

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

INTEGRATED STATE SIGNIFICANT DEVELOPMENT

**DETERMINATION OF DEVELOPMENT APPLICATION
PURSUANT TO SECTIONS 76(A)9 & 80**

I, the Minister for Urban Affairs and Planning, pursuant to Sections 76(A)9 & 80 of the Environmental Planning and Assessment Act, 1979 ("the Act") determine the development application ("the application") referred to in Schedule 1 by granting consent to the application subject to the conditions set out in Schedule 2.

The reasons for the imposition of the conditions are to:

- (i) minimise the adverse impact the development may cause through water and air pollution, noise, and visual disturbance;
- (ii) provide for environmental monitoring and reporting; and
- (iii) set requirements for mine infrastructure provision.

Andrew Refshauge MP
Minister for Urban Affairs and Planning,

Sydney, 1 May 2001

File No. S98/01228

Schedule 1

Application made by:	Coal Operations Australia Limited (ACN 062 894 464) ("the Applicant").
To:	The Minister for Urban Affairs and Planning (DA 144-05-2000)
In respect of:	Land described in Appendix "1".
For the following:	Development of an open cut coal mine, and construction and operation of associated surface facilities ("the Development").
BCA Classification:	Class 10(a) - Truck wash, fuel farm, sewage treatment plant, tyre bay Class 10(b) - Coal conveyor and coal crushing facility Class 9(b) - Bath house Class 8 - Coal preparation plant building Class 7 - Warehouse building/workshop Class 5 - Administration buildings

- NOTE:**
- 1) To ascertain the date upon which the consent becomes effective, refer to section 83 of the Act.
 - 2) To ascertain the date upon which the consent is liable to lapse, refer to section 95 of the Act.

S98/01228

SCHEDULE 2

Development Consent Conditions for the Mount Arthur North Open Cut Coal Mine

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DEFINITIONS:

AEMR - *Annual Environmental Management Report*

CCC – *Community Consultative Committee*

Construction – *Construction of road works, surface facilities, and associated earthworks including visual bunding prior to the commencement of coal extraction*

DA - *Development Application*

DA area - *Development Application area which includes all works described in the DA.*

Director-General - *Director-General of the Department of Urban Affairs and Planning or delegate.*

Dispute Resolution - *In DUAP's submission in reply to the Commission (Sub No. 38.8) Dispute Resolution Process is defined in a flow chart which indicates the DUAP will appoint an independent dispute facilitator to deal with the matters of concern (refer Schedule D)*

EIS - *Environmental Impact Statement*

MAN - *Mount Arthur North Project*

Mining Operations – *Includes vegetation removal and soil stripping relating to overburden removal and coal extraction*

Surface facilities – *coal crushing facilities, coal preparation plant and associated coal handling facilities, coal stock piles, water storage dam, administration offices, bath house, heavy workshop, heavy and light vehicle washdown station, outdoor storage compound, equipment storage area, warehouse, and parking areas*

Note	To assist with the explanation of the intent of certain conditions in this consent, a number of flow charts are provided in the attached Schedule D which illustrate various processes contained in this consent.
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Government Authorities

MSC - Muswellbrook Shire Council

DLWC - *Department of Land and Water Conservation*

DMR - *Department of Mineral Resources*

DUAP – *Department of Urban Affairs and Planning*

EPA - *Environment Protection Authority*

MSB - *Mine Subsidence Board*

NPWS - *National Parks and Wildlife Service*

NSW Agriculture - *New South Wales Agriculture*

NSW Fisheries - *New South Wales Fisheries*

RTA - *Roads and Traffic Authority*

1. General

There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, decommissioning of the development.

1.1 *Adherence to terms of DA, EIS, SIS, etc.*

- (a) The development is to be carried out generally in accordance with development application No. 144-05-2000, and the EIS dated April 2000, prepared by URS Australia Pty Ltd and certified in accordance with Section 78A(8) of the Act, and the following documentation:
- (i) ¹additional noise, air quality and water management information requested by the EPA and supplied by Hansen Consulting in a document dated 21 August 2000;
 - (ii) additional Aboriginal heritage information requested by NPWS and supplied by Hansen Consulting in a document dated 4 August 2000 dated; and
 - (iii) additional information provided to the Department in response to the issues raised during the exhibition period in a document entitled Response to Submissions supplied by Hansen Consulting and dated 29 September 2000.
 - (iv) Coal Operations Australia Limited Primary Submission document to the Commission of Inquiry (Hansen Consulting, November 2000); and
 - (v) Coal Operations Australia Limited Submission in Reply document to the Commission of Inquiry (Hansen Consulting, January 2001)

as may be modified by the conditions set out herein.

- (b) If, at any time, the Director-General is aware of environmental impacts from the proposal that pose serious environmental concerns due to the failure of environmental management measures in place to ameliorate the impacts, the Director-General may order the Applicant to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.
- (c) If any licence conditions are breached the applicant shall comply with any modification to the work as specified by the relevant agency.

1.2 *Period of Approval/Project Commencement*

- (i) This approval is for a period of 21 years from the date of granting of a mining lease pursuant to this consent.
- (ii) At least two weeks prior to the commencement of construction and Mining Operations respectively or within such period as agreed by the Director-General, the Applicant shall submit

¹ EPA General Terms of Approval

for the approval of the Director-General a compliance report detailing compliance with all the relevant conditions that apply prior to the commencement of construction and Mining Operations.

- (iii) Date of commencement of construction and Mining Operations is to be notified in writing to the Director-General, and MSC, at least two weeks prior to commencement of construction and Mining Operations respectively.

1.3 Dispute Resolution

In the event that the Applicant, MSC or a Government agency, other than the Department of Urban Affairs and Planning, cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the Director-General or if not resolved, to the Minister for Urban Affairs and Planning, whose determination of the disagreement shall be final and binding on the parties.

1.4 Security Deposits and Bonds

Security deposits and bonds will be paid as required by DMR under mining lease approval conditions.

2. Mine Management

2.1 Mine Management Plan, Operations and Methods

- (a) No mining undertaken in accordance with this consent shall occur until the Applicant has submitted and had accepted by the DMR, a Mining Operations Plan (MOP) in accordance with current guidelines issued by DMR. The Plan covers mining operations for a period of up to seven years.
- (b) The MOP shall:
- (i) be prepared in accordance with DMR Guidelines for the Preparation of Mining Operations Plans (Document 08060002.GUI or its most recent equivalent);
 - (ii) demonstrate consistency with the conditions of this consent and any other statutory approvals;
 - (iii) demonstrate consistency with the Environmental Management Plans for the project site;
 - (iv) provide the basis for implementing mining operations, environmental management, and ongoing monitoring;
 - (v) include a mine rehabilitation and land use management plan; and
 - (vi) identify a schedule of proposed mine development for the period covered by the plan and include:
 - the area proposed to be impacted by mining activity and resource recovery mining methods and remediation measures
 - areas of environmental, heritage or archaeological sensitivity and mechanisms for appropriately minimising impact
 - water management, and
 - proposals to appropriately minimise surface impacts.
- (c) In preparing the Mine Operations Plan, the Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of those services.
- (d) A copy of the MOP, excluding commercial in confidence information, shall be forwarded to MSC and the Director-General within 14 days of acceptance by DMR.
- (e) At least two years prior to the cessation of mining operations the Applicant shall investigate, determine and report, taking account of the potential community benefits, on a final strategy for the future use of the mine site, weirs, dams and any other infrastructure in consultation with DUAP, DLWC and MSC and for approval of DMR and the Director-General.

2.2 Spontaneous Combustion

The Applicant shall prepare, prior to the commencement of Mining Operations, a Spontaneous Combustion Management Plan to the satisfaction of DMR.

2.3 Limits on Production

- (a) Run of Mine coal production shall generally not exceed 15 Mtpa. The Applicant must notify the Director-General and MSC prior to any short term increase in production above this level.

- (b) The coal handling and preparation plant shall generally not process more than 20 Mtpa. The Applicant must notify the Director-General and MSC prior to any short term increase in the rate of coal processing above this level.

3. Land and Site Environmental Management

3.1 *Appointment of Environmental Officer*

- (a) The Applicant shall employ a suitably experienced Environmental Officer(s) throughout the life of the mine whose appointment is to receive prior approval by the Director-General. The Officer(s) shall:
 - i) be responsible for the preparation of the environmental management plans (refer to Condition No. 3.2);
 - ii) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;
 - iii) be responsible for receiving and responding to complaints in accordance with Condition 10.2(a);
 - iv) facilitate an environmental induction and training program for all persons involved with construction activities, mining and remedial activities; and
 - v) have the authority to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.
- (b) The Applicant shall notify the Director-General, DMR, EPA, NPWS, DLWC, MSC, and CCC (refer condition 10.1) of the name and contact details of the Environmental Officer(s) upon appointment and any changes to that appointment.

3.2 *Environmental Management Strategies and Plans*

- (a) The Applicant shall prepare an Environmental Management Strategy providing a strategic context for the environmental management plans [refer condition 3.2(d)]. The Environmental Management Strategy shall be prepared following consultation with the NPWS, DLWC, EPA, DMR, MSC, DUAP and the Community Consultative Committee (refer condition 10.1) and to the satisfaction of the Director-General. The strategy shall be provided to the Director-General no later than the time the first Environmental Management Plan under sub-clause (d) below is submitted.
- (b) The Environmental Management Strategy shall include, but not be limited to:
 - i) statutory and other obligations which the Applicant is required to fulfil during construction and mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer(s);
 - iii) overall environmental management objectives and performance outcomes, during construction, mining and decommissioning of the mine, for each of the key environmental elements for which management plans are required under this consent;
 - iv) overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by mining operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;

- v) identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;
 - vi) overall objectives and strategies to promote economic productivity within the area affected by mining;
 - vii) steps to be taken to ensure that all approvals, plans, and procedures are being complied with;
 - viii) processes for conflict resolution in relation to the environmental management of the project; and
 - ix) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.
- (c) The Applicant shall make copies of the Environmental Management Strategy available to MSC, EPA, DLWC, NPWS, DMR, MSB and the CCC within fourteen days of approval by the Director-General.
- (d) The Applicant shall prepare the following environmental management plans:
- Archaeology and cultural management plan (refer condition 3.3)
 - Flora and fauna management plan (refer condition 3.4)
 - Erosion and sediment control plan (refer condition 3.5(a))
 - Soil stripping management plan (refer condition 3.5(c))
 - Landscape and Revegetation Management Plan (refer condition 3.7)
 - Final void management plan (refer to condition 3.8)
 - Bushfire management plan (refer condition 3.9)
 - Land management plan (refer condition 3.10(a))
 - Site water management plan (refer condition 4.1)
 - Waste management plan (refer condition 5.2(a))
 - Dust management plan (refer condition 6.1(a))
 - Blasting/Vibration Management Plan (refer condition 6.3(a))
 - Road Closure Management Plan (refer to condition 6.3(d))
 - Noise Management Plan (refer condition 6.4.3(a))
 - Construction Noise Management Plan (refer condition 6.4.3(b))
 - Lighting Management Plan (refer condition 6.5)
 - Joint Acquisition Management Plan (refer condition 11.3)
- These environmental management plans may also form part of the overall Site Management Plan and/or Mining Operations Plan
- (e) The Applicant shall make copies of the environmental management plans in sub-clause (d) above available to the relevant government agencies, MSC and CCC, and ensure that the plans are made publicly available within 14 days of approval
- (f) The management plans are to be reviewed, and updated as necessary, at least every 5 years or as otherwise directed by the Director-General, in consultation with the relevant government agencies. They will reflect changing environmental circumstances or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at MSC within two weeks of approval by the DUAP.

3.3 Heritage Assessment, Management and Monitoring

Assessment and Management

The Applicant shall prior to the commencement of Mining Operations;

- (a) prepare an Archaeology and Cultural Management Plan to address Aboriginal and European cultural heritage issues. The Plan shall be prepared in consultation with the Wonnarua Tribal Council, and NPWS, and to the satisfaction of the Director-General. The Plan shall include but not be limited to:
 - (i) identification of all areas of conservation within the DA area. The establishment of a VCA at Mount Arthur and Heritage Management Zones 1 (west of Edderton Road), 2 (south-east of Edderton Road), 3 (Macleans Hill), as shown on Schedule A;
 - (ii) provision of management strategies for Aboriginal heritage sites for all parts of the DA area not affected by mining;
 - (iii) identification of any future salvage, excavation and monitoring programs for any heritage/archaeological sites within the DA area, prior to and during development;
 - (iv) set out management procedures and protocols for issues relating to Aboriginal heritage for all stages of the development (training of field crews, Upper Hunter Wonnarua Tribal Council, and Wannaruah Local Aboriginal Land Council participation, staging of works, salvage etc);
 - (v) details of a program for salvaging Aboriginal sites;
 - (vi) details of consultation undertaken with the Wonnarua Tribal Council, and Wannaruah Local Aboriginal Land Council in the preparation of this Plan;
 - (vii) details of the measures to fully document, in accordance with the NSW Heritage Council guidelines, any non-indigenous heritage sites that will be required to be removed as a result of the development;
 - (viii) details of proposed monitoring that will be undertaken in the areas adjacent to the non-indigenous heritage sites identified within the DA area during their excavation and removal, to identify any further cultural material that may exist;
 - (ix) details of the methods to dispose of the excavated non-indigenous heritage sites in a manner approved by the NSW Heritage Council, and following consultation with MSC and the Muswellbrook and Upper Hunter Historical Society; and
 - (x) details of the measures to mitigate any potential impacts resulting from the mine on the heritage homesteads Edinglassie, Rous-lench and Balmoral Homesteads and details of any maintenance procedures proposed to preserve their heritage value in accordance with the NSW Heritage Council requirements.

- (b) Within six months of the commencement of Mining Operations, the Applicant shall make a \$50,000 contribution towards the establishment of a trust fund set up by the Department of Urban Affairs and Planning through the Public Trustee. The funds are to be used for a regional study of Aboriginal sites and other cultural heritage projects as defined by the Trust Deed.
- (c) ²The Mt Arthur Conservation Area is to be afforded statutory protection in accordance with a Voluntary Conservation Agreement to ensure the long term protection of Aboriginal sites in that area. (Schedule A)
- (d) ³No s90 permits will be granted for the Aboriginal sites contained within the three (3) heritage management zones
- (e) ⁴The Wonnarua Tribal Council are to be provided with the opportunity to recover artefacts from the impact area as part of s90 permits for those sites within the impact area (refer to Schedule A.)
- (f) If, during the course of construction of any surface facilities or mining activities, the Applicant becomes aware of any heritage or archaeological sites not previously identified, all work likely to affect the site shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, the NSW Heritage Office, and the relevant local Aboriginal community. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.
- (g) The Applicant is to consult regularly with the Wonnarua Tribal Council and the Wannaruah Local Aboriginal Land Council using consultation principles and strategies consistent with those outlined in the “*Guidelines for best practice community consultation in the NSW Mining and Extractive Industries*”. The results of these consultations shall be documented in the AEMR.
- (h) Any proposed works that will affect non-indigenous heritage items, (including the items identified in Table 9.2 on page 191 of the EIS) including demolition of the items, will require an approval under section 139 of the *Heritage Act 1977* and an application for an excavation permit under section 140 of the *Heritage Act 1977* to disturb the relics will be required. This may also require additional approvals from MSC if the items are listed on the Heritage Schedule of the Local Environmental Plan.

Monitoring

- (i) The Applicant shall monitor the effectiveness of the measures outlined in the Archaeology and Cultural Management Plan [Condition 3.3(a)]. A summary of monitoring results shall be included in the AEMR.

² NPWS General Terms of Approval

³ NPWS General Terms of Approval

⁴ NPWS General Terms of Approval

Note	No Aboriginal archaeological sites, that have been identified, shall be destroyed without the approval of the Director-General of NPWS, under section 90 of the <i>National Parks and Wildlife Act 1974</i> , prior to any disturbance of the identified sites by Mining Operations.
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3.4 Flora and Fauna Assessment, Management and Monitoring

Assessment and Management

- (a) The Applicant shall prior to commencement of Mining Operations prepare and implement a Flora and Fauna Management Plan for the management of flora and fauna issues for the DA area. The Plan is specifically required to outline procedures for clearing or disturbing vegetation and other habitat types, along with measures for habitat reinstatement and management.

The Plan shall be prepared in consultation with NPWS and MSC, and to the satisfaction of the Director-General. The Plan shall be prepared by an appropriately qualified and experienced ecologist. The ecologist shall be responsible for providing advice to minimise potential impacts upon threatened and protected fauna species that may utilise the site and to provide expert advice on the regeneration and reconstruction of flora and fauna habitat on mined areas. The Plan shall include but not be limited to:

i) Measures required prior to commencing work at Mount Arthur North

- details of strategic vegetation management, outlining timeframes for clearing and re-vegetation activities and a map illustrating the Plan. The Plan should aim to maximise scope for new vegetation to establish and restore ecological integrity;
- strategies to supplement planting of *Corymbia maculata* Open Forest patches to strengthen the remaining area of the vegetation community. Planting on the site should seek to enhance the existing open forest structure, utilising seed stock from the site;
- details of the creation, landscape and management of ponds on-site, where practical, to provide for Green and Golden Bell Frog habitat.
- details of the schedule for clearing activities incorporating seasonal habitat requirements for species such as bats and other mammals, with the objective of avoiding incidents during sensitive hibernation and breeding periods.

ii) Clearing of vegetation

- details of pre-clearance inspections, including the identification and inspection of trees containing tree hollows, including stags, prior to clearing of any vegetation;
- details of how micro habitats including dead trees, stags, stumps and hollow branches will, where practical, be salvaged and relocated to areas depauperate of tree hollow habitat and in the recreation of habitat areas;
- details of the establishment of roost and denning boxes appropriate for bat and avifauna species and methods for their regular maintenance. The details on the specific height, aspect, design, location and timing for the placement of the roosts and nest boxes shall consider any publicly available results and recommendations following the ongoing fauna habitat monitoring program occurring at the Mt Owen mine;
- details of the methods for strategically placing felled trees between cleared and remnant bushland to provide runways of ground cover for dispersion of animals;

- details of the measures to care for any animals injured or found during clearing activities, including the use of WIRES to attend to fauna as necessary, and the methods for their relocation if appropriate. This shall include measures for harbouring and releasing nocturnal animals at night;

iii) Reconstruction of native bushland – Post Mining fauna habitat

- strategies for the establishment of long-term post-mining land use objectives over the site;
- details for re-establishing patches of *Corymbia maculata* Open Forest on the post mine landform and any integration with similar patches on the Bayswater No. 3 Mine as soon as possible after mining ceases in each area;
- measures to re-instate vegetation communities and to use local endemic species for revegetation as soon as possible;
- methods to actively manage existing areas of remnant vegetation (habitat management zones) through fencing (using animal friendly materials ie not barbed wire) to exclude grazing animals, where appropriate, and control of feral animals where practical, revegetate where appropriate, and maintain weed and fire controls;
- strategies for the establishment of wildlife corridor links consistent with and complimentary to, the Saddlers Creek and Mount Ogilvie habitat areas;
- details of the strategies for the exclusion of grazing cattle on areas of native bushland reconstruction;
- measures to monitor the success of revegetated areas and plant additional species where necessary. Implement measures to promote regeneration including fencing to exclude grazing animals, where appropriate, and control of feral animals where practical, maintain weed and fire controls;
- methods of revegetation;
- development of a protocol for identifying and managing significant impacts on any threatened flora and fauna species not identified in the EIS, during construction or operation of the coal mine; and
- details of the habitat monitoring program (refer to subclause (i) below).

Note	Emphasis should be given to the need for monitoring of the effectiveness of rehabilitation to learn from the process. It should be noted that both positive and negative outcomes need to be reported, to maximise the opportunity to incorporate best practice principles into future mining proposals.
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- (b) The revegetation of mined areas shall include, as a minimum, 30% as bushland. Bushland revegetated areas shall be protected from grazing by native fauna, where necessary, and domestic stock. The revegetation program shall also aim to extend and re-establish existing native vegetation on and, where possible, adjacent to the site.
- (c) If threatened species are identified on the site during construction or operation of the coal mine, the Applicant shall cease any work immediately which could adversely impact on the species, other than identified in the EIS, pending investigation and negotiation of ameliorative measures. The Applicant shall engage a suitable qualified person to investigate, and identify appropriate amelioration measures.
- (d) Those areas proposed to be mined and those areas proposed to be reforested both by natural means and by direct seeding/planting shall be mapped so that the spatial and temporal

relationship between the sequence of vegetation clearing, mining and habitat rehabilitation is clearly demonstrated.

- (e) Natural drainage patterns shall be re-established as far as practical. For the dual purposes of the protection of water quality and to provide wildlife links to revegetated areas, all creeks natural or reconstructed shall be buffered on each side by filter strips of native vegetation at a minimum of 10 metres or of widths responsive to the topography of surrounding slopes, as far as practical at the completion of mining.
- (f) During the life of the mine and until the revegetated areas are established to the satisfaction of the DMR, the Applicant shall maintain the revegetated areas. Maintenance shall include, where necessary, but not be limited to:
- replanting failed or unsatisfactory areas
 - repairing erosion problems
 - fire management – fire suppression or fire encouragement
 - pest and weed control
 - control of feral animal populations
 - maintain and repair fencing
 - fertiliser application
 - application of lime or gypsum to control pH and improve soil structure.
- (g) As well as the requirements under subclause (h), the efforts and progress of the Flora and Fauna Management Plan shall be documented in the Annual Environmental Management Report in accordance with the Department of Mineral Resource's Guidelines to the Mining, Rehabilitation and Environmental Management Process (March 1998) or its latest version.

Monitoring

- (h) The regeneration works shall be monitored by an appropriately qualified and experienced ecologist. The results of the monitoring and the effectiveness of the reforestation shall be reported annually as part of the Annual Environmental Management Report.
- (i) The Applicant shall prepare a detailed monitoring program of habitat areas on the site and any immediately adjacent land owned by COAL, including any wetlands and aquatic habitats, during the development and for a period after the completion of the development to be determined by the Director-General in consultation with NPWS. The monitoring program shall be included in the Flora and Fauna Management Plan (Condition 3.4(a)) and a summary of the results shall be provided in the AEMR. The program shall:
- (i) monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works. The Applicant shall carry out any further works required by the Director-General and DMR as a result of the monitoring;
 - (ii) establish an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristics and structure and to propose contingency measures for improvements to revegetation if required; and
 - (iii) establish an ongoing monitoring program of fauna species diversity and abundance and the effectiveness of reconstructed ecosystems in providing fauna habitat and contingency measures should impacts be identified as occurring.

Note: The information obtained from the monitoring shall be used to guide future revegetation efforts on the mine site.

3.5 Prevention of Soil Erosion

- (a) The Applicant shall prepare an Erosion and Sediment Control Plan for the surface facilities and mining operations in consultation with the DLWC, taking account of the DLWC “*Draft Guideline for Establishment of Stable Drainage Areas on Rehabilitated Minesites*” or its latest version, and to the satisfaction of DLWC and the Director-General. The Plan for construction shall be prepared and implemented prior to the commencement of construction. The plan for operations shall be prepared and implemented prior to the commencement of mining operations.
- (b) The Erosion and Sediment Control Plans shall include but not be limited to:
 - (i) details of temporary and permanent sediment and erosion control systems to be used during both mine construction and operation, including for earthworks associated with landscaping;
 - (ii) details of soil salinity management where relevant;
 - (iii) ⁵measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The Plan should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing) or its latest version;
 - (iv) details of the proposed measures to maximise the retrieval of topsoil for subsequent use in the rehabilitation program;
 - (v) consideration and management of erosion and sedimentation of surface watercourses/waterbodies, including all creeklines within the DA areas;
 - (vi) ⁶measures to construct banks, channels and similar works to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, haul roads, overburden disposal areas, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring; and
 - (vii) a program for reporting on the effectiveness of the sediment and erosion control systems and performance against objectives contained in the approved Erosion and Sediment Control Management Plan, and EIS.
- (c) The Applicant shall also prepare a Soil Stripping Management Plan to the requirements of DMR and DLWC that shall include, but not be limited to:

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- (i) details of the management of soil stockpiles, soil stripping techniques and scheduling; and
 - (ii) a program for reporting on the effectiveness of the soil stripping methods and performance against objectives contained in the soil stripping management plan, and EIS.
- (d) ⁷Sedimentation dams must be constructed to contain or treat surface water runoff from all mining areas and areas disturbed by mining including overburden dumps, topsoil stockpiles, unsealed roads and areas cleared of vegetation. Sedimentation dams must be designed:
- so that the maximum flow velocity through the dams meets DLWC guidelines;
 - to prevent short circuiting; and
 - if inflow is likely to contain oil or other deleterious floating matter a baffle must be installed at the outlet to prevent discharge of that matter.

3.6 Site Rehabilitation Management

The Applicant shall carry out rehabilitation of all mine areas in accordance with the requirements of any Mining Lease granted by the Minister for Mineral Resources and ensure the progressive rehabilitation of the area is also to the satisfaction of DLWC. The rehabilitation shall also have regard to the *Synoptic Plan – Integrated Landscapes for Minesite Rehabilitation (1999)* for the Upper Hunter, or its latest version.

3.7 Visual Amenity and Landscaping

- (a1) The Applicant shall negotiate and purchase Property Nos. 286, 287 and 293 (as indicated in the EIS - all Constable) within six months of a written request from the owner. Acquisition shall be in accordance with the procedures set out in Condition 11.2.
- (a) A Landscape and Revegetation Management Plan shall be prepared by the Applicant and approved by the Director-General prior to commencement of construction. The Plan shall be prepared in consultation with the MSC. In preparation of such plan regard shall be had to the DMR's Upper Hunter Synoptic Plan. The Plan shall include, but not limited to, the following:
- i) An on-site landscaping strategy detailing design and proposed planting of trees and shrubs and the construction of mounding or bunding:
 - 1) along the access road to the mine site from Thomas Mitchell Drive;
 - 2) along other public roads including Denman Road and Edderton Road;
 - 3) around the water storage dam and industrial area;
 - 4) the overburden emplacements; and
 - 5) at any other areas identified as necessary by MSC for the maintenance of satisfactory visual amenity, and as agreed by the Director-General.
 - ii) Appropriate erosion control and sediment control practices for earthworks associated with the landscaping.
 - iii) Details of visual appearance of all buildings, structures, facilities or works (including paint colours and specifications). Buildings and structures shall be designed and

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- constructed/renovated so as to present a neat and orderly appearance and to blend as far as practicable with the surrounding landscape.
- iv) Details, specifications and staged work programs to be undertaken, maintenance of all landscape works and maintenance of building materials and cladding.
 - v) the process of incorporating vegetation screening and fauna protection corridors into the proposed visual and landscaping works;
 - vi) use of indigenous species;
 - vii) details of an off-site landscape strategy detailing proposed planting of trees and/or shrubs along Roxburgh Road, and Denman Road west of the site. The strategy shall also include details of the process to be undertaken should the owners of the Hamilton or Piercefield residences or Roxburgh Vineyard request off-site landscaping works in accordance with sub-clause (b) below.
- (b) If the owner of the Hamilton, Roxburgh Vineyard and Piercefield properties requests, the Applicant shall engage a mutually agreeable landscape architect to prepare a property landscape enhancement plan for that owner. The Applicant shall meet the costs for the preparation of such plan.
 - (c) If the owner referred to in sub-clause (b) above requests, the Applicant shall meet the reasonable costs for implementing the property landscape enhancement plan.
 - (d) Should the Applicant and/or landowner dispute the details of the property landscape enhancement plan prepared in accordance with subclauses (b) and (c) above, then either party may refer the matter to the Director-General. If the matter cannot be resolved within 21 days, the matter shall be referred to an Independent Dispute Resolution Process. The decision of the Independent Dispute Resolution Process shall be final, as agreed by the Director-General
 - (e) In the event that a landowner considers that the visual impacts from the proposal once operational are adversely greater than that predicted in the EIS at their dwelling, the Applicant shall, upon the receipt of a written request, consult the landowner, discuss their concerns and the level of impact compared to EIS predictions, and, in the case of impact adversely greater than the EIS predictions, possible mitigation measures.
 - (f) Should the Applicant and / or landowner dispute the level of adverse impact or any proposed mitigation measures from subclause (e) above, then either party may refer the matter to the Director-General in consultation with MSC. If the matter cannot be resolved within 21 days, the matter shall be referred to an Independent Dispute Resolution Process. The decision of the Independent Dispute Resolution Process shall be final, as agreed by the Director-General.

3.8 Final Void Management Plan

The Applicant shall, by year 5 of operations, prepare a Final Void Management Plan to the satisfaction of the Director-General, in consultation with the DMR, DLWC, and MSC. The Plan shall be reviewed and updated every 5 years, or as otherwise agreed by the Director-General. The Plan shall include, but not be limited to, the following:

- (i) An investigation of options for future use of the final voids;

- (ii) A re-examination and validation of groundwater modelling of the potential effects on the local and regional groundwater;
- (iii) Details of a strategy for the long term management of the final voids;
- (iv) Implement strategies to minimise any adverse impacts where the assessment indicates the potential for degradation to surrounding water resources; and
- (v) Programs for catchment management, including the types of fertilisers used in the rehabilitation programs to ensure that there is little residual risk of nutrient enrichment of final void water.

3.9 Bushfire and other Fire Controls

The Applicant shall:

- (a) provide adequate fire protection works on site, including the availability of trained personnel, water tankers and fire fighting equipment and annual hazard reduction measures with particular attention to boundaries of adjoining landholdings;
- (b) make available to the Rural Fire Service and emergency services when required, water carts and trucks in cases of bushfire incidents on the mine site;
- (c) submit an annual report on fire management activities to the Muswellbrook Fire Management Committee; and
- (d) prior to commencement of mining operations prepare a Bushfire Management Plan for all its holdings contained in the DA, to the satisfaction of MSC and the Rural Fire Service.

3.10 Land Management

- (a) The Applicant shall, prior to commencement of Mining Operations prepare a Land Management Plan for the areas of the proposed surface facilities, and its holdings in the DA area, to provide for proper land management in consultation with DLWC, MSC, and to the satisfaction of the Director-General. The plan shall include, but not be limited to:
 - (i) pastures and remnant vegetation management;
 - (ii) prevention and rehabilitation of land degradation;
 - (iii) control of weed infestation on topsoil stockpile material;
 - (iv) assessment of the potential for commercial harvesting of standing timber removed from the site;
 - (v) eradication of vermin and noxious weeds as required by the Rural Lands Protection Board, the Upper Hunter Weeds Authority, the Prickly Pear Authority and other relevant authorities; and,
 - (vi) feral animal control.
- (b) The Applicant shall minimise the removal of trees and other vegetation from the proposed surface facilities area, and restrict any clearance to the areas occupied by mine activity, buildings and paved surfaces, and those areas necessary for fire control in accordance with MSC requirements.

3.11 Relocation of Electrical Transmission Lines

The Applicant shall, to the satisfaction of Energy Australia and at its own cost, or by agreement with relevant parties, undertake the relocation and / or construction of any electrical transmission lines which may be required as a result of the proposed development. Such work shall be completed prior to any existing line being affected by mining activity from the Mount Arthur North mine.

4. Water Management and Monitoring

4.1 Surface & Ground Water Management Plans

The Applicant shall:

- (a) prior to the commencement of Mining Operations, prepare a Site Water Management Plan for the DA area, in consultation with DLWC and MSC and to the satisfaction of the Director-General and DLWC, which shall include, but not be limited to, the following matters:
 - (i) management of the quality and quantity of surface and ground water within the areas covered by the water management plans;
 - (ii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;
 - (iii) measures to prevent the degradation of downstream surface water quality below the pre-mining ANZECC beneficial water use classification due to mining operations, particularly in the Hunter River, Whites Creek, Fairford Creek, and the unnamed creeks;
 - (iv) ⁸demonstration of compliance with Section 20BA and Section 20Y of the *Water Act (1912)*, concerning the embargoes on water extraction within the Hunter Valley, particularly to any groundwater captured by the mine from the Hunter River alluvium aquifers;
 - (v) contingency plans for managing adverse impacts of the development on surface and groundwater quality;
 - (va) details of a dispute resolution process to resolve issues where maintenance of streamflow yield of catchments affected by mining operations, or deepening and/or increased operational costs of bores where the water table has been lowered by mining activities, are disputed between the Applicant and affected landowner;
 - (vi) an outline of the impact of the licensed works undertaken by the licences required from DLWC on downstream water users. This shall include the preparation of a discharge strategy to any identified downstream users. The strategy shall incorporate water quality goals;
 - (vii) ⁹written evidence of the purchase and transfer of additional entitlement from the regulated Hunter River system prior to extracting any water beyond the volume already allocated to current licences held by the Applicant;
 - (viii) ¹⁰details of the measure of extraction of water from the Hunter River;

⁸ DLWC General Terms of Approval

⁹ DLWC General Terms of Approval

¹⁰ DLWC General Terms of Approval

- (ix) details of any reuse of contaminated water or circulation / distribution between Mount Arthur North and other mines or operations. The volume of any such water transfers is to be documented in the AEMR;
 - (x) ¹¹measures to develop and implement a Stormwater Management Scheme to mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* or its latest version (available from the EPA);
 - (xi) measures to ensure that poorer quality class waters are effectively reused on the site including consideration of segregation of waters based on salinity classes and other levels of contamination;
 - (xii) details of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams.
 - (xiii) measures to isolate heavily contaminated waters, including waters containing oil and grease, or other pollutants, operation chemical residues or other criteria, to avoid mixing with reuse or discharge waters;
 - (xiv) details of design and maintenance of all storages, diversions, transmission channels and sedimentation basins for the site, to minimise sedimentation of watercourses;
 - (xv) details of any licensing requirements for any extractions, storages, or other constructions on the site;
 - (xvi) measures for assessing chemical water quality impacts of the mining operation above and below the mine site
 - (xvii) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts; and
 - (xviii) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plans, and EIS.
- (b) ¹²The Applicant shall obtain a licence from DLWC under:
- (i) Part 2 of the *Water Act 1912* for the provision of water supply from extraction of water from the Hunter River and for construction and use of drainage diversion channels defined under the Act prior to the commencement of construction of the licensable works;

¹¹ EPA General Terms of Approval

¹² DLWC General Terms of Approval

- (ii) Part 5 of the *Water Act 1912* for the bores and wells which intersect the groundwater table, including monitoring bores and the excavations which intersect the groundwater table; and
 - (iii) Part 3A of the *Rivers and Foreshores Improvement Act 1948* for the proposed installation of works for the stable discharge of water under the Hunter River Salinity Trading Scheme prior to the commencement of works associated with the channel below the discharge dam and the point of re-entry into the Hunter River.
- (c) ¹³The works associated with the proposal shall not damage or interfere in any way with:
- (i) vegetation outside the area of operation;
 - (ii) the stability of adjacent or nearby streams; or
 - (iii) the quality of water in the stream or watercourse below its ANZECC beneficial water use classification prior to the commencement of mining operations;
- (d) ¹⁴The Applicant shall, in consultation with DLWC, ensure that all soil and / or vegetation material to be removed from the area of operation is disposed of on an appropriate site where it will not be swept back into watercourses.
- (e) ¹⁵The Applicant shall ensure, in consultation with DLWC, that all drainage diversion works incorporated at the mine minimise adverse impacts. This shall include:
- (i) measures to ensure drainage diversion works minimise site inundation and do not result in adverse downstream impacts due to changes in downstream flows;
 - (ii) measures to ensure that sufficient flow detention measures are implemented to provide flow rates at non-erosion velocities prior to re-entry into the natural drainage systems;
 - (iii) details of adequate scour protection where flows re-enter natural drainage lines from the diversion drains to prevent adverse erosion impacts;
 - (iv) measures to ensure diversion systems are designed to provide stability for the long term for permanent diversions or the designed life of the structures for temporary diversions. This will require design considerations to verify the stability of the proposed drainage schemes for a range of conditions;
 - (v) details of a pre-construction survey, by a suitably qualified person, of the channel site and adjacent banks showing design channel profile on cross-sections; and
 - (vi) engineering hydraulic calculations by a suitably qualified person and assessment of scour potential of the channel to meet design flood capacity. This should be related to flow velocities, stability of design bed material type, bed slopes and profiles.
- (e1) ¹⁶The Applicant shall implement the works to be undertaken with respect to Water Licence Application numbers 20SL060751 and 20SL060753 in accordance with the Water Licence conditions as recommended in the Commission of Inquiry's report for the MAN Project (pp 80-81).

¹³ DLWC General Terms of Approval

¹⁴ DLWC General Terms of Approval

¹⁵ DLWC General Terms of Approval

¹⁶ DLWC General Terms of Approval

- (f) The Applicant shall install a culvert where the existing Fairford Creek crosses Denman Road of sufficient capacity to cater for the increased flow from the combined Fairford and Whites Creeks prior to the diversion of Whites Creek into Fairford Creek. The discharge from the new Fairford Creek culvert shall be directed by a channel constructed by the Applicant from this culvert to the original Whites Creek drainage channel on the Hunter River side of Denman Road to the satisfaction of MSC and DLWC.
- (g) The Applicant shall develop a contingency arrangements to dispose of excess saline water in a planned and managed manner to ensure that the mine water management system is not exceeded with a subsequent unmanaged discharge occurring.
- (h) The Applicant shall undertake regular assessments of the accuracy of the groundwater model against the predictions outlined in the EIS, to the satisfaction of DLWC. The scope of the assessment shall be determined in consultation with DLWC and shall include the consideration of the establishment of trigger levels via sensitivity testing, drawdown, pit seepage and river leakage. Should an assessment identify significant differences between the model and EIS predictions, the Applicant shall revise the assessment of the potential impacts on groundwater systems to the satisfaction of DLWC and implement any further mitigation measures to the satisfaction of DLWC. The trigger levels for re-assessment of groundwater impacts will be set within the conditions of the Part V licence under the Water Act.
- (i) If necessary, the Applicant shall develop contingency measures to manage any impacts identified by monitoring that the management strategies have failed to predict or control, particularly relating to groundwaters associated with the alluvial aquifer of the Hunter River, to the satisfaction of DLWC. The implementation of contingency measures shall be linked to performance and cut-off criteria as determined in consultation with DLWC and specified in the Site Water Management Plan, and shall include both water quality and aquifer pressure levels, should agreed standards or performance indicator levels not be achieved.
- (j) The Applicant shall prepare a statistical assessment to the satisfaction of DLWC to initially benchmark the pre-mining natural variation in groundwater quality and quantity and to set trigger levels for accepting accountability. The assessment is to be documented in the site water management plan.
- (k) In the event that the development adversely affects groundwater users the Applicant shall, to the satisfaction of the DLWC, liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply. The cut-off levels for depressurization of the alluvial aquifer and water quality parameters shall be determined in consultation with the DLWC.

Pollution of waters

- (l) ¹⁷Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

¹⁷ EPA General Terms of Approval

- (m) ¹⁸Any release of surplus minewater from the mine must comply with the requirements of the Hunter River Salinity Trading Scheme (HRSTS) and any licence issued under the Protection of the Environment Operations Act unless otherwise directed by the EPA. The HRSTS embodies:
- the conditions of an EPA Licence;
 - the HRSTS Rulebook dated 1 December 1998; and
 - monitoring of the Hunter River by the DLWC on behalf of participating industries.
- (n) The Applicant shall ensure that no discharge waters adversely affect any neighbouring property or overtops the constructed discharge channel
- (o) Any application to the EPA for a licence under the Protection of the Environment Operations Act (1997) to discharge surplus minewater must be supported by a tributary impact statement. The tributary impact statement must include a geomorphological evaluation of the watercourse and an assessment of the impact of the proposed discharge on the streams flora and fauna as well as any users and residents downstream.

Concentration limits

- (p) ¹⁹The concentration of a pollutant in wastes discharged under the HRSTS must not:
- cause salinity in the Hunter River to exceed 600 microSiemens/cm ($\mu\text{S}/\text{cm}$) measured at Denman, or as otherwise determined by the EPA;
 - contain more than 120 milligrams per litre (mg/l) of non-filtrable residue; and
 - be of a pH less than 6.5 or greater than 9.5.

Wastewater management

- (q) ²⁰A waste water management system must be constructed and utilised to manage the collection, storage, treatment, use and disposal of minewater, sewage effluent and other wastewater.
- (r) ²¹Ponds and drains must be constructed at coal stockpile and coal handling areas to contain and treat contaminated runoff prior to reuse within the minewater management system.
- (s) ²²Domestic sewage must be treated in the existing Bayswater mine wetland treatment system unless otherwise approved in writing by the EPA

4.2 Surface and Groundwater Monitoring

- (a) The Applicant shall:
- (i) construct and locate surface and groundwater monitoring positions, as identified in the Site Water Management Plan (Condition 4.1(a)) in consultation with DLWC, and to the

¹⁸ EPA General Terms of Approval

¹⁹ EPA General Terms of Approval

²⁰ EPA General Terms of Approval

²¹ EPA General Terms of Approval

²² EPA General Terms of Approval

satisfaction of the Director-General, at least three months prior to the commencement of mining operations;

- (ii) prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the DA area during mining works and post mine operations in consultation with DLWC, and to the satisfaction of the Director-General. The monitoring program shall have the capacity to collect sufficient data to adequately assess:
- the impact of any licensed groundwater extraction on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;
 - the impact of the development on groundwaters associated with the alluvial aquifer of the Hunter River;
 - any licensing requirements associated with the monitoring works;
 - develop a contingency program, with identified stages of implementation, to address potential adverse impacts or degradation of the groundwater systems, particularly relating to the groundwater associated with the alluvial aquifer of the Hunter River and to the groundwaters in the vicinity of any rejects. Degradation occurs where the quality classification of the groundwater system is reduced to a lower class; and
 - any concerns or complaints from surrounding landholders on groundwater matters, and any ensuring actions, which shall be maintained and be available to DLWC.

The monitoring program shall be incorporated in the Site Water Management Plan and shall include the duration (pre, during and post mining), sites to be sampled, frequency of sampling, the parameters to be measured, the need for any contingency plans, the reporting procedure and determination of appropriate cut-off criteria for monitoring purposes determined in consultation with DLWC. The results of the monitoring program shall be reported in the AEMR. The monitoring program for post-mining shall be prepared by year 20 of mine operations.

- (iii) report on the monitoring results and raw data in the AEMR on the following matters:
- a) a basic statistical analysis (mean, range, variance, standard deviation) of the results for the parameters measured in individual bores / wells and as a subset of the aquifer;
 - b) an interpretation of the water quality results and changes in time for water quality and water levels (supported with graphs, contour plots showing changes in aquifer pressure levels);
 - c) an interpretation and review of the results in relation to cut-off criteria and predictions made in the EIS;
 - d) an interpretation of the water balance identifying the volume and make up of mine pit inflows as compared to Part V licence (required under Part V of the *Water Act 1912*), and predictions made in the EIS or previous AEMR; and
 - e) provide an electronic copy of the data forwarded to DLWC.

Requirement to monitor wastewater discharges

- (b) ²³The Applicant shall monitor the discharge of water as required by the EPA. This shall include:
- (i) monitoring equipment must be installed at the authorised discharge point licensed by the EPA to enable full compliance with the monitoring requirements detailed in subclause (ii).
 - (ii) the following must be measured continuously at the authorised discharge point during discharge:
 - the volume of the wastes discharged in megalitres per day; and
 - the conductivity of the wastes discharged in microSiemens per centimetre.
 - (iii) measurement of:
 - non-filterable residue in milligrams per litre; and
 - pH
 - (iv) monitoring required by subclause b (iii) must be carried out on the following at least once during each discharge:
 - the water discharged; and
 - the receiving waters, upstream and downstream of the discharge point.
 - (v) the Applicant must otherwise monitor waters and any discharge as specified by the HRSTS and as set out in an environment protection licence issued by the EPA.
- (c) ²⁴Results of continuous monitoring required by subclause b (ii) must be forwarded via the Hunter Integrated Telemetry System (HITS) to the regional water quality monitoring network operated by the NSW Department of Land and Water Conservation (DLWC).
- (d) ²⁵Recording and communication equipment must be installed in accordance with the “*HITS Remote Site Design Document*” published by DLWC dated 22 December 1998, or its latest version.

²³ EPA General Terms of Approval

²⁴ EPA General Terms of Approval

²⁵ EPA General Terms of Approval

5. Hazardous Materials and Overburden Management

5.1 Overburden Emplacement and Management

- (a) The Applicant shall construct and manage the overburden emplacements as set out in the EIS, and to the approval of the DMR.
- (b) The Applicant shall undertake measures, as far as practical, to prevent spontaneous combustion from occurring on the site.

5.2 Waste

- (a) Prior to the commencement of construction works, the Applicant shall prepare and implement a Waste Management Plan for the DA area in consultation with MSC and to the satisfaction of the Director-General. The Plan shall include, but not be limited to:
 - (i) details of measures to facilitate waste management on site;
 - (ii) details of compliance with the Applicant's obligations under the *Protection of the Environment Operations Act* (1997);
 - (iii) identification of all types and quantities of waste materials produced at the mine site during construction, commissioning and operation;
 - (iv) programs aimed at minimising the production of waste at the mine site through the implementation of operational and management measures;
 - (v) details of the potential reuse and recycling avenues for waste materials produced at the mine site, including collection and handling procedures;
 - (vi) details of appropriate disposal routes in the event that reuse and recycling avenues are not available or are not practicable; and
 - (vii) programs for involving and encouraging employees and contractors to minimise waste production at the mine site and reuse / recycling where appropriate.
- (b) ²⁶The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the *Protection of the Environment Operations Act* 1997.

This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the *Protection of the Environment Operations Act* 1997.

- (c) ²⁷Bund(s) must be installed around areas in which fuels, oils and chemicals are stored. Bunds must:
 - have walls and floors constructed of impervious materials;
 - be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
 - have walls not less than 250 millimetres high;
 - have floors graded to a collection sump; and

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- not have a drain valve incorporated in the bund structure.
- (d) ²⁸A wastewater treatment facility with oil separator and sediment trap must be installed to treat drainage from the hardstand, vehicle servicing and general workshop areas.
- (e) The Applicant shall dispose of all solid waste and putrescible matter from the site to the satisfaction of MSC or EPA, as relevant.

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6. Air Quality, Blast, Noise and Light Management and Monitoring

6.1 Air Quality Management and Monitoring

Air Quality Standards/Goals

(a1) The Applicant shall comply with the following air quality standards/goals:

Table 1 Health Based Air Quality Standards/Goals for Particulate Matter Concentrations

Pollutant	Standard/Goal	Agency
Total Suspended Particulate Matter (TSP)	90µg/m ³ (annual mean)	NH&MRC
Particulate matter < 10µg (PM ₁₀)*	150µg/m ³ (average of 99 th percentile of 24 hour averages over three years)	US EPA
	50µg/m ³ (annual mean)	US EPA

* The Applicant need only to monitor for and report against these PM₁₀ goals

Table 2 NSW EPA Amenity Based Criteria for Dust Fallout

Existing Dust Fallout Level (g/m ² /month)	Maximum Acceptable Increase Over Existing Fallout Levels (g/m ² /month)	
	Residential	Other
2	2	2
3	1	2
4	0	1

Dust Management Plan

- (a) The Applicant shall, prior to the commencement of Construction, prepare a Construction Dust Management Plan, and prior to mining operations prepare an Operations Dust Management Plan, detailing air quality safeguards and procedures for dealing with dust emissions from the Mount Arthur North mine to the satisfaction of the Director-General. The construction dust management plan shall be prepared in consultation with the EPA and MSC. The Operations Dust Management Plan shall be prepared following consultation with other mines in the vicinity including Drayton, Bayswater, Bengalla and Mount Pleasant mines with the aim of achieving a consistent approach in the preparation of the Mount Arthur North Dust Management Plan. Consultation for the Operations Dust Management Plan shall also occur with the EPA, and MSC. The Plans shall include, but not be limited to, details of:
- the identification of dust affected properties in accordance with the criteria detailed in Tables 1 and 2;
 - specifications of the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations, including joint investigations with the other

- mines in the vicinity including Drayton, Bayswater, Bengalla and Mount Pleasant mines, where necessary as agreed by other mines;
- iii) outline the procedure to notify property owners and occupiers as identified in the EIS or by monitoring as likely to be affected by dust from the mine in excess of criteria detailed in Tables 1 and 2;
 - iv) measures to reduce the potential for wind erosion from exposed surfaces, particularly the use of techniques that increase the surface roughness and reduce the potential for dust entrainment;
 - v) methods and frequency of making dust monitoring data publicly available, such as the placement of monitoring details and results on the internet;
 - vi) measures to manage and mitigate short term episodic events including investigations into the relationships between short-term variations in dust levels (particularly TSP and dust deposition) and levels of complaints and annoyance, with a view to reviewing the monitoring approaches;
 - vii) investigations for improving short-term modelling techniques, by better characterising dust source variations and focusing on the feasibility of developing shorter-term amenity indicators;
 - viii) the establishment of a protocol for handling dust complaints that include recording, reporting and acting on complaints;
 - (viii a) outline of response and/or management measures to be undertaken in the event of complaints from a landowner where dust levels are demonstrated to be below the dust criteria in Tables 1 and 2;
 - ix) appropriate mechanisms for community consultation;
 - x) outlining proactive/predictive and reactive mitigation measures to be employed to minimise dust emissions including visible dust emanating from the site;
 - xi) equipment to be available and used to control dust generation;
 - xii) measures to alter mining operations at any time when driver visibility or traffic safety on Denman Road, Edderton Road or Thomas Mitchell Drive is adversely affected by dust from mining operations;
 - xiii) methods to determine when and how the mine operation is to be modified to minimise the potential for dust emissions, particularly from surface activities;
 - xiv) identification of longer term strategies directed towards mitigating dust levels;
 - xv) details of locations and frequency of dust monitoring and deposition gauges at the residential areas as agreed by the Director-General;
 - xvi) details of the inter-relationship of this plan with the available dust management plans, if any, of Drayton, Bengalla, and Mount Pleasant mines and the Bayswater and Drayton rail loading facilities; and
 - xvii) a program to continue baseline monitoring undertaken prior to development consent.

Air Quality and Dust Monitoring

- (b) The Applicant shall:

- i) undertake monitoring at locations described in the Dust Management Plan refer to Condition 6.1(a);
 - ii) ²⁹ Establish in consultation with the EPA dust deposition and total suspended particulate(TSP) matter monitoring sites;
 - iii) include sites for monitoring impacts of dust at the nearest non-mine owned residences and locations as may be determined to be necessary by the Director-General and in accordance with the Dust Management Plan referred to in Condition 6.1(a);
 - iv) consideration is to be given to the use of existing relevant monitoring locations at Bayswater, Drayton and Bengalla mines;
 - v) provide quarterly reporting on the performance of the control measures and of the monitoring system detailed in the EIS and conditions of this consent, unless otherwise agreed by the Director-General. The reports shall be provided to the Director-General, CCC and MSC within seven days of completion of the report; and
 - vi) provide all results and analysis of air quality monitoring in the AEMR including a determination of the dust deposition rate in g/m²/month, which shall be plotted in the AEMR.
- (c) In the event that a landowner or occupier considers that dust from the project at his/her dwelling or over more than 25% of his/her vacant land is in excess of the criteria detailed in Tables 1 and 2 above, and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
- i) consult with the landowner or occupant affected to determine his/her concerns;
 - ii) make arrangements for, and bear the costs of, following consultation with the other mines in the vicinity including the Drayton, Bengalla, Bayswater and Mount Pleasant mines, appropriate independent dust investigations in accordance with the Dust Management Plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and contribution of the Mount Arthur North mine;
 - iii) modify the mining activity or take other steps in accordance with the Dust Management Plan if exceedences are demonstrated to result from MAN related activity. This shall include:
 - 1) introduction of additional controls, either of dust generation from individual sources on the site or on site operations, or modify operations to ensure that the dust criteria are achieved; and/or;
 - 2) enter into an agreement with the landowner or provide such forms of benefit or amelioration of the impact of dust as may be agreed between the parties as providing acceptable compensation for the dust levels experienced. The agreement may also be made following consultation with the other mines in the vicinity including the Drayton, Bengalla, Bayswater and Mount Pleasant mines.
 - iv) conduct follow up investigation(s) to the satisfaction of the Director-General, where necessary.

²⁹ EPA General Terms of Approval

Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.

- (d) If the independent dust investigations in sub-clause (c) above confirm that dust levels from MAN alone are in excess of the relevant criteria detailed in Tables 1 and 2 above, and if the measures in sub-clause (c)(iii) (1) above do not reduce the dust levels below the criteria in Tables 1 and 2, or if agreement in accordance with sub-clause (c)(iii) (2) above cannot be reached, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 11.2.
- (e) In the case of cumulative dust levels in excess of the criteria as described in sub-clause (d) above, the Applicant shall purchase an affected property at the written request of the property owner in accordance with the Joint Acquisition Management Plan (condition 11.3).
- (f) Further independent investigation(s) shall cease if the Director-General is satisfied that the relevant criteria in Tables 1 and 2 are not being exceeded and are unlikely to be exceeded in the future.
- (g) ³⁰Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:
 - any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or
 - if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
 - if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

6.2 Dust Suppression and Control

- (a) The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas of the DA area following the completion of mining and associated activities in that area to minimise the generation of wind blown dust.
- (b) ³¹Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.
- (c) ³²Raw coal dump hoppers must be fitted with:
 - (i) An automatically activated dust suppression water spray system; and

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- (ii) Windshields. The windshields must be full walls on three sides with a height of not less than two metres above the dump grate.
- (d) ³³Belt conveyors, other than those whose functions preclude it, must be enclosed on the top and at least one side. Belt scrapers must be installed to effectively remove material from the underside of each belt.
- (e) ³⁴Air pollution control equipment must be fitted to all drilling rigs to prevent fines generated during drilling being discharged to the atmosphere.
- (f) ³⁵An effective water spray system must be installed at open coal stockpiles and operated at sufficient frequency to maintain the entire surface of the stockpile and related coal handling areas in a condition that will minimise the emission of wind blown or traffic generated dust.
- (g) ³⁶Mobile tankers equipped with a pump and sprays must be provided to suppress dust from unsealed roads when in use.
- (h) ³⁷Roads for coal or overburden haulage must be surfaced in selected hard, non-friable material. Soft mudstone, clay stone and shale must not be used.

6.3 Blast Management and Monitoring

Overpressure

- (a) ³⁸The overpressure level from blasting operations on the premises must not:
 - (i) Exceed 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months; and
 - (ii) Exceed 120dB (Linear Peak) at any time,

when measured at any point that is located at least 3.5m from any building or structure at any nearby residential property or other noise sensitive location such as a school or hospital.

Ground vibration (ppv)

- (b) ³⁹Ground vibration peak particle velocity from the blasting operations at the premises must not:
 - (i) Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
 - (ii) Exceed 10mm/s at any time,

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when measured at any point within the grounds of noise sensitive locations and within 30m of any residence or other noise sensitive location such as a school or hospital.

Time of blasting

- (c) ⁴⁰Blasting operations on the premises may only take place between 9.00am and 5.00pm Monday to Saturday inclusive.
- (d) ⁴¹The hours of operation for blasting operations specified in this condition may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.
- (e) The Applicant shall investigate any vibration problem(s) associated with above ground floor level of residential buildings which occur as a result of blasting at the mine in relation to the standards in Condition (6.3a and b) above. Should such an investigation be necessary the Applicant shall advise the Director-General the result of such investigation and any proposed preventive/remedial measures.

Blasting/Vibration Management Plan

- (f) The Applicant shall prepare and implement a Blasting/Vibration Management Plan to the satisfaction of the Director-General, prior to the commencement of any blasting. The Plan must include, but not be limited to, the following matters:
 - i) compliance standards;
 - ii) mitigation measures;
 - iii) remedial action;
 - iv) monitoring methods and program;
 - v) monitoring program for flyrock distribution;
 - vi) measures to be undertaken to demonstrate that the Mount Arthur North mine is achieving best practice in minimising air blast overpressure, ground vibration levels, fumes and odours from blasting activities;
 - vii) measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables, irrigation lines) and livestock on non-mine owned land;
 - viii) measures to consider the blasting activities from other neighbouring mines particularly Drayton, Bayswater, Bengalla and Mount Pleasant. This shall include details of the proposed measures to ensure that cumulative blast related impacts are managed, such as through consultation with the other mines to co-ordinate blasting activities;
 - ix) procedures for the investigation of blast related complaints from the MAN, in consultation with other mines in the event of cumulative related impacts
 - x) procedures for the notification of occupiers of buildings and residents prior to detonation of each blast; and
 - xi) measures to ensure no damage by flyrock to people, property, livestock and powerlines.

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- (f) The applicant shall, as a minimum, advise occupiers of buildings and residents within three (3) kilometres of blasting locations (including the whole of the Racecourse Road area and area south-west of Skellator Stock Route) of future blasting events on at least a monthly basis, and of any changes to the proposed blast schedules. Such program shall also be available on the internet.
- (h) Upon written request of the owner of any dwellings located within three (3) kilometres of the blasting locations, or any dwelling located in the Racecourse Road area or area south-west of Skellator Stock Route, the Applicant shall arrange at its own costs, for the inspection by a technically qualified person agreed to by both parties, to record the material condition of any structure on such property within 14 days of receipt of the request. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner within fourteen (14) days of receipt of the report.
- (i) The Applicant shall, in consultation with MSC and RTA, prepare a Road Closure Management Plan to the satisfaction of the Director-General prior to the commencement of any blasting within 500 metres of Denman Road. The Plan shall include, but not be limited to, the following matters:
 - i) details of the proposed safety management measures during the period of the road closure and blast;
 - ii) details of the procedures for closing Denman Road and the period which the road will be closed during blasting activities;
 - iii) methods for ensuring the safety of road users and the general public during the blast period;
 - iv) strategies for informing road users and the local community of the proposed road closure;
 - v) details of the procedures for permitting the passage of emergency vehicles during the road closure. This shall also include details of the proposed methods for sufficiently notifying emergency service providers of the proposed times and period of the road closures;
 - vi) methods for clearing the road of any debris resulting from a blast; and
 - vii) details of the disruptions that are likely to occur during the closure period.
- (j) The Applicant shall incur the costs for any damage to Denman Road resulting from any blast related activities. The repairs shall be undertaken to a standard acceptable to MSC and RTA.

Blast Monitoring

- (k) ⁴²The applicant must monitor ground vibration and overpressure of all blasts.
- (l) ⁴³Ground vibration or the overpressure must be measured at noise sensitive sites (eg. residences, hospitals, schools etc), selected in consultation with the EPA.

6.4 Noise Control

6.4.1 Noise Criteria

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Intrusive (MAN Alone) and Amenity (Cumulative) Noise Criteria

- (a) The Applicant shall undertake management measures as outlined in the Noise Management Plan at dwellings where the noise criteria in Table 3 below are demonstrated to be exceeded, or are exceeded during mining operations.

Table 3: Intrusive (MAN alone) L_{Aeq} (15 minute) and Amenity (Cumulative) $L_{Aeq}(\text{period})$ Noise Criteria (for noise from all coal mining operations)

Locations as identified in Schedule B	Intrusive Criteria [Day/Evening/Night] $L_{Aeq}(15 \text{ minute})$	Amenity Criteria [Day/Evening/Night] $L_{Aeq}(\text{period})$
Antiene Estate	37/40/38dB(A)	50/45/40dB(A)
Skellator Stock Route Thomas Mitchell Drive / Denman Road	39/38/37dB(A)	50/45/40dB(A)
Racecourse Road	37/36/35dB(A)	50/45/40dB(A)
Denman Road West Roxburgh Vineyard and Roxburgh Road	37/36/35dB(A)	50/45/40dB(A)
South Muswellbrook (including the South Muswellbrook Development Area)	35/35/35dB(A)*	50/45/40dB(A)

*Management of noise levels up to 37dB(A) can be limited to monitoring

- Note: 1. Day period is 7am-6pm; Evening period is 6pm-10pm; Night period is 10pm-7am.
2. $L_{Aeq}(15\text{minute})$ is the value of $L_{Aeq}(15 \text{ minute})$ which shall not be exceeded for more than 10% of the monitoring periods detailed in the noise monitoring program for continuous noise monitoring (refer condition 6.4.3(a)(i)) or for independent noise investigations (refer condition 6.4.3(a)(v)), as representative of any season (ie, December to February, March to May, June to August, or September to November), and would include the locality specific range of weather conditions occurring at the time of monitoring
3. $L_{Aeq}(\text{period})$ is the long-term L_{Aeq} noise level over the relevant day, evening, or night period, as detailed in the noise monitoring program for continuous noise monitoring (refer condition 6.4.3(a)(i)) or for independent noise investigations (refer condition 6.4.3(a)(v)). These periods would be representative of any season (ie, December to February, March to May, June to August, or September to November), and would include the locality specific range of weather conditions occurring at the time of monitoring.
4. All measured or predicted noise levels to be rounded to the nearest decibel.

Intrusive (MAN Alone) and Amenity (Cumulative) Noise Acquisition Criteria

- (b) The acquisition zone for intrusive (MAN alone) noise is defined by predicted or demonstrated exceedence of the noise levels at any non-mined owned dwellings of the dB(A) ($L_{Aeq}(15 \text{ minute})$) noise levels shown in Table 4 below.

The amenity acquisition zone for the cumulative operation of mines in the vicinity, including Drayton mine, Bayswater mine, Bengalla mine and Mount Pleasant mine, is defined by demonstrated exceedences of noise levels at any non-mined owned dwellings of the dB(A)

$L_{Aeq}(\text{period})$ noise levels shown in Table 4 below.

Table 4: Intrusive (MAN alone) Noise Acquisition Criteria L_{Aeq} (15 minute) and Amenity (Cumulative) Noise Acquisition Criteria L_{Aeq} (period) (for noise from all coal mining operations)

Location as identified in Schedule B	Intrusive Noise Acquisition Criteria [Day/Evening/Night] $L_{Aeq}(15\text{minute})$	Amenity Noise Acquisition Criteria [Day/Evening/Night] $L_{Aeq}(\text{period})$
Antiene Estate	greater than 42/45/43dBA	greater than 53/48/43dBA
Skellator Stock Route/ Thomas Mitchell Drive/ Denman Road	greater than 44/43/42dBA	greater than 58/48/43dBA
Racecourse Road	greater than 42/43/40dBA	greater than 53/48/43dBA
Denman Road West/ Roxburgh Vineyard/ Roxburgh Road	greater than 42/41/40dBA	greater than 53/48/43dBA
South Muswellbrook (including the South Muswellbrook Development Area)	greater than 40/40/40dBA	Greater than 53/48/43dBA

- Note: 1. Day period is 7am-6pm; Evening period is 6pm-10pm; Night period is 10pm-7am.
2. $L_{Aeq}(15\text{minute})$ is the value of $L_{Aeq}(15\text{ minute})$ which shall not be exceeded for more than 10% of the monitoring periods detailed in the noise monitoring program for continuous noise monitoring (refer condition 6.4.3(a)(i)) or for independent noise investigations (refer condition 6.4.3(a)(v)), as representative of any season (ie, December to February, March to May, June to August, or September to November), and would include the locality specific range of weather conditions occurring at the time of monitoring
5. $L_{Aeq}(\text{period})$ is the long-term L_{Aeq} noise level over the relevant day, evening, or night period, as detailed in the noise monitoring program for continuous noise monitoring (refer condition 6.4.3(a)(i)) or for independent noise investigations (refer condition 6.4.3(a)(v)). These periods would be representative of any season (ie, December to February, March to May, June to August, or September to November), and would include the locality specific range of weather conditions occurring at the time of monitoring.
3. All measured or predicted noise levels to be rounded to the nearest decibel.

- (c) The properties in Table 5 are predicted to experience noise levels greater than the Intrusive (MAN alone) acquisition criteria identified in Table 4 above and shall be acquired by the Applicant if requested by the landowner in accordance with Condition 11.2.

Table 5: Dwellings and Vacant Land Predicted to be Within the Intrusive Noise Acquisition Zone

Property Number (as stated in the EIS)	Owner (as stated in the EIS)
4	Karl Casben (vacant land)
6	Karl Casben (vacant land)
63	Michael J. & Debra J. Urlick
64	Beryl D. & Jeffery N. Englebrecht

142	Raymond & Faye Webber (vacant land)
300	Karen Casben & Gregory V. Morcom (vacant land)

- (d) In the event that a landowner or occupier of a non-mine owned property considers that noise from the project once operational is in excess of:
- the noise levels depicted in Tables 3 or 4 above; or
 - the noise levels depicted in Table 4 over more than 25% of his/her vacant land,
- and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
- i) consult with the landowner or occupant affected to determine his/her concerns;
 - ii) make arrangements for, and bear the costs of, following consultation with other mine operations in the vicinity where necessary, appropriate independent noise investigations in accordance with the noise management plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and the contribution of Mount Arthur North to the effect;
 - iii) take steps in accordance with a noise reduction plan prepared as part of the noise management plan, if exceedences are demonstrated to result from Mount Arthur North. This shall include:
 - 1) introduction of additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria in the Table 3 above are achieved, as far as possible; or
 - 2) with the agreement of the landowner, and in the case of cumulative impacts the other relevant mining operations, undertaking of noise control at the dwelling to achieve internal noise levels due to MAN alone or due to all mining activities, as relevant, which are at least 10dBA below the relevant external noise criterion. Internal noise levels should be measured at the centre of any habitable room; or
 - 3) entering into an agreement with the landowner, and in the case of cumulative impacts the other relevant mining operations in the area and the landowner, to provide such other forms of benefit or amelioration of the impacts of noise as may be agreed between the parties, as providing acceptable compensation for the noise levels experienced;
 - iv) conduct follow up investigation(s) to the satisfaction of the Director-General, where necessary.

Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.

- (e) If the independent noise investigation(s) in sub-clause (d) above confirms that noise criteria in Table 4 are being exceeded by MAN alone, and the measures in condition 6.4.1(d)(iii) do not reduce the noise levels below the criteria in Table 4, the Applicant shall, at the written request of the landowner, acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 11.2. In the case of cumulative noise levels in excess of the criteria in Table 4, the Applicant shall purchase an affected property in accordance with the Joint Acquisition Management Plan (condition 11.3).

- (f) If continued complaints and noise investigations confirm that noise criteria in Table 3 are being exceeded, but are less than the noise levels in Table 4, the Applicant shall continue to negotiate with the landowner, and other mines in the vicinity where relevant, until a resolution to the satisfaction of the Director General is reached.
- (g) If a landowner disputes any noise mitigation or other measures proposed by the Applicant in accordance with sub-clause (d) above, the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with MSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- (h) Further independent investigations shall cease if the Director-General is satisfied that the relevant criteria in Tables 3 and 4 are not being exceeded and are unlikely to be exceeded in the future.
- (i) The Applicant shall, after commencement of mine construction as well as after commencement of operations and thereafter continuously, undertake monitoring of affected residences to verify noise predictions, including management and acquisition zones. Any alterations to predictions, management and acquisition zones, shall be provided to the affected resident(s) and to the Community Consultative Committee together with necessary action in accordance with this Condition.
- (j) ⁴⁴ EPA Applicable Noise Limits for EPA licence purposes (refer to Schedule C)
- (k) ⁴⁵For the purpose of noise measurement for subclause (j) above, the L_{Aeq} noise level must be measured or computed at the most affected area within 30 metres of the residence or at the boundary, if the boundary is closer than 30 metres to the residence, over a period/s of 15 minutes using “FAST” response on the sound level meter.
- (l) ⁴⁶For the purpose of the noise measurements referred to in subclause (k) above, 5dB must be added to the measured level if the noise is substantially tonal or impulsive in character.

6.4.3 Noise Management Plan

- (a) The Applicant shall, prior to commencement of mining operations, prepare and implement a Noise Management Plan for the Mount Arthur North mine, to the satisfaction of the Director-General. The Plan shall be prepared following consultation with Drayton, Bengalla, Bayswater and Mount Pleasant mines with the aim of achieving a consistent approach in the preparation of the Mount Arthur North noise management plan. The EPA and MSC should also be consulted prior to the finalisation of the Management Plan. The Plan shall:
 - i) include details of the methods to be used for the continuous monitoring of noise to evaluate, assess and report the $L_{Aeq(15\text{ minute})}$ (MAN alone) and $L_{Aeq(\text{period})}$ (cumulative) noise emission levels due to the normal operations of the Mount Arthur North operations;
 - ii) details regarding operating configuration; determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;

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- iii) detail management measures where the target criteria in Table 3 of this consent are predicted to be exceeded, or are exceeded during mining operations;
 - iv) Redefine both the Intrusive and amenity acquisition and management zones on a yearly basis in the AEMR, unless otherwise agreed by the Director-General. This review shall draw upon the noise monitoring results obtained during the previous year and incorporate noise modelling to provide a forward plan of predicted noise levels for the year ahead, and particularly focus on the management of night time noise (10:00pm–7:00am) for each year of operation;
 - v) specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations, following consultation with Drayton, Bengalla, Bayswater and Mount Pleasant mines, as necessary;
 - vi) outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;
 - vii) establish a protocol for handling noise complaints that include recording, reporting and acting on complaints, particularly where complaints are received and it is demonstrated noise levels are in excess of the criteria contained in this consent;
 - viii) record appropriate mechanisms for community consultation;
 - ix) outline proactive/predictive and reactive mitigation measures to be employed on the site to limit noise emissions;
 - x) identify longer term strategies directed towards mitigating noise levels that exceed the noise target levels in Table 3;
 - xi) outline measures to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);
 - xii) survey and investigate noise reduction measures from plant and equipment annually, subject to noise monitoring results and/or complaints received, and report in the AEMR at the conclusion of the first 12 months of operations and set targets for noise reduction taking into consideration valid noise complaints in the previous year; and
 - xiii) include details of the inter-relationship of this plan with other Noise Management Plans, if any, of Bengalla, Bayswater, Drayton, Bayswater and Mount Pleasant mines.
- (b) Prior to commencement of construction, the Applicant shall prepare, and subsequently implement, a Construction Noise Management Plan to the satisfaction of the Director-General. The Plan shall include, but not be limited to the following matters:
- i) compliance standards;
 - ii) community consultation;
 - iii) complaints handling monitoring/system;
 - iv) site contact person to follow up complaints;
 - v) methods for the management of construction related traffic noise impacts;
 - vi) mitigation measures;
 - vii) the design/orientation of the proposed mitigation methods demonstrating best practice;
 - viii) construction times;
 - ix) contingency measures where noise complaints are received; and
 - x) monitoring methods and program.

- (c) ⁴⁷ Noise associated with construction activities must comply with the intrusive noise criteria referred to in condition 6.4.1, Table 3, unless otherwise agreed in writing by the EPA.
- (d) The Applicant shall also:
 - i) make copies of the Noise Management and Construction Noise Management Plans available to the EPA, MSC and CCC within fourteen days of approval, or as otherwise agreed to be the Director-General; and
 - ii) include a summary of noise monitoring results in the AEMR.
- (e) The Applicant shall ensure that the design, construction and operation of the MAN project shall not create amenity problem(s) associated with low frequency vibration. The Applicant shall, in consultation with the EPA, investigate the cause of any low frequency vibration associated with the MAN project and report to the Director-General of the result of any such investigation and practical mitigation measures that can be adopted to eliminate such problem.

6.4.4 Noise Monitoring

- (a) ⁴⁸The levels of noise emitted from the premises must be monitored in accordance with the noise monitoring program required in condition 6.4.3 (Noise Management Plan) at locations agreed to by the EPA. The monitoring must determine $L_{Aeq,9 \text{ hour}}$ $L_{Aeq,15 \text{ min}}$ $L_{A10,15 \text{ min}}$ $L_{A90,15 \text{ min}}$ and $L_{A1,1min}$ levels and include an assessment of the impact of operational noise on adjoining residents.
- (b) ⁴⁹Noise monitoring at the specified locations must be undertaken during daytime (0700- 1800), evening (1800-2200) and nighttime (2200-0700).

6.5 Lighting Emissions

- (a) The Applicant shall, prior to commencement of construction, prepare a Lighting Management Plan in consultation with MSC, and to the satisfaction of the Director-General. The Plan shall include details of the implementation of visual controls to screen, direct or manage all on-site lighting from mine related activities in respect of residences and roadways. The Plan shall include, but not be limited to:
 - i) details of the planting of vegetation screens along the mine boundary, such as along the Denman Road and Thomas Mitchell Drive, to screen potential lighting impacts;
 - ii) details of technical measures and work practises necessary to minimise the spillage of light from areas to be illuminated, and to minimise the total night time glow from the mine;
 - iii) details of the construction or placement of visual screens and/or overburden emplacements to screen lighting impacts;
 - iv) details of the proposed process and measures to address complaints that may be received from residents or road users impacted by lighting from the mine site; and
 - v) details of any other effective operating practices to manage potential lighting impacts.
- (b) The Applicant shall report on the effectiveness of the lighting emission controls in the AEMR.

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⁴⁸ EPA General Terms of Approval

⁴⁹ EPA General Terms of Approval

7. Transport and Utilities

7.1 Road Transport

- (a) No coal shall be hauled from the mine site on public roads, except under emergency circumstances and with the prior approval of the Director-General and MSC.

7.2 Road Construction

- (a) ⁵⁰The Applicant shall undertake the following to the satisfaction of MSC and the RTA:
 - (i) contribute to intersection improvements at the existing junction of Thomas Mitchell Drive and Denman Road, based on the proportion usage generated by the MAN Project; and
 - (ii) undertake the construction of a C type intersection on Thomas Mitchell Drive at the junction of the mine access road.
- (b) The Applicant shall ensure that the designated mine access road route as described in the EIS is the only route used by employees and contractors travelling to and from the mine site, except in emergency circumstances.
- (c) The existing and proposed relocated access tracks providing access to the summit of Mt Arthur must be secured but available to emergency service and legitimate users on a 24 hour per day basis.
- (d) ⁵¹The Applicant shall construct the proposed public road connecting the development with Thomas Mitchell Drive. The road is to be of a two lane sealed construction from its intersection with Thomas Mitchell Drive to the proposed Mount Arthur North Mine Industrial area in accordance with the EIS and Austroad standards.
- (e) ⁵²Any costs incurred in transferring the Crown Road Reserve associated with the mine access road from DLWC to the control of MSC for use as a public road is to be at the Applicant's expense.

7.4 Road Maintenance

⁵³The Applicant shall maintain the public road to Austroads Standards, from the intersection with Thomas Mitchell Drive to the Industrial Area of the mine, for the life of the mine. Prior to the decommissioning of the mine, the road shall be inspected by MSC to determine any works required.

7.5 Road Closures

The Applicant shall maintain signs and through the information line established under Condition 10.2(a) give at least 24 hours notice of temporary road closures. The location and wording of the signs are to be approved by MSC. A protocol is to be established in consultation with the emergency services during

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⁵² Muswellbrook Council General Terms of Approval

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road closures. Notification shall also be provided to relevant emergency services via fax seven (7) days prior to the road closure.

7.6 Provision of Utility Services

Refer Mining Operations Plan (Condition 2.1).

8. Monitoring/Auditing

- (a) In addition to the requirements contained elsewhere in this consent, the Director-General may, at any time in consultation with the relevant government authorities and Applicant, require the monitoring programs in Conditions 3, 4 and 6 to be revised/updated to reflect changing environmental circumstances or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial monitoring programs. All monitoring programs shall also be made publicly available at MSC within two weeks of approval of the relevant government authority.
- (b) All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall be included in the relevant environmental management plan. Only accredited laboratories shall be used for laboratory analysis.

8.1 Third Party Monitoring / Auditing

Independent Environmental Auditing

- (a) Every three years from the date of this consent until completion of mining in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the mining and infrastructure areas of the development in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, MSC, EPA, DLWC, DMR, NPWS and CCC within two weeks of the report's completion for comment.
- (b) The audit shall:
 - i) assess compliance with the requirements of this consent, licences and approvals;
 - ii) assess the development against the predictions made in the EIS;
 - iii) review the effectiveness of the environmental management of the mine, including any mitigation works;
 - iv) be carried out at the Applicant's expense; and
 - v) be conducted by a duly qualified independent person or team approved by the Director-General in consultation with MSC.
- (c) The Director-General may, after considering any submission made by the relevant government agencies, MSC and CCC on the report, notify the Applicant of any requirements with regard to

any recommendations in the report. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.

8.2 *Meteorological Station(s)*

- (a) The Applicant shall establish a meteorological station(s) at a relevant location(s) in accordance with the requirements of AS 2922 1987 "Ambient Air Guide for Siting of Sampling Units" or its updated version or as directed by the EPA. The Meteorological station(s) must be capable of recording wind direction and speed, temperature and sigma theta and be operated in accordance with the requirements of AS 2923-1987 "Ambient Air Guide Horizontal Wind for Air Quality Application", or subsequent relevant standards.

9. Reporting

9.1 Reports on Operations

- (a) The Applicant shall report on mine operations in accordance with the mine operations plan (refer to Condition 2.1).

9.2 Annual Environmental Management Report (AEMR)

- (a) The Applicant shall, throughout the life of the mine and for a period of at least three years after the completion of mining in the DA area, prepare and submit an Annual Environmental Management Report (AEMR) to the satisfaction of the Director-General and DMR. The AEMR shall review the performance of the mine against the Environmental Management Strategy and the relevant Mining Operations Plans, the conditions of this consent, and other licences and approvals relating to the mine. To enable ready comparison with the predictions made in the EIS, diagrams and tables, the report shall include, but not be limited to, the following matters:
 - i) an annual compliance audit of the performance of the project against conditions of this consent and statutory approvals;
 - ii) a review of the effectiveness of the environmental management of the mine in terms of EPA, DLWC, DMR, and MSC requirements;
 - iii) results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person;
 - iv) identify trends in monitoring results over the life of the mine;
 - v) an assessment of any changes to agricultural land suitability resulting from the mining operations, including cumulative changes;
 - vi) a listing of any variations obtained to approvals applicable to the DA area during the previous year;
 - vii) the outcome of the water budget for the year, the quantity of water used from water storages and details of discharge of any water from the site;
 - viii) rehabilitation report; and
 - ix) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results.
- (b) In preparing the AEMR, the Applicant shall:
 - i) consult with the Director-General during preparation of each report for any additional requirements;
 - ii) comply with any reasonable requirements of the Director-General or other relevant government agency; and
 - iii) ensure that the first report is completed and submitted within twelve months of this consent, or at a date determined by the Director-General in consultation with the DMR and the EPA.
- (c) The Applicant shall ensure that copies of each AEMR are submitted at the same time to the Director-General, DMR, EPA, DLWC, NPWS, MSC and CCC, and made available for public information at MSC within fourteen days of submission to these authorities.

9.3 Recording and Reporting Requirements

Monitoring Records

- (a) ⁵⁴The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with any load calculation protocol must be recorded and retained as set out in subclauses b and c.
- (b) ⁵⁵All records required to be kept by the licence must be:
- in a legible form, or in a form that can readily be reduced to a legible form;
 - kept for at least 4 years after the monitoring or event to which they relate took place; and
 - produced in a legible form to any authorised officer of the EPA who asks to see them.
- (c) ⁵⁶The following records must be kept in respect of any samples required to be collected:
- the date(s) on which the sample was taken;
 - the time(s) at which the sample was collected;
 - the point at which the sample was taken; and
 - the name of the person who collected the sample.
- (d) ⁵⁷The Applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the Applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return. This may form part of the AEMR.

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10. Community Consultation/Obligations

10.1 Community Consultative Committee

- (a) The Applicant shall
 - i) establish a Community Consultative Committee and ensure that the first meeting is held prior to submission of the Environmental Management Strategy (Condition 3.2). Selection of representatives shall be to the satisfaction of the Director-General in consultation with the Applicant and MSC. The Committee shall comprise two (2) representatives of the Applicant (including the Environmental Officer), one (1) representative of MSC, and four (4) community representatives. The Committee shall be chaired by MSC.
 - ii) Representatives from relevant government agencies or other individuals may be invited to attend meetings as required by the Chairperson. The Committee may make comments and recommendations about the preparation and implementation of environmental management plans, monitor compliance with conditions of this consent and other matters relevant to the operation of the mine during the term of the consent. The Applicant shall ensure that the Committee has reasonable access to the necessary plans for such purposes. The Applicant shall consider the recommendations and comments of the Committee and provide a response to the Committee and Director-General.
- (b) The Applicant shall, at its own expense:
 - i) nominate two (2) representatives (including the Environmental Officer) to attend all meetings of the Committee;
 - ii) provide to the Committee regular information on the progress of work and monitoring results;
 - iii) promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the development;
 - iv) provide access for site inspections by the Committee; and
 - v) provide meeting facilities for the Committee, and take minutes of Committee meetings. These minutes shall be available for public inspection at MSC within 14 days of the meeting, or as agreed by the Committee.
- (c) If required by the Committee, the Applicant shall establish a trust fund or other funding arrangement that may be agreed between the Applicant and Committee, to be managed by the Chair of the Committee to facilitate the functioning of the Committee, and pay \$2000 per annum to the fund for the duration of mining in the DA area, or as otherwise reasonably directed by the Director-General. The monies are to be used only if required for the engagement of consultants to interpret technical information and the like. The annual payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting. A record of the finances of the trust fund during each year shall be provided to the Director-General and Applicant by the Chair on each anniversary of the first payment. Any unspent monies shall be returned to the Applicant each year.

10.2 Complaint Handling Procedures

- (a) The Environmental Officer(s) employed by the mine (refer condition 3.1) shall be responsible:
- i) establishing and maintaining a system for recording complaints with respect to construction works and mine operations on a dedicated and publicly advertised telephone line, 24 hours per day 7 days per week, entering complaints or comments in an up to date log book, or other suitable data base, and ensuring that an initial response is provided to the complainant within 24 hours;
 - ii) for providing a report of complaints received with respect to the construction and operation of the mine, every six months throughout the life of the project to the Director-General, MSC, EPA, DMR, and CCC, or as otherwise agreed by the Director-General. A summary of this report shall be included in the AEMR (condition 9.2(a)).
 - iii) consult with the environmental officer(s) employed by other mines in the vicinity to seek to co-ordinate a response to any complaints received regarding the operations of MAN and other mines.
- (b) The Applicant must nominate at least two persons (and their telephone numbers) who will be available to the EPA on a 24 hours basis, and who have authority to provide information and to implement such measures as may be necessary from time to time to address a pollution incident or to prevent pollution from continuing as directed by an authorised officer of the EPA.
- (c) The Applicant shall have regard to the complaints mechanism plan as agreed to by the Coal Mine General Manager's Forum established under the auspices of MSC, MSC, DUAP and EPA, in dealing with complaints.

11. Proponents Obligations

11.1 Cumulative Impact Management

- (a) In the event that the cumulative impact of noise or dust contributed by the operation of the Mount Arthur North mine and other nearby mining/industrial activities, including the Bayswater/Drayton rail loop and Antiene rail spur, Bayswater mine, Drayton mine, Bengalla mine and Mount Pleasant mine, and any future mining/industrial operations, at dwellings, or vacant land (as described in Condition 6.1 and 6.4), in the vicinity of the operation, exceeds the amenity (cumulative) noise or dust criteria contained in conditions 6.1 and 6.4, the Applicant shall negotiate with the other mines and landowner to seek to determine appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts or acquisition of the property to the satisfaction of the Director-General in proportion to their contributions to the impact.
- (b) If it is identified that total industrial noise levels at any point exceed the cumulative criteria set out in Condition 6.4.1, and that an industrial source other than a mine contributes significantly to this total, the Applicant shall prepare a report to the Director-General outlining the contribution from all industrial sources to the total measured noise level.
- (c) If agreement on appropriate contributions towards mitigation measures/acquisition cannot be reached from negotiations undertaken in accordance with subclause (a), then the matter is referred to the Director-General in consultation with MSC by either the Applicant or landowner. If the matter is not resolved within 21 days of the referral, the matter will be referred to an Independent Dispute Resolution Process as determined by the Director-General, and resolved as agreed by the Director-General. The Independent Dispute Resolution Process shall determine the responsibilities of each of the mining companies in accordance with subclause (a) above and actions to be undertaken. The decision of the Independent Dispute Resolution Process shall be final, as agreed by the Director-General.
- (d) Prior to referral to the Independent Dispute Resolution Process, the Applicant shall provide the Director-General a report detailing the Applicant's reasons for being unable to reach agreement with the other parties, and the reasons for the criteria exceedences with demonstration that MAN's activities are not the sole cause of the exceedences.

11.2 Area of Affection – Land Acquisition

Note: In Condition 11.2 (a)-(g) "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.
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- (a) The Applicant shall negotiate and purchase a property, as identified by Conditions 3.7(a1), 6.1 (d and e), 6.4.1 (c and e) or 11.1 (a and c), within six (6) months of a written request from the affected land owner. The owner of any dwelling, or vacant land (as described in Condition 6.1 (d and e) and 6.4.1(e)), located in areas that exceed noise and/or air quality criteria established in accordance with conditions 6.1 (a1) and 6.4.1 (b) of this consent, and at any time after the granting of development consent, may request the Applicant in writing to purchase the whole of that property.

- (b) In respect of a request to purchase land arising under this condition, the Applicant shall pay the owner the acquisition price which shall take into account and provide payment for:
- i) a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by the Mount Arthur North Project the subject of this DA, having regard to:
 - 1) the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
 - 2) the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date.
 - ii) the owner's reasonable compensation for disturbance allowance and relocation costs within the Singleton, Scone or Muswellbrook Local Government Area, or within such other location as may be determined by the Director-General in exceptional circumstances; and
 - iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.

Notwithstanding any other condition of this consent, the Applicant may, upon request of the landowner, acquire any property affected by the project during the course of this consent on terms agreed to between the Applicant and the landowner.

- (c) In the event that the Applicant and any owner referred to in this condition cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then:
- i) either party may refer the matter to the Director-General, who shall request the President of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners, a fair and reasonable acquisition price for the land as described in sub-clause (b) and/or terms upon which it is to be acquired;
 - ii) in the event of a dispute regarding outstanding matters that cannot be resolved, the independent valuer shall refer the matter to the Director-General, recommending the appointment of a qualified panel. The Director-General, if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of:
 - 1) the appointed independent valuer,
 - 2) the Director-General or nominee, and
 - 3) the President of the Law Society of NSW or nominee.

The qualified panel shall determine a fair and reasonable acquisition price as described in sub-clause (b) above and/or the terms upon which the property is to be acquired.

- (d) The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in sub clauses (b) and (c).
- (e) Upon receipt of a determination pursuant to sub-clauses (b) and (c), the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted by the owner within six (6) months of the

date of such offer, the Applicant's obligations to purchase the property shall cease, unless otherwise agreed by the Director-General.

- (f) In the event that the Applicant and the land owner agree that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.
- (g) The provisions of this condition do not apply to a land owner who is the holder of an authority under the Mining Act, 1992.

11.3 Joint Acquisition Management Plan

The Applicant shall, prior to commencement of mining operations of the Mount Arthur North Project, prepare a Joint Acquisition Management Plan as far as practical, with Bengalla and Mount Pleasant mines, to the satisfaction of the Director-General. The plan shall:

- Provide details of a joint approach to be adopted by the Applicant, and Bengalla and Mount Pleasant mines in regard to meeting the acquisition procedure requirements outlined in Condition 11.2 of this consent relating to the cumulative impacts of the Mount Arthur North mine, and the existing Bengalla mine, and Mount Pleasant mine, should acquisition be required.

11.4 Contributions to Council

Prior to the commencement of construction, the Applicant shall enter into a legally binding agreement with MSC for financial and/or in kind contribution to MSC for the purpose of community enhancement to address the social, amenity and associated community infrastructure requirements arising from the operation of the development. The financial and/or in kind contribution shall be generally in accordance with the MSC Section 94 Contribution Plan and the associated Community Enhancement Program as adopted by MSC on 26 March, 2001.

12. Further Approvals and Agreements

12.1 Statutory Requirements

- (a) The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Local Government Act 1993, Protection of the Environment Administration Act 1991, Protection of the Environment Operations Act 1997, Rivers and Foreshores Improvement Act 1948, Water Act 1912, National Parks and Wildlife Act 1974, and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements issued pursuant to statutory powers by the MSC, EPA, DMR, NPWS, DLWC, RTA, NSW Agriculture, and NSW Fisheries, are fully met.

(b) Structural Adequacy

Detailed plans and specifications relating to the design and construction of each structural element associated with the proposed development are to be submitted to the Principal Certifying Authority prior to the construction of each particular building or structure. Such plans and specifications must be accompanied by certification provided by a practicing professional structural engineer or an accredited certifier certifying the structural adequacy of the proposed building design and compliance with the Building Code of Australia.

(c) Verification of Construction

Upon completion of building works and prior to the issue of an occupation certificate, a certificate/s prepared by a suitably qualified person or a compliance certificate/s issued by an accredited certifier, is to be submitted to the Principal Certifying Authority certifying that the following building components, where relevant, have been completed in accordance with approved plans and specifications:

- (i) footings;
- (ii) concrete structures, including ground floor and any subsequent floors, retaining walls and columns;
- (iii) framing and roof structure;
- (iv) fire protection coverings to building elements required to comply with the Building Code of Australia; and
- (v) mechanical ventilation.

The certificate/s shall demonstrate at what stage of construction inspections were undertaken.

12.2 Approvals within a Mine Subsidence District

- (a) ⁵⁸The Applicant shall seek the approval of the Mine Subsidence Board for the construction of any improvements, including those related to the mine buildings and associated works, any relocation or diversion of infrastructure or existing improvements, prior to undertaking the works.

⁵⁸ Mine Subsidence Board General Terms of Approval

SCHEDULE C

The following noise limits may be included as a condition of the EPA's environment protection licence:

Operational noise limits

Locations as identified in Schedule B	Noise Limits Intrusive L_{Aeq} (15minute) [Day/Evening/Night]
Antiene Estate	38/40/38dB(A)
Skellator Stock Route Thomas Mitchell Drive/Denman Road	40/40/40dB(A)
Racecourse Road	38/38/38dB(A)
Denman Road West Roxburgh Vineyard and Roxburgh Road	38/38/38dB(A)
South Muswellbrook (including the South Muswellbrook Development Area)	37/37/37dB(A)
All other areas	35/35/35dB(A)

Notes

1. Day period is 7am-6pm; evening period is 6pm-10pm; night period is 10pm-7am.
2. $L_{Aeq(15minute)}$ is the value of $L_{Aeq(15\text{ minute})}$ which shall not be exceeded for more than 10% of the monitoring periods detailed in the noise monitoring program for independent noise investigations (refer condition 6.4.3(a)(v)), as representative of any season (ie, December to February, March to May, June to August, or September to November), and would include the locality specific range of weather conditions occurring at the time of monitoring
3. All measured or predicted noise levels to be rounded to the nearest decibel.

Important note: The noise limits provided by the EPA in the above Table are for the purposes of the EPA statutory compliance requirements. These limits do not change the noise requirements under other conditions of this consent.

Notes for Independent Dispute Resolution Process

1. The process will be subject to a procedural protocol to ensure that the process is transparent and consistent
2. The process will be subject to terms of reference on both a qualitative and quantitative basis against which judgements will be made.
3. In relation to disputes regarding noise impacts, the process will only result in agreed outcomes regarding mitigation measures proposed by the Applicant in the noise management zone. Acquisition is not an option in the noise management zone, unless otherwise privately agreed between the Applicant and landowner, and therefore acquisition will not be an option for the dispute resolution process to consider in these cases.