

# Project Approval

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

As delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission of New South Wales (the Commission) approves the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 6.

These conditions are required to:

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



Member of the Commission



Member of the Commission

Sydney

2 November 2011

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### SCHEDULE 1

<b>Application Number:</b>	09_0161
<b>Proponent:</b>	Gujarat NRE FCGL Pty Ltd
<b>Approval Authority:</b>	Minister for Planning and Infrastructure
<b>Land:</b>	See Appendix 1
<b>Project:</b>	NRE Wongawilli Colliery – Nebo Area Project

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## DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and/or designated ranges and in compliance with the conditions of this approval
Annual Review	The review required by condition 3 of schedule 6
Approved mine plan	The mine plans depicted in the figures in Appendix 2
BCA	Building Code of Australia
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
Cliffs	Continuous rock face, including overhangs, having a minimum height of 10 metres and a minimum slope of 2 to 1, ie having a minimum angle to the horizontal of 63°.
Conditions of this approval	Conditions contained in schedules 2 to 6 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this approval
Council	Wollongong City 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 and Infrastructure
Director-General	Director-General of the Department, or delegate
DRE	Division of Resources and Energy, within the Department of Trade & Investment, Regional Infrastructure & Services
DSC	Dams Safety Committee
EA	Environmental assessment titled <i>NRE Wongawilli Colliery Nebo Area Environmental Assessment, Volumes 1-2</i> , dated October 2010, including the associated response to submissions
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to infrastructure, buildings and residential dwellings; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the POEO Act
Executive Director Mineral Resources	Executive Director Mineral Resources within DRE
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
First workings	Development of main headings, longwall gate roads, related cut throughs and the like
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 approval
Land	In general, the definition of land is consistent with the definition in the EP&A Act. However, in relation to the noise and air quality conditions in schedule 4 it means 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 approval
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning and Infrastructure, or delegate
Mining operations	Includes all overburden removal and coal extraction, processing, handling, storage and transportation activities carried out on site
Minor	Small in quantity, size and degree given the relative context
Mitigation	Activities associated with reducing the impacts of the project prior to or during those impacts occurring
MSB	Mine Subsidence Board
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
OEH	Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>

Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Project	The project described in the EA
Proponent	Gujarat NRE FCGL Pty Ltd, or its successors in title
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
Reasonable costs	The costs agreed between the Department and the Proponent for obtaining independent experts to review the adequacy of any aspects of the extraction plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process
Rehabilitation	The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the project or controlling the environmental consequences of this impact
ROM coal	Run-of-mine coal
RTA	Roads and Traffic Authority
Safe, serviceable & repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
SCA	Sydney Catchment Authority
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Site	The land referred to in schedule 1, and listed in Appendix 1
Statement of commitments	The Proponent's commitments in Appendix 3
Steep slopes	An area of land having a gradient between 1 in 3 (33% or 18.3°) and 2 in 1 (200% or 63.4°)
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
Surface facilities sites	The Wongawilli and Avondale pit top areas; all ventilation shaft sites; sites used for gas drainage or for other mining purposes infrastructure; and any other site subject to existing or proposed surface disturbance associated with the project

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

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

### TERMS OF APPROVAL

2. The Proponent shall carry out the project generally in accordance with the:
  - (a) EA;
  - (b) statement of commitments; and
  - (c) conditions of this approval.

*Notes:*

- *The general layout of the project is shown in Appendix 2.*
- *The statement of commitments is reproduced in Appendix 3.*
- *The Department notes that approval of the Western Driveage component of the project does not indicate or imply any approval of future mining in the Western Area (as defined in the EA), which will be subject to a separate planning process and full merit assessment.*

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

### LIMITS ON APPROVAL

#### Mining Operations

5. Mining operations for the project may take place until 31 December 2015.

*Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Director-General or the Executive Director Mineral Resources. Consequently this approval 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 Production & Transport

6. The Proponent shall:
  - (a) not transport coal from the site by road (except in an emergency situation and with the prior approval of the Director-General in consultation with Council);
  - (b) restrict coal processing and transport to/from the site to a maximum of 2 million tonnes of ROM coal per calendar year; and
  - (c) restrict train movements to/from the site to a maximum of (except with the prior approval of the Director-General):
    - 8 train movements (calendar year average) a day;
    - 10 train movements (maximum weekly rolling average) a day;
    - 2 train movements a night during normal operations; and
    - 4 train movements a night during advertised campaigns, with a maximum of 10 such campaigns a year.

*Notes:*

- *For the purposes of this condition:*
  - *each train entering and exiting the site is classified as 2 train movements; a day refers to the 24 hours from midnight to midnight the next day; and (notwithstanding the general definition of "night" under this approval) a night refers to the period from 11:00pm to 7:00am;*
  - *an advertised campaign means a short term increase in train movements (up to 11 days) for ship-loading that has been advertised in accordance with the procedures in the Noise Management Plan (see condition 8 of schedule 4);*
- *The Proponent is required to review the maximum number of train movements, particularly at night, as part of the Noise Audit (see condition 7 of schedule 4).*

#### Hours of Operation

7. The Proponent shall restrict loading and unloading to/from the coal stockpile as follows:

- (a) normal operations:
  - 7am to 6pm Monday to Friday;
  - 8am to 4pm Saturdays; and
  - at no time on Sundays and public holidays;
- (b) during longwall change-outs:
  - 7am to 10pm Monday to Saturday; and
  - at no time on Sundays and public holidays.

At least 7 days prior to undertaking longwall change-outs involving extended hours of operation as allowed in (b) above, the Proponent shall provide written notification of the works to the Department, OEH, Council, the CCC and adjacent and affected residents, to the satisfaction of the Director-General.

*Note: Underground mining operations, coal transport and other surface facilities operation may be undertaken at any time.*

#### **SURRENDER OF CONSENTS AND APPROVALS**

8. Within 6 months of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents and project approvals for mining operations relied on by the Proponent for the site (other than this approval) in accordance with Sections 75YA and 104A of the EP&A Act.

*Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.*

9. Prior to the surrender of these consents and/or approvals, the conditions of this approval (including any notes) shall prevail to the extent of any inconsistency with the conditions of these consents and/or approvals.

#### **STRUCTURAL ADEQUACY**

10. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structure, that are part of the project are constructed in accordance with:
  - (a) the relevant requirements of the BCA; and
  - (b) any additional requirements of the MSB where the building or structure is located on land within declared Mine Subsidence Districts.

*Notes:*

- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*
- *Under Section 15 of the Mine Subsidence Compensation Act 1961, the Proponent is required to obtain the MSB's approval before constructing any improvements within a Mine Subsidence District.*

#### **DEMOLITION**

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

#### **OPERATION OF PLANT AND EQUIPMENT**

12. The Proponent shall ensure that all plant and equipment used at the site is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

#### **STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS**

13. With the approval of the Director-General, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis.

*Note: The conditions of this approval require certain strategies, plans, and programs to be prepared for the project. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole project at any one time; particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis. In doing this however, the Proponent will need to demonstrate that it has suitable documents in place to manage the existing operations of the project.*

**SCHEDULE 3  
SPECIFIC ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING**

**SUBSIDENCE**

**Performance Measures**

1. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 1, to the satisfaction of the Director-General.

*Table 1: Subsidence Impact Performance Measures*

<b>Water Resources</b>	
Catchment yield to the Upper Cordeaux Reservoirs (No. 1 and No. 2) and Avon Reservoir	Negligible reduction to the quality or quantity of water resources reaching the reservoirs  No connective cracking between the surface and the mine
Upper Cordeaux Reservoirs (No. 1 and No. 2) and Avon Reservoir	Negligible leakage from the reservoirs  Negligible reduction in the water quality of reservoirs
<b>Watercourses</b>	
Wattle Creek, Little Wattle Tree Creek, Cordeaux River, Gallaghers Creek	Negligible environmental consequences, including: <ul style="list-style-type: none"> <li>• <i>negligible</i> diversion of flows or changes in the natural drainage behaviour of pools;</li> <li>• <i>negligible</i> gas releases and iron staining; and</li> <li>• <i>negligible</i> increase in water cloudiness</li> </ul>
Other watercourses	No greater subsidence impact or environmental consequences than predicted in the EA
Upland Swamps (No 22 and No 39)	Negligible environmental consequences including: <ul style="list-style-type: none"> <li>• <i>negligible</i> change in the size of swamps;</li> <li>• <i>negligible</i> change in the functioning of swamps;</li> <li>• <i>negligible</i> change to the composition or distribution of species within swamps; and</li> <li>• <i>negligible</i> drainage of water from swamps, or redistribution of water within swamps</li> </ul>
<b>Land</b>	
Illawarra Escarpment State Conservation Area, Metropolitan Special Area	Negligible environmental consequences.
Cliffs	Negligible environmental consequences (that is occasional rockfalls, displacement or dislodgement of boulders or slabs, or fracturing, that in total do not impact more than 0.5% of the total face area of such cliffs within the longwall mining area)
<b>Biodiversity</b>	
Threatened species, threatened populations, or endangered ecological communities	Negligible environmental consequences
<b>Heritage Features</b>	
Aboriginal heritage sites	Negligible impact or environmental consequence
Non-Aboriginal heritage sites (including 'Historic 1', 'Historic 2' and 'Historic 3')	Negligible loss of heritage value

Notes to Table 1:

- The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval (see condition 7(i) of schedule 3 and conditions 20 - 21 of schedule 4 below).
- Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Director-General will be the final arbiter.
- In the case of the Illawarra Escarpment State Conservation Area, the Director-General's satisfaction can only be expressed following consultation with OEH.
- In the case of the Metropolitan Special Area, the Director-General's satisfaction can only be expressed following consultation with SCA.
- The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this approval.

2. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the performance measures in Table 1. Any exceedance of these performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation, notwithstanding actions taken pursuant to paragraphs (a)-(c) or condition 3 below. Where any exceedance of these performance measures has occurred, the Proponent 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 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 Director-General, to the satisfaction of the Director-General.

**Offsets**

3. If the Proponent exceeds the performance measures in Table 1 and the Director-General determines that:
  - (a) it is not reasonable or feasible to remediate the impact or environmental consequence; or
  - (b) remediation measures implemented by the Proponent have failed to satisfactorily remediate the impact or environmental consequence;
 then the Proponent shall provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Director-General.

*Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.*

4. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 2, to the satisfaction of the Director-General.

*Table 2: Subsidence Impact Performance Measures*

<b>Built Features</b>	
Key public infrastructure: including SCA infrastructure (Avon Dam, Upper Cordeaux No.1 and No.2 dams, water supply pipelines), high pressure gas pipelines, electricity transmission lines, fibre optic networks	Always safe and serviceable.  Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.
Gas distribution pipelines, electricity distribution lines, roads, fire trails, other public infrastructure, other built features	Always safe.  Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.  Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
<b>Public Safety</b>	
Public safety	No additional risk

Notes to Table 2:

- *The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this approval (see condition 7 below).*
  - *Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Director-General will be the final arbiter.*
  - *The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this approval.*
  - *Any breach of this condition is taken to be a breach of this approval, and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.*
  - *Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.*
5. Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 2 is to be settled by the Director-General, following consultation with the MSB and the Executive Director Mineral Resources. Any decision by the Director-General shall be final and not subject to further dispute resolution under this approval.



## First Workings

6. The Proponent may carry out first workings on site, other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.

*Note: The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long term stability, with zero resulting subsidence impacts.*

## Extraction Plan

7. The Proponent shall prepare and implement an Extraction Plan for any second workings on site, to the satisfaction of the Director-General. The plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
  - (b) be approved by the Director-General before the Proponent carries out any of the second workings covered by the plan;
  - (c) include detailed plans of existing and proposed first and second workings and any associated surface development;
  - (d) provide revised predictions of the conventional and non-conventional subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval;
  - (e) include detailed performance indicators for each of the performance measures in Tables 1 and 2;
  - (f) describe the measures that would be implemented to:
    - ensure compliance with the performance measures in Tables 1 and 2; and
    - manage or remediate subsidence impacts and/or environmental consequences;
  - (g) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1 and 2, or where any such exceedance appears likely;
  - (h) include the following to the satisfaction of DRE:
    - a subsidence monitoring program to:
      - provide data to assist with the management of the risks associated with subsidence;
      - validate the subsidence predictions;
      - monitor the integrity of the overlying strata, particularly the Cordeaux Crinanite; and
      - analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
      - inform the contingency plan and adaptive management process;
    - a coal resource recovery plan that demonstrates effective recovery of the available resource;
    - a Built Features Management Plan, which has been prepared in consultation with the owners of such features, to manage the potential impacts and consequences of subsidence on any built features;
    - a Public Safety Management Plan to ensure public safety in the mining area; and
    - appropriate revisions to the Rehabilitation Management Plan required under condition 26 of schedule 4; and
  - (i) include a:
    - Water Management Plan, which has been prepared in consultation with OEH, SCA and NOW, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:
      - surface and groundwater impact assessment criteria based on at least 2 years of baseline data, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
      - a program to monitor and report groundwater inflows to underground workings; and
      - a program to predict, manage and monitor impacts on any groundwater bores on privately-owned land;
    - Biodiversity Management Plan, which has been prepared in consultation with OEH and DRE, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats; endangered ecological communities, and water dependent ecosystems;
    - Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general, with a specific focus on cliffs and steep slopes; and

- Heritage Management Plan, to manage the potential environmental consequences of the proposed second workings on both Aboriginal and non-Aboriginal heritage sites or values; and
- (j) include a program to collect sufficient baseline data for future Extraction Plans.

*Note: An SMP that is substantially consistent with this condition and which is approved by DRE prior to 31 December 2011 is taken to satisfy the requirements of this condition.*

8. The Proponent shall ensure that the management plans required under condition 7(i) above include:
- (a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval; and
  - (b) a detailed description of the measures that would be implemented to remediate predicted impacts.

**Payment of Reasonable Costs**

9. The Proponent shall pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.
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## SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS – GENERAL

### NOISE

#### Noise Criteria

- The Proponent shall ensure that the noise generated by the project (including train loading and shunting within the yard but excluding train movements on the Wongawilli rail spur) does not exceed the criteria in Table 3 and Table 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 3: Noise Criteria dB(A) – Intrusive Noise Limits – Existing Residences

Receiver Area	Day	Evening	Night	
	$L_{Aeq}$ (15 min)	$L_{Aeq}$ (15 min)	$L_{Aeq}$ (15 min)	$L_{A1}$ (1 min)
RA1	43	43	43	59
RA2	44	43	43	60
RA3	40	40	38	48
All other existing residential receivers	40	40	38	48

Table 4: Noise Criteria dB(A) – Amenity Noise Limits – All Residences

Receiver Area	Day	Evening	Night
	$L_{Aeq}$ (11 hour)	$L_{Aeq}$ (4 hour)	$L_{Aeq}$ (9 hour)
All privately-owned land	60	50	45

Notes to Tables 3 and 4:

- To interpret the locations referred to Tables 2 and 3, see Appendix 4.
- Noise generated by the project is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy.

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

#### Noise Goals

- The Proponent shall make continual endeavours to reduce the noise generated by the project, with the objective being that noise generated by the project (including train loading and shunting within the yard but excluding train movements on the Wongawilli rail spur) does not exceed the criteria in Table 5 at any existing residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 5: Noise Criteria dB(A) – Intrusive Noise Goals – Existing Residences

Receiver Area	Day	Evening	Night	
	$L_{Aeq}$ (15 min)	$L_{Aeq}$ (15 min)	$L_{Aeq}$ (15 min)	$L_{A1}$ (1 min)
RA1	40	40	38	51
RA2	40	40	38	51
RA3	40	40	38	48
All other existing residential receivers	40	40	38	48

Notes:

- To interpret the locations referred to Table 5, see Appendix 4.
- Noise generated by the project is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy.
- The noise goals in Table 5 may be varied by way of direction to the Proponent by the Director-General, following consideration of the results of the noise audit required under condition 7 below.

#### Rail Noise

- The Proponent shall ensure that the noise generated by railway activities on the Wongawilli rail spur outside of the yard limits (excluding any train shunting or when loading is taking place) does not exceed the criteria in Table 6 at any existing residence on privately-owned land.

Table 6: Noise Criteria dB(A) – Rail Noise Limits – Existing residences

Receiver Area	Day	Night
	$L_{Aeq}$ (period)	$L_{Aeq}$ (period)
All existing residential receivers	65	60

Note: Noise generated by the railway activities is to be measured in accordance with the relevant requirements, and exemptions of the Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects.

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

4. By the end of July 2013, or other timing as may be agreed by the Director-General, the Proponent shall use its best endeavours to ensure that its rail spur is only accessed by:
  - (a) locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208); and
  - (b) trains comprising no less than 30 wagons.
5. The Proponent shall restrict train speeds on the Wongawilli rail spur to a maximum of 20 km/h.

#### Operating Conditions

6. The Proponent shall:
  - (a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, road traffic and rail noise generated by the project; and
  - (b) regularly assess the results of noise monitoring to ensure compliance with the relevant conditions of this approval,
 to the satisfaction of the Director-General.

#### Noise Audit

7. The Proponent shall prepare and implement a Noise Audit for the project to the satisfaction of the Director-General. The audit must:
  - (a) be prepared by a suitably qualified and experienced expert, whose appointment has been approved by the Director-General;
  - (b) be prepared in consultation with OEHL, and be submitted to the Director-General for approval by the end of June 2013;
  - (c) undertake improved background noise monitoring;
  - (d) investigate and evaluate:
    - all reasonable and feasible measures to mitigate operational noise levels to comply with the noise goals in Table 5; and
    - all reasonable and feasible measures to mitigate rail noise associated with the project (eg locomotive use, use of longer trains and 3-pack wagons, track works);
  - (e) review the feasibility of reducing the maximum train movements, particularly at night (see condition 6 of schedule 2), based on the minimum train length required under condition 4 above; and
  - (f) include an action plan to implement the audit recommendations and a protocol for monitoring the effectiveness of these measures.

#### Noise Management Plan

8. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
  - (a) be prepared in consultation with OEHL and Council, and submitted to the Director-General for approval within 6 months of this approval;
  - (b) describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval;
  - (c) include a protocol for continual improvement of noise performance, and reporting progress in meeting the noise goals in Table 5;
  - (d) include a protocol for notifying residents of advertised campaigns (see condition 6 of schedule 2); and
  - (e) include a noise monitoring program that:
    - uses a combination of attended and unattended monitoring to evaluate the performance of the project; and
    - includes a protocol for determining exceedances of the relevant conditions of this approval.

## AIR QUALITY & GREENHOUSE GAS

### Odour

9. The Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act, unless otherwise authorised by an EPL.

### Greenhouse Gas Emissions

10. The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.

*Note: This condition does not extend to Scope 3 emissions, as defined in the National Greenhouse Energy Reporting Guidelines.*

### Air Quality Criteria

11. The Proponent shall implement all reasonable and feasible mitigation measures to ensure that the particulate emissions generated by the project do not exceed the criteria listed in Tables 7, 8 and 9 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

*Table 7: Long term criteria for particulate matter*

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

*Table 8: Short term criterion for particulate matter*

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

*Table 9: Long term criteria for deposited dust*

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase in deposited dust level</b>	<b>Maximum total deposited dust level</b>
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

*Notes to Tables 7-9:*

<sup>a</sup> Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to other sources);

<sup>b</sup> Incremental impact (ie incremental increase in concentrations due to the project on its own);

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

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the Director-General in consultation with OEH.

### Air Quality Acquisition Criteria

12. If the particulate matter emissions generated by the project exceed the criteria in Tables 10, 11, and 12 on a systematic basis at any residence on privately-owned land, or on more than 25 percent of any privately owned land, then upon receiving a written request for acquisition from the landowner the Proponent shall acquire the land in accordance with the procedures in conditions 4-5 of schedule 5.

*Table 10: Long term acquisition criteria for particulate matter*

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

Table 11: Short term acquisition criteria for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup>Criterion</b>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 150 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>b</sup> 50 µg/m <sup>3</sup>

Table 12: Long term acquisition criteria for deposited dust

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase in deposited dust level</b>	<b>Maximum total deposited dust level</b>
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 10-12:

<sup>a</sup> Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to other sources);

<sup>b</sup> Incremental impact (ie incremental increase in concentrations due to the project on its own);

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

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the Director-General in consultation with OEH.

### Operating Conditions

13. The Proponent shall:
- implement best practice air quality management, including all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project, including from any spontaneous combustion on site,
  - minimise any visible air pollution generated by the project; and
  - regularly assess the real-time air quality monitoring and meteorological forecasting data, and relocate, modify and/or suspend operations to ensure compliance with the relevant conditions of this approval;
- to the satisfaction of the Director-General.

### Air Quality & Greenhouse Gas Management Plan

14. The Proponent shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with OEH, and submitted to the Director-General for approval within 6 months of this approval;
  - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time air quality management system that employs both reactive and proactive mitigation measures;
  - describe the measures that would be implemented to minimise the greenhouse gas emissions from the site; and
  - include an air quality monitoring program that:
    - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the project; and
    - includes a protocol for determining exceedances with the relevant conditions of this approval.

### METEOROLOGICAL MONITORING

15. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
  - is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by OEH.

### SOIL & WATER

#### Water Licences

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

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

## **Baseflow Offsets**

17. The Proponent shall offset the loss of any baseflow to watercourses caused by the project to the satisfaction of the Director-General. This condition does not apply if the Director-General subsequently determines that the loss of baseflow is negligible.

*Note: Offsets for long-term losses should be provided via the retirement of adequate water entitlements to account for the loss attributable to the project.*

## **Compensatory Water Supply**

18. The Proponent shall provide a compensatory water supply to any landowner of privately-owned land whose water entitlements are adversely impacted (other than an impact that is negligible) as a result of the project, in consultation with NOW, and to the satisfaction of the Director-General.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply must be provided (at least on an interim basis) within 24 hours of the loss being identified.

If the Proponent 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 Director-General for resolution.

If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the Director-General.

## **Surface Water Discharges**

19. The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.

## **Surface Water Management Plan**

20. The Proponent shall prepare and implement a Surface Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with NOW, OEH and Council, and be submitted to the Director-General for approval within 6 months of this approval, or as otherwise agreed with the Director-General;
  - (b) include a comprehensive water balance for the project, that includes details of:
    - sources of water supply and water make;
    - water use; and
    - water discharges; and
  - (c) management plans for the surface facilities sites, that include:
    - a detailed description of water management systems for each site, including:
      - clean water diversion systems;
      - erosion and sediment controls; and
      - any water storages;
    - measures to minimise potable water use and to reuse and recycle water;
    - measures to comply with surface water discharge limits;
    - measures to manage sewage wastewater in accordance with Council requirements; and
    - monitoring and reporting procedures.

*Note: This plan must be suitably integrated with the Water Management Plans that form part of Extraction Plans.*

## **HERITAGE**

### **Heritage Management Plan**

21. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with OEH, the Aboriginal community, Council and any local historical organisations, and be submitted to the Director-General for approval within 6 months of this approval, or as otherwise agreed with the Director-General;
  - (b) include the following program/procedures for managing Aboriginal heritage management within the project area:
    - conserving, managing and monitoring Aboriginal sites and potential archaeological deposits within the project disturbance area;
    - conserving, managing, and monitoring Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the project;
  - maintaining and managing access to archaeological sites by the Aboriginal community; and
  - ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage within the project area; and
- (c) include the following for managing other historic heritage on site:
- a conservation management plan for the Wongawilli Colliery, that balances heritage management with the operational, safety, and rehabilitation requirements of the mine; and
  - a program/procedures for:
    - photographic and archival recording of potentially affected heritage items;
    - protection and monitoring of heritage items outside the project disturbance area; and
    - additional archaeological excavation and/or recording of any significant heritage items requiring demolition.

*Note: This plan must be suitably integrated with Heritage Management Plans that form part of Extraction Plans.*

## TRANSPORT

### Monitoring of Coal Transport

22. The Proponent 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 to and from the site; and
  - (b) make these records publicly available on its website at the end of each calendar year.

## VISUAL

### Visual Amenity and Lighting

23. The Proponent shall:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;
  - (b) ensure no unshielded outdoor lights shine above the horizontal; and
  - (c) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

## WASTE

24. The Proponent shall:
- (a) minimise and monitor the waste generated by the project;
  - (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of;
  - (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council; and
  - (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Director-General.

## BUSHFIRE

25. The Proponent shall:
- (a) ensure that the project is suitably equipped to respond to fires on site; and
  - (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

## REHABILITATION

### Rehabilitation Objectives

26. The Proponent shall rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA, and comply with the objectives in Table 13.

*Table 13: Rehabilitation Objectives*

<b>Feature</b>	<b>Objective</b>
Mine site (as a whole)	Safe, stable & non-polluting.
	Final land use compatible with surrounding land uses.
Surface infrastructure	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise



<b>Feature</b>	<b>Objective</b>
Portals and vent shafts	To be decommissioned and made safe and stable.
	Retain habitat for threatened species (eg bats), where practicable
Watercourses of 2 <sup>nd</sup> order or above subject to subsidence impacts	Hydraulically and geomorphologically stable
Cliffs	No additional risk to public safety compared to prior to mining
Other land affected by the project	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> <li>• local native plant species (unless the Executive Director Mineral Resources agrees otherwise); and</li> <li>• a landform consistent with the surrounding environment</li> </ul>
Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> <li>• the owner agrees otherwise; or</li> <li>• the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>.</li> </ul>
Community	Ensure public safety.
	Minimise the adverse socio-economic effects associated with mine closure

Notes to Table 13:

- These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of this approval; and to all project surface infrastructure part of the project, whether constructed prior to or following the date of this approval.
- Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of this approval may be subject to the requirements of other approvals (eg under a mining lease or an Subsidence Management Plan approval) or the Proponent's commitments.

### Progressive Rehabilitation

27. The Proponent shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.

### Rehabilitation Management Plan

28. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project, to the satisfaction of the Director-General of DRE. This plan must:
- be prepared in consultation with the Department, OEH, NOW, Council and the CCC, and be submitted to the Executive Director Mineral Resources in DRE for approval within 6 months of this approval, or as otherwise agreed with the Director-General;
  - be prepared in accordance with any relevant DRE guideline, and be consistent with the rehabilitation objectives in the EA and in Table 13;
  - build, to the maximum extent practicable, on the other management plans required under this approval; and
  - address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring.

*Note: The Rehabilitation Management Plan should address all land impacted by the project, whether prior to or following the date of this approval.*

## **SCHEDULE 5 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. As soon as practicable following obtaining monitoring results showing:
  - (a) an exceedance of the relevant criteria in schedule 4, the Proponent shall notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; or
  - (b) an exceedance of the relevant criteria in conditions 11 or 12 of schedule 4, the Proponent 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**

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in schedule 4, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Proponent shall:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:
    - consult with the landowner to determine his/her concerns;
    - conduct monitoring to determine whether the project is complying with the relevant criteria in schedule 4; and
    - if the project is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
  - (b) give the Director-General and landowner a copy of the independent review.
3. If the independent review determines that the project is complying with the relevant criteria in schedule 4, then the Proponent may discontinue the independent review with the approval of the Director-General.

If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 4, and that the project is primarily responsible for this non-compliance, then the Proponent shall:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Director-General.

If the independent review determines that any relevant acquisition criteria in schedule 4 are being exceeded and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in conditions 4-5 below.

### **LAND ACQUISITION**

4. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent 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 project, 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 on the land at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of any additional mitigation measures undertaken by the Proponent on the land;
  - (b) the reasonable costs associated with:
    - relocating within the Wollongong local government area, or to any other local government area determined by the Director-General; 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.

If the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired within 28 days after the Proponent makes its written offer, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General 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 Proponent 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 Director-General 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 Director-General 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 disputing the independent valuer's determination, and any other relevant submissions.

Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination.

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

5. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 4 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.
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## SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING

### ENVIRONMENTAL MANAGEMENT

#### Environmental Management Strategy

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:
  - (a) be submitted to the Director-General for approval within 6 months of this approval;
  - (b) provide the strategic framework for environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

#### Management Plan Requirements

2. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with 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 project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project;
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with conditions of this approval and statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.

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

#### Annual Review

3. By the end of December each year (or other such timing as agreed by the Director-General), the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
  - (a) describe the works (including any rehabilitation) carried out in the past year, and the works proposed to be carried out over the next year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - monitoring results of previous years; and
    - relevant predictions in the EA;

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

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

4. Within 3 months of:
- (a) the submission of an annual review under condition 3 above;
  - (b) the submission of an incident report under condition 6 below;
  - (c) the submission of an audit report under condition 8 below; and
  - (d) any modification to the conditions of this approval (unless the conditions require otherwise),
- the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.

*Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.*

#### **Community Consultative Committee**

5. The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), or alternative consultative framework as may be agreed by the Director-General, to the satisfaction of the Director-General. This CCC or alternative framework must be operating within 6 months of this approval.

*Notes:*

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*
- *In establishing the CCC, the Department will accept the continued representation from existing CCC members.*

#### **REPORTING**

##### **Incident Reporting**

6. The Proponent shall notify the Director-General and any other relevant agencies of any incident that has caused, or has the potential to cause, significant risk of material harm to the environment, at the earliest opportunity. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

##### **Regular Reporting**

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

#### **INDEPENDENT ENVIRONMENTAL AUDIT**

8. By the end of June 2013 (or other such timing as agreed by the Director-General), and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
  - (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Director-General.*

9. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

#### **ACCESS TO INFORMATION**

10. From the end of December 2011, the Proponent shall:
- (a) make copies of the following publicly available on its website:
    - the EA;
    - all current statutory approvals for the project;
    - approved strategies, plans and programs required under the conditions of this approval;
    - a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
    - a complaints register, which is to be updated on a monthly basis;
    - minutes of CCC meetings;
    - the annual reviews of the project;
    - any independent environmental audit, and the Proponent's response to the recommendations in any audit;
    - any other matter required by the Director-General; and
  - (b) keep this information up-to-date, to the satisfaction of the Director-General.
-

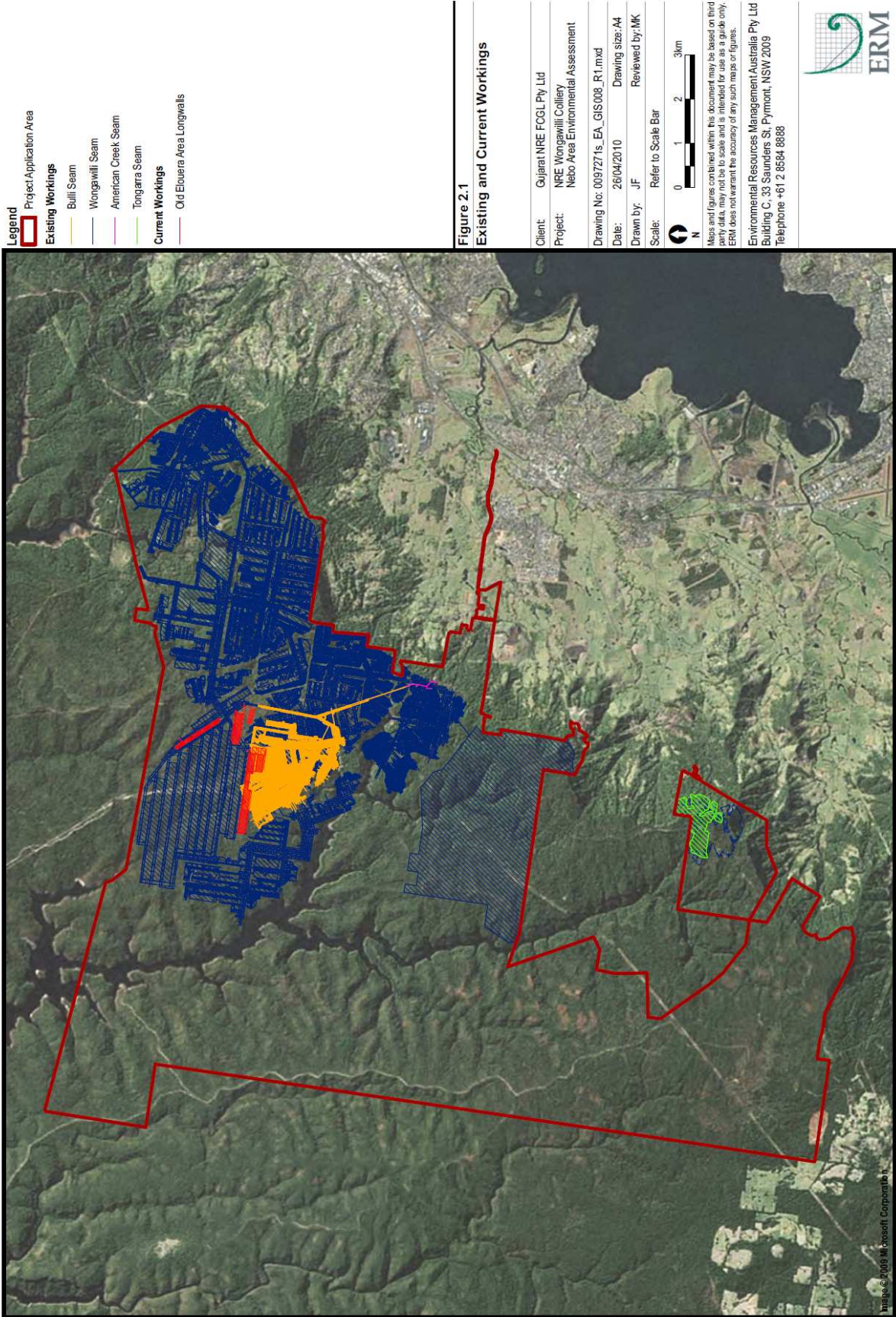
**APPENDIX 1:  
SCHEDULE OF LAND**

<b>Property ID / Lot Number</b>	<b>DP Number</b>	<b>Owner</b>
<i>Wongawilli - ML1596</i>		
Lot 1	321054	Gujarat NRE FCGL Pty Ltd
Lot 1	44325	Gujarat NRE FCGL Pty Ltd
Lot 1	212322	Gujarat NRE FCGL Pty Ltd
Lot 1	216373	Sydney Water
Lot 2	216373	Sydney Water
Lot 3	216373	Lexosu Pty Ltd
Lot 1	255284	Gujarat NRE FCGL Pty Ltd
Lot 2	255284	Gujarat NRE FCGL Pty Ltd
Lot 3	255284	Gujarat NRE FCGL Pty Ltd
Lot 4	255284	Gujarat NRE FCGL Pty Ltd
Lot 5	255284	Gujarat NRE FCGL Pty Ltd
Lot 6	255284	Gujarat NRE FCGL Pty Ltd
Lot 7	255284	Gujarat NRE FCGL Pty Ltd
Lot 14	255284	Gujarat NRE FCGL Pty Ltd
Lot 8	255585	Krishnaswamy & Uma Ramasamy
Lot 12	255285	Endeavour Coal Pty Ltd
Lot 1	383829	Gujarat NRE FCGL Pty Ltd
Lot 14	751278	DECCW (National park)
Lot 16	751278	DECCW (National park)
Lot 171	751278	DECCW (National park)
Lot 196	751278	Sydney Catchment Authority
Part Lot 217	751278	Sydney Catchment Authority
Lot 219	751278	Sydney Catchment Authority
Lot 220	751278	Sydney Catchment Authority
Lot 221	751278	Sydney Catchment Authority
Part Lot 275	751278	Dendrobium Coal Pty Ltd
Lot 295	751278	Springhill Farm Company Pty Ltd
Lot 281	751278	Sydney Catchment Authority
Lot 282	751278	DECCW (National park)
Lot 298	751278	DECCW (National park)
Lot 303	751278	Sydney Catchment Authority
Lot 304	751278	Sydney Catchment Authority
Lot 2	986776	Barbara Elaine Marshall, Katrina Jane Marshall, Kim Michele Marshall
Part Lot 1	986776	Barbara Elaine Marshall, Katrina Jane Marshall, Kim Michele Marshall
Part Lot 1	1001210	Sydney Catchment Authority
Lot 1	1001212	Sydney Catchment Authority

Property ID / Lot Number	DP Number	Owner
Lot 1	1001213	Sydney Catchment Authority
Lot 1	1006994	Sydney Catchment Authority
Lot 301	1087464	Sydney Catchment Authority
		Lawrence John Lawson & Dawn Mary Lawson
Lot 1	1033422	Lawson
Part Lot 1	1103666	Dendrobium Coal Pty Ltd
Part Lot 3	1103666	Dendrobium Coal Pty Ltd
Part Lot 1	1103781	Dendrobium Coal Pty Ltd
Lot 2	1103781	Dendrobium Coal Pty Ltd
Lot 3	1103781	Dendrobium Coal Pty Ltd
Part Lot 18	1111734	Dendrobium Coal Pty Ltd
Lot 422	1123956	Gujarat NRE FCGL Pty Ltd
Lot 423	1123956	Gujarat NRE FCGL Pty Ltd
Lot 424	1123956	Gujarat NRE FCGL Pty Ltd
Lot 425	1123956	Gujarat NRE FCGL Pty Ltd
Lot 19	1131362	Sydney Catchment Authority
Lot 1	1132869	The Minister for Public Works
<i>Avondale - ML1565</i>		
Lot 41	751263	Sherwood Hannington
Lot 42	751263	Gerard Kevin McCue
Part Lot 43	751263	Edward Roy Vergan & Kim Pamela Vergan Jason Bernard Voorwinden & Esther Olive Voorwinden
Lot 111	751263	Voorwinden
Part Lot 140	751277	Sydney Catchment Authority
Part Lot 181	751277	Sydney Catchment Authority
<i>CCL 766</i>		
Par Lot 27	3083	HTT Huntley Heritage Pty Ltd
Part Lot 111	585959	Craig Duren
Lot 2	751263	The Council of the City of Wollongong Angelo Vincenzo Di Martino & Sally Elizabeth Di Martino
Part Lot 40	751263	Elizabeth Di Martino
Lot 49	751263	HTT Huntley Heritage Pty Ltd
Part Lot 55	751263	HTT Huntley Heritage Pty Ltd
Part Lot 3	852180	Caroline Joan Forbes
Lot 10	867347	HTT Huntley Heritage Pty Ltd
<i>Across all leases</i>		
Lot 32	1138149	Sydney Catchment Authority



## APPENDIX 2: PROJECT LAYOUT PLANS



- Legend**
- Project Application Area
  - Existing Workings
  - Bulli Seam
  - Wongawilli Seam
  - American Creek Seam
  - Tongarra Seam
  - Current Workings
  - Old Elouera Area Longwalls

**Figure 2.1**  
Existing and Current Workings

Client:	Gujarat NRE FCGL Pty Ltd
Project:	NRE Wongawilli Colliery Nabo Area Environmental Assessment
Drawing No:	0097271s_EA_GIS008_R1.mxd
Date:	26/04/2010
Drawn by:	JF
Reviewed by:	MK
Scale:	Refer to Scale Bar



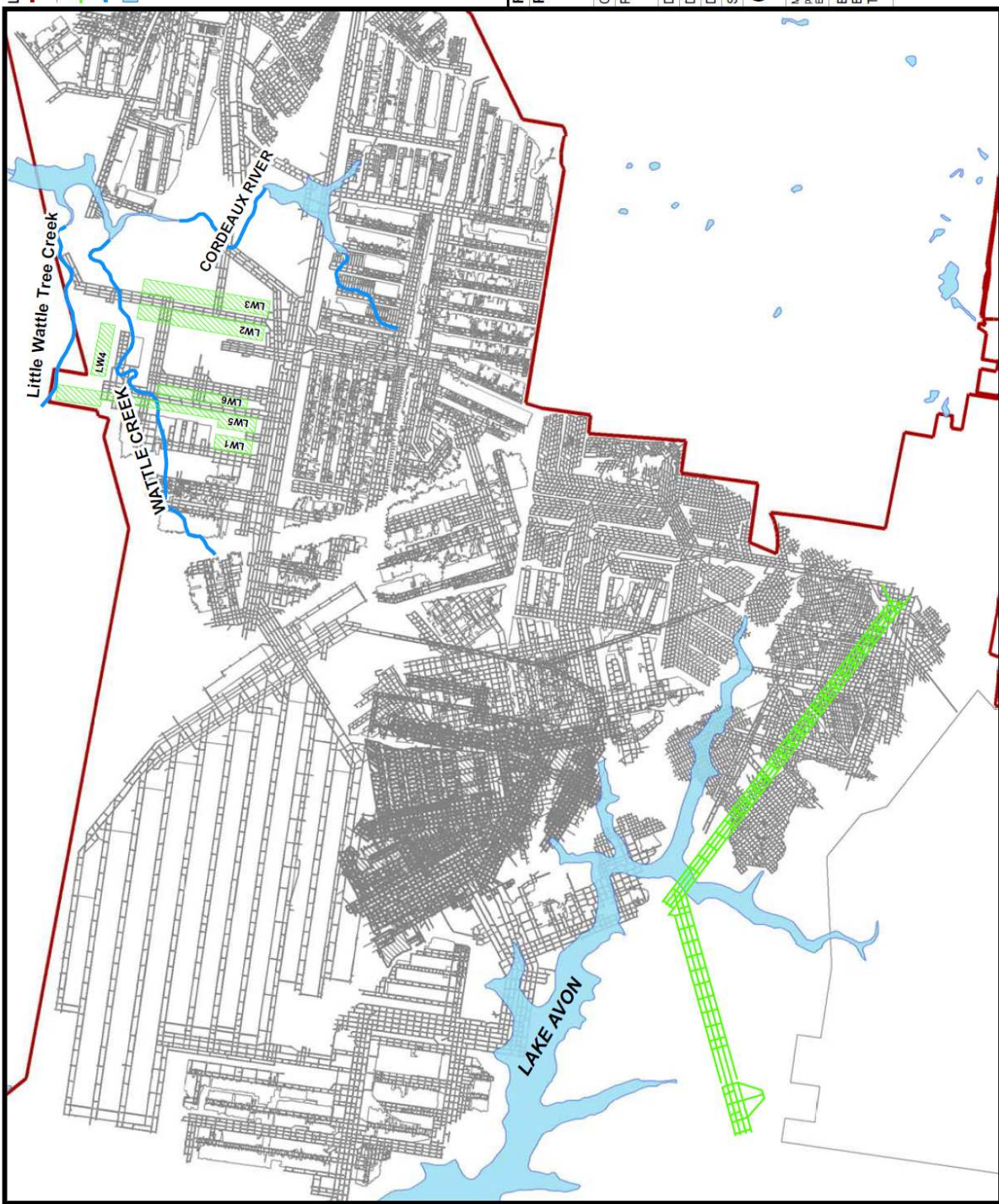
Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

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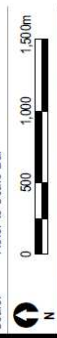
Images © 2009 Microsoft Corporation

- Legend**
- Project Application Area
  - Existing Workings
  - Proposed Workings
  - River/Creek
  - Lake/Dam



**Figure 3.3**  
Proposed and Existing Workings








Client:	Gujarat NRE FCGL Pty Ltd
Project:	NRE Wongawilli Colliery Nebo Area Environmental Assessment
Drawing No:	0097271s_EA_GIS038_R0.mxd
Date:	21/09/2010
Drawn by:	NS
Reviewed by:	MK
Scale:	Refer to Scale Bar

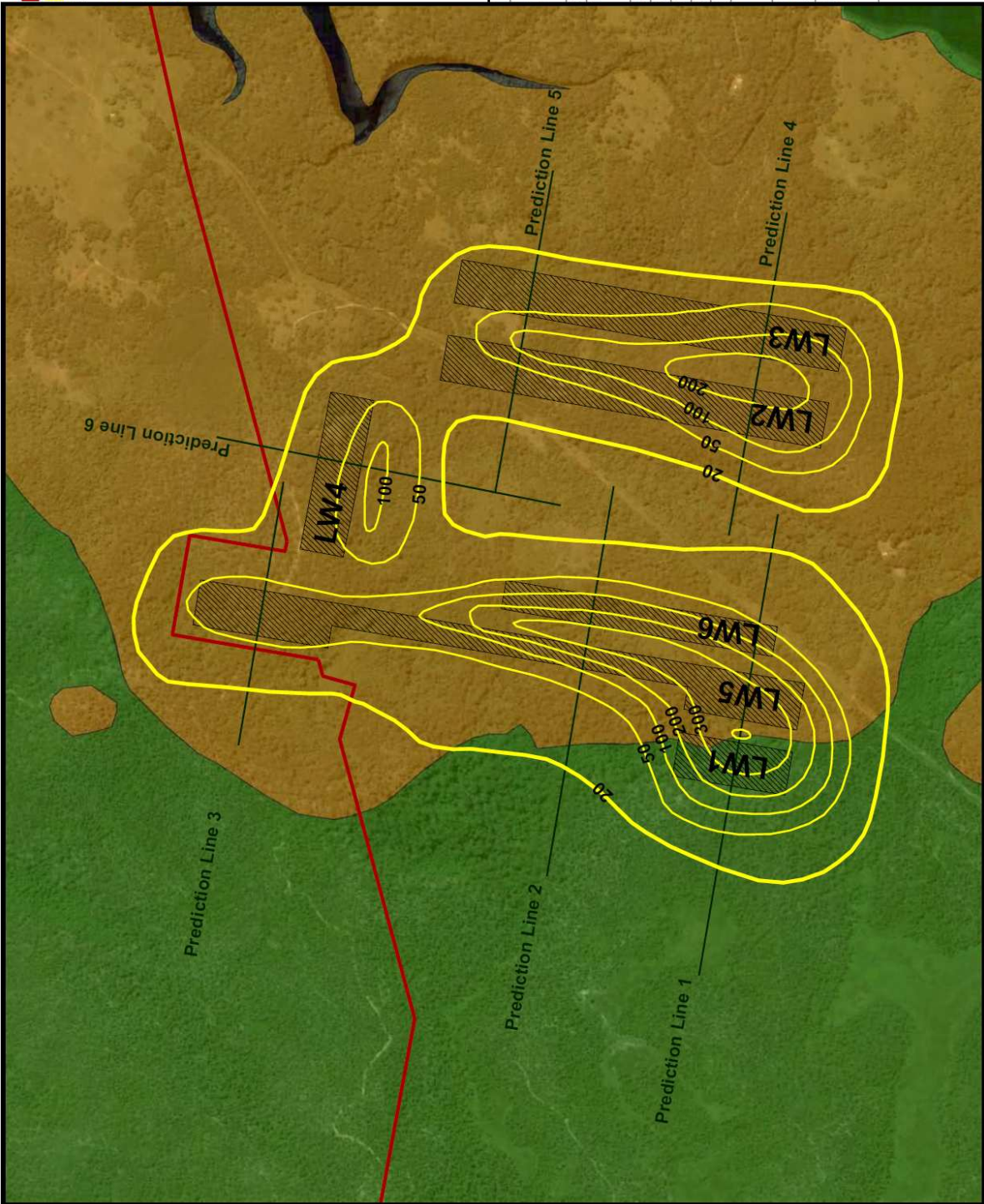


Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

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- Legend**
-  Project Application Area
  -  Potential Subsidence Footprint
  -  Proposed Longwalls
  -  Prediction Lines
  -  Potential Subsidence Contours
- Geological Formation**
-  Cordeaux Crininite
  -  Hawkesbury Sandstone



**Figure 9.2**  
**Predicted Subsidence**  
 (Source: MSEC (2010))

Client:	Gujarat NRE FGGL Pty Ltd
Project:	NRE Wongawilli Colliery Nebo Area Environmental Assessment
Drawing No:	0092771s_EA_GIS028_R0.mxd
Date:	21/06/2010
Drawn by:	JF
Reviewed by:	MK
Projection:	GDA 1984 MGA Zone 56
Scale:	Refer to Scale Bar



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**APPENDIX 3:  
STATEMENT OF COMMITMENTS**

Outcome	Commitment	Timing
<b>Statutory Requirements</b>		
Compliance with all conditional requirements in all approvals, licenses and leases.	<ul style="list-style-type: none"> <li>The development will be carried out as outlined in:               <ul style="list-style-type: none"> <li>this Environmental Assessment Report (EA);</li> <li>Project Approval;</li> <li>Environment Protection License;</li> <li>Subsidence Management Plans (SMIPs);</li> <li>Mining Lease(s); and</li> <li>any other approvals, licenses or leases.</li> </ul> </li> <li>Undertake all activities in accordance with the accepted Mining Operations Plan; environmental procedures; safety management plan and/or site-specific documentation in force at that time.</li> </ul>	Continuous and as required
All operations conducted in accordance with all relevant documentation.	<ul style="list-style-type: none"> <li>Undertake all activities in accordance with the accepted Mining Operations Plan; environmental procedures; safety management plan and/or site-specific documentation in force at that time.</li> </ul>	Continuous and as required
<b>Stakeholder Consultation</b>		
Effective communication/consultation is undertaken throughout the life of the Project.	<ul style="list-style-type: none"> <li>NRE will conduct regular community liaison meetings and provide regular updates to the community during operation of the Project.</li> </ul>	At regular intervals of not less than three times a year
<b>Land Use and Resource Management</b>		
Maintaining the integrity of surrounding resources.	<ul style="list-style-type: none"> <li>A Bushfire Management Plan will be developed with mitigation measures for bush fire impacts including the following:               <ul style="list-style-type: none"> <li>slashing, landscaping and vegetation management to manage fuel;</li> <li>maintenance of fire breaks;</li> <li>ongoing communication with the NSW Rural Fire Service; and</li> <li>site fire fighting equipment and emergency response procedures.</li> </ul> </li> </ul>	Within 6 months of approval
<b>Subsidence</b>		
Potential adverse impacts from subsidence are managed, monitored and remediated where necessary.	<ul style="list-style-type: none"> <li>Ground movements will be monitored as mining occurs, to measure the extent to which the actual movements may differ from those predicted. Any unacceptable impacts can be addressed and appropriate remedial measures implemented, as required.</li> <li>NRE will liaise with SCA, other regulatory authorities, and owners of infrastructure to ensure that the impacts of subsidence are managed to an acceptable standard.</li> </ul>	During secondary extraction
		During secondary extraction

Outcome	Commitment	Timing
	<ul style="list-style-type: none"> <li>An Extraction Plan will be developed prior to secondary extraction which will detail the monitoring measures to be implemented to manage subsidence impacts and their consequences on both natural and man made features in the Nebo area. The plan will include details of: <ul style="list-style-type: none"> <li>appropriate triggers and monitoring systems to demonstrate how management strategies have been achieved and where improvements can be made;</li> <li>adaptive management processes for continually detecting impacts and validating predictions;</li> <li>contingency planning for any unpredicted impacts; and</li> <li>remediation of unpredicted impacts.</li> </ul> </li> <li>Powerlines and other man made surface features will be subject to specific management plans developed in consultation with infrastructure owners.</li> </ul>	Prior to secondary extraction
<p><i>Surface Water</i></p> <p>Mining operations are managed such that adverse impacts to surface water are prevented or minimised.</p>	<ul style="list-style-type: none"> <li>Provided initial assessments indicate that the flow regimes allow for the collection of meaningful data, additional monitoring sites will be established in the upper reaches of Little Wattle Tree Creek and Wattle Creek.</li> <li>A baseline data report, documenting the existing environment will be submitted one month prior to secondary extraction in the Nebo area. The baseline monitoring report will include two years worth of data. Secondary extraction will not commence prior to all data being collected.</li> <li>A Surface Water Management Plan will be prepared as detailed in <i>Section 10.6.1</i> of the EA and updated by the following. The Plan will include: <ul style="list-style-type: none"> <li>a monitoring program including monthly monitoring conducted prior to, during and for a period of two years post mining;</li> <li>a Trigger Action Response Plan (TARP). Triggers will be determined using baseline data prior to mining, based on ANZECC guidelines; and</li> <li>notification and reporting requirements including reporting exceedances of trigger levels within one week to NOW.</li> </ul> </li> <li>The following SCA performance measures will be adhered to: <ul style="list-style-type: none"> <li>Cordeaux Dam Wall – zero impact;</li> <li>Upper Cordeaux No.1 and No.2 Dam Walls – safe, serviceable and repairable;</li> <li>fire trails – safe, serviceable and repairable;</li> <li>catchment yield – negligible reduction in water quality and quantity;</li> <li>Avon, Cordeaux, Upper Cordeaux No.1 and Upper Cordeaux No.2 Reservoirs – negligible leaking and reduction in water quality; and</li> <li>Wattle Creek and Little Wattle Tree Creek – negligible environmental consequences.</li> </ul> </li> </ul>	<p>Prior to secondary extraction</p> <p>Prior to secondary extraction</p> <p>Prior to secondary extraction, within three months of approval</p> <p>Ongoing</p>

Outcome	Commitment	Timing
	<ul style="list-style-type: none"> <li>Photographic records of site conditions, including bed and banks will be undertaken for Wattle Creek and Little Wattle Tree Creek.</li> <li>Visual monitoring of bank stability, bedload movement and riparian vegetation in Wattle Creek and Little Wattle Tree Creek.</li> <li>Mine inflows will be monitored as part of the Extraction Plan</li> <li>Rainfall will be monitored daily for the duration of mining using a rainfall gauge at the NRE Wongawilli Pit Top..</li> <li>An end of extraction report will be prepared for each panel, which summarises the results of all monitoring over the period.</li> <li>All results will be reviewed one year after each panel has been completed and the monitoring and remediation program will be updated and amended if required.</li> <li>Contingency plans will be developed where the actual impact exceeds the predicted impact on significant natural features. Possible mitigation measures to reduce the potential impacts of subsidence on significant features will be undertaken if required</li> <li>Remediation measures will be undertaken if required.</li> </ul>	<p>Prior to and after secondary extraction</p> <p>Prior to and after secondary extraction</p> <p>During secondary extraction</p> <p>During secondary extraction</p> <p>After the mining of each panel</p> <p>One year after secondary extraction</p> <p>Prior and during to secondary extraction</p> <p>If required</p>
<p>Coal handling operations are managed such that adverse impacts to surface water are prevented or minimised.</p>	<ul style="list-style-type: none"> <li>A Pit Top Water Management Plan will be developed for the pit top including <ul style="list-style-type: none"> <li>identification of significant water management features;</li> <li>volumes;</li> <li>catchment extents, including extent of clean, dirty and contaminated water on site;</li> <li>where water management can be improved; and</li> <li>consideration of water discharge impacts.</li> </ul> </li> </ul>	<p>Within 6 months</p>
<p><b>Groundwater</b></p> <p>Operations are managed such that adverse impacts to local and regional groundwater resources are prevented or minimised.</p>	<ul style="list-style-type: none"> <li>A baseline data report, documenting the existing environment will be submitted one month prior to secondary extraction in the Nebo area. The baseline monitoring report will include two years worth of data.</li> </ul>	<p>Prior to secondary extraction</p>

Outcome	Commitment	Timing
	<ul style="list-style-type: none"> <li>A Groundwater Management Plan including a TARP will be prepared to provide guidance on the procedures and actions required to manage potential impacts on the groundwater systems in the Nebo area. Trigger levels will be determined using baseline data prior to mining, based on ANZECC guidelines. The Plan will include a monitoring program of monthly sampling conducted prior to, during and for a period of two years post mining.</li> <li>Groundwater modelling will be reviewed annually (unless triggered by an exceedance).</li> <li>Contingency procedures will be developed as required, to manage any impacts identified by monitoring. Activation of contingency procedures will be linked to the assessment of monitoring results, including water quality, aquifer hydrostatic pressure levels and the rate of water level changes. Performance indicators will be identified prior to extraction of the proposed workings.</li> <li>Following completion of extraction of each panel, a report will be prepared for all prior panels that summarises all relevant monitoring to date. The report will outline any changes in the groundwater system over the relevant mining area. And include an interpretation of the data along with: <ul style="list-style-type: none"> <li>a basic statistical analysis of the results for the parameters measured;</li> <li>an interpretation of water quality and standing water level changes; and</li> <li>an interpretation and review of the results in relation to the impact assessment criteria.</li> </ul> </li> </ul>	<p>Prior to and during secondary extraction</p> <p>If required</p> <p>At the end of each panel</p>
<p><b>Air Quality</b></p> <p>Operations are managed to minimise potential adverse impacts to the environment, residences and the community.</p>	<ul style="list-style-type: none"> <li>Water sprays will continue to be used on exposed areas to minimise dust as needs</li> <li>A high volume dust sampler will be installed in the vicinity of Receptor 1.</li> <li>Protocol to prevent overfilling of rail wagons is to be adhered to at all times</li> <li>Subject to monitoring results, additional mitigation measures will be investigated if required.</li> <li>Dust deposition gauges will be installed along the rail line.</li> </ul>	<p>Continuous</p> <p>Prior to secondary extraction</p> <p>Continuous</p> <p>Within 12 months</p> <p>Within 6 months of approval</p>
<p><b>Greenhouse Gasses</b></p> <p>Manage operations such that greenhouse gas emissions on the environment are minimised.</p>	<ul style="list-style-type: none"> <li>Energy audits will be held when practicable to ensure that the mine is using current practice techniques to minimise energy use and is operating at optimum energy levels.</li> <li>Site management will ensure that equipment is maintained to retain high levels of energy efficiency and replaced with energy efficient equipment as required.</li> <li>The inventory of emissions developed for this assessment will be maintained.</li> <li>Emissions and abatement strategies will be reported annually as part of internal environmental reporting and National Greenhouse and Energy Reporting System obligations.</li> </ul>	<p>Continuous and as required</p> <p>Continuous and as required</p> <p>Continuous and as required</p> <p>Continuous and as required</p>

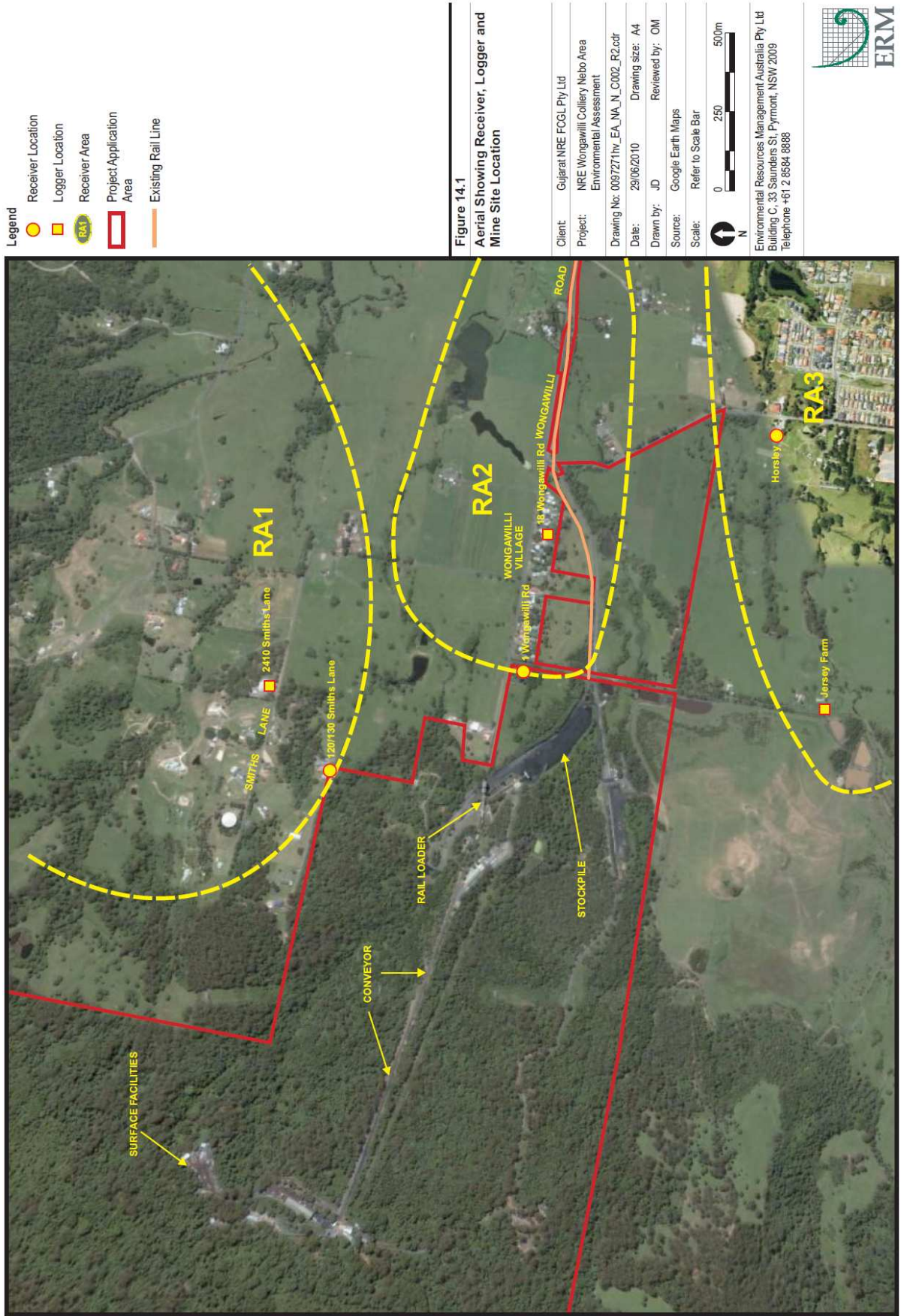
Outcome	Commitment	Timing
<p><b>Acoustics</b></p> <p>Operations are managed to minimise potential adverse impacts on the environment, residences and the community.</p>	<ul style="list-style-type: none"> <li>• If required as an outcome of the noise monitoring program, acoustic treatment of front end loaders and other stockpile machinery will be undertaken to achieve a sound power level of 103 dBA or less.</li> <li>• If required as an outcome of the noise monitoring program, noise mitigation options for the coal conveyor system and coal bins will be investigated.</li> <li>• Implementation of low noise equipment that is correctly maintained to the manufacturer's specification, including the conveyor systems, transfer stations and coal bins.</li> <li>• All on-site, fixed and mobile diesel powered plant, excluding road vehicles, will be correctly fitted and maintained to the manufacturer's specifications. Particular attention will be given to engine exhaust systems and the care and maintenance of mufflers.</li> <li>• Adoption of best practice methods and training of staff as required in regards to minimising noise impacts will be implemented.</li> <li>• An operational Noise Management Plan (NMP) will be developed to specifically address potential noise impacts associated with the proposed operations during the evening and night time periods. This NMP will be used to manage the noise impacts at affected receivers in Wongawilli: Village and Horsley in RA1 and RA2. The NMP will outline methods and procedures to manage the following; <ul style="list-style-type: none"> <li>• results of the regular noise monitoring program on-site and within the surrounding area;</li> <li>• response to any complaints or issues raised by the owner of the affected residence; and</li> <li>• noise mitigation measures and operating procedures to achieve compliance with noise goals.</li> </ul> </li> <li>• An operational noise monitoring program will be developed to monitor noise emissions from the proposed operations to determine ongoing compliance with PSNLs and to identify any further feasible noise mitigation measures that can be implemented.</li> <li>• The monitoring program will be implemented during evening and night time periods with the objective of confirming the acoustic performance of the proposed operations.</li> <li>• If following monitoring, further mitigation is required, noise mitigation will be implemented along the appropriate portions of railway track.</li> </ul>	<p>Within six months of approval</p> <p>Within six months of approval</p> <p>Continuous and as required</p> <p>Continuous and as required</p> <p>Continuous and as required</p> <p>Within 12 months of approval and continuous and as required</p> <p>Within 12 months of approval and continuous and as required</p> <p>If required</p>
<p><b>Aquatic Ecology</b></p> <p>Operations are managed such that adverse impacts to native flora and fauna are prevented or minimised.</p>	<ul style="list-style-type: none"> <li>• Provided initial assessments indicate that the flow regimes allow for the collection of meaningful data, eight new aquatic ecology impact monitoring sites will be established in the Nebo area, three on Little Wattle Tree Creek and five on Wattle Creek with three control sites. The site establishment and first monitoring run will be undertaken in Autumn 2011 with monitoring continuing twice a year during Autumn and Spring.</li> </ul>	<p>Prior to secondary extraction</p>



Outcome	Commitment	Timing
<b>Acoustics</b>		
Operations are managed to minimise potential adverse impacts on the environment, residences and the community.	<ul style="list-style-type: none"> <li>If required as an outcome of the noise monitoring program, acoustic treatment of front end loaders and other stockpile machinery will be undertaken to achieve a sound power level of 103 dBA or less.</li> <li>If required as an outcome of the noise monitoring program, noise mitigation options for the coal conveyor system and coal bins will be investigated.</li> <li>Implementation of low noise equipment that is correctly maintained to the manufacturer's specification, including the conveyor systems, transfer stations and coal bins.</li> <li>All on-site, fixed and mobile diesel powered plant, excluding road vehicles, will be correctly fitted and maintained to the manufacturer's specifications. Particular attention will be given to engine exhaust systems and the care and maintenance of mufflers.</li> <li>Adoption of best practice methods and training of staff as required in regards to minimising noise impacts will be implemented.</li> </ul>	<p>Within six months of approval</p> <p>Within six months of approval</p> <p>Continuous and as required</p> <p>Continuous and as required</p> <p>Continuous and as required</p>
Managing residual noise impact on nearby residences.	<ul style="list-style-type: none"> <li>An operational Noise Management Plan (NMP) will be developed to specifically address potential noise impacts associated with the proposed operations during the evening and night time periods. This NMP will be used to manage the noise impacts at affected receivers in Wongawilli Village and Horsley in RA1 and RA2. The NMP will outline methods and procedures to manage the following: <ul style="list-style-type: none"> <li>results of the regular noise monitoring program on-site and within the surrounding area;</li> <li>response to any complaints or issues raised by the owner of the affected residence; and</li> <li>noise mitigation measures and operating procedures to achieve compliance with noise goals.</li> </ul> </li> <li>An operational noise monitoring program will be developed to monitor noise emissions from the proposed operations to determine ongoing compliance with PSNLs and to identify any further feasible noise mitigation measures that can be implemented.</li> <li>The monitoring program will be implemented during evening and night time periods with the objective of confirming the acoustic performance of the proposed operations.</li> <li>If following monitoring, further mitigation is required, noise mitigation will be implemented along the appropriate portions of railway track.</li> </ul>	<p>Within 12 months of approval and continuous and as required</p> <p>Within 12 months of approval and continuous and as required</p> <p>If required</p>
<b>Aquatic Ecology</b>		
Operations are managed such that adverse impacts to native flora and fauna are prevented or minimised.	<ul style="list-style-type: none"> <li>Provided initial assessments indicate that the flow regimes allow for the collection of meaningful data, eight new aquatic ecology impact monitoring sites will be established in the Nebo area, three on Little Wattle Tree Creek and five on Wattle Creek with three control sites. The site establishment and first monitoring run will be undertaken in Autumn 2011 with monitoring continuing twice a year during Autumn and Spring.</li> </ul>	<p>Prior to secondary extraction</p>
<b>Terrestrial Ecology</b>		
Operations are managed such that adverse impacts to native flora and fauna are prevented or minimised.	<ul style="list-style-type: none"> <li>Monitoring will be undertaken post mining, including surveys of the upland swamps and riparian zones to ascertain any impacts resulting from mining.</li> </ul>	<p>Post secondary extraction</p>

Outcome	Commitment	Timing
<p><b>Non-Aboriginal Heritage</b></p> <p>Operations are managed such that adverse impacts to significant heritage items are avoided or minimised.</p>	<ul style="list-style-type: none"> <li>To preserve and enhance the heritage values of the site, NRE will create greater awareness amongst staff of the significance of the heritage items at the Wongawilli pit top and how day to day activities may impact on these items. An education program will be created and implemented via the MOP. NRE will develop a Conservation Management Plan.</li> </ul>	<p>Within 6 months of approval, Continuous and as required</p>
<p><b>Traffic and Transport</b></p> <p>Operations are managed to ensure minimal impacts on the local road network.</p>	<ul style="list-style-type: none"> <li>Current traffic and transport management measures will continue to ensure impacts on local road users from NRE Wongawilli Colliery are minimised. These measures include strict adherence to Council restrictions such as speed limits as well as other safety or warning requirements.</li> </ul>	<p>Continuous and as required</p>
<p><b>Waste</b></p>		
<p>Avoidance of unnecessary resource consumption; reuse, reprocessing, recycling and energy recovery wherever possible and, where this is not possible, disposal of wastes in an environmentally responsible manner.</p>	<ul style="list-style-type: none"> <li>All waste material will be disposed of in accordance with the provisions of the <i>Protection of the Environment Operations Act 1997</i> and the Waste Classification Guidelines (DECC, 2008).</li> <li>Waste will be reused and recycled where possible or disposed of at an appropriately licensed waste disposal facility.</li> <li>Onsite storage and disposal of different categories of waste will be defined. A sufficient number of covered storage bins will be provided for waste disposal on site, with separate bins for recyclable and non-recyclable waste.</li> <li>All records will be retained as proof of correct disposal for environmental audit purposes.</li> </ul>	<p>Continuous</p> <p>Continuous</p> <p>Continuous</p> <p>Continuous</p>
<p><b>Rehabilitation</b></p>		
<p>Progressive rehabilitation of mine access and disused portals</p>	<p>The Rehabilitation Plan will be developed, presented and undertaken in accordance with a REMP to the satisfaction of IIN</p>	<p>Continuous and as required</p>
<p>Restoration of disturbed areas with a vegetation cover similar in nature to that of the surrounding bushland</p>	<p>All mine entries surplus to operational requirements will be progressively sealed and rehabilitated. Progressive rehabilitation of all other disused areas and infrastructure will be undertaken where possible.</p>	<p>Within seven years</p> <p>Continuous and as required</p>

## APPENDIX 4: RECEIVER LOCATION PLAN



- Legend**
- Receiver Location
  - Logger Location
  - RA1 Receiver Area
  - Project Application Area
  - Existing Rail Line

**Figure 14.1**  
Aerial Showing Receiver, Logger and Mine Site Location

Client:	Gujarat NRE FCGL Pty Ltd
Project:	NRE Wongawilli Colliery Nebo Area Environmental Assessment
Drawing No:	0097271hv_EA_NA_N_C002_R2.cdr
Date:	29/06/2010 Drawing size: A4
Drawn by:	JD Reviewed by: OM
Source:	Google Earth Maps
Scale:	Refer to Scale Bar
Environmental Resources Management Australia Pty Ltd Building C, 33 Saunders St, Pyrmont, NSW 2009 Telephone +61 2 8584 8888	

