

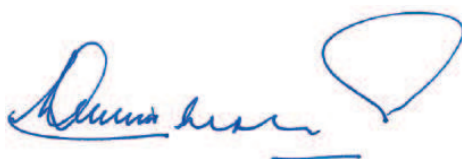
Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

As delegate for the Minister of Planning and Infrastructure, the Planning and 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 5.

These conditions are required to:

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



Neil Shepherd AM
Member of the Commission



Joe Woodward PSM
Member of the Commission

Sydney 18 January 2012

SCHEDULE 1

Application Number:	10_0080
Proponent:	Centennial Myuna Pty Limited
Approval Authority:	Minister for Planning and Infrastructure
Land:	See Appendix 1
Project:	Myuna Colliery Mining Project

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DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mine plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within the predicted and/or designated ranges and in compliance with the conditions of this approval
Annual Review	The review required by Condition 4 of Schedule 5
Approval	This Project Approval
BCA	Building Code of Australia
Benthic communities	Aquatic flora and fauna assemblages that live on or in the bottom of the lake
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; and any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in Schedules 2 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this approval
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
DPI (Fisheries)	Fisheries Division of the Department of Primary Industries
DRE	Division of Resources and Energy in the Department of Trade and Investment, Regional Infrastructure and Services
DSC	Dams Safety Committee
DTIRIS	Department of Trade and Investment, Regional Infrastructure and Services
EA	Environmental Assessment titled ' <i>Myuna Colliery Extension of Mining Environmental Assessment</i> ', dated February 2011, and associated response to submissions titled ' <i>Myuna Colliery Extension of Mining Project – Response to Submissions</i> ', dated September 2011.
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
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; adverse water quality impacts; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding.
Evening	The period from 6pm to 10pm
Executive Director Mineral Resources	Executive Director Mineral Resources within DRE, or the equivalent role
Existing strategies, plans or programs	Any strategy, plan or program described in the EA as existing.
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
First workings	Extraction of coal by bord and pillar workings and the like
Heritage Item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i>
High Water Level Subsidence Control Zone	The area of land shown in Appendix 2 and defined: a) on the surface by the highwater level of Lake Macquarie and a point 2.44 metres in elevation above that highwater level; and b) in the seam, where it is intersected by lines: • drawn landwards from all points 2.44 metres elevation above the highwater level of Lake Macquarie; and • drawn lakewards from the highwater level of Lake Macquarie, at an angle of 35 degrees from the vertical.
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
INP	NSW Industrial Noise Policy
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this approval where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
LMCC	Lake Macquarie City Council
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial

Mining operations	Includes all extraction, processing, handling, storage and transportation of coal carried out on the site
Minister	Minister for Planning and Infrastructure, or delegate
Minor	Not very large, important or serious
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, Monday to Saturday, 10pm to 8am on Sundays and Public Holidays
NOW	NSW Office of Water
OEI	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	Centennial Myuna Pty Limited, or any other person or persons who rely on this approval to carry out the development that is subject to this approval
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 projects or controlling the environmental consequences of this impact.
ROM coal	Run-of-mine coal
Safe, serviceable and 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
Second workings	Extraction of coal by pillar extraction methods
Site	All land to which the project application applies, including the surface facilities sites, as listed in Appendix 1 and generally shown in Appendix 3
SMP	Subsidence Management Plan
Statement of Commitments	The Proponent's commitments in Appendix 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 Myuna Colliery surface facilities site; all ventilation shaft sites; surface 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
WSC	Wyong Shire Council
Zone A	The area at the site that includes: - all land above 2.44 m in elevation above the high water level at Lake Macquarie; - the High Water Level Subsidence Control Zone; and - seagrass beds in Lake Macquarie.
Zone B	The bed of Lake Macquarie excluding those areas within Zone A.

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, 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 3; and
- The statement of commitments is reproduced in Appendix 5.

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this 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. The Proponent may carry out mining operations on the site until 31 December 2032.

Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Director-General and 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 Extraction and Transport

6. The Proponent shall not:
 - (a) extract more than 2 million tonnes of ROM coal from the site in any calendar year.
 - (b) transport any coal on public roads.
7. The Proponent shall ensure that all coal is transported from the site via the enclosed overland coal conveyer to Eraring Power Station.

Hours of Operation

8. The Proponent may undertake mining operations 24 hours a day, 7 days a week.

STRUCTURAL ADEQUACY

9. 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; and
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

DEMOLITION

10. 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

11. The Proponent shall ensure that all the 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

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

Notes:

- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

CONTINUATION OF EXISTING MANAGEMENT PLANS

13. The Proponent shall continue to implement existing strategies, plans or programs that apply to existing activities on the site until they are replaced by an equivalent strategy, plan or program approved under this approval.
-

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

SUBSIDENCE

1. The Proponent shall ensure that vertical subsidence within Zone A is limited to a maximum of 20 millimetres (mm) and that extraction methods are limited to first workings only.
2. The Proponent shall ensure that vertical subsidence within Zone B is limited to 650 mm and second workings are limited to partial pillar extraction within the Great Northern and Fassifern coal seams.
3. The Proponent shall seek approval from the DSC prior to mining within the Eraring Dam Notification Area.

Environmental Performance Measures

4. 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: Environmental Subsidence Impact Performance Measures

Biodiversity	
Threatened species, populations or their habitats and endangered ecological communities	Negligible impact or environmental consequences.
Seagrass beds	Negligible environmental consequences including: • <i>negligible</i> change in the size and distribution of seagrass beds; • <i>negligible</i> change in the functioning of seagrass beds; and • <i>negligible</i> change to the composition or distribution of seagrass species within seagrass beds.
Benthic communities	Minor environmental consequences, including minor changes to species composition and/or distribution.

Notes:

- 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 8, 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.

Offsets

5. If the Proponent exceeds the performance measures in Table 1 and the Director-General determines that:
 - (a) it is neither reasonable nor 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.

Built Features Performance Measures

6. 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: Built Features Subsidence Impact Performance Measures

Built Features	
Key public infrastructure: Eraring Power Station Ash Dam	Negligible impact or consequence.
Other public infrastructure (including sewage pipes; power and telecommunications cables). Other built features (including jetties and boat moorings)	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired, replaced or fully compensated.
Public Safety	
Public Safety.	Negligible additional risk.

Notes:

- 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 8 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.
- 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.

7. 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.

Extraction Plan

8. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
 - be approved by the Director-General before the Proponent carries out any of the second workings covered by the plan;
 - include detailed plans of existing and proposed first and second workings and any associated surface development;
 - include detailed performance indicators for each of the performance measures in Tables 1 and 2;
 - provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval;
 - 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;
 - include a Benthic Communities Management Plan, which has been prepared in consultation with OEH, DPI Fisheries and LMCC, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on benthic communities in Zone B, and which includes:
 - surveys of the lake bed to enable contours to be produced and changes in depth following subsidence to be accurately measured;
 - benthic species surveys within Zone B, as well as control sites outside Zone B (at similar depths) to establish baseline data on species number and composition within the communities;
 - a program of ongoing seasonal monitoring of benthic species in both control and impact sites; and
 - development of a model to predict likely impact of increased depth and associated subsidence impacts and effects, including but not limited to light reduction and sediment disturbance, on benthic species number and benthic communities composition, incorporating the survey data collected;
 - include a Seagrass Management Plan, which has been prepared in consultation with OEH, DPI Fisheries and LMCC, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on seagrass beds, and which includes:
 - identification of all seagrass beds (whether established before or after the date of this approval) which may be affected by the proposed second workings;
 - delineation of seagrass beds at the edge of Zone A that may experience subsidence effects from second workings in Zone B;

- a program of ongoing monitoring of seagrasses in both control and impact sites; and
 - a program to predict and manage subsidence impacts and environmental consequences to seagrass beds to ensure the performance measures in Table 1 are met;
- (i) include a Built Features Management Plan, which has been prepared in consultation with DRE, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings on built features, and which:
- addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features;
 - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;
 - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate for predicted impacts on potentially affected built features in a timely manner; and
 - in the case of all key and other public infrastructure, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides for annual auditing of compliance and effectiveness during secondary extraction which may impact the infrastructure;
- (j) include a subsidence monitoring program, which has been prepared in consultation with DRE, OEH, and DPI Fisheries, to:
- provide data to assist with the management of the risks associated with subsidence;
 - validate the subsidence predictions;
 - 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;
- (k) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;
- (l) include a Strata Management Plan which has been prepared in consultation with DRE;
- (m) propose appropriate revisions to the Rehabilitation Management Plan required under condition 35 of Schedule 4;
- (n) 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; and
- (o) include a program to collect sufficient baseline data for future Extraction Plans.

Notes: 1) An SMP which is approved by DRE prior to 30 October 2012 is taken to satisfy the requirements of this condition.
 2) The Benthic Communities and Seagrass Management Plans may be prepared jointly with similar plans required for any adjacent colliery.

First Workings

9. The Proponent may carry out first workings within the site, other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain 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.

Payment of Reasonable Costs

10. The Proponent shall pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent persons to review the adequacy of any aspect of an Extraction Plan.

NOISE

Noise Criteria

11. The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 3: Noise criteria dB(A)

Location	Day	Emergency Day	Evening	Night	
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
R1, R2 and R3 Summerhill Drive and Wangi Close, Wangi Wangi	35	40	35	35	45
R4, Donnelly Road, Arcadia Vale	35	44	40	38	49
R5, R6, R7 and R8 Donnelly Road, Arcadia Vale	37	44	42	39	49
All other privately-owned land	35	40	35	35	45

Notes:

- Emergency Day noise limits only apply during the Day period when the Eraring Power Station overland conveyor is not in operation and the project's Emergency Coal Stockpile must be used.
- To identify the locations referred to, see the figure in Appendix 3.
- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the INP.

However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Operating Conditions

- The Proponent shall implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the construction and operational noise generated by the project.

Noise Management Plan

- The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - be submitted for approval to the Director-General within 7 months of the date of this approval;
 - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;
 - outline procedures to manage responses to any complaints or issues raised by the owners of affected residences; and
 - include a noise monitoring program that:
 - uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and
 - includes a protocol for determining exceedances of the relevant conditions of this approval.

Construction Noise

- The Proponent shall limit construction activities to 7am – 6pm weekdays and 8am to 1pm Saturdays with no construction operations on Sundays or Public Holidays. Construction noise shall be managed in accordance with OEH's *Interim Construction Noise Guideline 2009*.

AIR QUALITY & GREENHOUSE GAS

Odour

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

Greenhouse Gas Emissions

- 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.

Air Quality Criteria

- The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 4, 5 or 6 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 4: Long-term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 5: Short-term criterion for particulate matter

Pollutant	Averaging Period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 6: Long-term criteria for deposited dust

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

Notes to Tables 4-6:

- ^a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- ^b Incremental impact (ie incremental increase in concentrations due to the project on its own);
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with OEH.

Operating Conditions

- The Proponent shall implement best practice air quality management on site, including all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project.

Air Quality and Greenhouse Gas Management Plan

- The Proponent shall prepare and implement an 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 for approval to the Director-General within 7 months of the date of this approval;
 - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed air quality management system;
 - include an air quality monitoring program, that:
 - uses a combination of volumetric sampling and dust deposition gauges to evaluate the performance of the project;
 - monitors greenhouse gas emissions, particularly methane; and
 - includes a protocol for determining exceedances with the relevant conditions of this approval;
 - describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site, particularly methane.

METEOROLOGICAL MONITORING

- During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the Myuna surface facilities 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 INP.

SOIL AND WATER

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

Surface Water Discharges

- 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.

Water Management Plan

- The Proponent shall prepare and implement a Water Management Plan for the surface facilities sites to the satisfaction of the Director-General and in consultation with NOW, DRE, and LMCC. This plan must:
 - be prepared by suitably qualified and experienced persons whose appointment has been approved by the Director-General;
 - be submitted for approval to the Director-General within 7 months of the date of this approval; and
 - include:
 - a Site Water Balance;
 - an Erosion and Sediment Control Plan.
 - a Surface Water Management Plan;
 - a Groundwater Monitoring Program; and
 - a Surface and Ground Water Response Plan.

23. The Site Water Balance must:
 - (a) include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site;
 - any off-site water transfers;
 - groundwater transfers from the underground operations to the surface; and
 - (b) investigate and implement all reasonable and feasible measures to minimise potable water use from the town water supply and to reuse and recycle water.
24. The Erosion and Sediment Control Plan must:
 - (a) be consistent with the requirements of the *Managing Urban Stormwater – Soils and Construction, Volume 2E: Mines and Quarries* (DECC 2008), or its latest version;
 - (b) identify activities that could cause soil erosion and generate sediment particularly in relation to activities near waterways;
 - (c) describe the location, function, and capacity of erosion and sediment control structures;
 - (d) describe what measures would be implemented to maintain the structures over time; and
 - (e) describe the sediment and erosion control measures to be implemented for all activities undertaken at the site.
25. The Surface Water Management Plan must:
 - (a) include detailed baseline data on surface water flows and quality of Wangi Creek;
 - (b) provide a geomorphic description of Wangi Creek up and downstream of the mine water discharge point;
 - (c) detail surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts;
 - (d) provide a program to monitor:
 - surface water discharges from the surface facilities sites;
 - stream health, channel stability, water flows and water quality within Wangi Creek; and
 - water quality of Lake Macquarie;
 - (e) investigate mitigation and management measures to prevent/limit any incision and degradation of the channel of Wangi Creek from mine discharge water;
 - (f) include a detailed review of water management at the Myuna Colliery surface facilities site, with particular reference to the water storages within the dirty water management system and in consultation with OEH, to:
 - determine whether the capacity, integrity, retention time and management of the dirty water storages (particularly the CHP Dam) are sufficient to ensure that water discharged from the site meets all relevant ANZECC water quality criteria, including for metals and suspended solids;
 - assess all reasonable and feasible options for reducing salt load and/or salt concentration for discharges into Wangi Creek;
 - assess appropriate options to improve storage and retention times in accordance with *The Blue Book - Managing Urban Stormwater (MUS): Soils and Construction* (Landcom); and
 - propose upgrades of the dirty water storages sufficient that discharges meet all relevant ANZECC criteria; and
 - propose any other appropriate changes to the water management system; and
 - (g) identify and assess practical measures to minimise potable water consumption, maximise recycled water use and improve the management of sewage and surface rainfall runoff for the project, including quantifying the abatement potential of identified measures and their related costs and benefits.

Note: The Director-General may require the Proponent to implement upgrades and other changes identified under paragraph (f), in accordance with condition 4 of schedule 2. OEH may also require measures to be implemented under the terms of the site's environment protection licence.

26. The Groundwater Monitoring Program must include:
 - (a) baseline data of groundwater levels (including alluvial and weathered rock aquifers), yield and quality in the region, and any privately owned groundwater bores that may be affected by mining operations on site;
 - (b) groundwater assessment criteria based upon analysis of baseline data for groundwater, surface water, including trigger levels for investigating any potentially adverse groundwater impacts; and
 - (c) a program to monitor and/or validate the impacts of the project of alluvial and coal seam aquifers, any groundwater bores.
27. The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:
 - (a) respond to any exceedances of the surface water, stream health, and groundwater assessment criteria; and
 - (b) mitigate and/or offset any adverse impacts on riparian vegetation located within and adjacent to the site.

BIODIVERSITY

28. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) submitted to the Director-General within 7 months of the date of this approval;
 - (b) be prepared by a suitable qualified ecologist approved by the Director-General;
 - (c) have a particular focus on measures that would be implemented over the life of the mine to protect and enhance the *Swamp Sclerophyll Forest on Coastal Floodplains* endangered ecological community near Wangi Creek; and
 - (d) include a detailed description of the measures that would be implemented over the life of the mine to ensure that native vegetation and habitat within the surface facilities sites (particularly the *Swamp Sclerophyll Forest on Coastal Floodplains* endangered ecological community near Wangi Creek) are properly managed, including procedures for:
 - weed management (both control and suppression);
 - protection and enhancement of native vegetation and habitat;
 - feral animal control;
 - fire management (including asset protection zones); and
 - management of public access.

HERITAGE

Heritage Management Plan

29. 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 and any relevant Aboriginal stakeholders;
 - (b) be submitted for approval to the Director-General within 7 months of the date of this approval;
 - (c) include consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site;
 - (d) detail the responsibilities of all stakeholders; and
 - (e) include programs/procedures and management measures for:
 - protection of the section of remnant railway line associated with the decommissioned Wangi Power Station that is located within the site;
 - dealing with previously unidentified Aboriginal objects (excluding human remains), including any need to halt works in the vicinity, assessment of significance, determination of appropriate mitigation measures (by a qualified archaeologist in consultation with Aboriginal stakeholders), re-commencement of works, notifying OEH, and registering the new site(s) in the OEH AHIMS register;
 - dealing with any human remains which may be discovered, including halting of works in the vicinity; notifying NSW Police, OEH, the Department and Aboriginal stakeholders; and not re-commencing any works in the vicinity unless authorised;
 - heritage induction for construction personnel (including procedures for keeping records of inductions);
 - ongoing Aboriginal consultation and involvement (including procedures for keeping records of this);
 - appropriate identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site; and
 - dealing with previously unidentified non-Aboriginal heritage items which may be discovered during the project.

VISUAL

Visual Amenity and Lighting

30. The Proponent shall:
- (a) minimise visual impacts, and particularly the off-site lighting impacts, of the Myuna Colliery surface facilities site;
 - (b) take all reasonable and feasible measures to mitigate off-site lighting impacts from the project; and
 - (c) ensure that all external lighting associated on site complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

WASTE

31. The Proponent shall:
- (a) minimise the waste generated by the project; and
 - (a) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.

BUSHFIRE MANAGEMENT

32. The Proponent shall:
- review its existing bushfire management procedures and fire fighting equipment to ensure that the project is suitably equipped to respond to any fires on site; and
 - assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.

REHABILITATION

Rehabilitation Objectives

33. The Proponent shall rehabilitate the surface facilities sites 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 7.

Table 7: Rehabilitation Objectives

Feature	Objective
Surface facilities sites.	Safe, stable & non-polluting. Final land use compatible with surrounding land uses.
Project surface infrastructure.	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise.
Portals and vent shafts	To be decommissioned and made safe and stable. Retain habitat for threatened species (eg bats), where practicable
Community.	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure.

Notes:

- 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

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

Rehabilitation Management Plan

35. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director Mineral Resources. This plan must:
- be prepared in consultation with the Department, DPI Fisheries, LMCC, WSC and the CCC;
 - be prepared in accordance with any relevant DRE guideline;
 - provide for detailed mine closure planning, including measures to minimise socio-economic effects due to mine closure, to be conducted prior to the site being placed on care and maintenance;
 - build, to the maximum extent practicable, on the other management plans required under this approval; and
 - be submitted to the Executive Director Mineral Resources for approval within 12 months of the date of this approval.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in schedule 3, the Proponent shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and
 - (b) an exceedance of any relevant air quality criteria in schedule 3, 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 3, 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 3; 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 3, 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 3, 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.
-

SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND 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 for approval to the Director-General within 7 months of the date of this approval;
 - (b) provide the strategic framework for the 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 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 for particular management plans.

Adaptive Management

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

Where any exceedance of these criteria and/or performance measures has occurred, the 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 (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the Director-General, to the satisfaction of the Director-General.

Annual Review

4. By the end of March 2013, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
 - (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past calendar year, which includes a comparison of these results against the:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - requirements of any plan or program required under this approval;
 - the monitoring results of previous years; and
 - the 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

5. Within 3 months of:
 - (a) the submission of an annual review under condition 4 above;
 - (b) the submission of an incident report under condition 7 below;
 - (c) the submission of an audit under condition 9 below; 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

6. 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), to the satisfaction of the Director-General. This CCC must be operating within 7 months of the date 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; and*
- *The Committee should be comprised of an independent chair and appropriate representation from the Proponent, LMCC, WSC, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

7. The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incidents 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

8. 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

9. By the end of June 2013, 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 appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

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

10. 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

11. Within 4 months of the date of this approval, the Proponent shall:
- (a) make copies of the following publicly available on its website:
 - the documents referred to in condition 2 of Schedule 2;
 - all relevant statutory approvals for the project;
 - all approved strategies, plans and programs required under the conditions of this approval;
 - a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any approved plans or programs required under the conditions of this or any other approval;
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the annual reviews required under this approval;
 - any independent environmental audit of the project, 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

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP	Lot	Section	DP	Lot	Section	DP	Lot	Section	DP
100		11539	34		11287	38		11287	14		26634
108		11539	31		548114	70		11539	7		26634
37		11539	69		11539	28		11287	17		26634
46		11287	5		11287	24		11287	9		26634
161		11539	121		11539	35		11539	3		548546
45		11287	165		11539	42		11287	3		26634
66		11539	40		11539	9		11287	20		26634
155		11539	150		11539	3		11539	12		26634
124		11539	18		11287	10		11287	18		26634
200		600959	36		11287	3		548107	330		710063
160		11539	6		11539	148		11539	11		26634
27		11287	149		11539	147		11539	8		26634
1		11539	33		11287	120		11539	13		26634
44		548118	365		46746	471		1138964			
2		11539	4		11539	466		1138964			
152		11539	30		11287	227		1137548			
106		11539	127		11539	400		1150056			
4		548107	37		11287	402		1150056			
38		11539	17		11287	401		1150056			
UCL		749999	29		548114	14		26634			
163		11539	104		11539	7		26634			
11		11287	125		11539	17		26634			
44		11287	103		11539	9		26634			
16		11287	43		11287	3		548546			
39		11287	67		11539	3		26634			
151		11539	128		11539	20		26634			
101		11539	19		11287	12		26634			
39		11539	72		11539	18		26634			
31		11287	15		11287	330		710063			
123		11539	107		11539	11		26634			
8		11287	146		11539	8		26634			
162		11539	30		548114	13		26634			

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
6		26634
15		26634
274		755207
1		26634
402		48820
2		26634
16		26634
19		26634
10		26634
5		26634
4		26634
7001		1077055
47		755207
11		1050120
2		548546
2		810981
23		26634
2		614183
7005		1066246
52		792987
690		12507
A		336081
1		533069
248		12507
360		11287
749		12507
33		582056
534		12507
631		12507
681		12507
191		11287
437		12507

Lot	Section	DP
356		11287
70		12507
2292		554538
378		11287
325		11287
750		12507
38		582057
167		11287
354		11287
667		12507
19		582051
1461		856874
158		11287
280		11287
359		11287
364		11287
211		11287
190		11287
352		11287
2		597631
17		582050
162		11287
697		12507
197		11287
757		12507
203		11287
144		11287
41		539413
394		11287
24		582052
188		11287
541		12507

Lot	Section	DP
59		11287
60		11287
184		11287
410		11287
71		568495
100		863278
678		12507
124		11287
689		12507
532		12507
664		12507
120		11287
320		11287
1		746870
69		12507
196		11287
215		11287
182		11287
557		12507
679		12507
81		11287
42		582058
3		533069
104		11287
685		12507
5		1063845
345		11287
700		12507
530		12507
13		582049
275		11287
633		12507

Lot	Section	DP
305		11287
598		12507
267		11287
760		12507
391		729419
703		12507
219		1137548
217		1137548
218		1137548
103		1088711
472		1138964
2		585142
318		11287
542		12507
322		11287
194		11287
83		11287
91		11287
588		12507
531		12507
3531		555858
16		582050
611		816224
151		11287
118		11287
279		11287
265		11287
13		11287
85		11287
327		11287
54		11287
686		12507

Lot	Section	DP
355		11287
628		12507
2		746870
119		11287
543		12507
755		12507
35		582056
2		583186
321		11287
95		11287
365		11287
219		11287
751		12507
51		11287
37		582057
40		582057
3672		874598
308		11287
235		11287
372		11287
46		859972
620		12507
1		500470
309		658235
677		12507
112		629441
166		11287
142		11287
371		11287
694		12507
2167		580455
112		11287

Lot	Section	DP
2372		1042396
409		11287
154		11287
374		11287
349		11287
131		11287
41		582058
227		11287
10		808724
168		11287
103		11287
603		12507
687		12507
303		11287
71		12507
7022		584905
36		582056
94		11287
87		11287
14		11287
92		11287
2371		1042396
606		12507
49		11287
1		1039389
232		11287
621		12507
540		12507
698		12507
605		12507
1		704490
276		11287

Lot	Section	DP
412		11287
42		539413
613		816224
186		11287
2		533069
50		11287
58		11287
278		11287
172		11287
180		11287
12		11287
2165		580455
536		12507
43		539413
56		11287
213		11287
181		11287
2		567633
523		12507
1		567633
6271		792607
1		727939
526		12507
307		11287
277		11287
596		12507
214		11287
4		1063845
673		12507
619		12507
165		11287
662		12507

Lot	Section	DP
1		807936
44		582058
32		1083788
1		566927
31		1083788
2		1094699
374		727253
376		727253
101		863278
106		1088711
108		1088711
109		1088711
110		1088711
105		1088711
119		1088711
118		1088711
122		1088711
123		1088711
376		11287
377		11287
380		11287
379		11287
221		1137548
222		1137548
220		1137548
114		1088711
121		1088711
226		1137548
223		1137548
225		1137548
216		1137548
3		1079794

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
1271		1010499
9		582048
597		12507
1392		580454
98		11287
758		12507
48		11287
18		582050
115		11287
122		11287
189		11287
156		11287
586		12507
57		11287
224		11287
12		621361
2012		1052556
73		568495
612		816224
11		1022724
1391		580454
315		11287
125		11287
96		11287
323		11287
414		11287
753		12507
674		12507
358		11287
665		12507
1003		650194
177		11287

Lot	Section	DP
537		12507
129		11287
153		11287
126		11287
25		582053
29		582054
11		808724
373		11287
130		11287
10		582048
148		11287
B		336081
600		12507
6222		819628
174		11287
135		11287
193		11287
53		11287
31		582055
76		12507
602		12507
521		1054794
27		582054
202		11287
350		11287
661		12507
634		12507
140		656807
134		11287
208		11287
370		11287
187		11287

Lot	Section	DP
326		11287
746		12507
274		11287
519		12507
699		12507
604		12507
141		11287
32		582055
684		12507
683		12507
209		11287
306		11287
752		12507
234		11287
195		11287
672		12507
522		1054794
2		568493
7021		584905
157		11287
231		11287
6232		806876
198		11287
2161		580453
233		11287
682		12507
117		11287
587		12507
128		11287
630		12507
173		11287
388		727264

Lot	Section	DP
266		11287
84		11287
2381		574218
675		12507
357		11287
264		11287
160		11287
137		11287
10		1022724
176		11287
533		12507
2163		580453
624		12507
629		12507
375		11287
756		12507
2164		580453
538		12507
6273		792607
257		12507
200		11287
207		11287
12		1022724
105		11287
2		807936
411		11287
55		11287
132		11287
3671		874598
79		11287
366		11287
1		583186

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
607		12507
97		11287
2162		580453
192		11287
688		12507
80		11287
206		11287
47		859972
89		11287
147		11287
205		11287
199		11287
748		12507
86		11287
250		12507
747		12507
361		11287
185		11287
525		12507
695		12507
692		12507
7		582047
2166		580455
75		12507
26		582053
228		12507
102		11287
161		11287
529		12507
6		582047
111		629441
230		11287

Lot	Section	DP
204		11287
539		12507
6231		806876
28		582054
353		11287
223		11287
164		11287
701		12507
618		12507
691		12507
668		12507
2		500470
680		12507
222		11287
14		582049
6221		819628
123		11287
731		836821
314		11287
324		11287
316		11287
39		582057
693		12507
346		11287
6272		792607
220		11287
143		11287
212		11287
2291		554538
30		582055
1		651963
226		11287

Lot	Section	DP
544		12507
178		11287
363		11287
155		11287
11		582048
20		582051
221		11287
585		12507
236		11287
15		582049
12		582049
1272		1010499
175		11287
210		11287
319		11287
218		11287
249		12507
121		11287
138		11287
268		11287
2011		1052556
663		12507
528		12507
5		582046
133		11287
109		11287
163		11287
43		582058
225		11287
599		12507
239		11287
88		11287

Lot	Section	DP
149		11287
517		12507
2382		574218
72		568495
68		12507
8		582048
23		582052
108		11287
413		11287
632		12507
106		11287
304		11287
518		12507
150		11287
696		12507
317		11287
754		12507
116		11287
1		1094699
347		11287
313		11287
351		11287
343		11287
344		11287
101		1088711
100		1088711
112		1088711
115		1088711
116		1088711
53		755207
113		1088711
302		11287

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Lot	Section	DP
104		1088711
107		1088711
102		1088711
111		1088711
120		1088711
117		1088711
224		1137548
228		1137548
601		12507
527		12507
520		12507
730		836821
1		704468
545		12507
669		12507
51		792987
21		582052
93		11287
34		582056
10		1055349
52		11287
145		11287
183		11287
348		11287
522		12507
2		704490
247		12507
430		12507
136		11287
90		11287
671		12507
524		12507

Lot	Section	DP
22		582052
521		12507
666		12507
179		11287
217		11287
670		12507
342		11287
101		880089
386		727264
589		12507
592		12507
593		12507
729		12507
582		12507
591		12507
6161		870274
6081		806879
584		12507
594		12507
617		12507
613		12507
615		12507
730		12507
609		12507
614		12507
590		12507
595		12507
611		12507
583		12507
6162		870274
612		12507
610		12507

Lot	Section	DP
132		8055
222		8055
105		15556
62		27749
40		15556
203		1020262
116		15556
53		13120
73		15556
192		1046133
50		15556
631		872639
100		8055
22		1029069
2		542486
11		15556
912		747550
32		524726
75		13123
27		15556
102		558722
13		13123
86		13123
52		27749
28		27749
97		8055
201		8055
821		588493
200		843074
159		8055
107		15556
64		15556

Lot	Section	DP
74		13123
70		13123
191		880592
112		13123
33		15556
95		8055
126		13123
6		13120
42		13123
7		13123
153		13123
67		27749
82		13123
24		27749
120		13123
114		8055
58		15556
122		15556
54		15556
23		15556
352		840188
93		13123
111		15556
121		15556
25		15556
49		13123
126		8055
120		15556
7		15556
204		8055
131		13123
152		13123

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Lot	Section	DP
1		568311
24		13123
235		8055
112		15556
26		13120
76		15556
34		12472
29		13123
220		8055
1		579042
51		13120
96		13123
146		13123
64		13123
42		27749
123		13123
72		15556
522		543408
202		8055
104		8055
80		13123
40		27749
38		13120
21		15556
199		8055
65		15556
49		13120
69		15556
155		17367
57		13120
225		8055
125		8055

Lot	Section	DP
2		579042
23		13120
41		13120
26		15556
192		880592
73		13123
106		13123
60		1074161
42		1073017
872		733417
2		270423
5		270423
1		1088536
259		8055
118		15556
5		981103
4		981106
2062		1011261
60		15556
8		524374
90		8055
862		557889
37		15556
92		8055
82		740968
114		13123
68		15556
17		13120
228		8055
89		13123
1		542486
221		8055

Lot	Section	DP
6082		806879
100		880089
10		1071069
3991		1136246
110		607364
1		880078
38		12472
9		263812
42		12472
40		12472
2		801982
48		12472
43		12472
22		791703
4		727713
1		616354
1		10585
1		270043
179		8055
250		8055
3		803077
170		8055
2		1013763
4		568311
240		8055
178		8055
2		568311
181		8055
185		8055
180		8055
183		8055
186		8055

Lot	Section	DP
18		15556
55		27749
4		15556
59		15556
236		8055
10		15556
28		13123
72		13123
19		15556
117		13123
18		527120
156		17367
94		8055
128		8055
105		13123
136		8055
122		13123
110		8055
103		8055
2		806513
87		8055
1		250973
52		13120
152		17367
39		15556
21		13120
5		519261
109		13123
86		15556
47		27749
6		519261
91		8055

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Lot	Section	DP
207		8055
249		8055
2		621171
1		621171
247		8055
166		8055
177		8055
721		537942
189		8055
D		25385
251		8055
190		8055
E		25385
1		803077
2		204202
773		619779
184		8055
252		8055
771		619779
1		1058010
20		1075811
21		1075811
751		1099436
753		1099436
174		8055
248		8055
169		8055
91		880881
C		25385
2		1058010
191		8055
B		25385

Lot	Section	DP
245		8055
49		27749
201		843074
66		13123
145		13123
115		8055
38		15556
204		1017819
89		8055
205		1017819
27		13120
78		13123
254		8055
30		13123
55		13120
100		713777
68		13123
106		8055
4		13120
35		27749
142		13123
1		561577
39		13120
133		8055
81		8055
34		27749
25		13123
35		13123
3		588206
12		13120
833		598304
154		8055

Lot	Section	DP
92		13123
244		8055
175		8055
168		8055
78		8055
173		8055
1		204202
176		8055
171		8055
1		1074358
2		1074358
76		8055
243		8055
241		8055
210		8055
193		8055
172		8055
135		8055
56		15556
30		15556
66		27749
129		13123
1		505798
63		27749
9		15556
18		28068
14		15556
17		28068
31		15556
2		803077
781		1060935
54		27749

Lot	Section	DP
123		8055
58		27749
105		8055
119		13123
167		8055
218		8055
154		13123
57		15556
209		8055
28		13120
36		15556
36		13123
55		15556
617		821603
26		13123
47		13123
98		13123
2		13120
104		13123
31		13123
125		13123
2061		1011261
65		13123
35		12472
38		13123
20		13120
121		8055
147		8055
450		818534
115		15556
6		15556
22		13123

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Lot	Section	DP
10		13123
3		568311
155		13123
74		15556
822		588493
50		27749
117		8055
61		15556
233		8055
110		15556
97		13123
8		13123
56		13120
47		13120
58		13120
246		8055
3		621171
43		27749
113		13123
41		13123
147		13123
772		619779
118		13123
102		8055
46		13123
2		15556
46		27749
196		8055
8		931022
48		15556
27		27749
79		13123

Lot	Section	DP
521		543408
121		13123
15		538780
168		13123
65		27749
98		8055
50		13120
27		13123
99		8055
10		28068
226		8055
143		13123
46		15556
14		28068
127		13123
127		8055
120		8055
33		13123
138		8055
100		15556
103		13123
18		13120
111		13123
200		8055
48		27749
22		27749
194		8055
54		13120
192		8055
9		13120
37		13123
197		8055

Lot	Section	DP
71		15556
20		13123
100		790729
8		13120
782		1060935
15		28068
812		816616
32		15556
37		13120
1		13120
242		8055
155		8055
134		8055
63		13123
14		538780
51		15556
232		8055
205		8055
4		28068
1		551113
5		250973
31		13120
5		1074358
3		1074358
46		13120
4		1074358
61		1074161
63		1074161
62		1074161
103		15556
41		1073017
722		537942

Lot	Section	DP
871		733417
47		15556
39		27749
14		13123
211		8055
112		8055
142		8055
227		8055
3		28068
28		15556
109		15556
142		15556
15		13123
153		17367
223		8055
77		15556
215		8055
158		8055
151		13123
2		375836
15		13120
31		27749
110		13123
43		15556
3		579042
831		598304
59		27749
48		13120
13		13120
224		8055
1		794206
44		13120

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Lot	Section	DP
53		15556
101		790729
16		13123
107		8055
53		27749
109		8055
32		13123
34		13123
84		13123
29		13120
19		13120
117		15556
164		8055
43		1073017
154		17367
88		15556
6		270423
4		270423
51		27749
202		1020262
1692		1110053
3		981104
2144		1124129
11		13123
7311		1141467
51		12472
501		630971
49		12472
45		12472
41		12472
46		12472
52		12472

Lot	Section	DP
47		12472
1		12863
92		800646
158		17367
45		11995
26	F	27655
6		1018646
7	C	27655
2		22842
39	C	27655
5		22842
163		17367
71		618457
101		1014736
29	C	27655
21		248691
12		23604
99		11995
414		755242
118		17367
23	E	27655
3		1018646
30	D	2458
13		716529
53		785435
24	F	27655
64		11995
8	E	2458
27		11995
423		755242
D		356160
5		23604

Lot	Section	DP
57		17367
2		512166
21	E	27655
17	E	27655
2		16793
B		380066
91		11995
37	C	27655
15		23604
17		11995
12		22842
8		17367
89		17367
17	F	2458
28	C	27655
162		13123
7		248691
92		17367
118		11995
5		17367
94		17367
68		11995
72		17367
122		17367
10	D	2458
223		833454
87		11995
141		17367
15	E	27655
98		11995
380		755242
164		13123

Lot	Section	DP
10		17367
101		844302
164		17367
63		17367
76		11995
21	F	27655
115		11995
7	A	2458
9		22842
58		17367
20		23604
8		17781
11		248691
1		870118
11	D	2458
223		1004649
415		755242
64		17367
1		1018646
6		17781
90		11995
9	E	2458
135		249719
97		11995
146		17367
2	C	27655
43		17367
850		810843
12		625009
138		17367
139		13123
36		17367

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Lot	Section	DP
9	E	27655
5		285482
19	E	27655
2		1018646
4		16793
23		23604
15		11995
1		22842
14	D	2458
141		15556
25		11995
33	D	2458
76		17367
17		23604
11		23604
120		17367
139		17367
97		17367
10	C	27655
45	C	27655
9		28068
20		22842
14	E	27655
27	D	2458
18	E	2458
67		11995
3		16793
417		755242
11		17367
9	F	27655
83		17367
16		248691

Lot	Section	DP
7	E	2458
80		11995
113		17367
51		17367
5		1018646
7		17781
125		15556
142		17367
6		13123
41		17367
33		23604
65		11995
6		11995
845		810843
22	D	2458
124		15556
54		11995
271		845831
137		17367
25		23604
21		23604
57		11995
16		22842
7	F	27655
168		15556
56	C	27655
117		17367
28		23604
383		755242
8	E	27655
152		854877
33	F	2458

Lot	Section	DP
96		11995
186		15556
98		17367
40		17367
43		11995
12	C	27655
22	E	27655
14		11995
13		23604
C		365476
17		22842
38	C	27655
158		13123
70		17367
121		17367
222		833454
23	D	2458
844		810843
13	E	2458
18	F	2458
11		11995
3		627231
34	F	2458
13	E	27655
101		11995
151		17367
18	E	27655
4	E	27655
73		11995
8		22842
23	C	27655
11	F	27655

Lot	Section	DP
10		11995
2		861549
413		755242
22	C	27655
105		17367
16	D	2458
24		23604
10		16793
9		17781
12	D	2458
12	E	27655
101		17367
89		11995
48		17367
13		22842
119		17367
127		15556
2		251160
6	E	27655
39	D	2458
23	F	27655
1		23604
2		814599
81		17367
99		15556
1		861549
40	D	2458
63		11995
109		17367
12	F	27655
79		11995
44	D	2458

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Lot	Section	DP
B		365476
124		17367
848		810843
54	C	27655
392		755242
143		1105594
141		1105594
111		1116254
103		1119224
721		737050
105		1119224
101		1119224
387		755242
386		755242
402		1131722
43	C	27655
7322		1141840
18	D	2458
179		15556
59		11995
5		11995
37	D	2458
81		620426
41	D	2458
39		11995
142		852383
112		17367
83		620426
6		17367
23		1016699
149		17367
33	C	27655

Lot	Section	DP
147		17367
24	D	2458
31	C	27655
5	C	27655
9		248691
109		11995
131		859693
44		17367
8	F	27655
2		28068
126		15556
4		13123
100		11995
2		285482
18		248691
19		23604
133		15556
46		654032
48	C	27655
176		15556
13		625009
133		249719
10		23604
342		556246
49		17367
4		17781
91		800646
12	E	2458
842		810843
123		17367
36	D	2458
10	E	27655

Lot	Section	DP
1		632417
53	C	27655
140		13123
3		251160
79		15556
21	C	27655
68		17367
125		17367
32	F	2458
20		11995
3		861549
16	F	2458
2	E	27655
45		654334
38		17367
103		11995
51	C	27655
21		11995
83		11995
24	C	27655
4		778463
22		23604
37		11995
132		15556
13	D	2458
159		13123
3		285482
32		23604
143		17367
129		15556
12		11995
15	C	27655

Lot	Section	DP
141		852383
32	D	2458
160		13123
75		17367
29		23604
3	E	27655
3		17781
16		11995
6	C	27655
36		11995
22		1016699
31	E	27655
103		1014736
1	F	27655
88		11995
9	C	27655
8	D	2458
28	D	2458
9		16793
161		13123
2		17781
1		727245
5		13123
224		1004649
35		11995
52		785435
131		15556
11		625009
49		11995
3811		1049904
1	C	27655
14		17367

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Lot	Section	DP
4		262960
16		573091
93		11995
20		248691
56		17367
166		17367
3		23604
102		11995
222		1066814
36	F	2458
159		17367
17	C	27655
117		11995
66		11995
78		17367
2		23604
17	D	2458
80		17367
115		17367
98		15556
29	D	2458
2	F	27655
7		11995
104		17367
48		11995
114		11995
9		11995
55		11995
24	E	27655
42		17367
1		814599
79		17367

Lot	Section	DP
B		367461
110		17367
44		11995
173		15556
35	C	27655
77		11995
140		17367
42	D	2458
40	C	27655
841		810843
74		11995
A		367461
14	C	27655
17		248691
4		11995
112		11995
60		17367
86		11995
11		803842
35		17367
391		755242
25	C	27655
22		248691
1		608817
39		17367
11		22842
33		11995
7074		1029683
111		17367
18	C	27655
108		17367
20	D	2458

Lot	Section	DP
420		755242
3		262960
843		810843
8		11995
165		17367
129		17367
12		248691
100		17367
2		632417
136		17367
3		22842
4		251160
34	D	2458
187		15556
60		11995
86		17367
418		755242
14		22842
12		1050193
20	E	27655
6		22842
		45057
20	F	2458
52		11995
343		556246
133		17367
103		17367
13		248691
A		380066
13		17367
106		11995
35	D	2458

Lot	Section	DP
114		17367
150		17367
27	C	27655
846		810843
5		248691
43	D	2458
71		17367
30		11995
3812		1049904
34		11995
99		17367
23	F	2458
132		17367
121		836139
5		262960
49	C	27655
163		13123
2	H	2458
19		248691
138		13123
26		23604
7		17367
137		15556
15	E	2458
145A		17367
102		1014736
108		11995
1		436113
16	C	27655
5		16793
84		17367
38		11995

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
53		17367
52	C	27655
31	F	2458
851		810843
3		11995
35	F	2458
25	E	27655
62		11995
221		1066814
119		11995
9		17367
166		13123
15		248691
4	G	2458
62		17367
44	C	27655
1572		1043970
424		755242
71		11995
113		1116254
102		1119224
104		1119224
388		755242
390		755242
389		755242
395		755242
7323		1141840
72		11995
14		23604
18		11995
2		870118
8	C	27655

Lot	Section	DP
6		285482
91		17367
28		11995
6		16793
1		251160
52		17367
145		17367
500		755242
12		16793
134		249719
416		755242
138		15556
1		602008
27		23604
12		17367
10		22842
6		251160
21	D	2458
34		23604
122		11995
132		859693
130		17367
1		16793
A		365476
36	C	27655
25	D	2458
59		17367
849		810843
45	D	2458
25		17367
20	C	27655
110		11995

Lot	Section	DP
82		620426
56		11995
10	E	2458
3		13123
67		17367
81		11995
136		249719
185		15556
30	E	27655
5		17781
7	E	27655
4		248691
102		17367
15		22842
75		11995
13		11995
69		17367
42		11995
40		11995
134		15556
55		17367
134		17367
3	H	2458
5	E	27655
31	D	2458
19	F	2458
439		755242
137		249719
51		785435
21	F	2458
30	F	2458
9	D	2458

Lot	Section	DP
10		17781
10		248691
1		262960
32	E	27655
2		634668
124		11995
140		15556
26	E	27655
3		814599
419		755242
144		17367
5		251160
8		248691
2		17367
65		17367
47		11995
847		810843
19		22842
105		11995
85		17367
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37		17367
93		17367
28	E	27655
96		17367
21		17367
127		17367
94		11995
7		16793
132		249719
14		248691
29	F	2458

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
58		11995
1		285482
1		17781
17		573091
7	D	2458
102		844302
12		716529
26	D	2458
61		17367
54		785435
95		11995
120		11995
113		11995
7		22842
23		248691
90		17367
95		17367
73		17367
11	C	27655
2		13123
32	C	27655
16	E	2458
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24		17367
1		13123
123		15556
55	C	27655
92		11995
22	F	2458
421		755242
135		17367
165		13123

Lot	Section	DP
128		17367
125		11995
4		23604
106		17367
3	C	27655
16	E	27655
55		785435
341		556246
160		17367
393		755242
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29		11995
3810		1049904
148		17367
206		15556
136		15556
116		11995
87		17367
18		23604
131		249719
151		854877
29	E	27655
202		700345
272		845831
16		23604
722		737050
162		17367
46	C	27655
53		11995
26	C	27655
31		23604

Lot	Section	DP
131		17367
15	D	2458
88		17367
17	E	2458
82		17367
30		23604
116		17367
2		262960
4		17367
32		11995
50	C	27655
107		11995
38	D	2458
4		1018646
11		16793
31		11995
5		778463
107		17367
104		11995
41		11995
50		11995
123		11995
13	C	27655
82		11995
85		11995
61		11995
54		17367
19		11995
128		15556
30	C	27655
26		11995
84		11995

Lot	Section	DP
10	F	27655
19	C	27655
126		17367
11	E	27655
14	E	2458
135		15556
78		11995
66		17367
18		22842
11	E	2458
7		285482
5	E	2458
121		11995
8		16793
74		17367
77		17367
46		11995
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19	D	2458
139		15556
6	E	2458
142		1105594
45		1109834
69		11995
112		1116254
4	H	2458
1		622484
106		1119224

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Lot	Section	DP
7015		1119454
470		1118245
397		755242
385		755242
394		755242
398		755242
396		755242
401		1131722
105		238489
5	F	27655
44		862349
4	F	27655
1	H	2458
103		238489
6	F	27655
104		238489
102		238489
316		755242
3		26549
7016		1021267
1		25985
15	J	27655
3	F	27655
12	J	27655
1		778463
1	J	2458
18	J	27655
103		730402
102		730402
11	J	27655
14	J	27655
6		25985

Lot	Section	DP
3		778463
17	J	27655
16	J	27655
6		26549
10	J	27655
		70772
1		26549
13	J	27655
2		25985
3		25985
21	J	27655
101		730402
2		778463
4		25985
5		25985
122		807535
7306		1146817
4		28046
2		629396
11		28046
6		18060
A		340249
3		629396
3		18060
2		204737
3		28046
2		18060
3		204737
1		18060
7		18060
7033		1021485
1		317336

Lot	Section	DP
3		315830
B		395654
B		340249
11		701829
1		204737
13		701829
8		28046
2		311027
C		327578
40		1102122
132		6945
9		28046
1341		844700
41		559640
B		391075
2		28046
5		18060
5		28046
133		6945
1		629396
B		327578
1		28046
151		6945
150		6945
10		28046
6		28046
12		701829
A		391075
7		28046
4		18060
1342		844700
1		1092888

Lot	Section	DP
1		270423
3		270423
201		1093288
202		1093288
752		1099436
1		1107356
2		1107356
1691		1110053
1693		1110053
12		13123
21		13123
50		13123
7309		1141468
195		8055
88		13123
1		551787
198		8055
148		13123
256		8055
95		13123
26		27749
69		27749
33		13120
76		13123
15		15556
3		15556
22		13120
75		15556
94		13123
100		13123
130		8055
14		13120

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
1482		562711
632		872639
43		13123
45		13123
113		15556
30		13120
115		13123
18		13123
83		13123
255		8055
4		250973
52		15556
34		13120
114		15556
24		13120
87		13123
37		27749
71		13123
61		27749
157		13123
108		13123
106		15556
208		8055
44		15556
3		250973
230		8055
124		13123
23		13123
802		1038413
51		13123
113		8055
11		13120

Lot	Section	DP
54		13123
66		15556
70		27749
231		8055
149		13123
16		13120
19		13123
29		27749
48		13123
238		8055
68		27749
3		375836
39		13123
801		1038413
49		15556
93		8055
45		13120
32		13120
2		561577
5		15556
85		13123
1		15556
67		15556
101		15556
101		8055
167		13123
24		15556
234		8055
212		8055
873		733417
33		524726
832		598304

Lot	Section	DP
30		27749
151		734618
22		15556
137		8055
17		13123
44		27749
69		13123
13		15556
219		8055
60		13120
144		13123
260		8055
253		8055
165		8055
911		747550
128		13123
57		27749
91		13123
131		8055
124		8055
45		15556
101		558722
40		13123
99		13123
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42		872109
34		15556
38		27749
88		8055
140		8055
157		8055
107		13123

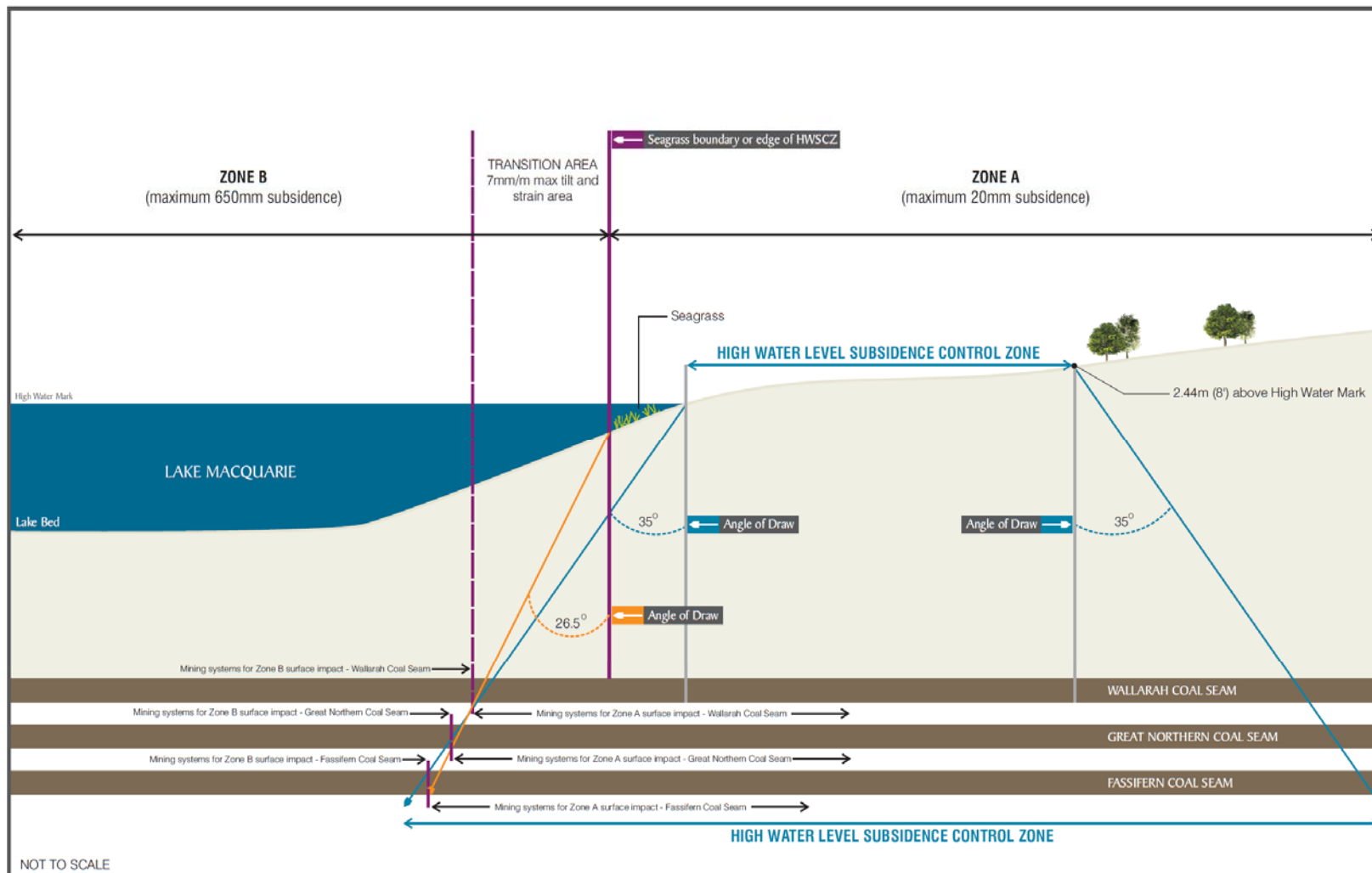
Lot	Section	DP
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44		13123
139		8055
56		27749
36		13120
351		840188
216		8055
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60		27749
1		806513
35		13120
41		27749
7		13120
43		13120
116		13123
29		15556
5		13120
70		15556
108		8055
36		27749
217		8055
116		8055
9		13123
77		13123
229		8055
129		8055
20		15556
42		13120
3		561577
2		551787
16		15556
21		1029069

Myuna Colliery Extension of Mining Project - Schedule of Land

Lot	Section	DP
40		13120
96		8055
237		8055

Lot	Section	DP
8		15556
203		8055
25		13120
156		8055
811		816616
239		8055
102		13123
41		872109
56		13123
62		15556
7		524374
59		13120
67		13123
23		27749
156		13123
3		13120
150		13123
64		27749
191		1046133
90		13123
55		13123
130		13123
111		8055
861		557889
119		8055
21		27749
42		15556
41		15556
141		13123
81		13123
12		15556
122		8055

APPENDIX 2 HIGH WATER LEVEL SUBSIDENCE CONTROL ZONE



APPENDIX 3 PROJECT LAYOUT PLAN



AECOM

PROPOSED PROJECT AREA AND SUBSIDENCE ZONES
Environmental Assessment

Figure 1: Project General Arrangement



SURFACE FACILITIES AREA - MINE INFRASTRUCTURE

APPENDIX 4 SENSITIVE NOISE RECEIVER LOCATIONS



APPENDIX 5 STATEMENT OF COMMITMENTS

6.1 Statement of Commitments – Construction

Desired Outcome/Commitment	Action
Clean Water Diversion Works	
Construction of the clean water diversions at the Surface Facilities Area undertaken in a manner that will minimise impacts to the surrounding environment.	1. Construction will be undertaken during the hours 7am to 6pm Monday to Friday, and 8am to 1pm on Saturdays. No construction work will be undertaken on Sundays or Public Holidays.

6.2 Statement of Commitments – Operation

Desired Outcome/Commitment	Action
Hours of Operation	
Operations undertaken within the approved operating hours.	2. Mining and associated operations will be undertaken 24 hours a day, 7 days a week.
Subsidence	
Subsidence levels managed within predicted maximum levels.	3. Mining will be undertaken in accordance with the document titled 'Design Criteria and Mining Methods for Seams' provided as Attachment 1 to the Response to Submissions. 4. An Extraction Plan, or equivalent document, which takes into account the existing information presented in this Environmental Assessment, will be developed for mining within subsidence Zone B, in consultation with the DP&I, prior to secondary workings being undertaken in Zone B.
Groundwater and Surface Water	
Operations carried out in a manner that minimises potential impacts to groundwater.	5. Within 6 months of Project Approval, a variation to EPL 366 will be lodged with the Office of Environment and Heritage to: • Combine licensed discharge points LDP001 and LDP002 into a single licensed discharge point, LDP B, with a combined discharge volume of 13 ML/day; • Establish a licensed discharge point at the Emergency Coal Stockpile Sediment Dam, LDP A, for event-based discharges where rainfall exceeds 140 millimetres in 24 hours. 6. The Proponent will undertake an investigation of water reuse options at Myuna Colliery within 6 months of Project Approval.

Aboriginal Heritage	
Items and areas of Aboriginal sensitivity are not disturbed as a result of the proposed Project, where possible.	7. If first workings and/or secondary extraction is to occur under the culturally sensitive sites recorded in Addendum A and Addendum B of the EA, an archaeological monitoring programme is to be developed for the potentially impacted site(s). 8. If there is evidence of Myuna Colliery mining-induced damage to sandstone outcrops and rock overhangs as described in Addendum A and Addendum B of Appendix M to the EA, all mining works affecting qualified archaeologist and the relevant Aboriginal stakeholders will be engaged as required. 9. Myuna Colliery will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) for the identified Aboriginal heritage items within the Project Area, as well as, contingency strategies for any additional heritage issues which may arise. The ACHMP will comprise: • An assessment of the cultural significance of the Aboriginal heritage sites within the Project Area; • Identification of roles and responsibilities (Centennial, Aboriginal stakeholders, heritage consultant); and • Strategies for: ○ Management of identified Aboriginal heritage sites; ○ Management of Aboriginal Heritage sites, should subsidence levels exceed the maximum predicted subsidence of 20 mm; and ○ Management of additional sites, if identified. The Myuna Colliery ACHMP will be developed in consultation with the relevant Aboriginal stakeholders and will adequately address Aboriginal cultural values.
Aquatic Ecology	
Assess potential impacts from subsidence on benthic communities prior to secondary extraction.	10. Prior to undertaking secondary workings in Zone B, Myuna has committed to the development of an Extraction Plan. In relation to the benthic community of the Lake, this plan will include: a) Refining the predicted subsidence based on a detailed mine layout and design; b) An assessment of the likely impacts of subsidence related to the detailed mine layout and design (based on prediction) on benthic communities within the proposed mining area; c) An assessment of the consequences of these impacts on the availability of light to the

	benthic communities, including the proportion of the Lake bed likely to be affected; and d) Management strategies to avoid reducing light availability to the Lake bed where the proportion of the Lake bed likely to be affected is, following consultation with the Office of Environment and Heritage, considered significant.
Life of Mine Rehabilitation	
Sufficient planning is undertaken for end of life of mine and rehabilitation.	11. The proponent will develop and implement a Rehabilitation and Environmental Management Plan within 5 years of completion of mining.

6.3 Statement of Commitments – Mine design criteria and extraction methods within coal seams

Seam	Location (at Surface level)	Mining System (at seam level)	Design Criteria
Wallerah	Zone A+Transition area	First Workings ONLY	(1)
	Zone B		(2)
Great Northern	Zone A+Transition area	First Workings ONLY	(1)
	Zone B	First Workings and Partial Extraction (typically Non Caving)	(1) (2) (3)
Fassifern	Zone A+Transition area	First Workings ONLY	(1) (2)
	Zone B	First Workings and Partial Extraction	(1) (2) (3)

Table 1.

(1) **Legislative Requirements** - CMHSR 2006 Clause 32 & Clause 88(2)(a) (1) - **First Workings:** (Clause 88 - Minimum pillar size will be 1/10th of depth or 10 metres).

(2) **Factor of Safety (FOS)** based on UNSW Methodology - Calculations (including depth of cover, maximum roadway width/height and minimum dimensions of coal pillars) to determine the probability of instability consistent with the pillars role or roles over its life. The University of New South Wales (UNSW) developed the FOS calculations utilizing industry gathered data. From investigation an acceptable long term FOS value greater than 2.11 (FOS>2.11) is adopted for long term stable pillars. This provides a probability of failure of 1: 1,000,000.

(3) **Geotechnical Consultant Review:** Prior to commencement of a Partial Extraction mining system in a new area, Myuna Colliery engages a Coal Mining Geotechnical Consultant to review the proposed design for each particular area. Design criteria involve review of seam floor and roof strength to determine suitability of mine design given multi-seam workings.

