

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, visual disturbance and subsidence effects;
- (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,

28 August

2001

File No. N99/00230

Schedule 1

Application made by:	Dartbrook Coal Pty Limited (ACN 007 377 577) (“the Applicant”).
To:	The Minister for Urban Affairs and Planning (DA 231-07-2000)
In respect of:	Land described in Appendix “1”.
For the following:	Extension to an underground coal mine and rejects emplacement area, increase in coal production rate and construction and operation of associated surface facilities (“the Development”).
BCA Classification:	Class 5 - Administration building Class 8 – Coal preparation plant building Class 10(a) - Seam Access Slot, Ventilation Shafts
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.

SCHEDULE 2

Development Consent Conditions for the Dartbrook Extended Underground Coal Mine

INDEX

	Page
1. General.....	4
2. Mine Management.....	7
3. Land and Site Environmental Management.....	9
4. Water Management.....	25
5. Rejects Emplacement Area and Waste Management	29
6. Air Quality, Blast, Noise and Light Management and Monitoring.....	31
7. Transport and Utilities.....	45
8. Monitoring/Auditing.....	47
9. Reporting.....	49
10. Community Consultation/Obligations.....	51
11. Proponents Obligations.....	53
12. Further Approvals and Agreements.....	55

DEFINITIONS:

Agricultural Productivity – as defined by the Agricultural Suitability Classification System used by NSW Agriculture.

AEMR - Annual Environmental Management Report

CCC – Community Consultative Committee

CHPP – Coal Handling and Preparation Plant

Construction – Construction of road works and surface facilities

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.

East Site – the CHPP complex (including coal stockpiles, rail loading facility, and rejects emplacement areas) to the east of the Hunter River and the New England Highway.

EIS - Environmental Impact Statement

First Workings – workings which establish access to the coal resource area and which does not result in surface subsidence. First workings do not include longwall extraction of coal.

Independent Dispute Resolution Process - The Independent 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 C)

Land Capability – refers to the ability of a parcel of land to accept a type and intensity of use permanently, or for specified periods under specific management, without permanent

damage. Land capability is defined by the Rural Land Capability Classification, developed by the former NSW Soil Conservation Service, now part of the Department of Land and Water Conservation.

Mining Operations – Includes the extension to the underground mining area, expansion of the rejects emplacement area, increase in the Run of Mine coal production rate to six million tonnes per annum and for an initial period up to 18 months the transportation of coal from the temporary stockpile to the existing Coal Handling and Preparation Plant (CHPP).

MOP – Mining Operations Plan

Mtpa - Million tonnes per annum

ROM - Run-of-Mine coal production

Secondary workings – extraction of coal from longwall mining that may result in surface subsidence.

Surface facilities – Includes the construction of a fine rejects (tailings) filter press dewatering plant at the CHPP; construction of the new portal (Kayuga Seam Access Slot) which includes a temporary coal stockpile and mine entry facilities; construction of an access road from Kayuga Seam Access Slot to the existing western surface facilities; construction of five additional ventilation shafts; establishment of 4 new ROM coal stockpiles and the expansion of the existing emergency coal stockpile; installation of infrastructure for the underground disposal of tailings which includes the surface components of the tailings disposal and return water pipelines, an electrical substation, and bores; and the establishment of a Nitrogen Injection Plant and associated bores over the approved underground mine workings.

Safe, serviceable and repairable criteria – Category 3 to 5 for strain and/or category C or D for tilt, in accordance with Australian Standard AS2870-1996

West Site - surface facilities to the west of the Hunter River and the New England Highway.

Government Authorities

MSC - Muswellbrook Shire Council

DLWC - Department of Land and Water Conservation

DMR - Department of Mineral Resources

DSC - Dams Safety Committee

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

SSC - Scone Shire Council

RTA - Roads and Traffic Authority

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 C, which illustrate various processes contained in this consent. These flowcharts include:

- Acquisition Process

- Process for Management of Noise/Dust complaints
- Independent Noise/Dust Monitoring Process
- Independent Dispute Resolution Process
- Evaluation Process for Land Acquisition due to Land Capability Impact caused by Subsidence

Red type represents June 2002 modification
Green type represents June 2003 modification
Blue type represents November 2003 modification
Orange type represents March 2004 modification
Pink type represents May 2005 modification
Brown represents November 2005 modification

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, etc.

- (a) The development is to be carried out generally in accordance with Development Application No. 231-07-2000, and the EIS dated June 2000, prepared by HLA EnviroSciences Pty Ltd, and the following documentation:
- (i) ¹The following documents supplied to the EPA in relation to the development:
- Odour Analysis of Ventilation Air from the No.1 Ventilation Shaft at Dartbrook Mine, Office Memorandum, David Rollings, HLA Envirosciences Pty Ltd to Colin Phillips, HLA Envirosciences Pty Ltd, (dated 11th May 2000);
 - Laboratory Results from The Odour Unit Pty Ltd to HLA Envirosciences Pty Ltd, (dated 29th March 2000);
 - Stack Emissions Testing Dartbrook Coal Pty Ltd, Dartbrook, NSW, April 2000, dated 1st May 2000, prepared by HLA Envirosciences Pty Ltd on behalf of Dartbrook Coal Pty Ltd;
 - Analysis of Gaseous Discharges from Dartbrook Mine Operations and additionally, Ambient Air Samples from Selected Background Sites, Office Memorandum from Ken Ferguson/Dr Jim Orr, HLA Envirosciences Pty Ltd to Colin Phillips, HLA Envirosciences Pty Ltd, (dated 3 March 2000);
 - Dartbrook Ventilation Odour, Facsimile from Nigel Holmes, Holmes Air Sciences to Andrew Kerr, Shell Coal, (dated 28 September 2000);

¹ EPA General Terms of Approval

³ NPWS General Terms of Approval

- (ii) Additional information provided by the Applicant to the NPWS in relation to archaeology and flora and fauna matters, during the assessment of DA 231-07-2000;
- (iii) Anglo Coal Dartbrook Extended Mine Project Commission of Inquiry, Primary Submission (Dartbrook Coal, dated March 2001);
- (iv) Anglo Coal Dartbrook Extended Mine Project Commission of Inquiry, Submission in Reply (Dartbrook Coal, dated May 2001); and
- (v) Dartbrook Underground Coal Mine Project Environmental Impact Statement, prepared by Envirosiences Pty Limited, November 1990;
- (vi) Development Application No. 53-10-98, dated 12 October 1998, accompanying Statement of Environmental Effects dated October 1998 prepared by Dartbrook Coal Pty Limited and in accordance with the development consent to construct a 450ML Discharge Dam and Pipeline issued by the Minister of Urban Affairs and Planning to Dartbrook Coal Pty Limited on 5 March 1999;
- (vii) The information titled '*Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information*' prepared in support of a Section 96(1A) application for the Dartbrook Coal Mine, dated 27 May 2002, prepared by Hansen Consulting;
- (viii) The information on the emergency tailings storage cell in the document titled "Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information", dated 10 April 2003, prepared by Hansen Consulting;
- (ix) The information titled "Dartbrook Coal Mine: Statement of Environmental Effects for Modification to Rejects Disposal System", dated 9 March 2004, prepared by Hansen Consulting; and
- (x) The information titled "Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant", dated 12 August 2005 and prepared by Hansen Consulting.

If there is any inconsistency between the above, either the conditions of this consent or the most recent document shall prevail to the extent of the inconsistency.

- (b) In accordance with section 80A(5) of the Environmental Planning and Assessment Act 1979 and clause 97 of the Environmental Planning and Assessment Regulation 2000, the Applicant shall, surrender to the Minister of Urban Affairs and Planning, the development consent for the Dartbrook Underground Mine (Authorisation 256) issued by the then Minister for Planning to Shell Company of Australia Ltd and Austen & Butta Limited and Bellambi

Coal Company Pty Ltd and Dartbrook Coal Pty Limited on 2 December 1991, and the following development consents for Dartbrook Mine issued by the Minister for Urban Affairs and Planning or Muswellbrook Council by the 30 June 2005, or such other later date agreed by the Director-General:

- (i) Amendment of a Development Consent (issued on 2 December 1991 by the Minister for Planning), dated 9 July 1997; and
- (ii) Modification to a Development Consent (issued on 2 December 1991 by the Minister for Planning), dated 21 September 1999.

This consent will apply to all facilities and activities subject to these previous consents from the date they are relinquished.

- (c) 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.
- (d) If any licence conditions are breached the applicant shall comply with any modification to the work as specified by the relevant agency.

Note: Conditions of this consent relating to the matters of air quality, noise management and proponents obligations (Conditions 6.1, 6.4 and 11.1, 11.2, 11.3 respectively) shall prevail over the conditions related to these matters in the existing consents for Dartbrook Mine as listed under Condition 1.1(b).

1.2 Period of Approval/Project Commencement

- (a) This approval is for a period of 21 years from the date of granting of a mining lease pursuant to this consent.
- (b) 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 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.
- (c) Date of commencement of construction and Mining Operations is to be notified in writing to the Director-General, DMR, MSC and SSC at least two weeks prior to commencement of construction and Mining Operations respectively.

1.3 Dispute Resolution

In the event that the Applicant, MSC, SSC 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, SSC 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, MSC and SSC 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 or Hours of Operation*

- (a) Run of Mine coal production shall generally not exceed 6 Mtpa. The Applicant must notify the Director-General, MSC and SSC prior to any short term increase in production above this level.
- (b) Heavy earth moving equipment shall not operate on the rejects emplacement area, and coal rejects shall not be hauled to the rejects replacement area, between the hours of 6.00pm and 7.00am, except in an emergency, and as agreed by the Director-General.
- (c) The haulage of coal between stockpiles and the CHPP within the East Site shall be limited to the daytime period (7am-6pm Monday to Saturday and 8am-6pm on Sundays and Public Holidays) only.

3. Land and Site Environmental Management

3.1 *Appointment of Environmental Officer*

- (a) The Environmental Officer employed by Dartbrook Mine shall:
 - (i) be responsible for the preparation of the environmental management plans (refer Condition 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 rehabilitation/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, SSC and CCC (refer condition 10.1) of the name and contact details of the Environmental Officer if it has not already done so and of any changes to that appointment. Any new appointment of the Environmental Officer is to

receive prior approval by the Director-General. Such approval shall not be unreasonably withheld.

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 in consultation with the EPA, DLWC, DUAP, NPWS, SSC, MSC, DMR and the Community Consultative Committee (refer condition 10.1) and to the satisfaction of the Director-General, prior to commencement of construction. The Strategy shall be provided to the Director-General no later than the time the first Environmental Management Plan under sub clause (d) below and MOP are 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;
 - (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 protect 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, SSC, 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:
- Property Subsidence Management Plans (refer condition 3.3)
 - Archaeology and Cultural Management Plan (refer condition 3.4)

- Flora and Fauna Management Plan (refer condition 3.5)
- Erosion and Sediment Control Plan (refer condition 3.6(a))
- Soil Stripping Management Plan (refer condition 3.6(c))
- Landscape Management Plan (refer 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))
- Blast Management Plan (refer condition 6.3(a))
- Road Closure Management Plan (refer to condition 6.3(j))
- Noise Management Plan (refer condition 6.4.2(a))
- Construction Noise Management Plan (refer condition 6.4.2(c))
- Lighting Management Plan (refer condition 6.5)
- Vibration Management Plan (refer to condition 6.6(b))

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 relevant government agencies, MSC, SSC and the CCC and ensure that the plans are made publicly available within 14 days of approval by the Director-General.
- (f) The management plans are to be revised, 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 requirements 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 and SSC within two weeks of approval by DUAP.

3.3 Property Subsidence Management Plans

- (a) The Applicant shall prepare and implement a “Landowner Communication and Consultation Plan” relating to longwall extraction throughout the DA area, within six months of the date of this consent. The Plan shall be approved by the Director-General and the final approved plan made available for public inspection. The Plan shall include but be limited to the matters listed in Condition 3.3(n).
- (b) The Applicant shall prepare a Property Subsidence Management Plan to the satisfaction of the Director-General of DMR (or delegate) for each property title to be affected by subsidence from a longwall panel or groups of longwall panels, for which an application for secondary workings approval under s.138 of the Coal Mines Regulation Act 1982 is being prepared.
- (c) At least two (2) years prior to the extraction of coal by longwall mining referred to in subclause (b) above or other mining methods requiring approval under s.138 of

the Coal Mines Regulation Act, 1982, the Applicant will advise each landowners within the area covered by the s.138 application referred to in subclause (b) of:

- (i) The plans for future mining activities and the specific impacts (based on best available information) affecting each property; and
 - (ii) Requirements regarding landowner consultation arrangements and offers of assistance to meet landowner legal and associated costs for determining landowner rights under law and the conditions of consent and reaching property agreements and valuations, as detailed in Condition 3.3(g).
- (d) The relevant Property Subsidence Management Plans shall be completed prior to seeking approval under s.138 of the Coal Mines Regulation Act 1982 for the secondary workings referred to in subclause (b) above.
- (e) Each Property Subsidence Management Plan shall demonstrate consistency with the relevant MOP and the Environmental Management Strategy.
- (f) In preparing Property Subsidence Management Plans the Applicant shall:
- (i) consult with each affected landowner throughout the preparation process and take their views into account. This consultation shall include discussions on integrating any proposed mitigation works with the management of the property as a whole;
 - (ii) update geological data (i.e. geological structures, seam thickness, coal quality) based on current knowledge;
 - (iii) review, and if necessary update, the mine plan based on current geological knowledge;
 - (iv) review and revise as necessary, subsidence predictions taking into account the results of any relevant subsidence monitoring that has been undertaken;
 - (v) ensure that, with the consent of the owner and in consultation with MSB, a structural inspection is conducted of each structure and a report prepared on the structural integrity of all buildings in their entirety (including roofs, ceilings, openings, foundations and household sewage treatment and disposal systems);
 - (vi) assess current agricultural utilisation, agricultural improvements and the underlying agricultural suitability of the relevant property;
 - (vii) review current utilisation of the land for business purposes (other than agriculture), including the value of improvements and the business;
 - (viii) ensure that inspections, surveys and assessments referred to in subclauses (v), (vi) and (vii) are carried out, at the expense of the Applicant, by an independent and technically qualified person, selected in consultation with the relevant property owner, and a copy of any report, certified by the person who undertook the work, supplied to the relevant property owner within fourteen days of receipt of same;
 - (ix) support the continuation of agricultural activities and where practicable, improve the opportunity for sustained agriculture where any surface remedial works can be used to improve such productivity.

- (g) In preparing the individual Property Subsidence Management Plans the Applicant shall also:
- (i) advise affected landowners of any potential impacts of the proposed mining and review and discuss implementation procedures;
 - (ii) provide a copy of the draft Property Subsidence Management Plan to the relevant landowner;
 - (iii) identify dwellings that are likely to be subject to damage beyond safe, serviceable and repairable criteria as a result of the development;
 - (iv) identify structures and surface improvements that are likely to be subject to significant damage as a result of the development;
 - (v) identify agricultural or other business values that are likely to be affected by the development;
 - (vi) convene an on-site meeting with the landowner to review the draft Property Subsidence Management Plan including, where applicable, MSB technical officers with respect to dwellings that are predicted to be damaged beyond safe, serviceable and repairable criteria;
 - (vii) investigate feasible mitigation measures that can be implemented to reduce subsidence impacts to the satisfaction of the landowner and in consultation with MSB;
 - (viii) investigate other options if subsidence impacts cannot be reduced satisfactorily, such as compensation, acquisition, temporary relocation, or any other form of agreement with the landowner;
 - (ix) identify areas of likely compensable loss as defined by the Mining Act 1992, and either reach agreement with the landowner in regard to likely compensable loss, or determine suitable mitigation measures to minimise compensable loss; and
 - (x) provide a copy of each Property Subsidence Management Plan to the relevant landowner.
- (h) In implementing the terms of any Property Subsidence Management Plan the Applicant shall:
- (i) review, based on information available at the time, the potential impacts of the proposed mining on ecologically sensitive areas, archaeological resources and heritage resources and take these into consideration in any refinement of the mine plan and design of appropriate mitigation measures. Works should be designed where possible to avoid areas of ecological and archaeological sensitivity unless works are being specifically undertaken to conserve these areas; and
 - (ii) determine in consultation with the landowner, DLWC, MSC and SSC, appropriate drainage mitigation measures and earthworks, consistent with the relevant environmental management plans. Where it is indicated that drainage works are required to be undertaken on other land to mitigate remnant ponding on the property which is the subject of the Property Subsidence Management Plan, the Applicant shall seek to reach an agreement with the owner(s) of that land prior to carrying out such works. In determining appropriate drainage mitigation works, the Applicant shall take into consideration environmental, archaeological and heritage aspects of areas where mitigation works are proposed. The

Applicant shall pay any reasonable costs for landowners to obtain legal and other advice on Property Subsidence Management Plans.

Longwall Subsidence Management Plans

- (i) The Applicant shall prepare a Longwall Subsidence Management Plan to the satisfaction of the Director-General of DMR (or delegate) for each longwall panel or group of panels for which an application for secondary workings approval under s. 138 of the Coal Mines Regulation Act 1982 is being prepared.
- (j) The Longwall Subsidence Management Plan shall be completed prior to an approval under s.138 of the Coal Mine Regulation Act 1982 for secondary workings. Each Longwall Subsidence Management Plan shall be consistent with the conditions of this consent, the Environmental Management Strategy and any relevant management plans.
- (k) The Applicant shall ensure that the terms and details of each relevant Property Subsidence Management Plan are incorporated into any Longwall Subsidence Management Plan for that part of the development which may affect that property.

Subsidence Monitoring

- (l) The Applicant shall undertake a detailed and ongoing monitoring program of subsidence resulting from mining to the satisfaction of the Director-General and in consultation with DLWC and DMR throughout the life of the mine and for a period of at least five years after the completion of mining, or other such period as determined by the Director-General in consultation with DLWC and DMR. Monitoring shall include the following:
 - (i) a survey of affected stream channel systems;
 - (ii) monitoring of groundwater levels and quality;
 - (iii) monitoring of remedial measures; and
 - (iv) a comparison of predicted impacts with actual impacts, including mapping of subsidence profiles.

The Applicant shall include information on monitoring conducted and the interpreted results in the AEMR.

Notification of Landowners

- (m) The Applicant shall notify each relevant landowner in writing:
 - (i) of its intention to commence header roads under a property. Such notification to be made at least 14 days prior to commencement of such works; and
 - (ii) of its intention to proceed with an application in accordance with s138 of the Coal Mine Regulation Act, 1982. Such notification is to be made at least one month prior to an application under s138 of the Coal Mine Regulation Act 1982 for land within EL 4575 or EL 5525 or A256 not owned or under licence to the Applicant.

- (n) The notification referred to in subclause (m) shall provide a timetable and information on at least the following:
 - (i) landowner consultation arrangements;
 - (ii) the proposed mine plan;
 - (iii) arrangements for consultation in preparing a Property Subsidence Management Plan;
 - (iv) landowner rights under law and the conditions of this development consent; and
 - (v) offers of assistance from the Applicant to meet reasonable landowner legal and associated costs for reaching property agreement and valuations (if required).

Compensation

- (o) The Applicant shall compensate landowners for compensable loss in accordance with the provisions of the Mining Act, 1992. Compensable loss is defined in that Act.

Subsidence Effects

- (p) The Applicant shall ensure that any impact due to surface subsidence within the Crown road system is restored and safeguarded to the extent that public access is not compromised.
- (q) The Applicant must monitor and remediate any erosion or provide stabilising structures in any areas that have significant risk of destabilisation occurring as a result of longwall panel mining, in accordance with DLWC guidelines, to the satisfaction of DLWC, for any streams that are affected by subsidence.

3.4 Heritage Assessment, Management and Monitoring

Assessment and Management

The Applicant shall prior to the commencement of construction or 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 Upper Hunter Wonnarua Tribal Council, Wannaruah Local Aboriginal Land Council and NPWS, and to the satisfaction of the Director-General. The Plan shall include but not be limited to:
 - (i) provision of management strategies for known Aboriginal heritage sites for all parts of the DA area not affected by mining;
 - (ii) identification of any future salvage, excavation and monitoring programs for any known heritage/archaeological sites within the DA area, prior to and during construction;

- (iii) set out management procedures and protocols for issues relating to Aboriginal heritage for all stages of the development (induction of employees on archaeological and heritage issues; training of field crews, Upper Hunter Wonnarua Tribal Council and Wannaruah Local Aboriginal Land Council participation; staging of works; salvage etc);
 - (iv) details of a program for salvaging known Aboriginal sites;
 - (v) details of consultation undertaken with the Upper Hunter Wonnarua Tribal Council and Wannaruah Local Aboriginal Land Council in the preparation of this Plan;
 - (vi) 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;
 - (vii) 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;
 - (viii) 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;
 - (ix) details of how public access to the Kayuga Cemetery shall be maintained at all times; and
 - (x) details of the measures to mitigate any potential impacts resulting from the mine on the heritage homesteads Old Kayuga, New Kayuga, Riverview, the McIntyre family cemetery, Kayuga Cemetery and the Kayuga Estate 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 construction or 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) 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, the Upper Hunter Wonnarua Tribal Council and Wannaruah Local Aboriginal Land Council. Any necessary

permits or consents shall be obtained and complied with prior to recommencement of work.

- (d) The Applicant is to consult regularly with the Upper Hunter Wonnarua Tribal Council and 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.
- (e) Any proposed works that will affect non-indigenous heritage items, (including the items listed in Section 3.9.2 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.
- (f) The Applicant shall engage an appropriately qualified person to prepare an oral history of the mining lease prior to the dispersal of local residents. This will include an investigation of:
- all buildings and sites within the lease area;
 - areas that will be affected by the mine;
 - the former Dartbrook authorisation area; and
 - the Kayuga cemetery.

The investigation will be carried out in consultation with a member of the Muswellbrook and Upper Hunter Historical Society, who is to be allowed reasonable access to the Applicant’s properties for the purposes of assessing European archaeological features. The report shall be made available to the Muswellbrook and Upper Hunter Historical Society, MSC and the Director-General.

Monitoring

- (g) The Applicant shall monitor the effectiveness of the measures outlined in the Archaeology and Cultural Management Plan [Condition 3.4(a)]. A summary of monitoring results shall be included in the AEMR.
- (h) The Applicant shall prepare a monitoring program of known indigenous heritage sites identified within the DA area, during the period of construction and mining operations. The monitoring program shall be included in the Archaeology and Cultural Heritage Management Plan (Condition 3.4 (a)) and a summary of results will be included in the AEMR. The program shall:
- (i) ³monitor all known archaeological sites 12 months after undermining for the effects of subsidence and report on the results of these inspections in the Archaeology and Cultural Heritage Management Plan;

- (ii) ⁴monitor the construction of sediment and erosion control works to identify new archaeology sites;
- (iii) ⁵monitor locations in the subsidence area in order to assess the impacts of subsidence on the land surface, in areas that the Applicant has identified as being potentially affected by the following processes:
 - erosion;
 - rilling;
 - knickpoint initiation; and
 - areas prone to pooling.

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 *National Parks and Wildlife Act 1974*, prior to any disturbance of the identified sites by Construction or Mining Operations.

3.5 *Flora and Fauna Assessment, Management and Monitoring*

Assessment and Management

- (a) The Applicant shall prior to commencement of construction or 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 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) 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;
- (ii) 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;
- (iii) details of methods of how medium to large tree hollows (defined as being greater than 20 centimetres in diameter) and nests removed during construction are salvaged and replaced in adjacent vegetation; and

⁴ NPWS General Terms of Approval

⁵ NPWS General Terms of Approval

- (iv) details of management measures to be applied if threatened species identified in the EIS are found on site.
- (b) If threatened species, not identified in the EIS, 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, pending investigation and negotiation of ameliorative measures. The Applicant shall advise the NPWS and engage a suitable qualified person to investigate, and identify appropriate amelioration measures.
- (c) The Applicant shall ensure that the construction and operation of ventilation shafts shall not require the clearing of trees, where practicable.
- (e) The Applicant shall ensure that any vegetated areas cleared for construction purposes and not utilised in the Mining Operations are restored at least to its original condition.
- (f) The Applicant shall use locally endemic species for revegetation purposes.
- (g) The Applicant shall during the life of the mine and until the revegetated areas are established to the satisfaction of the DMR, maintain 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.
- (h) As well as the requirements under subclause (g), 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.
- (i) Measures to control invasion of weeds as a result of construction activities shall be addressed and managed.
- (j) The Applicant shall not clear vegetation in advance of the immediate area required for use during construction or operation of the rejects emplacement area.

Monitoring

- (k) The restoration works shall be monitored by the environmental officer. The results of the monitoring and the effectiveness of the restoration shall be reported as part of the Annual Environmental Management Report.

- (l) The Applicant shall prepare a detailed monitoring program for habitat areas within the DA area, 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 3.5(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 in the rejects emplacement area, 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.

3.6 Prevention of Soil Erosion

- (a) The Applicant shall prepare an Erosion and Sediment Control Plan for the surface facilities and extension to the rejects emplacement area 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 shall be prepared and implemented prior to the commencement of construction and/or the expansion of the rejects emplacement area.
- (b) The Erosion and Sediment Control Plan shall include but not be limited to:
- (i) details of temporary and permanent erosion and sediment control systems to be used during both construction and/or the expansion of the rejects emplacement area, including earthworks associated with landscaping;
 - (ii) details of soil salinity management where relevant;
 - (iii) ⁶measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction and/or the expansion of the rejects emplacement area. 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;

⁶ EPA General Terms of Approval

- (iv) the consideration of the location and purpose of structures in the erosion and sediment control plan to maximise similarities between pre-development and post-development drainage networks with reference to catchment areas, drainage densities and discharge characteristics;
 - (v) consideration and management of erosion and sedimentation of affected surface watercourses/waterbodies, including creeklines within the DA areas;
 - (vi) measures to construct banks, channels and similar works to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, 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 erosion and sediment 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 for the expansion of the rejects emplacement area, prior to the commencement of construction of the reject emplacement area, to the requirements of DMR and DLWC that shall include, but not be limited to:
- (i) details to ensure the maximum retrieval of suitable topdressing material and appropriate management of topsoil stockpiles including immediate revegetation to protect from soil erosion and to control potential weed problems;
 - (ii) details of the management of soil stockpiles, soil stripping techniques and scheduling;
 - (iii) control of weed infestation on topsoil stockpile material;
 - (iii) details of estimated quantities of suitable topdressing material required for subsequent respreading on rehabilitated land; and
 - (iv) 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) The company is to re-establish a post-mining drainage system which is comparable to the drainage density and discharge characteristics of the pre-mining land for each affected drainage line discharging from the area of the mining development. The design and implementation of the post-mining drainage system is to be prepared prior to the cessation of mining and to the satisfaction of DLWC.

- (e) The Applicant shall install a flexible drop structure in Sandy Creek or its tributaries and undertake such other measures as required by DLWC when headward erosion of the creek bed becomes evident.
- (f) The Applicant shall implement soil erosion mitigation measures at ventilation shafts to the satisfaction of DLWC, including a sedimentation structure to collect runoff from disturbed areas.

3.7 Site Rehabilitation Management

The Applicant shall carry out rehabilitation of all mine areas, including decommissioned gas and water substation sites, 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 DMR and DLWC. The rehabilitation shall also have regard to the latest version of the *Synoptic Plan: – Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of NSW*.

3.8 Visual Amenity and Landscaping

- (a) A Landscape 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 DMR, MSC and SSC. In preparation of the plan, regard shall be given to the Aberdeen Sheet of DMR's *Synoptic Plan: Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of NSW*. The Landscape Management Plan shall be appended to the Mining Operations Plan (Condition 2.1) and shall include, but not be limited to, the following:
 - i) An on-site landscaping strategy detailing design and proposed planting of trees and shrubs and/or the construction of mounding or bunding:
 - 1) adjacent to the Dam and Ventilation Shaft No.1 where screening of new infrastructure is required from Dartbrook Road.
 - 2) screening of new infrastructure, where required, from other public roads including Kayuga, and Dartbrook and Coal Creek Roads;
 - 3) around the Drift Access to reduce lighting effects;
 - 4) in areas of the eastern facilities site where replanting of existing screening is required. This shall include, where necessary, the construction of a suitably screened bund wall on the northern and southern ends of the CHPP to reduce visual effects on nearby residences at Aberdeen and nearby rural properties;
 - 5) as part of the rehabilitation of the Rejects Emplacement Area;
 - 6) along sections of the new access road to the mine site;
 - 7) along sections of the New England Highway; and
 - 8) at any other areas identified as necessary by MSC or SSC 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 new buildings, structures, facilities or works (including paint colours, screenings and specifications). New buildings and structures (including the Nitrogen Injection Plant) shall be designed and constructed 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 and monitoring of all landscape works and maintenance of building materials and cladding.
 - v) Details of a monitoring program to assess the effectiveness of visual impact mitigation measures. The program will be developed in consultation with MSC and SSC and be prepared to the satisfaction of the Director-General;
 - vi) Reporting of monitoring results in the AEMR and to MSC, SSC and the CCC. Monitoring results would specifically identify any remedial works required;
 - vii) Details of contingency measures to be applied in the case that proposed visual mitigation measures are not successful;
 - viii) the process of incorporating vegetation screening and fauna protection corridors into the proposed visual and landscaping works, where practicable;
 - ix) use of indigenous species;
 - x) details of predicted visual impacts from the proposed rejects emplacement area on residences not owned by the Applicant, SSC land and Aberdeen. The predicted visual impacts shall be in the form of a montage and transects showing clear sightlines from the viewer to the proposed rejects emplacement area;
 - xi) details of an off-site landscape strategy which will detail proposed off-site mitigation measures and include the:
 - 1) identification of those properties to be offered off-site visual enhancement works, in accordance with predicted adverse visual impacts;
 - 2) details of consultation with the relevant landowners; and
 - 3) details of the procedure to be followed to design and implement appropriate off-site vegetation screening if requested by landowners identified under 1 above; and
 - xii) consideration of the visual impact and adequacy of associated mitigating measures on the Aberdeen property of SCC, with recommendations for any additional measures including consideration of buffer land, as applicable. This consideration shall be undertaken by an independent qualified person(s) appointed by the Director-General, in consultation with SCC and Applicant, and paid for by the Applicant.
- (b) In the event that a landowner other than those identified in subclause (a)(xi) above, considers that his/her residence is visually impacted by the proposal, greater than predicted in the Landscape Management Plan once the proposal is operational, the Applicant shall, upon the receipt of a written request, consult the landowner, discuss their concerns and, if necessary, possible mitigation.

- (c) Should the Applicant and/or landowner dispute the level of adverse impact or any proposed mitigation measures from subclause (a)(xi) or (b) above, then either party may refer the matter to the Director-General in consultation with MSC and/or SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process. The decision of the Independent Dispute Resolution Process shall be final, as agreed by the Director-General.
- (d) Notwithstanding subclauses (b) and (c) above, the Applicant shall fund and undertake an independent review of the visual impact of the proposed rejects emplacement area on SSC's land, every five years from the commencement of mining operations, unless otherwise agreed by the Director-General. The independent review shall be undertaken by an independent Landscape Expert appointed by the Director-General in consultation with SSC and the Applicant. The independent Landscape Expert shall determine whether the actual visual impact of the rejects emplacement area on SSC's land is greater than that predicted in the Landscape Management Plan. If the independent Landscape Expert determines that the impact on SSC's land is greater than that predicted in the Landscape Management Plan, the independent Landscape Expert shall make recommendations to mitigate the impact.
- (e) If either party disputes the determination and recommendations of the independent Landscape Expert in subclause (d) above, either party may refer the matter to the Director-General for final determination.

3.9 Bushfire and other Fire Controls

The Applicant shall:

- (a) provide adequate fire protection works, fire fighting equipment and hazard reduction measures with particular attention to boundaries of adjoining landholdings;
- (b) submit an annual report on fire management activities to the Muswellbrook Fire Management Committee; and
- (c) prepare a Bushfire Management Plan for all its holdings contained in the DA area, prior to commencement of mining operations, to the satisfaction of MSC, SSC and the Rural Fire Service.

3.10 Land Management

- (a) The Applicant shall, prior to commencement of construction or Mining Operations update the current Dartbrook Mine 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;
 - (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.
 - (c) The Applicant shall ensure that the agricultural capability of lands under its control within the mining lease area are at a level not less than the level at the date of this consent.
 - (d) The Applicant shall maintain a minimum 50 metre wide buffer strip between the southern rejects emplacement area and the adjacent land owned by Mr and Mrs L Wilkinson. Surface drains and an access road may be constructed within the 50 metre wide strip.

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, MSC and to the satisfaction of the Director-General, 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; including details of temporary surface drainage works to minimise the flow of surface water onto the rejects emplacement area and details of drainage works to direct runoff from the active rejects emplacement areas to onsite storage dams;
 - (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;
 - (iv) measures to determine whether any groundwater from the Hunter River alluvium aquifers is captured by the mine including a response plan in the

event that monitoring shows evidence of a dilution of salinity or change in water chemistry, or increase in inflow rate that may indicate leakage from the alluvium to the Hunter Tunnel;

- (v) measures to be implemented in the event that the continued operation of the Hunter Tunnel leads to a significant increase in groundwater salinity in the alluvial aquifer system;
- (vi) contingency plans for managing adverse impacts of the development on surface and groundwater quality which shall include:
 - 1) contingency arrangements to manage excess saline water if the storage of the mine water management system is exceeded; and
 - 2) 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, in consultation with DLWC.
- (vii) details of a dispute resolution process to resolve issues where deepening and/or increased operational costs of licensed bores where the water table has been lowered by mining activities, is disputed between the Applicant and affected landowner;
- (viii) measures to ensure that waters of poorer quality are effectively segregated and reused on the site.
- (ix) details of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams;
- (x) 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;
- (xi) measures for assessing chemical water quality impacts of the mining operation above and below the mine site;
- (xii) 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 including downgradient of the rejects emplacement area;
- (xiii) details of consultation with landholders who use water from the proposed longwall mining area and adjacent area and those parts of Dart Brook and Sandy Creek alluvia immediately adjacent to the mining areas, in relation to their requirements for and the availability of, water and shall consider those water uses in the formulation of the management plan;
- (xiv) details of a surface water and groundwater monitoring program (refer to clause 4.2(a)(ii); and

- (xv) 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) The Applicant shall undertake annual assessments of the accuracy of the groundwater model predictions outlined in the EIS compared with monitored groundwater impacts in consultation with DLWC. Details of the assessments shall be reported in the AEMR and the scope of the assessment shall be determined in consultation with DLWC. Should the assessment identify significant differences between the EIS model predictions and monitored impacts, the Applicant shall revise the assessment of the potential impacts on groundwater systems in consultation with DLWC and implement any further mitigation measures in consultation with DLWC.
- (c) In the event that the development adversely affects groundwater users, the Applicant shall in consultation with 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.
- (d) ⁷The Applicant shall obtain a licence from DLWC under:
- (i) Part 2 of the Water Act 1912, for the drainage diversion channels (Changing the course of a river);
 - (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.
- (e) ⁸The construction or mining operations shall not damage or interfere with:
- vegetation outside the area of operation;
 - the stability of adjacent or nearby streams; or
 - the quality of water in the stream or watercourse except as authorised by the EPA.
- (f) ⁹The Applicant shall ensure that soil and/or vegetation material to be removed from the area of operations shall be disposed of to an appropriate site where it will not re-enter the watercourses or drainage systems.
- (g) ¹⁰The Applicant shall be responsible for any excavation or soil removal undertaken by any other person at the mine site.
- (h) ¹¹The Applicant shall ensure that all drainage diversion works at the mine site shall minimise adverse impacts, in consultation with DLWC. This shall include:

⁷ DLWC General Terms of Approval

⁸ DLWC General Terms of Approval

⁹ DLWC General Terms of Approval

¹⁰ DLWC General Terms of Approval

¹¹ DLWC General Terms of Approval

- (i) sufficient flow detention measures to provide flow rates at non-erosive velocities prior to re-entry into the natural drainage system;
- (ii) provision of adequate scour protection to ensure that where flows re-enter natural drainage lines from the diversion drains, adverse erosion impacts do not occur;
- (iii) designing all diversion systems to provide stability for the long-term for permanent diversions or for the designed life for temporary diversions;
- (iv) undertaking a pre-construction survey, by a suitably qualified person, of the channel site and adjacent banks showing design channel profile on cross-sections;
- (v) undertaking 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 and bed slopes and profiles;
- (vi) revegetating the banks of the new channel using suitable species immediately following excavation;
- (vii) rehabilitating using locally grown species transplanted and embedded into erosion matting where required in areas of high scour rates. The diversion system may require time for appropriate revegetation prior to its connection to divert water;
- (viii) ensuring the sizes of any culverts are determined by a suitably qualified person;
- (ix) ensuring the flows or hydraulic levels upstream and downstream of any culverts shall not hinder the passage of fish and aquatic animals where appropriate. Any culverts must be constructed so that they comply with NSW Fisheries Policy and Guidelines for culvert construction.
- (x) preventing erosion of the bed and banks upstream and downstream of any culvert with suitable scour protection as recommended by a suitably qualified person.

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 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 which shall form part of the Site Water Management Plan. The monitoring program shall have the capacity to collect sufficient data to adequately assess:
 - 1) the impact on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;
 - 2) the impact of the development on groundwaters associated with the alluvial aquifer of the Hunter River including the ongoing

- monitoring of the volume and quality of water inflows into the Hunter Tunnel;
- 3) regional groundwater levels and water quality including the extension of the regional groundwater monitoring network to include bores RDH508-511; and
 - 4) any concerns or complaints from surrounding landholders on groundwater matters, and any ensuing actions, which shall be recorded and be available to DLWC.
- (iii) report on the monitoring results and raw data in the AEMR on the following matters:
- 1) 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;
 - 2) 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);
 - 3) an interpretation of the water balance identifying the volume of water and comparing this to predictions made in the EIS or the previous AEMR; and
 - 4) provide an electronic copy of the data forwarded to DLWC.
- (iv) ¹²The Applicant must consult with the DLWC and submit the Groundwater and Surface Water Monitoring Program in subclause (a)(ii) to the EPA when an application for a licence variation is submitted.

5. Rejects Emplacement Area and Waste Management

5.1 Rejects Emplacement Area

- (a) The Applicant shall:
- (i) Ensure the construction, operation and decommissioning of the rejects replacement area meets relevant geotechnical factors of safety and long-term stability criteria, suitable for a permanent feature of the landscape;
 - (ii) Unless otherwise agreed to by the Department of Primary Industries, ensure the design of the rejects emplacement area addresses:
 - the need for subsurface drainage;
 - compaction of rejects within the emplacement to achieve a target of 95 percent standard compaction, and at all times achieve a 90 percent standard compaction;
 - temperate control and monitoring using thermo-couples within the emplacement; and

¹² EPA General Terms of Approval

¹⁴ EPA General Terms of Approval

- (iii) Prepare and implement a surveillance program to monitor the geotechnical stability of the rejects emplacement area, including periodic geotechnical analysis of the reject material to ensure it continues to meet relevant design criteria,

to the satisfaction of the Department of Primary Industries.

- (b) Prior to the emplacement of rejects in the southern and northern rejects emplacement areas, and for any subsequent modifications to the design of these emplacement areas, the Applicant shall:
 - (i) Commission a suitably qualified, experienced and independent geotechnical expert, whose appointment has been approved by the Director-General, to review the detailed design (and surveillance program) for the southern and northern rejects emplacement areas to verify each design meets relevant geotechnical factors of safety and long-term stability criteria;
 - (ii) Implement all reasonable and feasible recommendations made by the independent geotechnical expert to improve the detailed design or the surveillance program for the southern and northern rejects emplacement areas; and
 - (iii) Provide a copy of the independent geotechnical expert's report to the Department of Primary Industries and the Director-General,

to the satisfaction of the Department of Primary Industries.

- (c) Prior to emplacement of rejects in the southern rejects emplacement area, the Applicant shall prepare and implement a revised Rehabilitation Strategy for all rejects emplacement areas at the mine, to the satisfaction of the Department of Primary Industries

5.2 Waste

- (a) Prior to the commencement of construction or Mining Operations, 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;
 - (i) details of compliance with the Applicant's obligations under the *Protection of the Environment Operations Act (1997)*;
 - (ii) identification of all types and quantities of waste materials produced at the mine site during construction, commissioning and operation;
 - (iii) programs aimed at minimising the production of waste at the mine site through the implementation of operational and management measures;

- (iv) details of the potential reuse and recycling avenues for waste materials produced at the mine site, including collection and handling procedures;
 - (v) details of appropriate disposal routes in the event that reuse and recycling avenues are not available or are not practicable; and
 - (vi) programs for involving and encouraging employees and contractors to minimise waste production at the mine site and reuse / recycling where appropriate.
- (b) The Applicant shall dispose of all solid waste and putrescible matter from the site to the satisfaction of MSC or EPA, as relevant.
- (c) The Applicant shall dispose of all treated sewage and sullage to the satisfaction of MSC and in accordance with the EPA Licence.

5.3 Tailings Disposal

- (a) The Applicant shall not use tailing dams for the disposal of fine coal rejects, other than in emergency situations when the ratio of fine to coarse rejects are not within the specifications for the waste plant.
- (b) The Applicant shall prepare a report to the Director-General every five years, or as otherwise agreed by the Director-General, reporting on the feasibility of using goaf areas of the Dartbrook Extended Mine, other than that described in the “Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant”, dated 12 August 2005 and prepared by Hansen Consulting, for rejects disposal.

6. Air Quality, Noise and Light Management and Monitoring

6.1 Air Quality Management and Monitoring

Air Quality Standards/Goals

- (a1) The Applicant shall comply with the air quality standards/goals listed in Tables 1 and 2:

Table 1: Health based air quality standards/goals

Dust Type	Standard/Goal	Source Agency
Total suspended particulate (TSP) matter	90 $\mu\text{g}/\text{m}^3$ (annual average)	NHMRC ¹

¹ National Health and Medical Research Council.

Table 2: NSW EPA amenity based air quality standards/goals

Existing dust fallout level ($\text{g}/\text{m}^2/\text{month}$)	Maximum acceptable increase over existing deposition levels ($\text{g}/\text{m}^2/\text{month}$)	
	Residential	Other

2	2	2
3	1	2
4	0	1

Dust Management Plan

- (a) The Applicant shall, prior to the commencement of construction or Mining Operations, prepare a Dust Management Plan detailing air quality safeguards and procedures for dealing with dust emissions from the Dartbrook Underground Mine Extension to the satisfaction of the Director-General. The Dust Management Plan shall be prepared in consultation with the EPA, MSC and SSC. The Plan shall include, but not be limited to, details of:
- (i) the identification of dust affected properties in accordance with the relevant air quality standards/goals in Tables 1 and 2;
 - (ii) reporting of the dust emissions from the Mine in comparison to all of the air quality standards and goals provided in Tables 1 and 2.
 - (iii) specification of the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations;
 - (iv) outline the procedure to notify property owners and occupiers likely to be affected by dust from the mine in excess of standards/goals detailed in Tables 1 and 2;
 - (v) measures to reduce the potential for wind erosion from exposed surfaces;
 - (vi) methods for making dust monitoring data publicly available, such as the placement of monitoring details and results on the internet;
 - (vii) 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 and criteria for acceptable levels of impact;
 - (viii) the establishment of a protocol for handling dust complaints that include recording, investigating, reporting and acting on complaints, including where complaints are received and it is demonstrated dust levels are below the criteria contained in this consent;
 - (ix) appropriate mechanisms for community consultation;
 - (x) outlining proactive/predictive and reactive mitigation measures to be employed to minimise dust emissions;
 - (xi) outlining mitigation measures to be employed to minimise dust emissions including dust from **rejects emplacement area** in dry and windy conditions;

- (xii) equipment to be available and used to control dust generation;
- (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 if the relevant criteria are exceeded;
- (xiv) identification of longer term strategies directed towards mitigating dust levels that exceed the air quality standards/goals in Tables 1 and 2;
- (xv) details of locations for dust monitoring and deposition gauges at the residential areas and frequency of monitoring, as agreed with the EPA;
- (xvi) a program to continue baseline monitoring undertaken prior to development consent; and
- (xvii) Monitoring and reporting protocol for PM₁₀ (particulate matter less than 10 microns) and a comparison with the:
 - National Environment Protection Council PM₁₀ goal of 50 µg/m³ (24 hour average); and
 - EPA PM₁₀ goal of 50 µg/m³ (annual average).

Air Quality and Dust Monitoring

- (b) The Applicant shall:
 - (i) undertake monitoring at locations described in the Dust Management Plan (Condition 6.1(a));
 - (ii) establish dust deposition, total suspended particulate (TSP) and PM₁₀ monitoring locations for the mine operations, including sites for monitoring impacts of dust at the nearest non-mined 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);
 - (iii) 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; and
 - (iv) 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 their dwelling or over more than 25% of their vacant land is in excess of the criteria in Tables 1 and 2, 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 occupants affected to determine their concerns;
- (ii) make arrangements for, and bear the costs of appropriate independent dust investigations in accordance with the Dust Management Plan, (which may involve an audit of the mine's monitoring program) and to the satisfaction of the Director-General, to quantify the impact and determine the source of any effect of Dartbrook Mine;
- (iii) modify the mining activity or take other steps in accordance with the Dust Management Plan if exceedences are demonstrated to result from the mine 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.
- (iv) conduct follow up investigations 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.

- (d) If the independent dust investigations in sub-clause (c) above confirm that dust levels are in excess of the criteria 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 11.3.
- (e) If a landowner disputes any dust mitigation or other measures proposed by the Applicant in accordance with subclause (c)(iii)(2), the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with MSC and SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- (f) Further independent investigations shall cease if the Director-General is satisfied that the criteria in Tables 1 and 2 are not being exceeded and are unlikely to be exceeded in the future.

Odour Monitoring

- (g) ¹⁴The Applicant must not cause or permit the emission of offensive odours from the premises and must comply with section 129 of the Protection of the Environment Operations Act 1997.

- (h) ¹⁵Prior to construction of each ventilation air discharge vent (ventilation shaft), the Applicant must submit a report to the EPA, which demonstrates, to the satisfaction of the EPA, that the new ventilation air discharge vents are located and designed in a manner that will not cause offensive odour impacts.
- (i) ¹⁶Within 90 days of commissioning each new ventilation air discharge vent (ventilation shaft), the Applicant must submit a report to the EPA, which includes the following site specific source emission test results:
- Concentration of odour (OU/m³);
 - Emission rate of odour (OU/s);
 - Concentrations and emission rates of all other relevant air pollutants;
 - Volumetric flow rate (m³/s);
 - Discharge velocity (m/s); and
 - Temperature (°C).

If the above parameters are outside the range used in the dispersion modelling study of each ventilation air discharge vent (ventilation shaft), then the odour impacts must be assessed once more and the results submitted to the EPA.

- (j) ¹⁷The location of sampling points and source emissions sampling and analysis must be conducted strictly in accordance with the “Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales”, NSW EPA, December 1999.

6.2 Dust Suppression and Control

- (a) The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas of the mine site to minimise the generation of wind erosion dust.
- (b) The Applicant shall keep the surface of the coal stockpiles and any unsealed roads sufficiently damp to minimise the emission of wind blown or traffic generated dust.

6.3 Blast Management and Monitoring

Blasting Overpressure

- (a) ¹⁸The overpressure level from blasting operations on the premises must not:
- exceed 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months; and
 - exceed 120dB (Linear Peak) at any time,
- at any residence or noise sensitive location (such as a school or hospital) that is not owned by the Applicant or subject to a private agreement between the owner of the

¹⁵ EPA General Terms of Approval

¹⁶ EPA General Terms of Approval

¹⁷ EPA General Terms of Approval

¹⁸ EPA General Terms of Approval

residence or noise sensitive location and the Applicant as to an alternative overpressure level.

Ground Vibration

(b) ¹⁹ Ground vibration peak particle velocity from the blasting operations must not:

- exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
- exceed 10mm/s at any time,

at any residence or noise sensitive location (such as a school or hospital) that is not owned by the Applicant, or subject to a private agreement between the owner of the residence, or noise sensitive location and the Applicant, as to an alternative vibration level.

Time and Frequency of Blasting

(c) ²⁰ Blasting operations may only take place between 9 am and 5 pm Monday to Friday inclusive;

(d) ²¹ Blasting at the premises is limited to 1 blast on each day on which blasting is permitted; and

(e) ²² The 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.

Blast Management Plan

(f) The Applicant shall prepare and implement a Blast Management Plan to the satisfaction of the Director-General, prior to the commencement of any blasting.

²³The Plan must include, but need not be limited to, the following matters:

- compliance standards;
- mitigation measures;
- remedial action;
- monitoring methods and program;
- monitoring program for flyrock distribution;
- measures to be undertaken to demonstrate that Dartbrook Mine is achieving best practice in minimising both air blast overpressure and ground vibration levels;

¹⁹ EPA General Terms of Approval

²⁰ EPA General Terms of Approval

²¹ EPA General Terms of Approval

²² EPA General Terms of Approval

²³ EPA General Terms of Approval

- measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables), native fauna and livestock nearby;
 - procedures for the notification of neighbours prior to detonation of each blast; and
 - measures to ensure no damage by flyrock to people, property, livestock and powerlines.
- (g) The Applicant shall as a minimum for large-scale blasts (with a maximum instantaneous charge greater than 20kg), advise residents within three (3) kilometres of blasting locations on a monthly basis and of any changes to monthly programs. For small-scale construction blasts (with a maximum instantaneous charge not greater than 20kg), the Applicant shall as a minimum advise residents within one (1) kilometre of blasting locations.
- (h) Upon written request of the owner of any dwelling located within three (3) kilometres of large-scale blasting locations (with a maximum instantaneous charge greater than 20kg), or within one (1) kilometre of small-scale construction blasting locations (with a maximum instantaneous charge not greater than 20 kg), 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 a 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 ensure that blasting shall not take place within 500 metres of a public road while such road is open to traffic. Roads shall not be closed for blasting purposes during the times that school buses use the road.
- (j) The Applicant shall prepare a Road Closure Management Plan to the satisfaction of the Director-General, and in consultation with MSC and SSC prior to the commencement of any blasting within 500 metres of a public 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 Dartbrook 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.

- (k) Notwithstanding subclause (j) above, if blasting is proposed within 500 metres of the New England Highway, The Applicant shall prepare a Road Closure Management Plan to the satisfaction of the Director-General, and in consultation with RTA, MSC and SSC, prior to the commencement of any blasting within 500 metres of the New England Highway. The Plan shall include, but not be limited to, the matters in subclause(j) above.

Blast Monitoring

- (l) The applicant must monitor ground vibration and overpressure of all blasts.
- (m) Ground 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 Levels

Intrusive Noise Criteria

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

Table 3: Intrusive Noise Criteria for Dartbrook Mine L_{eq} (15 minute)

Location as identified in the EIS ¹	Intrusive Criteria ^{2,3} [Day / Evening / Night] ⁴ L_{eq} (15 minute)
East site receivers	50/50/41 dB(A)
West site receivers	40/40/35 dB(A)
Aberdeen	49/42/40 dB(A)

¹For the locations of East site and West receivers refer to Schedule A.

²These criteria apply for winds up to 3 metres per second and Pascall Stability Classes of A, B,C, D, E, and F.

³All measured or predicted noise levels to be rounded to the nearest decibel.

⁴Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).

Noise Acquisition Criteria

- (b) The acquisition zone for Dartbrook Mine is defined by predicted or demonstrated exceedance of noise levels (caused by Dartbrook Mine) at any non-mined owned dwellings of the dB(A) (L_{eq} (15 minute)) noise limits shown in Table 4 below.

Table 4: Noise Acquisition Criteria for Dartbrook Mine L_{eq} (15 minute)

Location as identified in the EIS ¹	Dartbrook Mine Acquisition Criteria ^{2,3} [Day / Evening / Night] ⁴ L_{eq} (15 minute)
East site receivers	greater than 55/55/46 dB(A)
West site receivers	greater than 45/45/40 dB(A)
Aberdeen	greater than 54/47/45 dB(A)

¹ For the locations of East site and West site receivers refer to Schedule A.

² These criteria apply for winds up to 3 metres per second and Pascall Stability Classes of A, B, C, D, E, and F.

³ All measured or predicted noise levels to be rounded to the nearest decibel.

⁴ Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).

- (c) The properties in Table 5 are predicted to experience noise levels greater than the acquisition levels identified in Table 4 from Dartbrook Mine, and shall be acquired by the Applicant if requested by the landowner in accordance with Condition 11.3.

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

Property Owner (as stated in the EIS)
Knight
Day
Gordon

- (d) In the event that a landowner or occupier of a non-mine owned property, excluding those properties listed in Table 5 (refer also sub clause (l) below), considers that noise from the project once operational at their dwelling is in excess of:

- the noise levels depicted in Tables 3 or 4 above; or
- that a landowner considers that the noise levels depicted in Table 4 is being exceeded over more than 25% of their 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 occupants affected to determine their concerns;
- (ii) make arrangements for, and bear the costs of, in consultation with the owners of 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;

- (iii) modify the Dartbrook Mine operations or take other steps in accordance with a noise reduction plan prepared as part of the noise management plan, if exceedences are demonstrated to result from Dartbrook Mine. This shall include:
- introduction of feasible and reasonable 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 Table 3 are achieved, as far as possible; and/or
 - with the agreement of the landowner, undertaking of noise control at the dwelling to achieve acceptable internal noise levels; and/or
 - entering into an agreement with the landowner or provide such other forms of benefit or amelioration of the impact of noise as may be agreed between the parties, as providing acceptable compensation for the noise levels experienced;
- (iv) conduct follow up investigations 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 investigations in sub-clause (d) above confirm that noise limits in Table 4 are being exceeded by Dartbrook Mine 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 11.3.
- (f) If continued complaints and noise investigations confirm that noise limits 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 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 and SSC. 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 the mine extensions, undertake monitoring of affected residences to verify noise predictions, including management and acquisition zones to the requirements of the Director-General. 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) ²⁴EPA Applicable Noise Limits for EPA licence purposes (refer to Schedule B)
- (k) For the purpose of noise measurement for subclause (j) above and this consent in general, 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) In the event a resident is identified in the acquisition zone by either subclause (c) or (e) above and does not wish to request acquisition, the Applicant shall:
 - (a) take feasible and reasonable measures to minimise noise levels in the event of complaints from the resident in the acquisition zone; and
 - (b) if requested to instigate noise mitigation measures in lieu of acquisition, shall consider the feasibility of such measures and instigate those measures at its discretion in consultation with the resident, unless otherwise agreed by the Director-General.

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.

6.4.2 Noise Management Plan

- (a) The Applicant shall prior to commencement of mining operations, prepare and implement a Noise Management Plan for Dartbrook Mine, to the satisfaction of the Director-General. The EPA, MSC and SSC should also be consulted prior to the finalisation of the Management Plan. The Plan shall:
 - (i) include details of the conduct of noise investigations at three monthly intervals, unless otherwise agreed by the Director-General, to evaluate, assess and report the $L_{eq(15\text{ minute})}$ noise emission levels due to the normal operations of Dartbrook Mine;
 - (ii) detail proposed methodologies including determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;
 - (iii) detail management measures where the Intrusive criteria in Table 3 of this consent is predicted to be exceeded, or is exceeded during mining operations;
 - (iv) outline the design of any noise monitoring and modelling or other studies including the means for determining the noise levels emitted by the Dartbrook Mine operations;

²⁴ EPA General Terms of Approval

- (v) detail a monitoring program, mitigation measures, remedial action and measures demonstrating that Dartbrook Mine is achieving best practice in minimising low frequency noise, irrespective of set standards;
- (vi) particularly focus on the management of night time noise (10.00pm – 7.00am) for each year of operation;
- (vii) redefine both the noise acquisition and management zones for Dartbrook Mine on a yearly basis, 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 to the satisfaction of the Director-General, and as otherwise agreed by the Director General;
- (viii) ²⁵specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations;
- (ix) ²⁶outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;
- (x) establish a protocol for handling noise complaints that includes recording, investigating, reporting and acting on complaints, including where complaints are received and it is demonstrated that noise levels are below the criteria contained in this consent;
- (xi) record appropriate mechanisms for community consultation;
- (xii) outline proactive/predictive and reactive mitigation measures to be employed on the site to limit noise emissions;
- (xiii) identify longer term strategies directed towards mitigating noise levels that exceed the noise target levels in Table 3;
- (xiv) outline measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);
- (xv) ²⁷specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they lead to exceedence of the relevant noise criteria; and
- (xvi) ²⁸survey and investigate noise reduction measures from plant and equipment at the conclusion of the first 12 months of coal processing operations and set targets for noise reduction taking into consideration valid noise complaints in the previous year. The Report shall also include

²⁵ EPA General Terms of Approval

²⁶ EPA General Terms of Approval

²⁷ EPA General Terms of Approval

²⁸ EPA General Terms of Approval

remedial measures, to achieve compliance with the noise criteria in this consent.

- (b) ²⁹The night-time section of the Noise Management Plan shall be prepared prior to the commencement of any night-time operations.
- (c) Prior to the commencement of construction, the Applicant must prepare, and subsequently implement, a Construction Noise Management Plan to the satisfaction of the Director-General. ³¹The Plan must include, but need not be limited to, the following matters:
- compliance standards;
 - community consultation;
 - complaints handling monitoring/system;
 - site contact person to follow up complaints;
 - mitigation measures;
 - the design/orientation of the proposed mitigation methods demonstrating best practice;
 - construction times;
 - contingency measures where noise complaints are received;
 - monitoring methods and program.
- (d) The Applicant shall also:
- (i) make copies of the Noise Management and Construction Noise Management Plans available to the EPA, MSC, SSC and CCC within fourteen days of approval by DUAP, or as otherwise agreed to by 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 Dartbrook Extended shall not create amenity problem(s) associated with low frequency noise. The Applicant shall, in consultation with the EPA, investigate the cause of any low frequency noise causing amenity problems associated with Dartbrook and report to the Director-General the result of any such investigation and practical mitigation measures that can be adopted to eliminate such problem.
- (f) The Applicant shall ensure that construction activity does not result in noise emissions likely, in the opinion of the EPA, to cause annoyance at residences not owned by the Applicant, having regard to the volume, impact or tone of the noise.

²⁹ EPA General Terms of Approval

³¹ EPA General terms of Approval

6.5 *Lighting Emissions*

- (a) The Applicant shall, prior to commencement of construction, prepare a Lighting Management Plan in consultation with MSC, SSC 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 Dartbrook Road, to screen potential lighting impacts;
 - ii) details of the tree screen on the north side of the access road at the corner north of the Dam to screen potential lighting impacts;
 - iii) details of the tree and shrub screening around the Drift Access to reduce potential lighting impacts;
 - iv) details of technical measures and work practices necessary to minimise the spillage of light from areas to be illuminated, and to minimise the total night time glow from the mine;
 - v) details of the construction or placement of visual screens to screen lighting impacts;
 - vi) 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
 - vii) 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.
- (c) The Applicant shall ensure that on-site lighting does not directly emit light into the line of sight of nearby dwellings. The light emitted from any direct flood lighting and any vehicle headlights shall be directed away from dwellings and public roads.
- (d) The Applicant shall ensure that light emitted from locomotive headlights whilst a locomotive is on or moving off the rail loop shall be screened from dwellings to the satisfaction of MSC or as otherwise agreed by the Director-General.

6.6 *Vibration from Mine Operations*

- (a) Ground vibration peak particle velocity from the rail loop and/or CHPP facility must not:
- exceed 2.82 mm/s at any time,
- at any residence or noise sensitive location (such as a school or hospital) that is not owned by the Applicant, or subject to a private agreement between the owner of the residence, or noise sensitive location and the Applicant, as to an alternative vibration level.

- (b) Prior to the commencement of mining operations, the Applicant shall prepare and implement a Vibration Management Plan to the satisfaction of the Director-General which will include, but need not be limited to, the following matters:
- compliance standards;
 - monitoring program;
 - mitigation measures;
 - remedial action in an event of exceedance of criteria in subclause 6.6(a) above;
 - monitoring methods and program; and
 - measures to be undertaken to demonstrate that Dartbrook Mine is achieving best practice in minimising vibration levels from the rail loop and/or CHPP, irrespective of set standards.
- (c) The Applicant shall also:
- (i) make copies of the Vibration Management Plan available to the EPA, MSC, SSC and CCC within fourteen days of approval, or as otherwise agreed to be the Director-General; and
 - (ii) include a summary of vibration monitoring results in the AEMR.

7. Transport and Utilities

7.1 Rail Transport

- (a) All coal shall be transported from the CHPP by rail unless otherwise agreed by the Director-General and MSC.

7.2 Road Transport

- (a) The Applicant shall give prior written notice to MSC and SSC of the date of the commencement of the haulage of coal from the western site to the eastern site.
- (b) No coal shall be transported from the western site facilities to the CHPP by road haulage after **twenty-one** months from the start of mining operations.
- (c) The Applicant shall restrict road haulage of coal from the western site to the eastern site, to the hours of 7.00 am and 6.00 pm, Mondays to Fridays inclusive.
- (d) The Applicant shall not road haul coal on Saturday, Sunday and Public Holidays.
- (e) The Applicant shall not load coal onto trucks before 7.00 am on any day, except under emergency circumstances when short haulage to the emergency stockpile at the access slot is necessary and with notification of MSC and the Director-General as soon as practicable.

- (f) The Applicant shall ensure that:
- (i) All traffic associated with the construction of the Kayuga Mine, with the exception of employees approved by the Dartbrook General Manager and living in the local area most directly accessed by local roads; access the Kayuga Mine surface facilities via the New England Highway, Western Access Road, Stair Street, Kayuga Road and Dartbrook Road, until the completion of contract mine construction activities when all portable construction workers' amenities, workshop and store shall be removed. Approved employees may access the mine via local public roads and Stair Street;
 - (ii) All mine personnel (including contractors) access the Dartbrook Mine facilities via the New England Highway and the Western Access Road, with the exception of employees approved by the Dartbrook General Manager and living in the local area most directly accessed by local roads. These employees can access the mine via local public roads and Stair Street;
 - (iii) A list of approved employees under Conditions 7.2(f)(i) & (ii) be maintained by the Applicant, and made available to the Department upon request;
 - (iv) Kayuga Road, from the Hunter River bridge to the Castlerock Road intersection, is not used to access the mine or mine satellite surface facilities. Limited use of local roads by mine related traffic for access to mine satellite surface facilities is permitted, with internal access roads to be utilised where practicable; and
 - (v) The section of Kayuga Road between Stair Street and Dartbrook Road, and the section of Dartbrook Road between Kayuga Road and the entrance to the Kayuga Mine surface facilities, be maintained in consultation with MSC and to the satisfaction of the Director-General.
- (g) The Applicant shall submit all designs and specifications associated with the proposed access road and Blairmore Lane Underpass to MSC or SSC for approval, prior to the commencement of work. The proposed western access road shall be sealed in accordance with the requirements of MSC or SSC.
- (h) The Applicant shall provide advance signposting indicating "Trucks Turning" on the New England Highway, in both directions and shall be displayed during the eighteen month period of coal haulage activities across the New England Highway.
- (i) The Applicant shall ensure that no coal spillage associated with the road haulage of coal occurs on the New England Highway. In the case that coal is spilled onto the Highway, the Applicant shall bear all costs and liability associated with any incident or related clean up activities associated with the spill.
- (j) The Applicant shall ensure that any damage beyond normal wear and tear to the New England Highway, associated with the movement of coal from the

mining operations to the CHPP, is repaired at the Applicant's expense and to the satisfaction of the RTA.

7.5 Road Closures

- (a) The Applicant shall maintain signs and give at least 24 hours notice of temporary road closures during construction. 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 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(c)).

7.7 Road and Rail Works

The Applicant shall:

- (a) Install the pipeline crossings of Ely and Heir Streets (both undeveloped roads) to the satisfaction of Muswellbrook Council;
- (b) Install pipelines under the Main Northern Rail Line to the satisfaction of the Australian Rail Track Corporation; and
- (c) Prior to the commencement of any construction within the road reserve of the New England Highway the Applicant shall prepare and subsequently implement a Traffic Management Plan in accordance with the RTA's *Traffic Control at Worksites* guidelines, to the satisfaction of Muswellbrook Council and the RTA. The Plan must:
 - (i) describes the schedule of the proposed road works;
 - (ii) describe the measures that would be implemented to minimise traffic impacts associated with the construction of the proposed development; and
 - (iii) include a Traffic Control Plan that describes the measures that would be implemented to control construction traffic access to the classified road network.
- (d) Bore pipelines under the New England Highway to the satisfaction of the RTA.

Notes:

- (a) there will be no access from the New England Highway to the work site; the boring/ crossing locations shall be perpendicular to the New England Highway road reserve at a location which offers the shortest length possible, unless otherwise approved by the RTA;
- (b) the location of the pipeline crossing shall be in accordance with the RTA guideline and take into account the location of utilities another infrastructure;
- (c) the crossing shall be constructed to Australian Standards and allow for future widening requirements of the New England Highway;
- (d) the crossing shall be installed through trenchless technology unless otherwise approved by the RTA;
- (e) the crossings shall maintain a minimum vertical buffer of 1.5 metres between the pipeline and the highway within the road reserve;

- (f) where steel casings are not used a trace wire shall be provided to assist with the future location of the pipeline;
- (g) pipes installed under the road shall be sleeved and grouted;
- (h) permanent markers shall be provided at the entry and exist point of the road reserve;
- (i) any access points and valves shall be located outside of the road reserve; and
- (j) all areas within the road reserve that are disturbed by the development shall be restored to their original condition to the satisfaction of the RTA.

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 by the Director-General.
- (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 Audit

- (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, SSC, 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 and SSC. Such approval shall not be unreasonably withheld.

- (c) The Director-General may, after considering any submission made by the relevant government agencies, MSC, SSC 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 continue to maintain and operate a meteorological station 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. The Applicant shall analyse and document the meteorological data on a monthly basis to adequately characterise the site.

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 Environmental Reporting

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, MSC and SSC 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;

- (vi) a listing of any variations obtained to approvals applicable to the subject area during the previous year;
 - (vii) subsidence during the preceding twelve months;
 - (viii) socio-economic impact of the development including the workforce characteristics of the previous year;
 - (ix) 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;
 - (x) rehabilitation report;
 - (xi) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results; and
 - (xii) a report on the surveillance of any prescribed dam on the site to the satisfaction of the DSC.
- (b) In preparing the AEMR, the Applicant shall:
- (i) consult with the Director-General and DMR during preparation of each report for any additional requirements;
 - (ii) comply with any 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. Reporting on the Dartbrook Extended Project may be included with the AEMR for the existing Dartbrook development consent.
- (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, SSC and CCC, and made available for public information at MSC within fourteen days of submission to these authorities and made available to any landowner within the vicinity of the development upon request.

10. Community Consultation/Obligations

10.1 Community Consultative Committee

The Applicant shall:

- (i) ensure the continuation of the existing Dartbrook Mine Community Consultative Committee and ensure that a meeting is held prior to the submission of the Environmental Management Strategy (Condition 3.2). The Committee shall continue to be chaired by MSC and shall have regard to MSCs Code of Conduct for CCCs.

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 implementation of the development and 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.

- (ii) The Applicant shall, at its own expense:
 - 1) ensure two (2) representatives attend all meetings of the Committee;
 - 2) provide to the Committee regular information on the progress of work and monitoring results;
 - 3) promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the development;
 - 4) provide access for site inspections by the Committee following reasonable prior notice; and
 - 5) provide meeting facilities for the Committee, and take minutes of Committee meetings. These minutes shall be available for public inspection at MSC and SSC within 14 days of the meeting.
- (iii) 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 or other arrangement, for the duration of mining in the DA area, or as otherwise 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 Community Consultation

Complaints

- (a) The Environmental Officer employed by the mine (refer condition 3.1) shall be responsible:
 - (i) for establishing and maintaining a system for recording complaints received 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. The complaints protocol shall be prepared and implemented to the satisfaction of the Director-General prior to commencement of construction or Mining Operations; and
 - (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, SSC, 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)).
- (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.

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 Dartbrook Mine and any future mining activities, at dwellings, or vacant land (as described in Condition 6.1 and 6.4), in the vicinity of the operation, is in excess of the noise or dust acquisition criteria contained in these conditions of consent, the Applicant shall negotiate with the other companies and landowner to determine appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts to the satisfaction of the Director-General in proportion to their contributions to the impact.
- (b) If agreement on appropriate contributions towards mitigation measures/acquisition cannot be reached from negotiations undertaken in accordance with subclause (a), then the matter is to be referred to the Director-General in consultation with MSC and SSC 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 determined 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 determined by the Director-General.

11.2 Compensation and Land Acquisition and as a Result of Subsidence

Note: Compensation and other measures for subsidence impacts, are also available under the provisions of the Mining Act 1992 and the Mine Subsidence Compensation Act 1961.

(A) Compensation and Acquisition – Significant Structural Damage to Dwellings

- (a) Where a dwelling within the DA area is, or is likely to be (as identified in the Property Subsidence Management Plan referred to in Condition 3.3(g)(iii)), subject to damage beyond the safe, serviceable and repairable criteria as a result of the development, the landowner, after receiving notification from the Applicant in accordance with Condition 3.3(m)(ii), may request the Applicant in writing to:
 - (i) carry out such works as agreed by the landowner to remedy or mitigate any damage; or
 - (ii) compensate the landowner for such effects; or as a last resort and failing all other measures,
 - (iii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.
- (b) The Applicant shall comply with any such request for compensation or acquisition in accordance with Conditions 11.2(C) and (D). If necessary to confirm the impact, the Applicant shall, at the request of the landowner in

writing, conduct a follow-up structural inspection to one carried out under Condition 3.3(f)(v). Any inspection or assessment under this Condition shall be conducted as if it were conducted under the relevant part of Condition 3.3(f)(viii).

- (c) Any disputes relating to compensation may be referred by either party to:
 - the Mining Warden at any time in accordance with the provisions of the Mining Act; or
 - the Mine Subsidence Board at any time in accordance with the provisions of the Mine Subsidence Compensation Act 1961.
- (d) Any disputes relating to land acquisition (except those relating to valuation matters) may be referred by either party to the Director-General for consideration and advice if no agreement is reached within three months of receipt by the Applicant of the written request.

(B) Compensation and Acquisition – Land Capability Impacts

- (a) Where a landowner suffers, or is likely to suffer a loss of land capability or agricultural productivity (as identified in the Property Subsidence Management Plan referred to in Condition 3.3(g)), as a result of the development, the landowner, after receiving notification from the Applicant in accordance with Condition 3.3(m)(ii), may request the Applicant in writing to:
 - (i) carry out such works as agreed by the landowner to rectify the problem; or
 - (ii) compensate the landowner for such effects; or, as a last resort and failing all other measures,
 - (iii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.
- (b) Any disputes relating to compensation may be referred by either party to the Mining Warden at any time in accordance with the provisions of the Mining Act.
- (c) Any disputes relating to acquisition (except those relating to valuation matters) may be referred by either party to the Director-General for consideration and advice if no agreement is reached within three months of receipt by the Applicant of the written request.
- (d) If the matter is referred to the Director-General in accordance with subclause (c) above, the Director-General shall appoint an Independent Expert, in consultation with the Applicant and the landowner and in accordance with the “Evaluation Process for Land Acquisition due to Land Capability Impacts caused by Subsidence” (refer to Schedule C). The Applicant shall bear the costs of engaging the Independent Expert.

- (e) The Independent Expert shall determine the level and extent of loss or impacts, and recommend whether acquisition is required, and in doing so, shall consider the following matters:
- the level of predicted or actual subsidence;
 - the level of land capability and/or agricultural productivity as unaffected by underground mining;
 - the assessment of agricultural utilisation, agricultural improvements and the underlying agricultural productivity of the relevant property prior to mining operations, as determined in the relevant Property Subsidence Management Plan (in accordance with Condition 3.3(f)(vi));
 - the impact of subsidence on the land capability and agricultural productivity of the land;
 - the nature and extent of feasible mitigation measures; and
 - previous issues considered by the Mining Warden in any compensation considerations under the Mining Act.

A recommendation for acquisition of a property may only be made by the Independent Expert where the Expert is satisfied that after consideration of feasible mitigation measures the impact of subsidence is such as to significantly adversely affect the existing and future land capability and/or agricultural productivity.

- (f) Where it is determined by the Director-General that a property is eligible for acquisition, and acquisition is requested by the landowner, the Applicant shall comply with any such request in accordance with Conditions 11.2(C)-(D).

(C) Acquisition – Procedure

- (a) Upon receipt of a written request to purchase property in accordance with any part of condition 11.2, the Applicant shall negotiate and purchase the whole of the property (unless the request specifically requests acquisition of only part of the property and subdivision has already been approved) within six months of receipt of the request. The Applicant shall pay the landowner an acquisition price resulting from proper consideration of:
- (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 Dartbrook Mine, having regard to:
 - the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
 - the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of the request is completed subsequent to that date.
 - (ii) the owner's reasonable compensation for disturbance allowance and relocation within the Singleton, Scone or Muswellbrook Local Government Areas, or within such other location as may be determined by the Director-General in exceptional circumstances;

- (iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price for the land and the terms upon which it is to be acquired; and
 - (iv) the purchase price determined by reference to points (i), (ii) and (iii) shall be reduced by the amount of any compensation awarded to a landowner pursuant to the *Mining Act, 1992* or other legislation providing for compensation in relation to coal mining but limited to compensation for dwellings, structures and other fixed improvements on the land, unless otherwise determined by the Director-General in consultation with the DMR or MSB.
- (b) An offer by the Applicant to purchase a property under the conditions of this consent shall remain open to the landowner for the following periods from the date of the offer:
- (i) for damage to a dwelling beyond the safe, serviceable and repairable criteria (Condition 11.2(A)), three years after completion of mining of longwall panels that affect the property; and
 - (ii) for land capability and/or agricultural productivity impacts (Condition 11.2(B)), five years after completion of mining of longwall panels that affect the property.
- (c) Notwithstanding any other Condition of this consent, the landowner and the Applicant may enter into any other agreed arrangement regarding compensation; or 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.

(D) Independent Valuation

- (a) In the event that the Applicant and the landowner cannot agree within three months upon the acquisition price of the land and/or the terms upon which it is to be acquired under the terms of this consent, then either party may refer the matter to the Director-General who shall request an independent valuation to determine the acquisition price. The independent valuer shall consider any submissions from the landowner and the Applicant in determining the acquisition price.
- (b) If the independent valuer requires guidance on any contentious legal, planning or other issues, the independent valuer shall refer the matter to the Director-General, who, if satisfied that there is a need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of:
- (i) the appointed independent valuer;
 - (ii) the Director-General; and/or
 - (iii) the President of the Law Society of NSW or nominee.

The qualified panel shall, on the advice of the valuer, determine the issue referred to it and advise the valuer.

- (c) The Applicant shall bear the costs of any independent valuation or survey assessment requested by the Director-General.
- (d) The Applicant shall, within fourteen days of receipt of a valuation by the independent valuer, offer in writing to acquire the relevant land at a price not less than the said valuation.

11.3 Land Acquisition as a Result of Excessive Noise and/or Dust

Note: In Condition 11.3 (a)-(h) "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.

- (a) The owner of any dwelling, or vacant land (as described in Condition 6.1 and 6.4) located in areas that exceed noise and/or air quality acquisition criteria established in accordance with conditions 6.1 and 6.4 of this consent, may request the Applicant in writing to purchase the whole of that property.
- (b) The Applicant shall negotiate and purchase a property, as identified in sub-clause (a) above, within six (6) months of a written request from the affected land owner.
- (c) In respect of a request to purchase land arising under this condition, the Applicant shall pay the landowners an 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 Dartbrook Mine, having regard to:
 - the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
 - 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;
 - (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 landowner and 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.

- (d) 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.
- (e) 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).
- (f) 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.
- (g) In the event that the Applicant and the landowner 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.
- (h) The provisions of this condition do not apply to a landowner who is the holder of an authority under the Mining Act, 1992.

11.4 Contributions to Council

(a) Community Enhancement – MSC

Prior to the commencement of mining operations or within such other time as agreed by the Director-General, the Applicant shall negotiate an agreed outcome with MSC for an appropriate level of contribution (financial or in-kind) and as applicable, towards mitigating any cumulative social and/or community impacts as the result of the proposed development.

Should such negotiated outcome not be reached, the Applicant shall abide with the reasonable requirements of the Director-General concerning community enhancement contribution in light of an independent investigation to establish community enhancement need as the result of the cumulative impact of the proposed development. The investigation to be carried out by an independent person(s) to be appointed by the Director-General in consultation with the Applicant and MSC, and paid for by the Applicant. The independent investigation to be based on the principles of nexus and reasonableness as to relevant cumulative social and/or community impacts.

(b) S.94 Contribution – SSC

Unless otherwise agreed between the Applicant and SSC, the Applicant shall comply with the reasonable requirements of the Director-General for an appropriate contribution (financial or in kind) under S.94 of the Environmental Planning and Assessment Act (EP&A Act) as the result of the proposed development.

The Director-General's reasonable requirements, if any, will be based on the outcome of an independent evaluation as to whether the proposed development will result in the need for any community or related infrastructure requirements as per the provisions of S.94 of the EP&A Act, with emphasis on establishing a nexus as to impacts. The independent evaluation is to be undertaken by an independent person(s) to be appointed by the Director-General, in consultation with the Applicant and SSC, and paid for by the Applicant.

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) ³²The Applicant shall seek the approval of the Mine Subsidence Board for the construction of any improvements, including those related to the mine

³² Mine Subsidence Board General Terms of Approval

buildings and associated works, any relocation or diversion of infrastructure or existing improvements, prior to undertaking the works.

13 Revision of Management Plans

- (a) Prior to the commencement of any construction associated with the development described in the “Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant”, dated 12 August 2005, the Applicant shall update its Erosion and Sediment Control Plan to take into account that development.
- (b) By the end of February 2006, the Applicant shall review, and if necessary update its:
- Site Water Management Plan;
 - Site Water Balance;
 - Dust Management Plan; and
 - Noise Management Plan,
- to take into account the development described in the “Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant”, dated 12 August 2005, to the satisfaction of the Director-General.

SCHEDULE A

The East site and West site receivers referred to in these conditions of consent are defined in the following table:

Location
East Site Receivers
Knight
Day
O'Brien
Gordon
West Site Receivers
Blairmore Point
"Waitomo"
"Maryvale"
Standing
Lonergan
McIntyre 1
McIntyre 2
McIntyre 3
"Woodburn"
"Athlone"
"Glenmore"
"Belgrave"
"Woodlands"
"Mayvale"
"Malara"

SCHEDULE B

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

Recommended Operational Noise Limits

Location	Noise limits L_{eq} (15 minute) dB(A)		
	Day	Evening	Night
Aberdeen	49	42	40
O'Brien	50	50	41
Blairmore Point	40	40	35
"Waitomo"	40	40	35
"Maryvale"	40	40	35
Standing	40	40	35
Loneragan	40	40	35
McIntyre 1	40	40	35
McIntyre 2	40	40	35
McIntyre 3	40	40	35
"Woodburn"	40	40	35
"Athlone"	40	40	35
"Glenmore"	40	40	35
"Belgrave"	40	40	35
"Woodlands"	40	40	35
"Mayvale"	40	40	35
"Malara"	40	40	35

Note : Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).

Note: The noise emission limits above apply for winds up to 3 metres per second and Pascall Stability Classes of A, B, C, D, E, and F.

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.

SCHEDULE C

Explanatory Flow Charts