

**DETERMINATION OF A DEVELOPMENT APPLICATION
PURSUANT TO SECTION 101(8) OF THE UNAMENDED
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

I, the Minister for Urban Affairs and Planning, pursuant to Section 101(8) of the unamended 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:

1. to minimise the adverse environmental impacts the development may cause; and
2. to provide for environmental monitoring and reporting.

Craig Knowles
Minister for Urban Affairs and Planning

Sydney,

1998

File No. N92/00275

SCHEDULE 1

Application made by: Powercoal Pty Ltd ("the Applicant").

To: The Minister for Urban Affairs and Planning ("the Minister").

In respect of: Land within Coal Authorisations MLA 88, Part A405, CCL 746 and CCL 762, as shown on the map in Schedule 3.

For the following: Extension to Underground Coal Mining Activities for Cooranbong Colliery, establishment of Mine Access Site, modification to Coal Preparation and Transportation System and establishment of a Coarse Reject Emplacement Area ("the Development").

Development Application: DA 97/800 lodged with Lake Macquarie City Council on 27 November 1997 accompanied by an Environmental Impact Statement ("EIS") prepared by Umwelt (Australia) Pty Ltd dated 27 November 1997.

NOTES:

1. To ascertain the date upon which the consent becomes effective, refer to section 101(9) of the unamended Act. To ascertain the date upon which the consent is liable to lapse, refer to section 99 of the unamended Act.
2. Reference to the unamended EP&A Act 1979 means the Act in force on 1 July 1998.

SCHEDULE 2 - CONDITIONS

Abbreviations and definitions

AEMR	Annual Environmental Management Report
Area 1	Mining Zones 1, 2 and 3 collectively, shown on the map in Schedule 3
Area 2	Area shown as Area 2 on the map in Schedule 3
beyond safe, serviceable and repairable criteria	Category 3 to 5 for strain and Category D for tilt, in accordance with Australian Standard AS 2870 - 1996
Council	Lake Macquarie City Council
DA area	Area to which the DA applies, described in Schedule 1 and shown on the map in Schedule 3
Department	Department of Planning and Infrastructure
Director-General	Director-General of the Department of Planning and Infrastructure, or delegate
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services
EA	Environmental Assessment

EIS	Environmental impact statement
EPA	Environment Protection Authority
Environmental consequences	Environmental consequences of Subsidence Impacts, including: damage to infrastructure, buildings and residential dwellings; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; ponding; etc
Mandalong flood plain	Any surface land located below the 1% AEP flood level within the site or marked with an asterisk in Schedule 4
Mandalong Services Site	Former Cooranbong Colliery Site, also known as the Cooranbong Entry Site
mining	Development for the purpose of a mine, as defined in the Environmental Planning Model Provisions, 1980
Minister	Minister for Planning and Infrastructure
MOP	Mining Operations Plan
MSB	Mine Subsidence Board
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
PSMP	Property Subsidence Management Plan
RAB	regenerative afterburner
ROM	Run-of-mine
Site	Land described in Schedule 1 and shown in Schedule 3
SMP	Subsidence Management Plan
Subsidence or subsidence effects	Deformation of the ground mass due to mining, being all mining-induced ground movements, including both vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by Subsidence Effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
TARP	Trigger, Action, Response Plan
underground mining area	Areas 1 and 2
VAM	ventilation air methane

Red type represents August 2001 modification

Blue type represents February 2005 modification

Sea Green type represents March 2006 modification

Dark Yellow type represents July 2009 modification

Indigo type represents 27 November 2009 modification

Pink type represents 30 November 2009 modification

Light Orange type represents October 2011 modification

Brown type represents August 2012 modification

General

1. The Applicant shall carry out the development generally in accordance with the:
 - (i) development application DA 97/800 lodged with Lake Macquarie City Council on 27 November 1997 and the accompanying Environmental Impact Statement (EIS) dated 27 November 1997, and prepared by Umwelt (Australia) Pty Limited;
 - (ii) submissions to the Commission of Inquiry by the Applicant (refer to Schedule 5);
 - (iii) modification application prepared by Powercoal, dated 29 March 2001;
 - (iv) Mandalong Mine Methane Drainage Plant and Coal Haulage, Statement of Environmental Effects, dated 28 October 2004, and prepared by Sinclair Knight Merz;
 - (v) Statement of Environmental Effects for the Installation and Operation of Enclosed Methane Gas Flare Units, dated February 2006, and prepared by Umwelt (Australia) Pty Limited; and
 - (vi) the modification application DA 97/800 - MOD 4 and accompanying Environmental Assessment entitled *Mandalong Mine Modification to Development Consent Environmental Assessment*, dated September 2008;
 - (vii) the Revised Statement of Commitments dated June 2009 (see Appendix 1);
 - (viii) the modification application DA 97/800 – MOD 5 and accompanying Statement of Environmental Effects entitled *Washing of Mandalong Coal at Newstan Section 96(1A) Application Statement of Environmental Effects*, dated October 2009;

- (ix) the modification application DA 97/800 – MOD 6 and accompanying Statement of Environmental Effects entitled *Relocation of Infrastructure within the Mandalong Services Site Section 96(1A) Application Statement of Environmental Effects*, dated November 2009; and
- (x) the modification application DA 97/800 – MOD 7 and document entitled *Environmental Assessment: Ventilation Air Methane Abatement Demonstration Project, Mandalong Mine – Section 75W Modification*, dated June 2011 and additional information provided in the document entitled *Mandalong Mine Ventilation Air Methane Abatement Demonstration Project – Response to Submissions* dated September 2011;
- (xi) the Additional Statement of Commitments (see Appendix 2);
- (xii) modification application DA 97/800 – MOD 8 and document entitled *Environmental Assessment: Mandalong Mine – Cooranbong Entry Site – Cooranbong Distribution Project - Section 75W Modification to Development Consent DA97/800*, dated May 2012 and additional *Noise Mitigation Assessment*, dated 31 May 2012; and
- (xiii) conditions of this consent.

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

Limits of Approval

- 1A. The Applicant shall not:
- (a) extract more than 6 million tonnes of run-of-mine (ROM) coal a year from the site;
 - (b) transport more than 4 million tonnes of ROM coal a year from the site to the Mines Services site (former Cooranbong Colliery);
 - (c) transport more than 2 million tonnes of product coal a year to Eraring Power Station by overland conveyor plus up to an additional 400,000 tonnes of ROM coal between 20 November 2009 and 1 March 2010; or
 - (d) transport more than 2 million tonnes of product coal a year to Newstan Colliery by private haul roads.
- Note: Under consent DA 35-2-2004 the Applicant is permitted to transport up to 4 million tonnes of ROM coal a year from the site by underground conveyor to the Delta Entry site (Wyee Coal Handling Plant).*
- 1B. The Applicant shall comply with any reasonable requirements of the Director-General arising from the Department's assessment of:
- (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained in these documents.

Duration

2. The approval for mining is for a period of 21 years from the date of granting of a mining lease pursuant to this consent. 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 existing environmental management measures 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.
3. The Applicant shall notify the Director-General and the Council in writing of the date of commencement of surface construction works (including any earthworks or roadworks), the commencement of secondary workings, and the commencement of coal processing operations fourteen days prior to the commencement of such works. No secondary workings shall commence until the compliance report in Condition 93(i) has been completed to the satisfaction of the Director-General.

Statutory requirements

4. The Applicant shall ensure that all statutory requirements, including all relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions and Directions of the Council and relevant government agencies are met and approvals obtained.

Environmental Officer

5. The Applicant shall employ a suitably qualified Environmental Officer throughout the life of the mine. The Environmental Officer shall:

- (i) be responsible for the preparation of the Environmental Management Strategy (Conditions 7 & 8) and environmental management plans;
 - (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 98;
 - (iv) facilitate an induction and training program for all persons involved with construction activities, mining and remedial activities (including surface drainage mitigation works); and
 - (v) have the authority and independence 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.
6. The Applicant shall notify the Director-General, EPA, NOW, Council, the Community Consultative Committee (Condition 100) of the name and contact details of the Environmental Officer upon appointment and any changes to that appointment.

Environmental Management Strategy

7. The Applicant shall prepare an Environmental Management Strategy for the DA area (including the Mine Access Site and the Cooranbong Colliery Site, the haul road and the Coarse Rejects Disposal Site), providing a strategic context for the Mining Operations Plans, individual Property Subsidence Management Plans and Subsidence Management Plans. The Environmental Management Strategy shall be prepared in consultation with the relevant authorities and the Community Consultative Committee (or the Mandalong Progress Association if the Committee has not yet been established) and to the satisfaction of the Director-General, prior to the preparation of the first Mining Operations Plan.
8. The Environmental Management Strategy shall include:
- (i) statutory and other obligations which the Applicant is required to fulfill 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 water catchment, and a strategy for the restoration and management of the catchment, including elements such as wetlands and other habitat areas, creeklines 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 for maintaining economic productivity within the area affected by mining, including agricultural productivity and other businesses;
 - (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.
9. The Applicant shall make copies of the Environmental Management Strategy available to Council, EPA, OEH, NOW, DRE, MSB and the Community Consultative Committee within fourteen days of approval by the Director-General.

Mining Operations Plans

10. The Applicant shall prepare a Mining Operations Plan (MOP) for each area subject to an application for secondary workings approval. No secondary workings shall commence until the relevant MOP has been approved by the Executive Director Mineral Resources within DRE (or delegate). The Applicant shall make copies of each MOP, excluding commercial in confidence information, available to the Department, Council and the Community Consultative Committee within fourteen days of approval by the DRE, and upon request by other government agencies.
11. Each MOP shall:

- (i) be prepared in accordance with **DRE** Guidelines for the Preparation of Mining Operations Plans (Document 08060001.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 Strategy for the project site;
 - (iv) provide the basis for implementing mining operations, environmental management, and ongoing monitoring; and
 - (v) 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.
12. In preparing the MOPs, the Applicant shall:
- (i) identify properties and update ownership and land use within the area which is subject to the **application for SMP approval** (including both actual and permissible land uses). The land use description shall include wetlands, forests and areas of potential heritage or archaeological significance (particularly in areas likely to be inundated by ponding); and
 - (ii) review, and if necessary, update the inventory of surface infrastructure within or adjacent to the area which is subject to the **application for SMP approval**, including but not limited to:
 - buildings (dwellings, offices, business premises, sheds, other buildings)
 - sealed roads, gravel roads, access tracks and trotting/training tracks
 - dams, bores, tanks, springs (including water levels) and water reticulation systems
 - on-site wastewater treatment systems, swimming pools and tennis courts, and
 - service infrastructure and utilities (such as transmission lines, telecommunications and pipelines).

Costs of Management Measures

13. The Applicant shall be responsible for the costs of all impact management measures (including measures to minimise, mitigate, offset or remediate impacts of the development which are not recoverable by a third party through the *Mine Subsidence Compensation Act 1961* or the *Mining Act 1991*) including but not limited to remediation of natural features, rehabilitation of ecological systems, and monitoring of the effectiveness of the works, as determined by the Director-General.

SUBSIDENCE

Subsidence Management Plans

14. Prior to carrying out any underground mining operations that could cause subsidence in either Area 1 or 2, the Applicant shall prepare a Subsidence Management Plan (SMP) which must:
- (a) include a mine plan for the relevant area;
 - (b) include a minimum of 2 years of baseline data, collected at appropriate frequency and scale;
 - (c) integrate ongoing management of previously mined areas;
 - (d) identify and assess the significance of all natural features located within 600 m of the edge of secondary extraction;
 - (e) include a detailed subsidence impact assessment, clearly distinguishing, describing and adequately quantifying all predicted subsidence effects, subsidence impacts and environmental consequences;
 - (f) include management, monitoring and contingency plans for all significant man-made and natural features which may experience subsidence effects, subsidence impacts or environmental consequences, including:
 - dwellings and buildings;
 - roads, electrical, communications and other infrastructure;
 - landscape;
 - groundwater;
 - terrestrial flora and fauna and ecology (including any threatened species and their habitats); and
 - Aboriginal and other cultural heritage;
 - (g) propose limits on subsidence impacts and environmental consequences to be applied within the relevant area;
 - (h) be prepared in consultation with **NOW**, **DRE**, Lake Macquarie Council and the Department;
 - (i) be publicly advertised when submitted for approval;
 - (j) be approved by the **Executive Director Mineral Resources within DRE** prior to the carrying out of any underground mining operations that could cause subsidence in the relevant area (including related gateroads, but not main headings);
 - (k) be otherwise prepared in accordance with any guidelines for SMPs developed by the Department and/or **DRE**; and
 - (l) be implemented, following approval, to the satisfaction of the **Executive Director Mineral Resources within DRE**.

Notes:

- *The contingency plans required under paragraph (f) must address remediation (where appropriate) and be based on a TARP structure.*
- *In reviewing an SMP, the Director-General may require changes in respect of subsidence impact limits, subsidence management mechanisms or other matters.*
- *An SMP approved by **DRE** prior to 31 July 2009 is taken to satisfy the requirements of this condition.*
- *In respect of the first SMP prepared under this condition, the Director-General may accept less than 2 years baseline data.*

Property Subsidence Management Plans

15. If subsidence may cause impacts on privately-owned land, the Applicant shall prepare, and pay the costs of, an individual Property Subsidence Management Plan (PSMP) for each affected land title (or group of titles if agreed by the landowner). Each PSMP shall:
- (a) be provided to the landowner at least 7 days prior to the public advertisement of the SMP as submitted;
 - (b) be prepared in consultation with the landowner. This consultation shall include discussions on integrating any proposed mitigation works with the management of the property as a whole;
 - (c) ensure that, with the consent of the landowner and in consultation with MSB, a structural inspection is conducted for each structure on the land and a comprehensive structural

- integrity report prepared (addressing all relevant components including roofs, ceilings, openings, foundations, household sewage treatment and disposal systems, etc);
- (d) include a detailed subsidence impact assessment for the property clearly setting out all predicted subsidence effects, subsidence impacts and environmental consequences (based on best available geological and mine planning data);
- (e) include a survey of drainage channels within and adjacent to the land;
- (f) assess current agricultural utilisation, agricultural improvements and the underlying agricultural suitability of the land;
- (g) assess current utilisation of the land for business purposes (other than agriculture), including the value of business improvements and the business; and
- (h) indicate whether the landowner is entitled to acquisition of their land under conditions 27, 28 or 29.

If the landowner fails to grant the Applicant access to their property within a reasonable timeframe for the purposes of this condition then, with the approval of the Director-General, the studies required by this condition may be conducted remotely.

16. Where mining is proposed under the Mandalong flood plain, the Applicant shall ensure that PSMPs include an appropriate assessment of:
 - (a) predicted 1:1 year and 1:100 year flood levels relative to the floor level of buildings, swimming pools and sheds;
 - (b) freeboard of habitable dwellings between predicted post-mining floor levels and the 1:1 year and 1:100 year modelled flood levels;
 - (c) predicted 1:1 year and 1:100 year flood levels relative to roads and access tracks determining depth of inundation, period of inundation and flow velocities;
 - (d) the extent of any remnant ponding that may result from the proposed mine plan relative to any fences, wetlands, forested areas, drainage courses, dams and areas of agricultural production (including grazing);
 - (e) the magnitude and direction of predicted overland flows and the potential for channel realignment to occur as a result of mining; and
 - (f) the potential for transient aspects of mining resulting in temporary flooding impacts beyond those of the fully mined landform.
17. Either prior to or at the same time as the PSMP is provided to the landowner, the Applicant is to provide the landowner, in writing, with:
 - (a) an offer to pay any reasonable costs for the landowner to obtain legal and other advice on the PSMP;
 - (b) an offer to meet with the landowner to review the PSMP and to discuss:
 - predicted impacts and consequences to any dwelling, improvement or land; and
 - proposed mitigation measures for the individual property; and
 - (c) information identifying the landowner's rights to acquisition and compensation in accordance with this consent, *Mining Act 1992* and *Mine Subsidence Compensation Act 1961*.

Notes:

- Any dispute between the Applicant and a landowner regarding the implementation of the Applicant's responsibilities under conditions 15-17 may be referred to the Director-General under condition 99 of this consent.
- A PSMP provided to a landowner prior to 31 August 2009 is taken to satisfy the requirements of conditions 15 - 17.

End of Panel Reporting

18. Within 4 months of the completion of each longwall panel, or as otherwise permitted by the Director-General, the Applicant shall, to the satisfaction of the Director-General:
 - (a) prepare an end-of-panel report:
 - reporting all subsidence effects (both individual and cumulative) for the panel and comparing subsidence effects with predictions;
 - describing in detail all subsidence impacts (both individual and cumulative) for the panel;
 - discussing the environmental consequences for all man-made and natural features impacted by subsidence; and
 - comparing subsidence impacts and environmental consequences with predictions; and
 - (b) submit the report to the Mandalong CCC, Department, **DRE**, **EPA**, **OEH**, **NOW** and any other relevant agency.

19. The Applicant shall include a comprehensive summary, analysis and discussion of the results of monitoring of subsidence effects, subsidence impacts and environmental consequences in each AEMR.

Subsidence Expert Assessments

20. The Applicant shall pay the reasonable costs of the Department in engaging independent experts to advise it when it assesses SMPs prepared under condition 14.

Revision of Strategies, Plans or Programs

21. The Applicant shall prepare revisions of any strategies, plans or programs required under this consent if directed to do so by the Director-General. Such revisions shall be prepared to the satisfaction of, and within a timeframe approved by, the Director-General.

22. *(deleted)*

Compensation and Bank Guarantee

23. 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.
24. The Applicant shall maintain a Land Access, Management and Compensation Security in the form of a bank Guarantee at all times to meet its obligations under the Mining Act, 1992 and the conditions of this consent for acquisition, remedial works and compensable loss during the life of the mine and for a period of at least five years thereafter. Evidence of the Guarantee shall be provided in each Annual Environmental Management Report.

Initial Valuation and Options Agreement

25. Within six months of the date of this consent, any landowner within Area 1 may request in writing a valuation of their property from the Applicant. Upon receipt of the request, the Applicant shall:
- (i) obtain a valuation within one month of receipt of the request, which includes proper consideration of a sum not less than the current market value of the owner's interest in the land, whosoever is the occupier, 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) as if the land was unaffected by the development proposal; and within 14 days of receipt of the valuation, offer in writing to enter into an options agreement with the landowner to acquire the land when notification in accordance with **Condition 15 is received, if the PSMP indicates the landowner is entitled to acquisition under conditions 27, 28 or 29.**
26. The valuation and options agreement shall also be available to any landowner who may be affected by noise and/or dust impacts from the Mine Access Site or the **Mandalong Services** Site. The options agreement shall be based on an option to sell if and when the landowner is entitled to acquisition under Conditions 47, 48 or 56.

Acquisition and Compensation – Significant Structural Damage to Dwellings

27. Where a dwelling within the DA area is, or is likely to be, subject to damage beyond the safe, serviceable and repairable criteria as a result of the development, the landowner, after receiving **the PSMP** from the Applicant in accordance with **Condition 15**, 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
 - (iii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.

The Applicant shall comply with any such request for acquisition or compensation in accordance with Conditions 30-37. 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 15(c)**. Any inspection or assessment under this Condition shall be conducted as if it were conducted under the relevant part of **Condition 15**.

Acquisition and Compensation – Flood Hazard

28. Where:

- a dwelling has, or would have, a subsided floor level below the design predicted post mining flood level as a result of the development, or
- the flood hazard (as defined in Appendix B of the NSW Floodplain Management Manual) in relation to a dwelling or access to the dwelling has been, or would be, increased as a result of the development

the landowner, after receiving the PSMP from the Applicant in accordance with Condition 15, may request the Applicant in writing to:

- (i) carry out such works as agreed by the landowner to raise or relocate the dwelling and/or provide suitable access to the property; or
- (ii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.

The Applicant shall comply with any such request in accordance with Conditions 30-37.

Acquisition and Compensation - Land Use Impacts

29. Where a landowner suffers a loss of agricultural productivity or other adverse impact on the use of land as a result of the development (including significant damage to structures other than dwellings and/or flooding impacts not covered by Condition 28), the landowner, after receiving the PSMP from the Applicant in accordance with Condition 15, 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
- (iii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.

The Applicant shall comply with any such request for acquisition or compensation in accordance with Conditions 30-37. 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 15(c). Any inspection or assessment under this Condition shall be conducted as if it were conducted under the relevant part of Condition 15.

Where the landowner requests acquisition, significant impact to agricultural productivity or the use of the land or an enterprise must be demonstrated.

Note: The Independent Panel may be requested to advise on whether significant impact has been demonstrated.

Acquisition and Compensation - Procedure

30. Any disputes relating to land acquisition or compensation (except those relating to valuation matters) may be referred by either party to the Independent Panel for consideration and advice if no agreement is reached within three months of receipt by the Applicant of the written request, or to the Mining Warden at any time in accordance with the provisions of the Mining Act.

31. Upon receipt of a written request to purchase property in accordance with any conditions of this consent, 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 landowners 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, whosoever is the occupier, 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,as if the land was unaffected by the development proposal. In determining the effect of the development, consideration shall be given to any valuation conducted under Condition 25;
- (ii) the owner's reasonable compensation for disturbance allowance and relocation within the Lake Macquarie or Wyong 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 DRE or MSB.
32. 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 27), three years after completion of mining of longwall panels that affect the property;
 - (ii) for flood hazard (Condition 28), the life of the mine and five years thereafter;
 - (iii) for land use impacts (Condition 29), five years after completion of mining of longwall panels that affect the property; and
 - (iv) for noise or dust impacts (Conditions 48 and 56), for the life of the mine.
33. 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.

Independent Valuation

34. 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.
35. 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.
36. The Applicant shall bear the costs of any independent valuation or survey assessment requested by the Director-General.
37. 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.

Independent Panel

38. The Director-General shall establish an Independent Panel to assist in the implementation of conditions of this consent relating to subsidence impacts, including remedial work, compensation, acquisition and decisions about impacts on agriculture and other land uses. The Panel shall be chaired by an independent mediator appointed by the Director-General, and comprise representatives, as required, from Lake Macquarie City Council and government agencies and/or technical experts. The Applicant shall contribute reasonable funds to facilitate functioning of the Panel, at amounts determined by the Director-General, for payment of the mediator and technical experts.
39. The purpose of the Panel will be to assist in the resolution of disputes and provide technical advice on matters relating to subsidence impacts, but not those relating to valuation of property. If matters cannot be resolved by the Panel, they shall then be referred to the appropriate statutory body (such as the MSB or the Mining Warden). The Panel shall report annually to the Director-General on its considerations. If at any time the Chairperson of the Panel considers it necessary, the Panel may refer a matter to the Director-General for advice or determination.
40. In considering matters referred to it, the Panel shall seek and consider submissions from all relevant parties.
41. Before considering any matters relating to the impact of the development on agricultural productivity or other land uses, the Panel shall prepare guidelines setting out the criteria on which it

will base such advice. The Guidelines shall be prepared within two months of receipt of the first request for advice and be made available to any enquirer upon request.

Land Management

42. The Applicant shall prepare and implement a Land Management Plan in consultation with **NOW** and **DRE** for all its rural landholdings, to provide for the protection and continuation of agricultural activities. The Plan shall be prepared by a technically qualified person(s) within three months of the date of this consent and updated annually. The Applicant shall make copies of the Land Management Plan available to the Community Consultative Committee within fourteen days of completion.

Noise and Vibration

43. The Applicant shall ensure that the contributed $L_{A10(15 \text{ min})}$ noise level due to construction works, when measured or computed at any dwelling not owned by the Applicant shall not exceed the following noise emission levels assessed under prevailing weather conditions:
- Daytime (0700 hours to 2200 hours) -
- (i) For a cumulative noise exposure period greater than 26 weeks, the $L_{A10(15 \text{ min})}$ noise level should not exceed the $L_{A90(15 \text{ min})}$ background level by more than 5 dB(A);
 - (ii) For a cumulative noise exposure period between 4 and 26 weeks, the $L_{A10(15 \text{ min})}$ noise level should not exceed the $L_{A90(15 \text{ min})}$ background level by more than 10 dB(A);
 - (iii) For a cumulative noise exposure period of up to 4 weeks, the $L_{A10(15 \text{ min})}$ noise level should not exceed the $L_{A90(15 \text{ min})}$ background level by more than 20 dB(A);
- Night-time (2200 hours to 0700 hours)
- (iv) For any noise exposure duration, the $L_{A10(15 \text{ min})}$ noise level should not exceed the $L_{A90(15 \text{ min})}$ background level by more than 5 dB(A).

Note: Prevailing weather conditions include calm and windy conditions, but in the absence of temperature inversions. However, if it is established that the frequency of temperature inversions exceed 15% of the time during the night-time in winter as measured in terms of **EPA** requirements, then temperature inversions shall be considered as prevailing conditions for the purposes of determining if acquisition is required under Condition 48.

44. The Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 1 at any residence on privately-owned land or on more than 25% of any privately-owned land.

Table 1: Noise impact assessment criteria (dB(A))

Noise Receiver Location	Day L _{Aeq} (15-minute)	Evening L _{Aeq} (15-minute)	Night L _{Aeq} (15-minute)	Night L _A (1-minute)
Receivers Near Mandalong Mine Services Site				
(23)	38	38	38	45
(26)	37	37	37	45
All other privately-owned land	35	35	35	45
Receivers Near Mandalong Mine Access Site				
R1 (64)	35	35	35	45
R2 (82)				
R4 (109)				
R3 (97)	37	37	37	45
R5 (110)	36	36	36	45
R6 (86) (87)	40	40	40	45
R7 (85) (89)	43	43	43	45
R8 (72)	43	43	43	45
R9 (73)	40	40	40	45
R10 (66)	41	41	42	45
All other privately-owned land	35	35	35	45

Notes:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and public holidays; evening is defined as the period from 6pm to 10pm; and night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and public holidays.
- The noise receiver locations R1-R10 are described in the EA for Mod 6. The locations of corresponding receiver locations for the EA for Mod 4 (numerals in parentheses) are shown in Schedule 6.
- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including meteorological conditions) in the NSW Industrial Noise Policy.
- The Mandalong mine meteorological monitoring station data used for determining meteorological conditions shall be compared against data recorded at the Eraring power station meteorological weather station to ensure it is representative.

45. The Applicant shall prepare and implement a Noise Monitoring Program for the development to the satisfaction of the Director-General. This program must:
- be submitted to the Director-General for approval prior to 30 September 2009, or other time agreed by the Director-General; and
 - include:
 - attended noise monitoring measures; and
 - a noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this consent.
46. The Applicant must undertake a Noise Audit of the development to the satisfaction of the Director-General. The Audit must:
- be undertaken by suitably qualified and experienced experts, whose appointment has been approved by the Director-General;
 - be undertaken within 2 months of completing commissioning of both the VAM RAB unit and the methane gas engines;
 - be undertaken in consultation with EPA;
 - include additional background noise monitoring;

- (e) seek to verify that the noise levels generated by the mine are within the noise impact assessment criteria shown in Table 1;
 - (f) recommend appropriate noise management measures for the mine; and
 - (g) be submitted to the Director-General for approval within one month of completion.
- 46A The Applicant must implement the findings and recommendations of the Noise Audit to the satisfaction of the Director-General.
- 46B By the end of March 2013 or prior to the haulage of more than 2 Mtpa of coal from the Cooranbong Entry Site by truck, whichever is sooner, the Applicant shall:
- (a) install a suitable real-time noise management system to minimise the noise impacts of the mining operations on the Cooranbong Entry Site;
 - (b) implement all reasonable and feasible measures to reduce the noise generated by the loading of trucks on the Cooranbong Entry Site; and
 - (c) implement a traffic noise management strategy to minimise the noise associated with the haulage of coal between the Cooranbong Entry Site and the Newstan Colliery, to the satisfaction of the Director-General.
- 46C By the end of April 2013, the Applicant shall commission a suitably qualified and experienced person whose appointment has been approved by the Director-General to:
- (a) conduct an audit of the effectiveness of the measures that are required to be implemented under Condition 45B;
 - (b) verify the noise impacts of the Cooranbong Entry Site and associated trucking are complying with the relevant noise limits;
 - (c) identify any additional noise mitigation measures that should be implemented; and
 - (d) provide a report summarising the findings of the audit to both the Department and EPA.
- 46D By the end of August 2013, the Applicant shall install effective acoustic absorption cladding to the Rotary Breaker and Coal Handling Plant buildings on the Cooranbong Entry Site, to the satisfaction of the Director-General.
47. In the event that a landowner or occupier considers that noise and/or vibration from the project at their dwelling(s) is in excess of the relevant criteria set out in this consent, the Applicant shall, upon receipt of a written request:
- (i) undertake direct discussion with the landowner and residents affected to determine their concerns;
 - (ii) make arrangements for independent noise investigations as provided in Conditions 57-60 to quantify the impact and determine the source of the effect; and
 - (iii) if adverse impacts are identified, modify the mining activity which may be causing the impacts.
48. If noise monitoring or independent noise investigations indicate that noise from construction or operation of the Cooranbong Colliery Site or the Mine Access Site within a landowner's property is in excess of the noise criteria set out in this consent, the landowner 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.

If appropriate noise control measures or compensation cannot be achieved the landowner may request the Applicant in writing to acquire the whole of the property or such part of the property requested by the landowner where subdivision is approved.

The Applicant shall comply with such request in accordance with Conditions 30-37. However, where acquisition is requested, the request shall be referred to the Director-General for determination in consultation with the EPA and the determination of the Director-General shall be binding on the Applicant.

Blasting

49. The Applicant shall:
- (i) carry out all blasting in accordance with EPA requirements;
 - (ii) monitor all blasts and record the overpressure and peak particle velocity as agreed by the EPA; and
 - (iii) include the results of the monitoring information in the six monthly monitoring reports (Condition 94) and the Annual Environmental Management Report (Condition 105).

Air Quality

50. The Applicant shall prepare and implement an Air Quality Management Plan, in consultation with the EPA and to the satisfaction of the Director-General. The Applicant shall make copies of the Air Quality Management Plan available to the EPA, Council and the Community Consultative Committee within fourteen days of approval by the Director-General.
51. The Air Quality Management Plan shall:
- describe the measures that would be implemented to ensure:
 - best management practice is being employed;
 - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; and
 - compliance with the relevant conditions of this consent;
 - describe the proposed air quality management system; and
 - include an air quality monitoring program.
52. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not exceed the criteria listed in Tables 2, 3 or 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 2: Long-term Criteria for Particulate Matter

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

Table 3: Short-term Criterion for Particulate Matter

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

Table 4: Long-term Criteria for Deposited Dust

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

Notes to Tables 2-4:

^a Total impact (ie incremental increase in concentrations due to the development plus background concentrations due to all other sources);

^b Incremental impact (ie incremental increase in concentrations due to the development on its own);

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

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with EPA.

53. The Applicant shall:
- implement best management practice to minimise the off-site dust emissions of the development;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note d above);
 - minimise any visible off-site air pollution; and
 - minimise the surface disturbance of the site generated by the development, to the satisfaction of the Director-General.
54. By the end of December 2010, the Applicant shall update the Air Quality Management Plan for the development to the satisfaction of the Director-General.

55. In the event that a landowner or occupier considers that dust from the project at their dwelling(s) is in excess of the relevant criteria set out in this consent, the Applicant shall, upon receipt of a written request:
- (i) undertake direct discussion with the landowner and residents affected to determine their concerns;
 - (ii) make arrangements for independent dust investigations as provided in Conditions 57-60 to quantify the impact and determine the source of the effect; and
 - (iii) if adverse impacts are identified, modify the mining activity which may be causing the impacts.
56. If dust monitoring or independent dust investigations indicate that dust deposition from construction or mining operations within a landowner's property is in excess of the criteria in this consent, the landowner 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.

If appropriate dust control measures or compensation cannot be achieved the landowner may request the Applicant in writing to acquire the whole of the property or such part of the property requested by the landowner where subdivision is approved.

The Applicant shall comply with such request in accordance with Conditions 30-37. However, where acquisition is requested, the request shall be referred to the Director-General for determination in consultation with the EPA and the determination of the Director-General shall be binding on the Applicant.

Independent Monitoring of Noise and Dust

57. In the event that a landowner or occupier considers that noise, vibration and/or dust from the project at their dwelling(s) is in excess of the relevant criteria set out in this consent the landowner may make a written request to the Director-General for an independent investigation. If the Director-General, in consultation with the EPA, is satisfied that an investigation is required, the Applicant shall:
- (i) appoint a qualified independent person or team to undertake direct discussions with the landowner or occupier affected to ascertain their concerns and to plan and implement an investigation to quantify the impact and determine the sources of the effect; and
 - (ii) bear the cost of the independent investigation and make available plans, programs and other information necessary for the independent person to form an appreciation of the past, present and future works and their effects on noise and/or dust emissions.
58. The investigation is to be carried out in accordance with a documented Plan. The Plan shall be designed and implemented to measure and/or compute (with appropriate calibration by measurement) the relevant noise and/or dust levels at the complainant's residence emitted by the development.
59. The independent person or team, the Plan and the timing of its implementation shall be approved by the Director-General in consultation with the EPA, the affected landowner or occupier and the Applicant. The independent person or team shall report directly to the Director-General, the Applicant, and the landowner or occupier on a quarterly basis.
60. Further independent investigations shall cease if the Director-General, in consultation with the EPA, is satisfied that the relevant approval levels are not being exceeded and are unlikely to be exceeded in the future.

Greenhouse Gas

- 60A. The Applicant shall:
- (i) monitor the greenhouse gas emissions generated by the development;
 - (ii) investigate ways to reduce greenhouse gas emissions generated by the development, including technologies to convert mine gas emissions into energy;
 - (iii) prior to 30 June 2005, submit a report to the Department on the progress towards implementation of greenhouse gas abatement measures; and
 - (iv) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Director-General.
- 60B. The Applicant shall provide a detailed report on the conduct and success of the VAM RAB unit demonstration trial, within 3 months of completing the trial, to the Department, EPA and DRE.

Water

61. The Applicant shall prepare a Water Management Plan for the management of water issues in the DA area during the development, in consultation with **NOW** and **EPA** and to the satisfaction of the Director-General. The initial focus of the Plan shall be on immediate or short term water management issues and the Plan shall be prepared prior to the commencement of construction or road or earthworks and implemented as required. The Director-General may require an independent evaluation or an exhibition of the Plan for public comment (or both) prior to finalisation. The Applicant shall make sufficient copies of the Plan available to the Director-General for these purposes and provide reasonable funding as determined by the Director-General to cover the costs.

The Applicant shall make copies of the Water Management Plan available to the **EPA**, **NOW**, Council and the Community Consultative Committee within fourteen days of approval by the Director-General.

62. The Water Management Plan shall include but not be limited to:
- (i) management of the impacts of the development on the quality and quantity of surface and groundwater, including water in dirty water dams and clean water diversion dams, and flooding impacts;
 - (ii) stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;
 - (iii) identification of any possible adverse effects on water supply sources (both surface and groundwater) of landowners or occupiers from the development, and implementation of mitigation measures as necessary;
 - (iv) identification of the fresh quality groundwater zones within the DA area and appropriate protection strategies;
 - (v) management of the impacts of the development on the quality and quantity of groundwater within 2 kilometres of the boundary of the DA area, with particular attention to mobilisation of salts;
 - (vi) management of the impacts of the development on the quality and quantity of surface water discharged (including any adverse impacts on Dora Creek and Lake Macquarie);
 - (vii) development of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams; and
 - (viii) contingency plans for managing adverse impacts of the development on groundwater.
63. As part of the Water Management Plan, the Applicant shall prepare and implement a detailed monitoring program for groundwater and surface water in consultation with **NOW**, **EPA** and **DRE**, 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. The Plan shall contain details of proposed monitoring sites, frequency and parameters to be tested. Monitoring shall include surveys of drainage channels to update information obtained in the preparation of Property Subsidence Management Plans. The results of the monitoring information shall be included in the six monthly monitoring reports (Condition 94) and the Annual Environmental Management Report (Condition 105).
64. The Applicant shall construct and locate surface and groundwater monitoring positions to the satisfaction of **NOW** and the **EPA**, prior to the commencement of construction of the surface facilities or road or earthworks.
65. The Applicant shall inspect the condition of major floodpaths, particularly channels and wetland areas, after every flood event or every six months whichever is more frequent, or at such other periods as agreed by the Director-General. The inspections shall be carried out within areas to which **SMP** approvals have been granted throughout the life of the mine and for a period of at least two years after the completion of mining in those areas, or other such period as determined by the Director-General in consultation with **NOW**. The Applicant shall provide a written report on each inspection to **NOW** and a copy to the **Department** and the Community Consultative Committee. The reports shall include consideration of the need for any remedial works resulting from the impacts of the development. The Applicant shall carry out any remedial work as **NOW** may direct.
66. The Applicant shall investigate opportunities to further reduce the minewater discharge in consultation with the **EPA** and include the results of such investigations in the Annual Environmental Management Report (Condition 105).
- 66A. The Applicant shall only discharge mine water from the site in accordance with the provisions of an Environmental Protection Licence or section 120 of the *Protection of the Environment Operations Act 1997*.

Flood Study

67. The Applicant shall participate in and contribute funds to the preparation of a flood study to determine the 1:100 year flood, and other such matters relating to long term flooding as considered necessary by the Director-General in consultation with Council and **NOW** to implement the conditions of this consent. The study shall be managed by the Director-General, conducted by a consultant selected by the Director-General and completed within six months of the date of consent. The amount of reasonable funding required from the Applicant shall be determined by the Director-General. The study shall include further definition of the existing flood hazard and the potential future flood hazard resulting from mining, and include a public consultation and submission process. The results of the study shall be incorporated into a revision of the Water Management Plan as required by Condition 61. Copies of the study shall be made available to the Director-General, **NOW**, Council and the Community Consultative Committee within fourteen days of completion to the Director-General's satisfaction.

Erosion and Sediment Control

68. The Applicant shall prepare Erosion and Sediment Control Plans for the surface facilities, the haul road, the coarse rejects disposal area and the underground mining area to the satisfaction of **NOW** and submit these Plans to the **EPA** as part of applications for a licence under the Protection of the Environment Act. The Plans shall be prepared and implemented prior to the commencement of work in the relevant areas. The Applicant shall make copies of all Erosion and Sediment Control Plans available to the **Department**, Council and the Community Consultative Committee within fourteen days of approval.
69. The Erosion and Sediment Control Plans shall include consideration and management of erosion and sedimentation of watercourses/waterbodies, including Dora Creek and Lake Macquarie; and the Plan for the underground mining area shall include an Acid Sulfate Soil Investigation and Management Plan.

Flora and Fauna

70. The Applicant shall prepare and implement a Flora and Fauna Management Plan for the management of flora and fauna issues in the DA area during the development. The Plan shall be prepared in consultation with **NOW**, **OEH** and Council, and to the satisfaction of the Director-General. The Applicant shall make copies of the Flora and Fauna Management Plan available to **NOW**, **OEH**, Council and the Community Consultative Committee within fourteen days of approval by the Director-General.
71. The Flora and Fauna Management Plan shall include but not be limited to:
- (i) a detailed assessment of the current characteristics and ecological values of existing ecosystems likely to be affected by the development;
 - (ii) strategies to ensure that there is no net loss of ecologically significant vegetation communities within DA area as a result of the development, including the provision of compensatory areas of equivalent ecological and habitat value where necessary;
 - (iii) strategies to provide increased security for existing habitats and communities (including the strengthening of riparian communities, the management of *Eucalyptus fergusonii* at the downcast shaft site, and the *Tetratheca juncea* plants at the Cooranbong Colliery, and *Acacia bynoeana* plants along the haul road, and habitats of other threatened species such as the Squirrel Glider);
 - (iv) strategies to manage the impact of surface water management, erosion and sediment control measures, and flooding mitigation measures on flora and fauna, including the impact of heavy machinery; and
 - (v) weed management.
72. The Applicant shall prepare a detailed monitoring program of habitat areas, including 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 Council and **OEH**. The program shall monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works. The Applicant shall include the monitoring program in the Flora and Fauna Management Plan. The Applicant shall carry out any further works required by the Director-General as a result of the monitoring.
73. Any translocation of threatened flora shall be in accordance with the "Guidelines for the Translocation of Threatened Plants in Australia" (Australian Network for Plant Conservation, 1997) and to the satisfaction of **OEH**.

74. The Applicant shall prepare and implement Wetlands Management Plans for all wetlands likely to be subject to impacts attributable to mining operations. The Plans shall be prepared in consultation with **OEH** and affected landowners and to the satisfaction of Council, prior to any mining that may change the hydrological regime of each individual wetland. The Plans shall include, but not be limited to, issues such as weed management.
75. The Applicant shall either upgrade the existing track at the Mine Access Site to form the proposed road to the upcast ventilation shaft or rehabilitate this track using native species to the satisfaction of Council.
76. Within six months of commencement of construction, the Applicant shall, to the satisfaction of the Director-General:
 - (i) accurately locate all specimens of *Tetratheca juncea* and *Acacia bynoeana* plants near the proposed haul road widening, then ensure preservation and protection of these specimens by either:
 - (a) retaining the current access track alignment with minimal or no widening (subject to this meeting normal safety and other road criteria); or
 - (b) if proposal (a) is unacceptable, provide a slight change in the entry and departure alignment of the road, involving a gentle reverse curve or "S" curve and consequent removal of some native vegetation; or
 - (c) increasing the radius of the curve such that the curve cuts through native vegetation on the other side of the location of these existing specimens (and not impact any other significant species); or
 - (d) if none of these options are acceptable, in the opinion of the Director-General, then the translocation or propagation measures will be necessary; and
 - (ii) formalise arrangements with Council for the management of land adjacent to the proposed haul road; and
 - (iii) provide adequate funding and resources to research on the management and conservation of *Tetratheca juncea* and *Acacia bynoeana*.
- 76A. The applicant shall rehabilitate 1.25 ha of land adjacent to and outside the proposed asset protection zone of the approved gas engines and flares to *Redgum – Roughbarked Apple Swamp Forest EEC* and *Swamp Mahogany Paperbark Forest EEC*, as shown generally in Schedule 7. The rehabilitation must:
 - (a) commence within 1 month of any clearing of *Redgum – Roughbarked Apple Swamp Forest EEC* for the VAM RAB Unit shown in Schedule 7;
 - (b) use seeds and propagules from equivalent vegetation communities within the local area, and be collected in accordance with *FloraBank Guidelines* (Greening Australia, 2010);
 - (c) be monitored on an annual basis for the first five years, by a suitably qualified ecologist approved by the Director-General, to ensure successful establishment and development of ecosystem function; and
 - (d) be maintained on an ongoing basis, including but not limited to replacing dead plantings, weed management and feral animal control; to ensure successful establishment and development of ecosystem function.
 be to the satisfaction of the Director-General.

Waste

77. Prior to the commencement of construction of the surface facilities or road or earthworks the Applicant shall prepare and implement a Waste Management Plan for the DA area in consultation with **EPA** and to the satisfaction of the Director-General. The Applicant shall make copies of the Waste Management Plan available to Council and the Community Consultative Committee within fourteen days of approval by the Director-General.
78. The Applicant shall meet the requirements of Council, **EPA** and Hunter Water Corporation with respect to water and sewer.

Landscaping and Visual Amenities

79. The Applicant shall, within six months of the date of this consent, or within such further period as Council may require, submit for the Council's approval a detailed landscaping and revegetation plan for the surface facility sites (including the haul road) prepared by a suitably qualified person. The plan shall include:
 - (i) use of indigenous species;
 - (ii) consideration of revegetation works along creeklines;

- (iii) details of the establishment of vegetation and the construction of mounding or bunding, for the purposes of maintaining satisfactory visual amenity, ecological functioning and habitat provision;
- (iv) details of the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications) ;
- (v) increased landscaping to screen the Mine Access Site when viewed from the southbound lanes of the freeway;
- (vi) details of replanting of native vegetation must occur at the entrance, south-east corner and north-east corner of the mine access site as well as between the Cooranbong Colliery and railway to ensure the stockpiles are not visible; and
- (vii) details, specifications and staged work programs to be undertaken, including a maintenance program of all landscape works.

The landscaping and revegetation plan must be consistent with the Environmental Management Strategy, and the Applicant shall make copies available to the Community Consultative Committee within fourteen days of approval by Council.

Lighting

- 80. The Applicant shall screen or direct all onsite lighting away from residences and roadways to the satisfaction of Council.

Heritage and Archaeology

- 81. The Applicant shall prepare and implement a Conservation Plan for that part of the “convict road” identified in the Applicant’s Preliminary Historic Heritage Assessment within the underground mining area. The Plan shall be prepared prior to the commencement of secondary workings in the area in which it is located, subject to access to the road being granted by the landowner(s), and shall be to the satisfaction of the Director-General. The Plan shall include the full documentation and recording of the road in accordance with Guidelines prepared by the Department of Urban Affairs and Planning and the Heritage Council entitled “How to Prepare Archival Records of Heritage Items and Guidelines for Photographic Recording of Heritage Sites, Buildings and Structures”. The Plan shall also contain a report from a suitably qualified person on the structural integrity of the “convict road”, any management measures necessary to ensure that the structural integrity and heritage significance of the road are not adversely affected by mining operations, and a monitoring program.
- 82. The Applicant shall include the results of the monitoring program for the “convict road” in the six monthly monitoring reports where applicable, and in the AEMR.
- 83. Prior to commencement of secondary workings within a mining zone, the Applicant shall comply with the statutory requirements of **OEH** in relation to works affecting Aboriginal sites.
- 84. If, during the course of construction, the Applicant becomes aware of any heritage or archaeological material, all work likely to affect the material shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include **OEH**, the Heritage Office, and the Local Aboriginal Land Council. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.

Hazards, Risks and Safety

- 85. The Applicant shall:
 - (i) provide adequate fire protection works on the Mine Access Site. This shall include one fully equipped fire fighting unit on standby and annual hazard reduction works as required;
 - (ii) ensure that all dangerous goods and materials stored on site are stored in accordance with the relevant Australian Standards; and
 - (iii) prior to the operation of the methane drainage plant and gas flare units, develop a risk management plan to identify risk scenarios and control measures relating to the potential accumulation of methane due to any malfunction of the plant, to the satisfaction of the Director-General.
- 85A. The Applicant shall prepare and submit to the Director-General for approval a Final Hazard Analysis for the operation of the unit, consistent with the Department’s *Hazardous Industry Planning Advisory Paper No. 6 – Hazard Analysis*. The Final Hazard Analysis must include third-party assessment of the Safety Integrity Levels (SIL) rating. The VAM RAB unit shall not be commissioned until the Final Hazard Analysis has been approved by the Director-General.

Utilities and Services

86. In preparing Mining Operations Plans the Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of services (such as transmission lines, pipelines, optic cables).

Rehabilitation and Restoration

87. The Applicant shall carry out rehabilitation of all mine areas in accordance with the requirements of any Mining Lease granted by the Minister for Mineral Resources.

Construction of Haul Road and Coal Transport

88. The Applicant shall design and construct the private haul road to the satisfaction of Council and with consideration of the impact on the fragmentation of fauna habitat and fauna movement. The haul road alignment is to be re-assessed to avoid rare plant species to the satisfaction of the Director-General.
89. No coal shall be hauled on public roads other than the haul road identified in DA 97-800, except for the estimated 1,000 tonnes of coal removed during the construction of the decline tunnel, to the satisfaction of the Director-General.

This coal shall be:

- (i) hauled on public roads only for delivery to Awaba Colliery;
- (ii) transported by road over a maximum period of five (5) days; and
- (iii) transported only after temporary safety warning signage has been installed to the satisfaction of the Roads and Traffic Authority.

Local Roads and Access

90. The Applicant, in consultation with MSB, shall ensure that access within the DA area, to properties and within properties, is maintained at no less than the existing standard during the period in which mining occurs under the land and for a period of at least five years thereafter, in relation to condition, flood liability, public safety and flood hazard. The Applicant shall carry out any roadworks considered necessary by Council to ensure compliance with this Condition insofar as any works to maintain the existing standard at the time of mining are directly attributable to the operation of the mine.
91. The Applicant shall provide a "Type C" intersection to the satisfaction of the RTA at the intersection of Mandalong Road and the proposed Mine Access Site.

Compliance

92. The Applicant shall comply or ensure compliance with all requirements of the Director-General in respect of the implementation of any measures arising from the conditions of this approval. The Applicant shall bring to the attention of the Director-General any matter that may require further investigation and the issuing of instructions from the Director-General. The Applicant shall ensure that these instructions are implemented to the satisfaction of the Director-General within such time that the Director-General may specify. If necessary, the Director-General may order the Applicant to cease work until non-compliance has been addressed to her satisfaction.
93. The Applicant must submit for the approval of the Director-General compliance reports concerning the implementation of conditions of this approval as applicable:
- (i) before the commencement of surface construction works (including any earthworks or roadworks); and
 - (ii) before the commencement of secondary workings.

Environmental Monitoring

94. For the first three years of the project, and for any further period as may be determined necessary by the Director-General, the Applicant shall provide six monthly monitoring reports on all environmental monitoring required under this consent. The reports shall contain interpretations of the monitoring data. The Applicant shall make copies of the monitoring reports available to the Department, NOW, EPA, Council and the Community Consultative Committee.
95. The Applicant shall install and maintain an automatic wind direction, velocity monitoring and recording station, to the specifications of the EPA, at a non-protected location prior to commencement of construction or road or earthworks, which will provide representative data for

the DA area for the life of the project, to determine when and how the project is to be modified in accordance with the conditions of this consent.

96. The Applicant shall compile the meteorological data on a monthly basis to adequately characterise the site.
97. All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall require approval from the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring program. Only accredited laboratories shall be used for laboratory analysis.

Complaints

98. The Applicant shall record details of all complaints received in an up to date log book, and ensure that a response is provided to the complainant within 24 hours. The Applicant shall make available a report on complaints received to the Community Consultative Committee, all relevant government agencies and the Council upon request, and include a summary in the Annual Environmental Management Reports.

Dispute Resolution

99. In the event that the Applicant and an individual, the Council or a Government agency, other than the Department, 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 within six months, to the Minister, whose determination of the disagreement shall be final and binding on the parties.

Community Consultative Committee

100. The Applicant shall operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Director-General in general accordance with the *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version)*. The CCC is to include at least four community representatives including at least one member of the Mandalong Progress Association, nominated by the Association.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*
- *In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the general community in the area of the development.*

101. (deleted)

102. The Applicant shall establish a trust fund to be managed by the Chairperson of the Committee to facilitate functioning of the Committee, and pay \$2000 per annum to the fund for the duration of mining operations. The 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. The Applicant shall also contribute reasonable funds for the payment of the independent Chairperson, to the satisfaction of the Director-General.

Community Information and Contact Telephone Number

103. The Applicant shall, in consultation with Council, ensure that the local community is kept informed (by way of local newsletters, leaflets, newspaper advertisements and community notice boards as appropriate) of the progress of the project, including prior notice of:
- (i) the nature of works proposed for the forthcoming period;
 - (ii) hours of construction;
 - (iii) a 24 hour contact telephone number;
 - (iv) any traffic disruptions and controls;
 - (v) proposed blasting program, and any changes to the program;
 - (vi) work required outside the normal working hours; and
 - (vii) individuals' rights under the conditions of this approval (such as the rights for acquisition or independent monitoring) and mechanisms proposed to be used to safeguard the community and individual properties against adverse impacts from the development.

Community Support

104. The Applicant shall provide funding to council for independent counselling services for any landowner that may request support on stress-related matters resulting from the development.

Annual Environmental Management Report

105. The Applicant shall, throughout the life of the mine and for a period of at least five years after the completion of mining, prepare and submit an Annual Environmental Management Report (AEMR) to the satisfaction of the Director-General. 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 EIS's predictions, 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, OEH, NOW, DRE, and Council requirements;
 - (iii) results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person;
 - (iv) an assessment of any changes to agricultural land suitability resulting from the mining operations, including cumulative changes;
 - (v) a listing of any variations obtained to approvals applicable to the subject area during the previous year;
 - (vi) 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;
 - (vii) rehabilitation report; and
 - (viii) environmental management targets and strategies for the next year.
106. In preparing the AEMR, the Applicant shall:
- (i) consult with the Director-General during preparation of each report for any additional requirements;
 - (ii) comply with any 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 DRE, EPA and the OEH.
107. The Applicant shall ensure that copies of each AEMR are submitted at the same time to the Department, EPA, OEH, NOW, Council and the Community Consultative Committee, and made available for public information at Council within fourteen days of submission to these authorities.

Independent Environmental Audit

108. Prior to 31 March 2010, and every 3 years thereafter, unless the Director-General directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate,
 - (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in the fields of subsidence and surface and groundwater management or other expert required by the Director-General.

109. Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.
110. Within 3 months of:
- (a) the submission of an AEMR under Condition 105 above;
 - (b) the submission of an Independent Environmental Audit under Condition 108 above; and

(c) any modification to the conditions of this consent (unless the conditions require otherwise), the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Director-General.

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

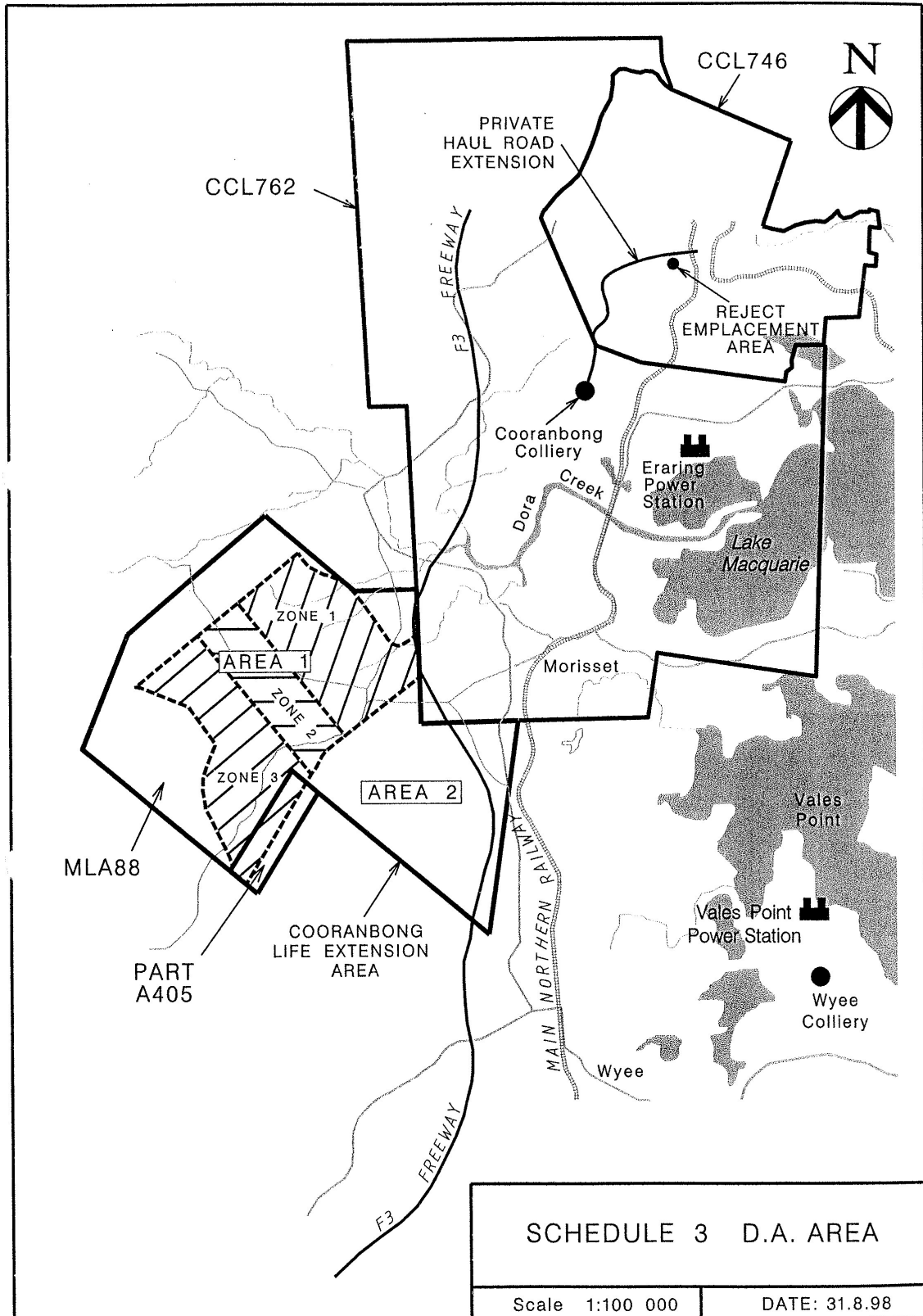
Floodplain Management Plan

111. The Applicant shall assist in the development of a Floodplain Management Plan to Council's satisfaction, based on predicted subsidence changes with the aim of reducing flooding impacts, flood hazard and improving general community flood protection.

Access to Information

112. Within 3 months of the approval of any strategy/plan/program required under this consent (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMR required under this consent, the Applicant shall:
- (a) provide a copy of the relevant document/s to the relevant agencies and CCC;
 - (b) place a copy of the document/s on its website; and
 - (c) remove superseded copies of strategies/plans/programs from its website.
113. During the development, the Applicant shall:
- (a) make a summary of monitoring results required under this consent publicly available on its website; and
 - (b) update these results on a regular basis (at least every 3 months).

SCHEDULE 3



SCHEDULE 4

Land Ownership Details – Proposed Mining Areas and Immediate Surrounds

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
1*	Mandalong Pastoral Management	Lot A DP 110119	Partly Area 1, partly Area 2	No
2*	Ms MG Kildey	Lot 10 DP 261891	Partly Area 2	Yes
3*	Mr & Mrs W & DA Joester	Lot 1 DP 555891	Wholly Area 2	Yes
4*	Powercoal Pty Ltd	Lots 5, 6, 8 & 10 DP 262159	Site Access	No
5*	Mr LJ Lee	Lot 55 DP 9632	Partly Area 1, partly Area 2	Yes
6*	Mrs AL Ferris	Lot 2 DP 557230	Partly Area 1, partly Area 2	Yes
7*	Mr & Mrs AM & DL Hanlen	Lot 1 DP 557230	Wholly Area 1	Yes
8*	Mr AM Hanlen	Lot 3 DP 557230	Mainly Area 1	Yes
9*	Estate Late FJ Hunkin & Mrs GG Hunkin	Lot 60 DP 9632	Partly Area 1	Yes
10*	Mr GP Andrews & Ms AM Boyton	Lot 61 DP 9632	Partly Area 1	Yes
11	Mr & Mrs R & J Kemmis	Lot 141 DP 755238	MLA 88-1	Yes
12	Mr BK Pinkerton	Lot 1 DP 248590	Partly Area 1	Yes
13	Mr & Mrs DC & LG Prescott	Lot 2 DP 248590	Wholly Area 1	Yes
14	Mr TSP Molloy & Ms JM Heffernan	Lot 4 DP 248590	MLA 88-1	Yes
15	Mr & Mrs GR & KJ Martin	Lot 66 DP 755238	MLA 88-1	Yes
16	Ms RM Trinder & Ms KJ Robinson	Lot 3 DP 248590	Partly Area 1	Yes
17*	Mr & Mrs JBC & LM Sweeney	Lot 68 DP 755238	Mainly Area 1	Yes
18	State Forests of NSW (Olney State Forest)	Lot 38 DP 755238	Partly Area 1	No
19	Mr & Mrs GR & KJ Martin	Lot 65 DP 755238	Partly Area 1	Yes
20*	Mr & Mrs MN & SG Davies	Lot 11 DP 111906	Mainly Area 1	Yes
21*	Mr & Mrs LJ & JG Monnox	Lot 47 DP 755238	Wholly Area 1	Yes
22* ¹	Mr & Mrs IR & MF Duncan	Lot 117 DP 755238	Wholly Area 1	Yes

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
23*	Mr L Jayaweera, Mr W Ariyaratne, Mr KH Karunaratne, and Mr DC Gunasekera	Lot 4 DP 755238	Wholly Area 1	Yes
24*	Mr & Mrs A & IP Anthony	Lot 33 DP 755238	Wholly Area 1	Yes
25*	Mr & Mrs RM & BD O'Hara	Lot 1041 DP 630642	Wholly Area 1	Yes
26*	Gemhulk Pty Ltd	Lot 10 DP 650915	Wholly Area 1	Yes
27*	Mr AV Bench	Lot 49 DP 815727	Wholly Area 1	Yes
28*	Mr & Mrs PJ & SM Banks	Lot 105 DP 658253	Wholly Area 1	Yes
29*	Mr PC & Mrs AM Witchard	Lot 6 DP 111906	Wholly Area 1	Yes
30*	Mr & Mrs TJ & R Patience	Lot 88 DP 755238	Wholly Area 1	Yes
31	State Forests of NSW	Lot 95 DP 755238	Partly Area 1	No
32*	Mr PD Martin & Deceased JC Martin	Lot 862 DP 835160	Mainly Area 1	Yes
33*	Mr & Mrs PR & SF Pannekoek	Lot 861 DP 835160	Wholly Area 1	No
34*	Mr TW Brown	Lot 69 DP 772148	Wholly Area 1	Yes
35*	Mr TW Brown	Lot 24 DP 755238	Wholly Area 1	No
36	State Forests of NSW	Lot 94 DP 755238	Partly Area 1	No
37*	Mandalong Pastoral Management	Lot 46 DP 755238	Wholly Area 1	No
38*	Mr & Mrs BJ & RE Howe	Lot 732 DP 719040	Wholly Area 1	Yes
39*	Eltro Investments Pty Ltd	Lot 731 DP 719040	Wholly Area 1	Yes
40*	Mr & Mrs K & JM Satchwell	Lot 51 DP 851636	Wholly Area 1	Yes
41*	Mr & Mrs MW & SL McCready	Lot 29 DP 755238	Wholly Area 1	Yes
42*	Mr & Mrs SW & KM Pitt	Lot 25 DP 755238	Wholly Area 1	Yes
43*	Mr & Mrs JH & EJ Catterson	Lot 8 DP 755238	Wholly Area 1	Yes
44*	Mrs EM Ruytenberg	Lot 9 DP 800491	Wholly Area 1	Yes
45*	Mr & Mrs BJ & BD Brockhill	Lot 311 DP 625394	Wholly Area 1	Yes
46*	Tinkerbelle Rentals Pty Ltd	Lot 18 DP 813385	Wholly Area 1	Yes
47*	Mr ER Smith and Mr & Mrs BI & AR Baillie	Lot 17 DP 813385	Wholly Area 1	Yes
48*	Mr & Mrs K & JM Satchwell	Lot 52 DP 851636	Wholly Area 1	No
49*	Mandalong Pastoral Management	Lot 28 DP 755238	Wholly Area 1	Yes
50*	Mr & Mrs RG & LR Hall	Lot 57 DP 755238	Wholly Area 1	Yes
51*	Inghams Enterprises Pty Ltd	Lots 94 & 95 DP 9632	Wholly Area 1	No
52*	Mr RK Douglas	Lot 93 DP 9632	Wholly Area 1	No
53*	Mr RK Douglas	Lot 92 DP 9632	Wholly Area 1	Yes
54*	Mr DC Melrose	Lot 181 DP 859434	Wholly Area 1	Yes
55*	Mr KM Walker	Lot 11 DP 582283	Wholly Area 1	Yes
56*	Mandalong Pastoral Management	Lot 12 DP 582283	Wholly Area 1	Yes
57*	Mr & Mrs GJ & DA Jones	Lot 180 DP 859434	Wholly Area 1	Yes

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
58*	Mr & Mrs R & VM Birt	Lot 1 DP 125136	Wholly Area 1	Yes
59*	Mandalong Pastoral Management	Lot 580 DP 733227	Wholly Area 1	No
60*	Mandalong Pastoral Management	Lot 902 DP 541065	Partly Area 1, partly Area 2	Yes
61*	Mr & Mrs JN & BJ Frost	Lot 903 DP 542306	Mainly Area 1, partly Area 2	Yes
62*	Mr & Mrs AB & MM Heaney	Part Lot PT902 DP 542306	Partly Area 1, partly Area 2	Yes
63*	Mr & Mrs GR & MK Jones	Part Lot PT901 DP 542306	Partly Area 1, partly Area 2	Yes
64*	Mr & Mrs JM & LE Ednie	Lot 2 DP 504749	Wholly Area 1	Yes
65*	Ms MB Muller	Lot 6 DP 800491	Partly Area 1, partly Area 2	Yes
66*	Mr AP & Ms LJ Prpic	Lot 7 DP 800491	Wholly Area 1	Yes
67*	Chapman Productions Pty Ltd (Mr E Chapman)	Lot 16 DP 813385	Wholly Area 1	Yes
68*	Mr & Mrs JE & JM Howe	Lot 22 DP 812406	Wholly Area 2	Yes
69*	Mr & Mrs MJ & A Astles	Lot 61 DP 755238	Wholly Area 1	Yes
70*	Mr M Tunbridge	Lot 54 DP 755238	Wholly Area 1	Yes
71*	State Forests of NSW	Lot 45 DP 755238	Wholly Area 1	Yes
72*	State Forests of NSW	Lot 90 DP 755238	Mainly Area 1	No
73*	Mr John Allen	Lot 93 DP 755238	Partly Area 1	No
74*	Mr & Mrs WP & V Kelly	Lot 76 DP 755238	Wholly Area 1	No
75*	Mr RJ Parker	Part Lot 75 DP 755238 and Lots 20 & 23 DP 812406	Wholly Area 1	Yes
76*	Mr GD & Mrs JV Marr	Lot 178 DP 755238	Wholly Area 1	No
77*	Mr GD & Mrs JV Marr	Lot 42 DP 755238	Wholly Area 1	Yes
78*	Department of Land & Water Conservation	Lot 43 DP 755238	Wholly Area 1	No
79*	Mr & Mrs FN & JM Lee	Lot 1 DP 382470	Wholly Area 1	Yes
80*	Mr ET Chapman	Lot 1 DP 126594	Mainly Area 1	No
81*	Mr RB Ward, Miss JS Ward, Ms JR Ward	Lot 24 DP 812406	Wholly Area 1	No
82*	Mr RJ Armstrong	Lot 1 DP 957458	Wholly Area 1	Yes
83*	Mr & Mrs SM & MD Hamman	Lot 31 DP 826779	Wholly Area 1	Yes
84*	Mr & Mrs TR & AJ Whittaker	Lot 3 DP 957458	Wholly Area 1	Yes
85*	Mr WJ Page	Lot 4 DP 957458	Wholly Area 1	No
86*	Mr ET Chapman	Lot 28 DP 829792	Wholly Area 1	No
87*	Mr ET Chapman	Lot 27 DP 829792	Wholly Area 1	No
88*	Mr ET Chapman	Lot 1 DP 126595	Wholly Area 1	Yes
89*	Mr PA Hunkin	Lot 41 DP 755238	Wholly Area 1	No

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
90*	Mrs JG Hunkin	Lot 1 DP 168774	Wholly Area 1	No
91*	Mr & Mrs TG & LH James	Lot 6 DP 755238	Mainly Area 1	Yes
92*	Mr & Mrs GJ & MC Hellier	Lot 56 DP 755238	Wholly Area 1	Yes
93	Mrs EA Miller	Lot 67 DP 755238 & Lot 1 DP 111906	MLA 88-1	Yes
94*	Inghams Enterprises Pty Ltd	Lot 95 DP 9632	Mainly Area 1	Yes
95*	Mrs CJ Deaves	Lot 96 DP 9632	Partly Area 1	Yes
96*	Mrs CJ Deaves	Lot 97 DP 9632	Partly Area 1	No
97*	Mrs CJ Deaves	Lot 98 DP 9632	Partly Area 1	No
98*	K & C Gibson & Son Pastoral Co	Lot 99 DP 9632	Partly Area 1	Yes
99	Mrs KA Buchanan	Lot 100 DP 9632	MLA 88-1	Yes
100	Mr & Mrs NS & RC McGlynn	Lot 101 DP 9632	MLA 88-1	Yes
101	Mrs NM Munro	Lot 102 DP 9632	MLA 88-1	Yes
102	Mr AB Putnam, Mr D Cowan & Mr RB Putnam	Lot 97 DP 755238	Wholly Area 1	No
103	Mr & Mrs LD & KV Emerson & Mrs DA Emerson	Lot 81 DP 755238	Partly Area 1	Yes
104	Mr M Brown	Lot 1 DP 919600	MLA 88-1	No
105	Mr & Mrs KA & MI Dunn	Part Lot 7 DP 755238	MLA 88-1	Yes
106	Mr MC Fitzpatrick & Miss YE Chapman	Lot 154 DP 755238	MLA 88-1	Yes
107	Ms N Wells	Lot 16 DP 755238	MLA 88-1	Yes
108	Mr & Mrs WJ & AA Vandenberg	Lot 113 DP 755238	Mainly Area 1	Yes
109	Mrs JM Loebel	Lot 18 DP 755238	Partly Area 1	Yes
110	Mr & Mrs BM & SM Moir	Lot 51 DP 854475	Mainly Area 1	Yes
111	Fernlic Pty Ltd	Lot 50 DP 854475	Partly Area 1	Yes
112	Mr & Mrs WLA & HE Wheeler	Lot 134 DP 755223	MLA 88-1	Yes
113	Mr & Mrs RJ & RI Arrow	Lot 95 DP 755223	MLA 88-1	Yes
114	Mrs CJ Deaves	Lots 1, 2 & 3 DP 868955 (previously Lot 133 DP 755223)	Partly Area 1	No
115	Mr & Mrs D & BJ See	Lot 1042 DP 630642	Wholly Area 1	Yes
116*	Mr & Mrs RS & SG Wall	Lot 89 DP 755238	Mainly Area 1	Yes
117	Mr & Mrs BM & SM Moir	Lot 158 DP 755238	Mainly Area 1	No
118*	Mr & Mrs PP & L Calvert	Lot 96 DP 755238	Partly Area 1	Yes
119	Miss MB & Miss HE Deaves	Lot 130 DP 755238	Partly Area 1	No
120	Department of Land & Water Conservation	DP 19545	MLA 88-1	No
121	Mrs CJ Deaves	Lot 149 DP 755223	MLA 88-1	No
122*	Mr & Mrs BW & JL Radnidge	Lot 116 DP 755238	Partly Area 1	Yes
123	Mr & Mrs LM & BA Mitchell	Lot 153 DP 755238	Partly Area 1	No

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
201	Mr & Mrs RW & DM Ford	Lot 2 DP 552883	MLA 88-1	No
202	Silver Wings Farm Pty Ltd	Lot 151 DP 755238	MLA 88-1	Yes
203	Mr ET Chapman	Lot 2 DP 126594	Partly Area 1	No
204	Ms CE Kuivisto	Lot 2 DP 840145	MLA 88-1	No
205	Ms CE Kuivisto	Lot 1 DP 840145	MLA 88-1	Yes
206*	Mr & Mrs IR & EM Sparks	Lot 70 DP 755238	MLA 88-1	Yes
207*	Mr & Mrs M & P Roberts	Lot 1 DP 3039	Partly Area 1	Yes
208	Mr & Mrs GIS & ER Smith	Pt Lot 146 DP 755238	Outside MLA 88	Yes
209	Mr & Mrs RW & DM Ford	Lot 4 DP 568228	Outside MLA 88	Yes
210	Mr & Mrs JT & HA Fawcett	Lot 2 DP 851648	MLA 88-1	Yes
211*	Mr AE Hodges	Lot 1 DP 851648	MLA 88-1	Yes
212*	Mr & Mrs ET & JH Chapman	Lot 3 DP 3039	Partly Area 1	Yes
213*	Mr & Mrs RJ & MA Woodorth	Lot 2 DP 755238	Partly Area 1	Yes
214*	Mr & Mrs MR & LM Evans	Lot 198 DP 727714	MLA 88-1	Yes
215	Mr AJ Millar & Miss TM Clark	Lot 3 DP 553093	MLA 88-1 (house outside lease application area)	Yes
216	Mr & Mrs A & P Brunyee	Lot 2 DP 553093	Outside MLA 88	Yes
217	Mr ET Chapman	Lot 44 DP 755238 & Lot 53 DP 755238	MLA 88-1	No
218*	Estate Late Mr W Chapman	Lot 17 DP 755238	Partly Area 1	Yes
219*	Estate Late Mr W Chapman	Lot 4 DP 168774	Wholly Area 1	No
220*	Mr & Mrs WW & T Corkery	Lot 3 DP 168447	Wholly Area 1	No
221*	Mrs JG Hunkin	Lot 2 DP 168774	Wholly Area 1	No
222*	Mr ET Chapman	Lot 179 DP 755238 and Lot 180 DP 755238	Partly Area 1	No
223	Mr ET Chapman and Mr W Chapman	Lot 52 DP 755238	Partly Area 1	No
224* ¹	Mr & Mrs T & MA Mansfield	Lot 2 DP 862597	Wholly Area 2	Yes
225*	Mr & Mrs ETW & JR Marland	Lot 6 DP 261460	Partly Area 1, mainly Area 2	No
226	Mrs NP Fisher	Lot 52 DP 867220	Partly Area 2	Yes
226A	Mr NJ Harland	Lot 51 DP 867220	Partly Area 2	No
227	Fernlic Pty Ltd	Lot 1 DP 862597	Partly Area 1, partly Area 2	No
228	Mr JF Hennessy	Lot 1 DP 261460	Outside MLA 88	Yes
229	Mrs HM White	Lot 2 DP 261460	Outside MLA 88	Yes
230	Mr & Mrs KH & JA Hasler	Lot 3 DP 261460	Partly Area 2	Yes
231	Mr & Mrs GE & EM Hanks	Lot 4 DP 261460	Partly Area 2	Yes
232	Mr & Mrs LJ & F Hall	Lot 19 DP 13318	Wholly Area 2	No
233 ¹	Mr & Mrs DM & KA Brierley	Lot 18 DP 13318	Wholly Area 2	Yes
234	Mr JR Lain & Ms MJ King	Lot 17 DP 13318	Wholly Area 2	Yes
235	Mr & Mrs RP & LJ Sutherland	Pt Lot 8 DP 13318	Wholly Area 2	Yes

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
236	Mr CV Crook	Lot 9 DP 13318	Wholly Area 2	No
237	Mr CV Crook	Pt Lot 10 DP 13318	Wholly Area 2	Yes
238	Mr & Mrs S & I Denmark	Lot 5 DP 324031	Wholly Area 2	Yes
239	Lake Macquarie City Council	Lot 1 DP 324031	Wholly Area 2	No
240	Mr & Mrs LJ & JM Alexander	Lot 4 DP 324031	Wholly Area 2	Yes
241*	Inghams Enterprises Pty Ltd	Lot 2 DP 555891	Wholly Area 2	No
242*	Inghams Enterprises Pty Ltd	Lots 2 & 3 DP 555891	Mainly Area 2	Yes
243*	Mr H Menzies	Lot 4 DP 555891	Partly Area 2	Yes
244	Mrs MJ Hunt	Lot 3 DP 13318	Partly Area 2	Yes
245	Lake Macquarie City Council	Lot 2 DP 324031	Wholly Area 2	No
246	Mr & Mrs VK & PI Thomas	Lot 15 DP 13318	Mainly Area 2	Yes
247	Mr F Bukowski	Lot 16 DP 13318	Mainly Area 2	No
248	Mr & Mrs JD & MI Moore	Lot 22 DP 13318	Mainly Area 2	Yes
249	Mr & Mrs LR & BJ Arnett	Lot 212 DP 553196	Partly Area 2	Yes
250	Mr & Mrs KC & AT Howard	Lot 211 DP 553196	Partly Area 2	Yes
251	Mr & Mrs AE & GM Mould	Lot 20 DP 13318	Partly Area 2	Yes
252	Mr & Mrs NW & R Greenwood	Lot 23 DP 13318	MLA 88-2	Yes
253	Mr SD Smith & Ms DJ McCann	Lot 24 DP 13318	MLA 88-2	Yes
254	Mr CA Schmidt	Lot 25 DP 13318	Partly Area 2	Yes
255	Lake Macquarie City Council	Lot 14 DP 661114	Wholly Area 2	No
256	The Commissioner for Main Roads	Lot 14 DP 261890	Partly Area 2	No
257	Lake Macquarie City Council	Lot 12 DP 261890	Partly Area 2	No
258	The Direct Access Group Pty Ltd	Lot 2 DP 502305	Partly Area 2	No
259	The Direct Access Group Pty Ltd	Lot 6 DP 613014	Partly Area 2	No
260	Department of Land and Water Conservation	Part R 91166	Mainly Area 2	No
261	Mr & Mrs BR & DJ Arthurson	Lot 30 DP 702647	Wholly Area 2	Yes
262	Roads & Traffic Authority of NSW	Lot 31 DP 702647	Wholly Area 2	No
263	Roads & Traffic Authority of NSW	Lot 10 DP 261890	Wholly Area 2	No
264	AW Mutch Pty Ltd	Lot 481 DP 755242	Partly Area 2	No
265	Roads & Traffic Authority of NSW	Lot 13 DP 621372	MLA 88-2	No
266	Roads & Traffic Authority of NSW	Lot 12 DP 621372	MLA 88-2	No
267	Roads & Traffic Authority of NSW	Lot 1 DP 623517	MLA 88-2	No
268	Palmarc Investments Pty Ltd	Lot 5 DP 701643	Partly Area 2	No

Property Reference No	Owner	Lot/DP	Proximity of Property to Proposed Mining Areas	Residence on Property
269	Mr & Mrs DC & RM Ford	Lot 1 DP 775563	MLA 88-2	Yes
270	Mr & Mrs J & LM Tracey	Lot 2 DP 775563	MLA 88-2	Yes
271	Department of Land and Water Conservation	Lot 470 DP 755242	Outside MLA 88	No
272	Department of Land and Water Conservation	Lot 501 DP 755242	Outside MLA 88	No
273	Mr A Moss	Lot 1 DP 629027	Outside MLA 88	No
274	Mr A Moss	Lot 2 DP 629027	Outside MLA 88	No
275	Mr A Moss	Lot 1 DP 129520	Outside MLA 88	No
276	Mr A Moss	Lot 2 DP 129520	Outside MLA 88	No
277	Mr A Moss	Lot 3 DP 629027	Outside MLA 88	No
278	Ms KT Lendon & Mr GJ Lendon	Lot 1 DP 357347	MLA 88-2	No
279	Mature Adult Communities Pty Limited	Lot 34 DP 610386	MLA 88-2	No
281	Mr BC Curvey-Moore	Lot 33 DP 610386	MLA 88-2	Yes
282	Department of Land & Water Conservation	Lot TR DP 19006	Partly Area 2	No
283	Palmarc Investments Pty Ltd	Lot 159 DP 755238	Wholly Area 2	No
284	Asher Broiler Co Pty Ltd	Lot 63 DP 858044	MLA 88-2	Yes

* Land holdings which are wholly or partly located on the Mandalong Valley floodplain.
 † Properties that have been sold since land ownership details were compiled.

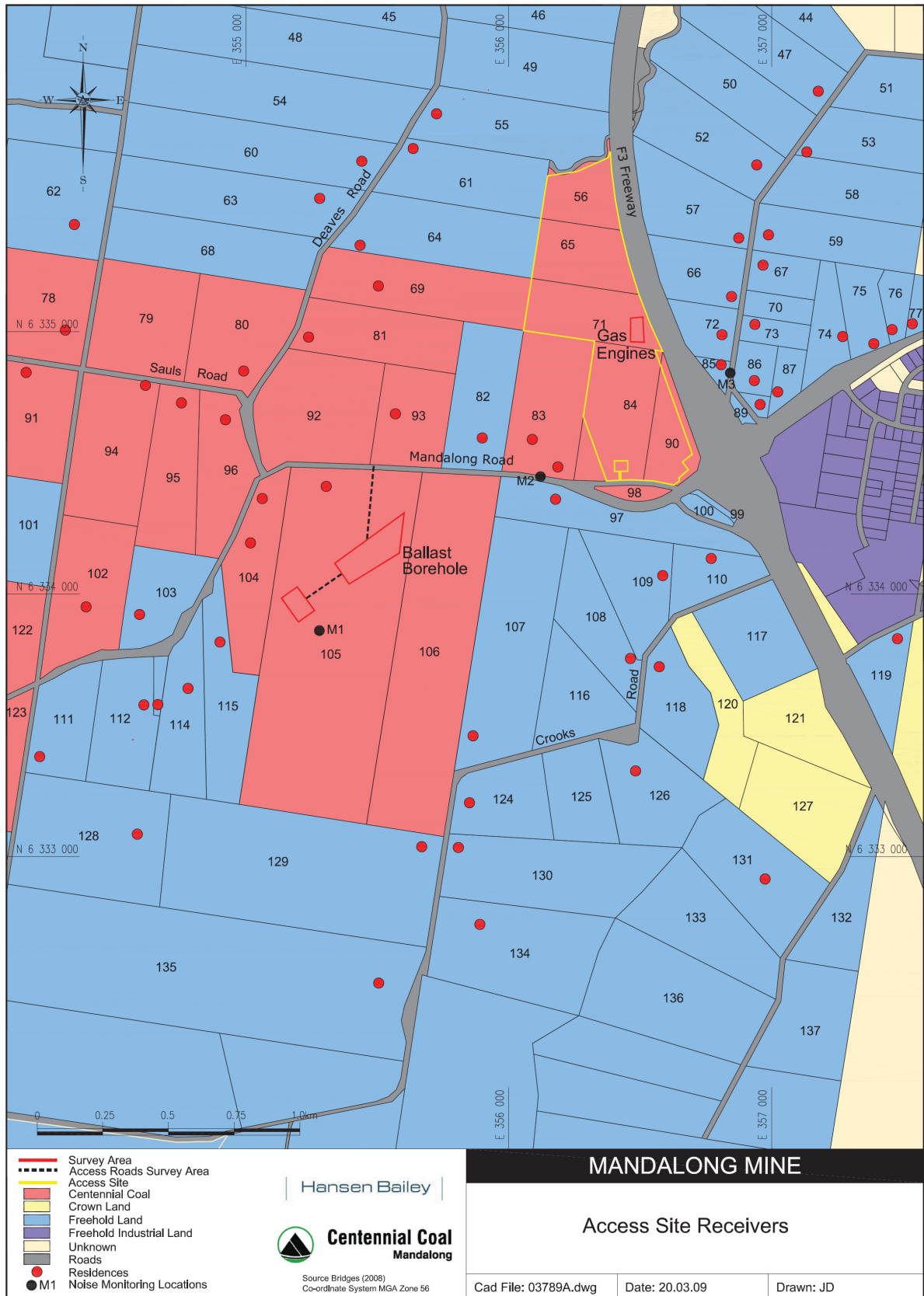
SCHEDULE 5

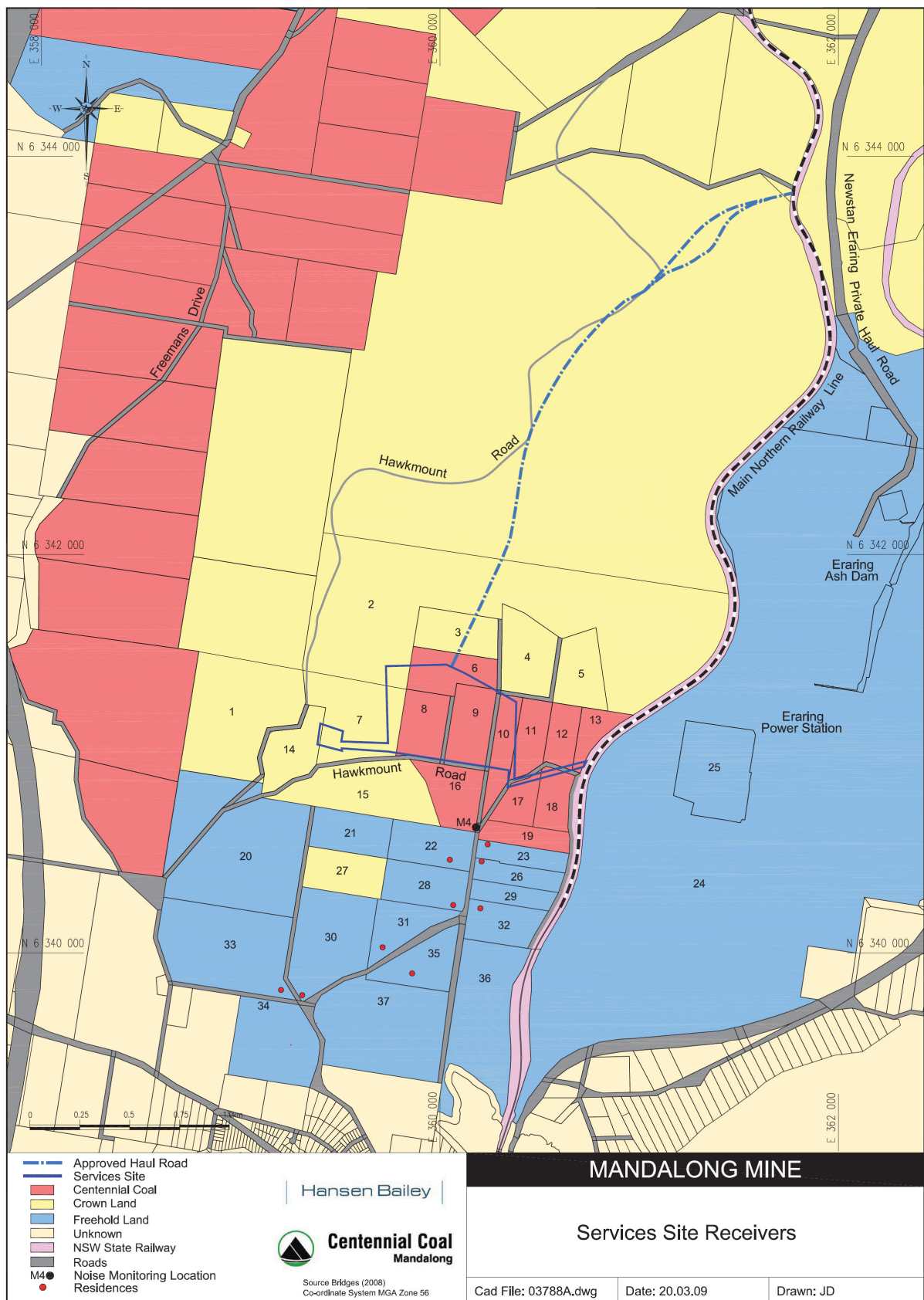
SCHEDULE 5

SUBMISSIONS TO THE COMMISSION OF INQUIRY BY POWERCOAL PTY LTD (refer to the report of the Commission of Inquiry for a full list of submissions made)

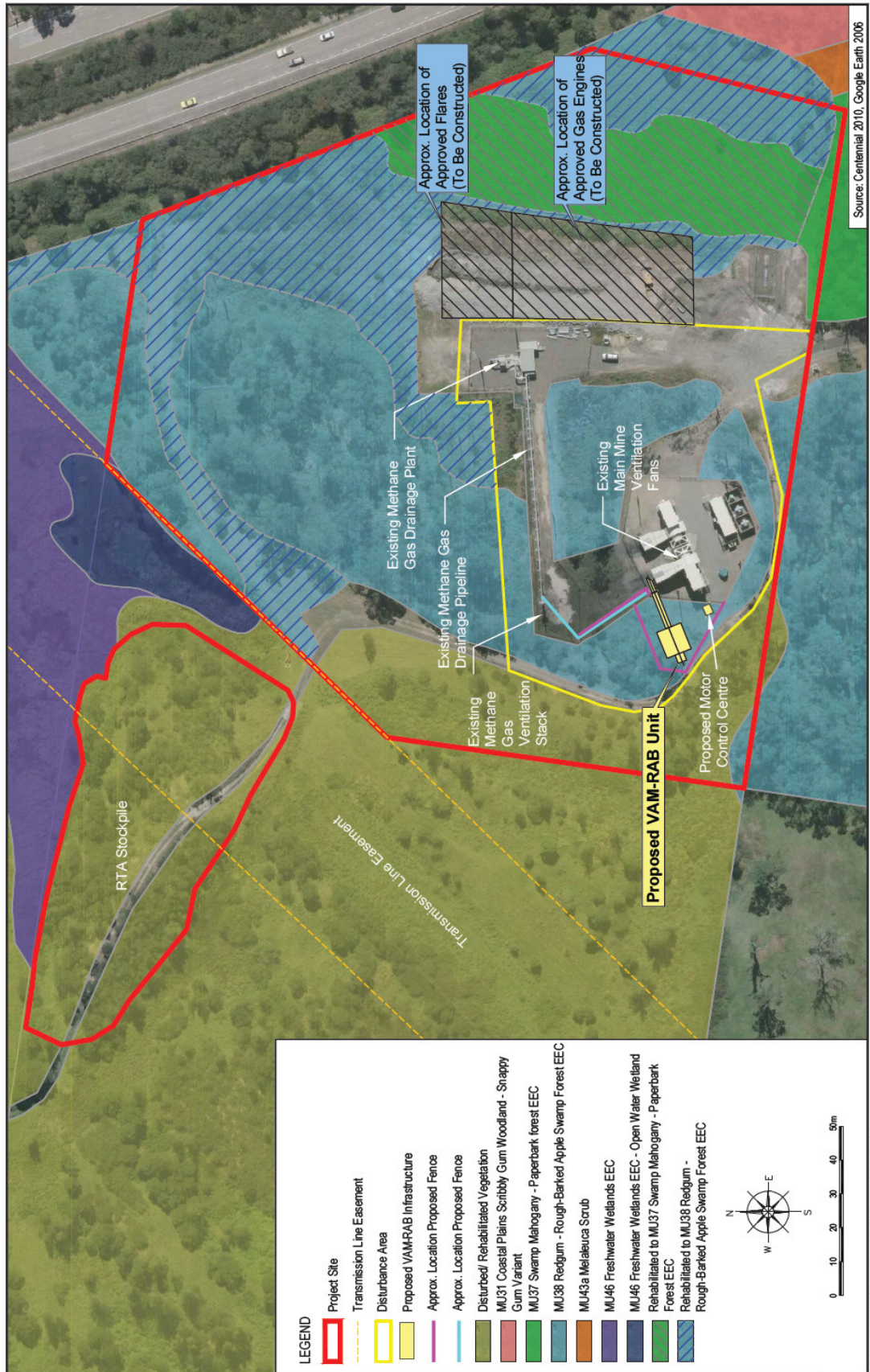
1. Primary Submission Part A
2. Primary Submission Part B
3. Elements of Subsidence Engineering for the Layman, prepared by J M Galvin, March 1998
4. Preliminary Historic Heritage Assessment – Cooranbong Colliery Life Extension Project prepared by Umwelt (Australia) Pty Ltd, March 1998
5. Flora and fauna issues – Primary Submission Gunninah Environmental Consultants, March 1998
6. Justification for longwall mining with face widths up to 250 metres
7. Supplementary Submission – Flora and fauna issues by Gunninah Environmental Consultants, February 1998
8. Fauna and flora issues assessment of significance under section 5A of the NSW Environmental Planning and Assessment Act, 1979
9. Submission in Reply Part A
10. Supplementary Submission on Socio-Economic Issues
11. Supplementary Submission in Reply on Social Impact Assessment
12. Supplementary Submission in Reply on Mine Plan Options for Mining Zone Two
13. Supplementary Submission re: A discussion on “soft floor” subsidence
14. Submission in Reply Part B

SCHEDULE 6 – NOISE RECEIVER LOCATIONS





Schedule 7 - Site Vegetation and Rehabilitation Areas



APPENDIX 1 - STATEMENT OF COMMITMENTS

Statement of Commitments

Ref	Commitment	EA Section
Operational Commitments		
1.	Undertake the components of the Modification generally in accordance with the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008.	3.0
2.	Gas engines to be constructed and operated generating 12 Megawatts capacity, with a stack height of at least 10 m to be fuelled by methane from Mandalong underground coal seams.	3.1.1
3.	Activities at the ballast borehole site and construction of the gas engines will occur during the day time only (i.e. 7:00 am to 6:00 pm).	3.1.1
4.	The coal extracted shall not exceed 6 Mtpa Run of Mine.	3.1.2
5.	Longwall panels will be designed up to 250 m in width ensuring all sensitive surface features remain safe, serviceable and repairable, to the approval of the Department of Planning and the Department of Primary Industries.	3.1.4 & 7.1.6
6.	Construct the ballast borehole within the survey area shown on Figure 4 of the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008, with earthen bunds and/or tree screening undertaken to mitigate visual impact on nearby private residences.	1.1.1
7.	Revise the existing Mining Operations Plan to incorporate components of this Modification and continue to develop Subsidence Management Plans in accordance with the current Department of Primary Industries' guidelines.	4.3.2
8.	Seek a variation to Environmental Protection Licence 365 under the Protection of the Environment Operations Act 1997 to take into account the proposed Modification.	4.3.3
Stakeholder Consultation		
9.	Continue to advise regularly the CCC and other relevant stakeholders consistent with the Mandalong Stakeholder Communication Strategy.	5.0
10.	Continue to communicate environmental management initiatives both internally and externally to regulatory authorities, near neighbours, the Aboriginal community and other interested stakeholders.	5.4
Environmental Management		
11.	Utilise existing Environmental Management Plans as required and continue to operate an Environmental Management System consistent with that described in the Environmental Assessment and where required, incorporate this Modification.	2.5
Noise		
12.	Mining related activities will be conducted in a manner that ensures noise emissions meet the criteria in Table 18 of the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008 at private receivers.	7.2.3
13.	The gas engines will be constructed within a suitably designed building, utilising appropriate acoustic attenuation systems to provide the necessary level of noise control and meet the Sound Power Levels utilised for modelling purposes in the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008.	7.2.4
14.	Continue to monitor noise levels to ascertain compliance with criteria in the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008.	7.2.4
15.	A combined sound power level of 102 dBA from all engines, except standby units, when measured according to AS1217 (or equivalent) will be utilised for design purposes to meet modelled predictions.	7.2.3
Air Quality & Greenhouse		
16.	The gas engine exhaust stacks will be designed and built to Australian Standards to at least 10 m in height to minimise any adverse air quality impacts on neighbouring landowners and ensure the necessary emission dispersion.	7.3.3
Water		
17.	During construction, temporary sediment and erosion controls will be installed around the proposed gas engine area, ballast borehole site and along the access track as necessary.	7.4.1
18.	Following completion of construction of the ballast borehole, any disturbed areas (including any bunding) will be topsoiled, revegetated and rehabilitated in accordance with the Department of Primary Industries' guidelines.	7.4.1
19.	All water discharges shall be undertaken in compliance with the licensing conditions of the Environmental Protection Licence.	7.4

Flora & Fauna		
20.	The small pond in the ballast borehole survey area will not be disturbed as it may provide potential habitat for native and migratory water bird species.	7.5.4
21.	Erosion and sediment control structures and management procedures shall be constructed to minimise impacts to aquatic habitat and wetland areas within or surrounding the areas proposed for the ballast borehole and gas engines' sites.	7.5.4
22.	The Vegetation Clearance Procedure provided in Table 24 of the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008 shall be utilised as required for the clearance of any hollow-bearing trees.	7.5.4
Aboriginal Heritage		
23.	Members of the Aboriginal community will be invited to be present to inspect topsoil stripping activities.	7.6.4
24.	Relevant training commensurate with job descriptions will be provided to employees and contractors of Mandalong Mine in relation to Aboriginal heritage.	7.6.4
25.	Should items of Aboriginal heritage be encountered during works, the Procedure shown in Section 7.6.4 of the Mandalong Mine Modification to Consent Environmental Assessment dated September 2008 will be implemented.	7.6.4
Visual & Lighting		
26.	Tree screening shall be developed to ensure that visual and lighting impacts to the neighbouring residences are appropriately managed.	7.8.4
27.	Visual screening to be implemented between the ballast borehole and the properties of receivers 82 and 115 in order to reduce visual impacts will consider bunding and vegetation screens as required.	7.8.4
28.	The materials used for the construction of the gas engines and the ballast borehole will consist of natural colour schemes to blend in with the natural environment with no reflective materials used.	7.8.4
29.	Consideration will be given to the location of residences and road users to ensure that any lighting requirements for the various components of this Modification will be directed away from these receivers to minimise any adverse effects.	7.8.4
Traffic & Transport		
30.	The design and construction of the intersection and culvert at the Mandalong Road and ballast borehole site entrance will be undertaken in consultation with Lake Macquarie City Council prior to works commencing.	7.9.3
31.	A Section 138 approval under the Roads Act will also be sought prior to any roadwork being undertaken on Mandalong Road.	7.9.3
32.	Relevant training will be provided to all operators at the ballast borehole site during construction and operation which will include (at least) instruction on safe driving practices.	7.9.3
Preliminary Hazard Analysis		
33.	Relevant management safeguards for all possible off-site impacts identified in the PHA for the gas engines shall be implemented at Mandalong to reduce any potential risks.	7.10.3

APPENDIX 2: ADDITIONAL STATEMENT OF COMMITMENTS

Action	Timing
Flora and Fauna	
Approximately 1.25 ha of degraded areas within the project site will be rehabilitated. 0.9ha of MU38 Redgum – Roughbarked Apple Swamp Forest EEC will be established in the areas currently mapped as 'disturbed/rehabilitated vegetation' in the project site, and 0.37 ha of MU37 Swamp Mahogany – Paperbark Forest EEC will be established in the area currently mapped as MU46 on the eastern side of the approved gas engines and flares (illustrated in Figure 6). The species to be established as part of the remediation will be sourced from local provenance to avoid genetic conflicts between local and imported species. Redgums will be <i>Eucalyptus amplifolia</i> grown from seed collected from trees in the Mandalong floodplain. Weed management works will also be undertaken in the rehabilitated areas to ensure improved remediation outcomes.	Post construction
A bushfire risk assessment will be conducted prior to the remediation taking place to determine the width of an APZ to be maintained around the gas flares and engines. In this zone the species to be used in the remediation will be tailored to suit the APZ requirements.	Prior to remediation works commencing
Surface Water	
Appropriate erosion and sediment controls will be implemented during the construction phase and prior to re-vegetation establishment during the operation phase. Measures will include: - Land disturbance will be minimised by clearing the smallest practical area of land ahead of construction and earthmoving activities, whilst also ensuring that the land is disturbed for the shortest possible time. - Temporary sediment fencing will be constructed on the downstream side of all disturbance areas to treat sediment-laden runoff.	Prior to and during construction
Soils and Land Capability	
In the unlikely event that acid sulphate soils or potential acid sulphate soils are disturbed or exposed during construction works, the existing approved Mandalong Acid Sulphate Soil Management Plan will be implemented.	During construction
Aboriginal and Cultural Heritage	
All relevant contractors associated with construction and operation of the VAM-RAB unit will be made aware of their statutory obligations for heritage under the NPW Act and the <i>Heritage Act 1977</i> , during their mine induction process.	Prior to works commencing
Centennial Mandalong will invite representatives of the registered Aboriginal stakeholders who participated in the field surveys to attend site and inspect the topsoil stripping activities undertaken within previously undisturbed areas of the Project Application Area.	During construction
If during the course of works significant European cultural heritage material is	During construction

Action	Timing
uncovered. Centennial Mandalong will stop work and notify the NSW Heritage Branch	
Noise	
Construction will be limited to daylight hours between 7am and 6pm Monday to Friday, and 8am to 1pm on Saturday. No construction will be undertaken on Sundays or public holidays.	During construction
Centennial Mandalong will investigate, during the testing period and as part of the ongoing periodic on-site maintenance checks, all intrusive noise characteristics, including tonality. If it is identified during the operation of the VAM-RAB unit that tonality is an issue, than additional mitigation measures will be investigated and implemented where required.	During operation
Centennial Mandalong will review and amended where required the existing Noise Management Plan to take into consideration the operation of the VAM-RAB unit.	During operation
Visual Amenity	
The VAM RAB stack height is to be restricted to 10.6 metres and the RAB tower is to be restricted to approximately 9.1 metres high. The proposed VAM RAB infrastructure is to be painted a 'mist green' colour, excluding safety components such as handrails.	