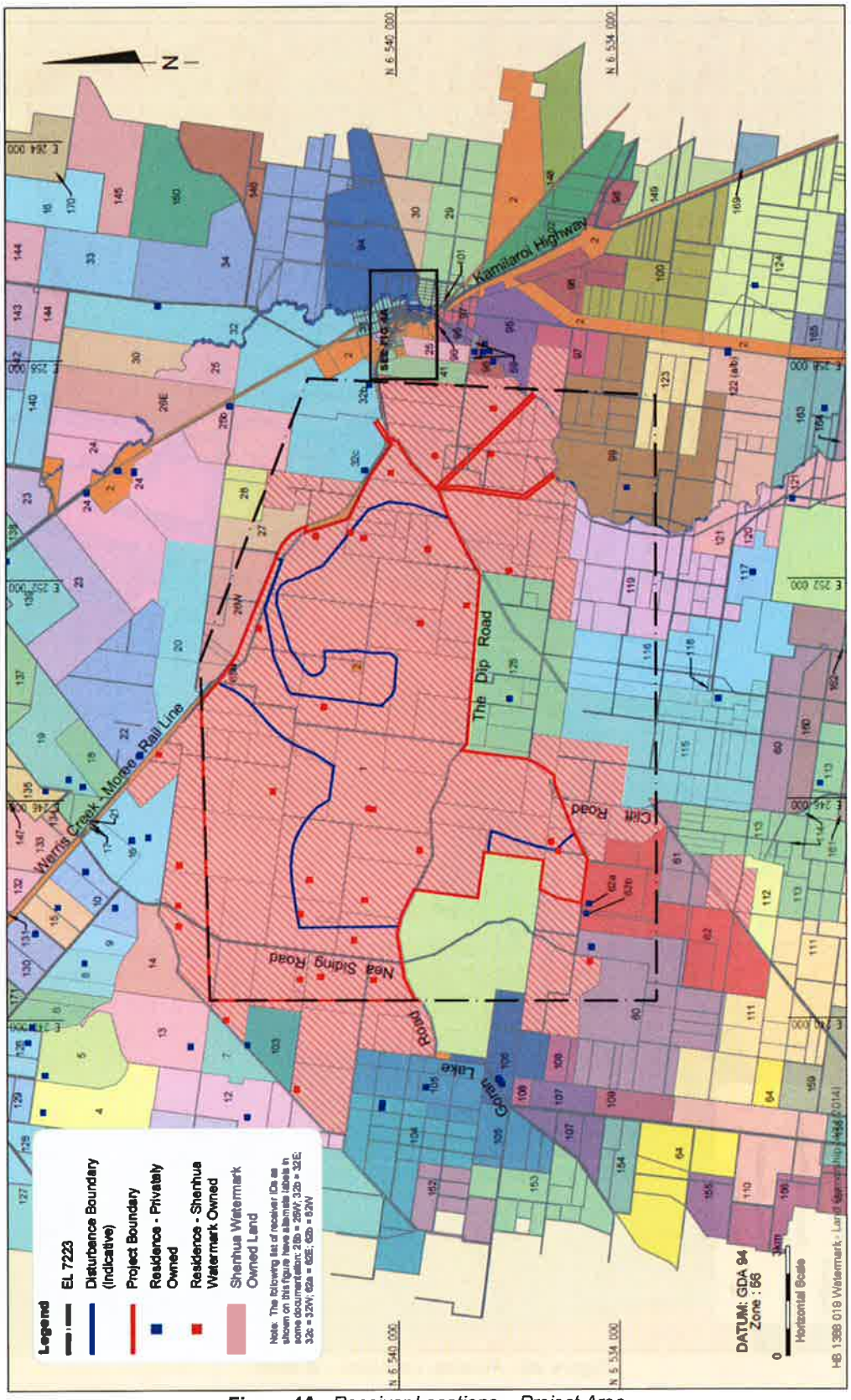

Figure 4A: *Receiver Locations – Project Area*

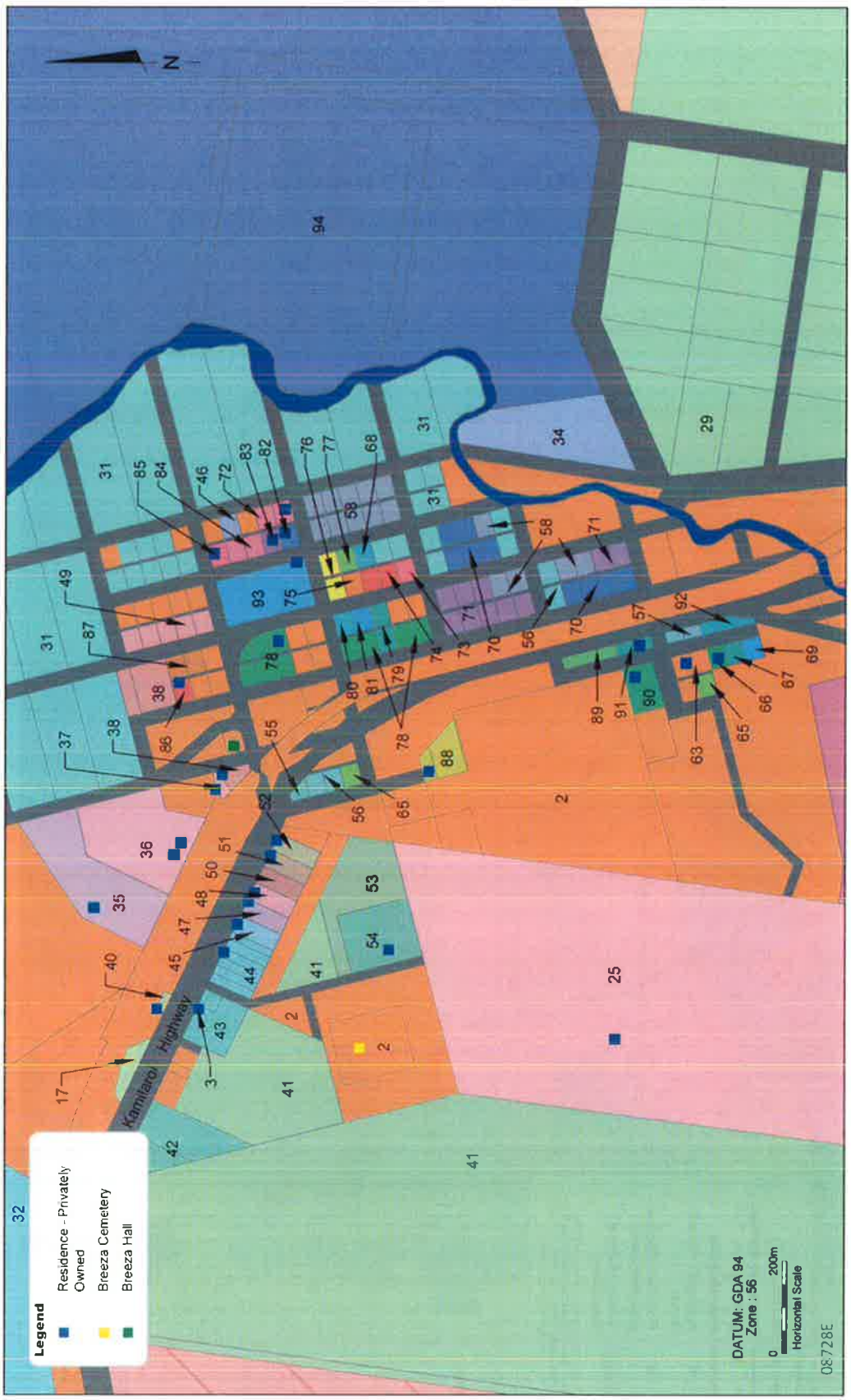

Figure 4B: *Receiver Locations – Breeza*

APPENDIX 5
NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

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

Determination of Meteorological Conditions

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

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.

4. This monitoring must be carried out at least 12 times a year, unless the Secretary directs otherwise.

5. Unless the Secretary agrees otherwise, 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 6
BIODIVERSITY OFFSET STRATEGY

Figure 6A: *On-site Biodiversity Offset Areas*

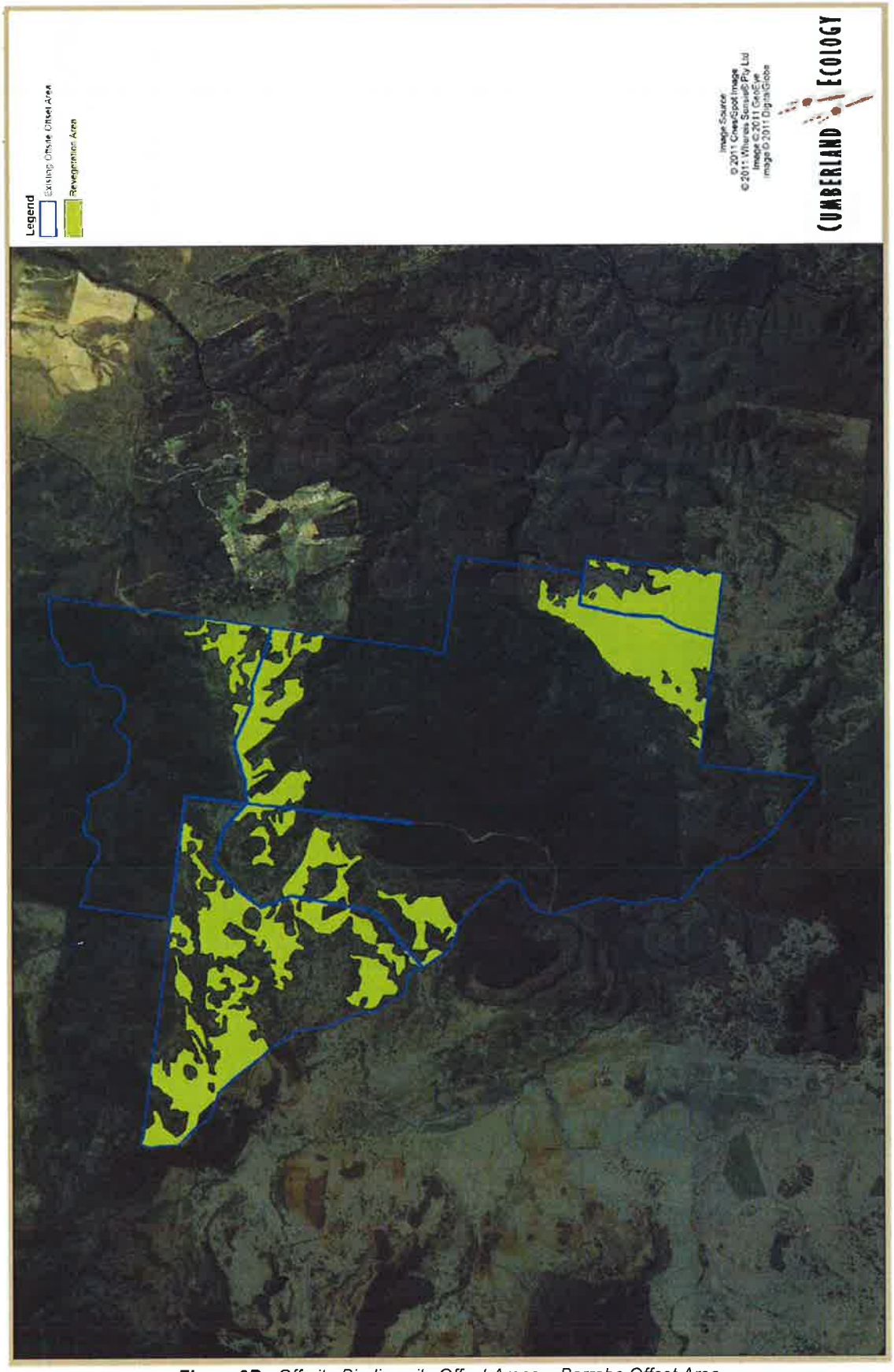

Figure 6B: *Off-site Biodiversity Offset Areas – Barraba Offset Area*

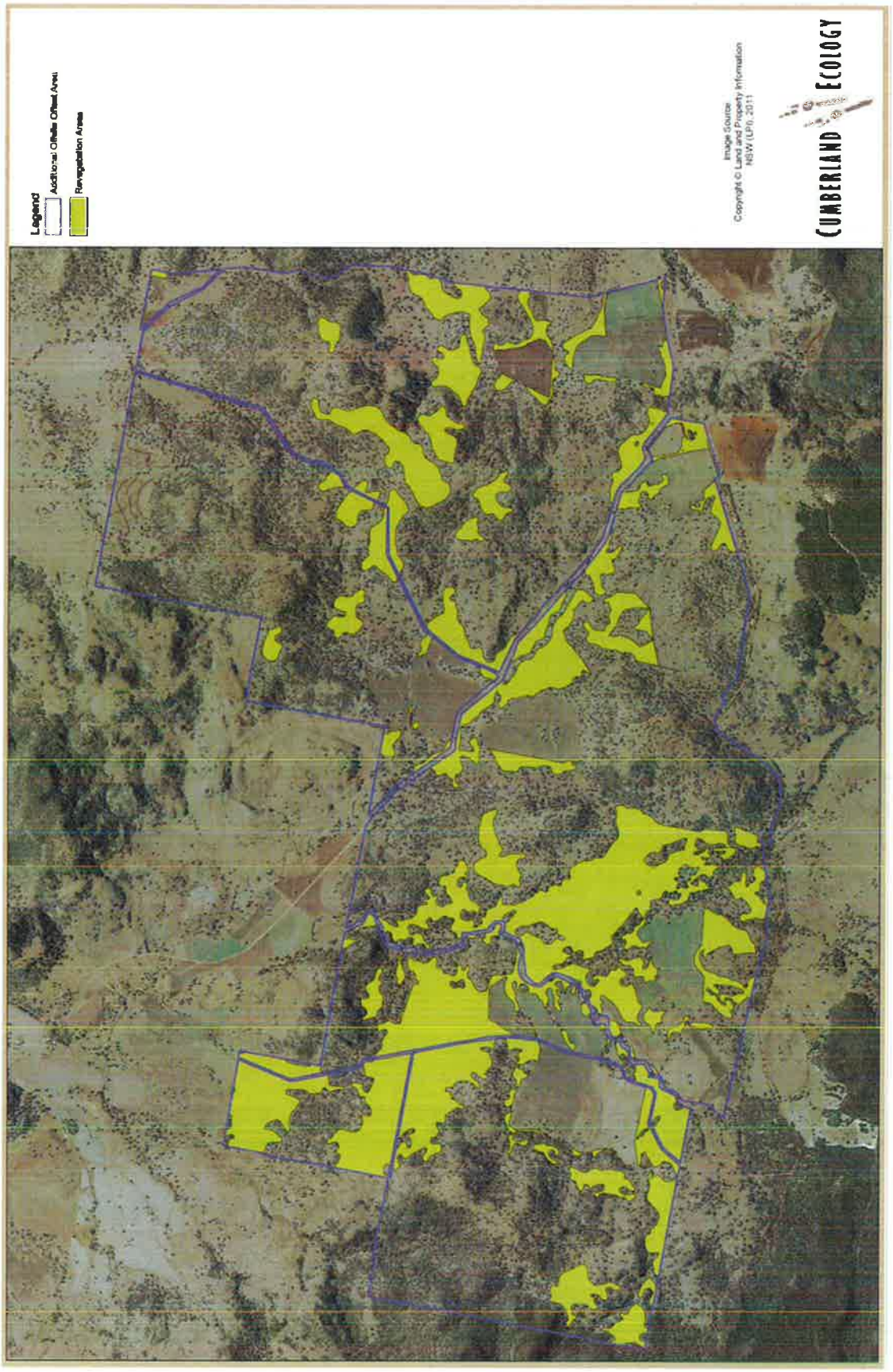

Figure 6C: *On-site Biodiversity Offset Areas – Mt Erin and Glendowda Offset Area*

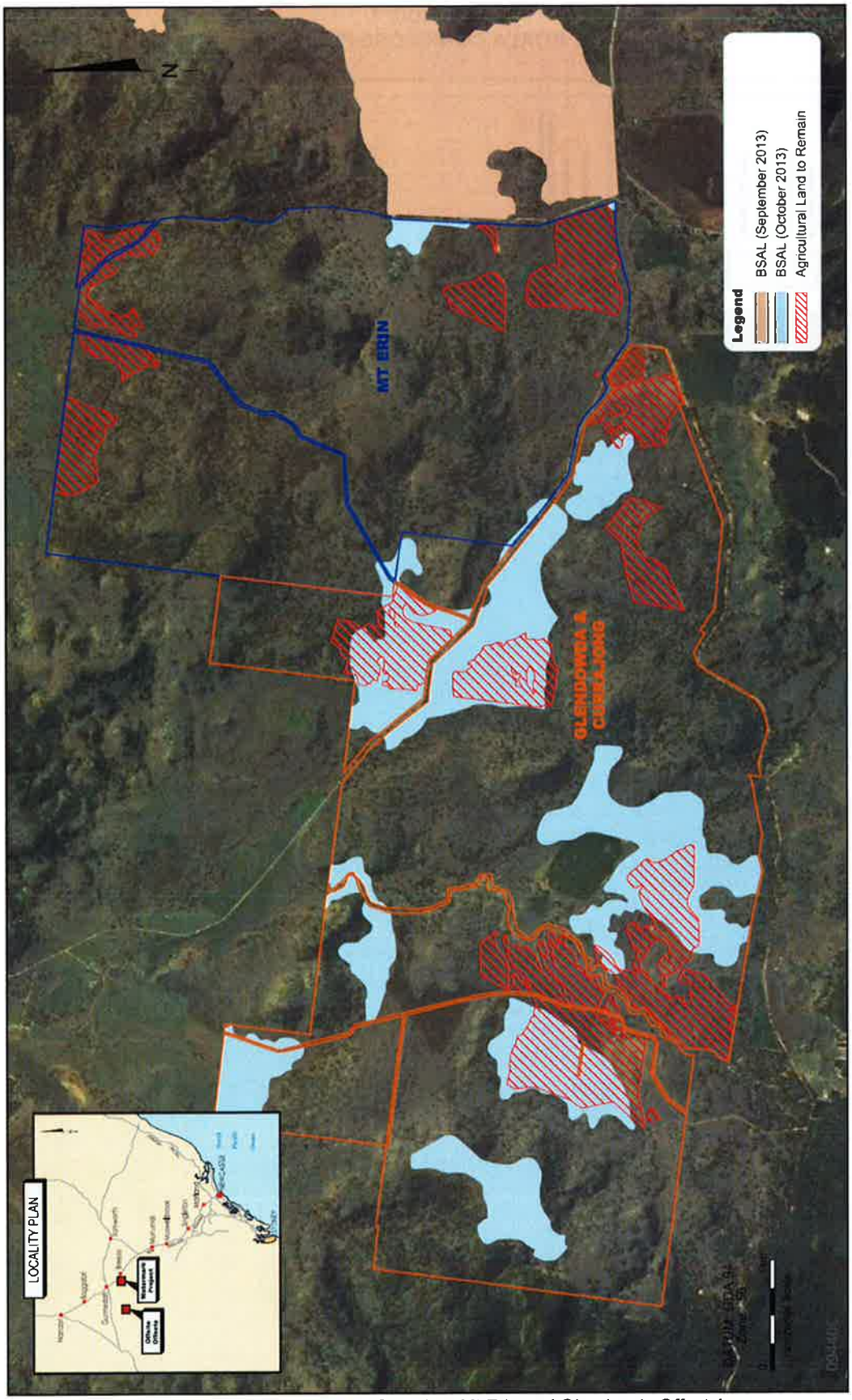

Figure 6D: *Agricultural Land to Remain – Mt Erin and Glendowda Offset Area*

APPENDIX 7
KOALA CORRIDORS PLAN

Figure 7A: *Key Koala Corridors*

APPENDIX 8
ABORIGINAL HERITAGE SITES

Figure 8A: *Aboriginal Heritage Sites*

Site ID	Site Type	Scientific Significance
Surface Collection		
WM-AS11-11, WM-AS4-11, WM-AS6-11, WM-AS7-11	Artefact Scatter	Moderate
WM-IF21-11	Isolated Find	Moderate
WM-AS3-11, WM-AS10-11, WM-AS16-11, WM-AS17-12, 29-1-0154, 29-1-0156, 29-1-0158, 29-1-0159	Artefact Scatter	Low
WM-IF1-11, WM-IF3-11, WM-IF4-11, WM-IF5-11, WM-IF7-11, WM-IF10-11, WM-IF11-11, WM-IF13-11, WM-IF16-11, WM-IF17-11, WM-IF20-11, WM-IF23-12	Isolated Find	Low
Surface Collection and Excavation		
WM-AS5-11	Artefact Scatter	High
WM-AS2-11	Artefact Scatter	Moderate
Relocation		
WM-GG1-11	Grinding Groove	High
WM-GG3-12	Grinding Groove	Moderate
Conservation		
WM-AS9-11*, WM-AS1-11†	Artefact Scatter	High
WM-ST4-11, WM-ST7-11*, WM-ST8-11*, WM-ST2-11†	Scar Tree	High
WM-AS13-11, WM-AS15-11	Artefact Scatter	Moderate
WM-IF9-11	Isolated Find	Moderate
WM-ST3-11	Scar Tree	Moderate
WM-GG2-11	Grinding Groove	Moderate
WM-AS8-11, WM-AS12-11, WM-AS14-11	Artefact Scatter	Low
WM-IF2-11, WM-IF6-11, WM-IF8-11, WM-IF12-11, WM-IF18-11, WM-IF19-11, WM-IF14-11*, WM-IF15-11*, WM-IF22-12*	Isolated Find	Low
WM-ST1-11, WM-ST5-11, WM-ST6-11	Scar Tree	Low

** To be conserved in the Watermark Gully Aboriginal Cultural Heritage Conservation Area*
† To be conserved in the Mooki River Aboriginal Cultural Heritage Conservation Area

Figure 8B: *Management of Aboriginal Heritage Sites*

APPENDIX 9
HISTORIC HERITAGE SITES

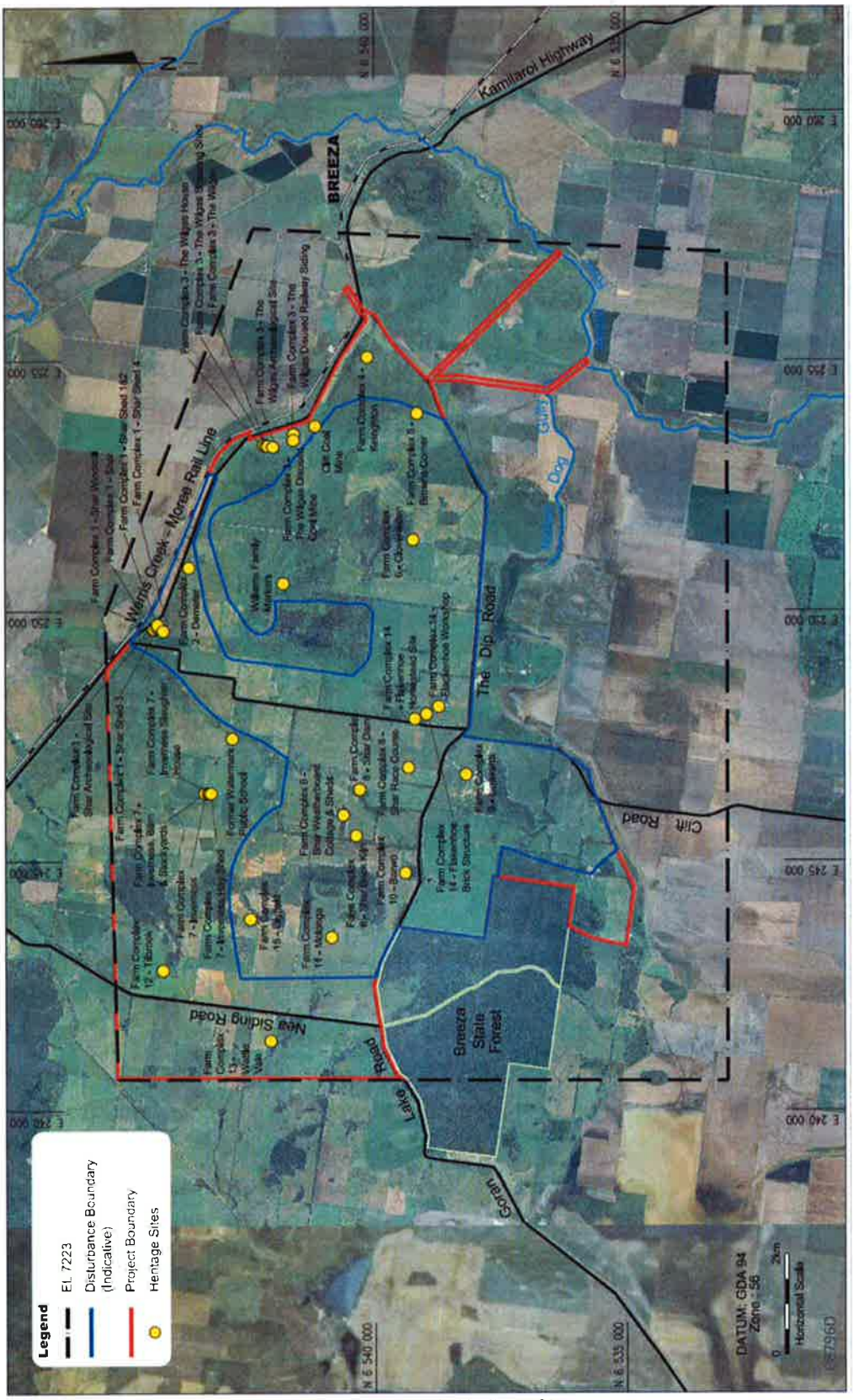

Figure 9A: *Historic Heritage Sites*

Site	Description	Significance	Impact Assessment
Farm Complex 1 - Shar	The complex consists of the potential archaeological site of a former homestead, four corrugated iron sheds and a Southern Cross windmill	Historical, research	Direct Impact
Farm Complex 2 – Demeter	The complex consists of a house (including the original 'Vine cottage'), corrugated iron shearing shed, sheep shower, domestic rubbish dump and the (assumed) location of the former Breeza Station boundary rider's hut	Historical, research	Direct Impact
Williams' Family Markers	The site included two boulders in a rock outcrop near the top of Mt Watermark with a northerly aspect. Each boulder has a brass plaque with commemorative details	Significant to the Williams family	Direct Impact
Farm Complex 3 – The Wilgas	The complex consists of a house, corrugated iron shearing shed, potential archaeological site marked by a scatter of glass, metal artefacts and bricks surrounding a mature Kurrajong tree and a disused coal mine and railway siding	Historical, association, research	Indirect Impact
Clift Coal Mine	The site consists of a depression (probably the shaft / tunnel entrance) with adjacent waste rock pile. The depression has been used as a rubbish tip and a collection of c.1970-80s material is visible in the depression	Not of heritage significance	No Impact
Farm Complex 4 - Keinghton	The complex consists of a house and collection of c. 1970s farm buildings	Not of heritage significance	No Impact
Farm Complex 5 – Browns Corner	The complex consists of an open sided shed of modern bush timbers. Adjacent is a stockyard with loading ramp of bush timbers, wire and geo-grid	Not of heritage significance	No Impact
Farm Complex 6 – Cloveneden	The complex consists of a house, earlier cottage, ice house and modern farm buildings	Historical, research, representative	Direct Impact
Farm Complex 7 – Inverness	The complex consists of house, a slaughtering shed, hayshed, barn and stockyards	Historical, research, representative	Indirect Impact
Farm Complex 8 – Watermark	The complex consists of a house, weatherboard cottage, farm buildings, dams, brick kiln and race course	Research	Direct Impact
Farm Complex 9 – Linavaroi Hut	The complex consists of Linarvaroi hut, the outbuildings of Linavaroi house, poultry shed and scattered refuse	Research	Direct Impact
Farm Complex 10 – Barwo	The complex consists of a clad wood cottage, house and farm buildings	Historical, research, representative	Direct Impact
Farm Complex 11 – Molonga	The complex consists of a clad wood cottage, house and farm buildings	Historical, research, representative	Direct Impact
Farm Complex 12 – Tilbrook	The complex includes a two roomed structure likely constructed in the first quarter of the 20th century	Research, representative	Indirect Impact
Farm Complex 13 – Wattle Vale	The Complex includes a modern house, farm buildings, avenue of Osage Orange trees and dams	Rarity	Indirect Impact
Farm Complex 14 – Flakenhoe	The complex consists of the former Flakenhoe homestead, brick rubble and corrugated iron workshop	Historical, research,	Direct Impact
Farm Complex 15 – Lilyfield	The complex consists of a homestead, a collection of farm buildings, including a shearing shed and an existing dwelling and shed that existed on the property approximately 60 years ago	Historical, Research, representative	Direct Impact
Watermark Public School (former)	The School building was a weatherboard structure that was removed from the site sometime after 1918. The former location was covered in dried grass during the field survey, which limited ground visibility. No evidence of the site could be identified	Historical, research	No Impact

Figure 9B: *Management of Historic Heritage Sites*

APPENDIX 10
REHABILITATION PLAN

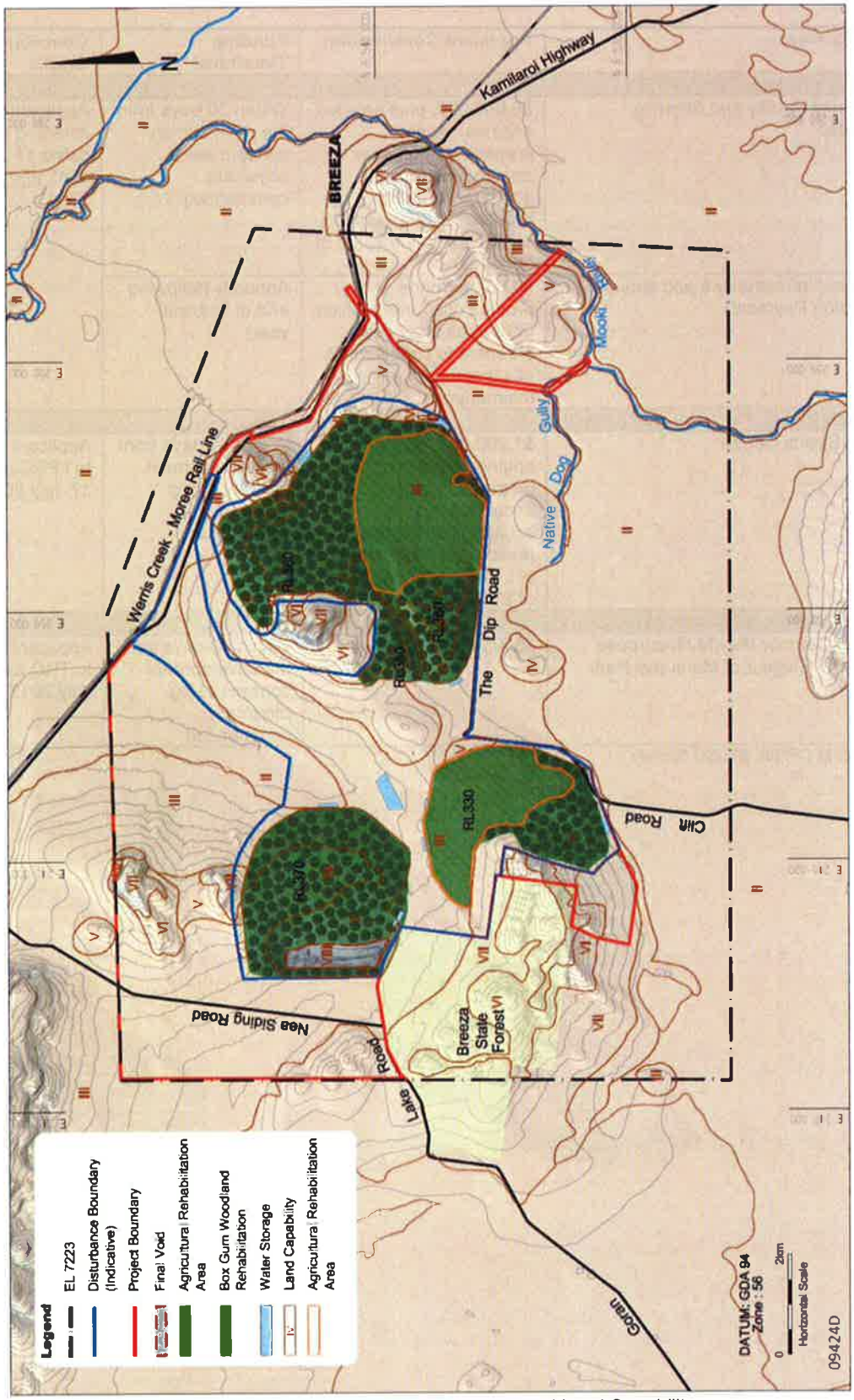

Figure 10A: *Conceptual Final Landform and Land Capability*

APPENDIX 11
GENERAL TERMS OF VPA

Funding Area	Applicant Contribution	Funding Timeframe	Contribution Origin
Gunnedah Shire Council (GSC)			
Community Facility and Steering Committee	$6,000,000, plus detailed engineering and preparation of tender documentation in accordance with the reasonable requirements of GSC up to the value of $500,000	Within 30 days from the development consent being physically commenced	Applicant's letters to GSC dated 17 July 2012 and 26 May 2014
Other local infrastructure and services (Production Payment)	$0.06 per tonne of product coal[1], from which GSC shall meet costs pursuant to condition 42 of schedule 3 for road maintenance	Annually (following end of financial year)	
Liverpool Plains Shire Council (LPSC)			
Quirindi Sports Centre	$1,200,000, plus detailed engineering and preparation of tender documentation in accordance with the reasonable requirements of LPSC up to the value of $300,000	Within 30 days from the development consent being physically commenced	Applicant's letter to LPSC dated 17 July 2012
Tamworth Regional Council (TRC)			
Regional Outdoor Play/Multi-purpose Centre and Stage 2 of Marsupial Park	$350,000	Within 30 days from the development consent being physically commenced	Applicant's letter to TRC dated 17 July 2012

1 Subject to CPI (all groups) Sydney

APPENDIX 12
GENERAL TERMS OF ROAD MAINTENANCE AGREEMENT

1. The Applicant shall make annual contributions to Gunnedah Shire Council and Liverpool Plains Shire Council (the Councils) towards the maintenance of Bulunbulun Road (the Road).

2. The first annual contribution is to be made within 12 months of the date of this consent, and additional contributions on each following anniversary of the date of this consent, until the cessation of rehabilitation activities on the site.

3. The Applicant and the Councils are to agree on a Dilapidation and Annual Maintenance Monitoring Program (DAMMP) for the Road prior to implementation, and review this program every year. The DAMMP is to include a set of minimum standards for the maintenance of the Road.

4. Each contribution is to be calculated as follows (unless otherwise agreed between the Applicant and Council):

   Applicant's Annual Ongoing Maintenance Contribution ($) =

   $VM\%_{Bulunbulun\ Road}$ x $Annual\ Expenditure_{Bulunbulun\ Road}$

5. If the DAMMP and traffic monitoring program indicate that the Road is unable to be reasonably maintained at the minimum standards, total traffic volume on the Road is more than 300 vehicles a day, and project-related traffic represents at least 50% of the traffic volume on the Road, then the Applicant shall upgrade (at its cost) the unsealed sections of the Road to bitumen seal standard and/or the existing bitumen sealed sections in accordance with AustRoads guidelines, and to the satisfaction of the Council/s. The DAMMP shall be reviewed in accordance with condition 3 above having regard to the amended maintenance costs of the upgraded road.

   If the traffic monitoring program indicates that other mines are contributing to mining-related traffic on the Road, then the Applicant shall share the total costs of the upgrade works with the other mine/s, with the contribution proportional to the project-related traffic volume on the Road.

Notes:

- *Annual Expenditure is the total annual road maintenance expenditure carried out by Council on the Road under this arrangement as evidenced by Council records.*
- *The road maintenance expenditure on unsealed sections of road must be associated with standard maintenance activities comprising (unless otherwise agreed between the Applicant and Council):*
  - *reforming and reshaping existing road material;*
  - *annual grading; and*
  - *resheeting (once every 12 years).*
- *The road maintenance expenditure on sealed sections of road must be associated with standard maintenance activities comprising (unless otherwise agreed between the Applicant and Council):*
  - *light patching;*
  - *heavy patching;*
  - *shoulder grading / resheeting; and*
  - *resealing.*
- *VM% = percentage of project-related vehicle axle counts to the total number of vehicle axle counts on the Road in the relevant 12 month period.*
- *The annual road contributions are to be based on the total annual standard road maintenance expenditure carried out by Council and are not to be based on any road upgrades Council undertakes.*
- *The Applicant is required to prepare and implement a traffic monitoring program in consultation with the Councils (as required by condition 41 of schedule 3), which contains suitable monitoring measures to accurately determine both the annual VM% and total annual vehicle axle counts on the Road.*
- *In the event that there is a dispute between the Applicant and the Council/s about the implementation of the road maintenance contributions, then either party may refer the matter to the Secretary for resolution.*