# **Project Approval**

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

I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 to 7,

These conditions are required to:

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

# The Hon Kristina Keneally MP Minister for Planning

Sydney	2009
	SCHEDULE 1
Application Number:	08_0149
Proponent:	Helensburgh Coal Pty Ltd
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Metropolitan Coal Project

Modification 1 – 8 September 2010 Modification 2 – 2 July 2011 Modification 3 – 2 October 2013

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# DEFINITIONS

The mine plan depicted in the figure in Appendix 3 Approved mine plan Adaptive management includes monitoring subsidence impacts and Adaptive management subsidence effects and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and designated ranges ARTC Australian Rail Track Corporation BCA Building Code of Australia Includes any building or work erected or constructed on land, and includes **Built features** dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main СС Campbelltown City Council **Community Consultative Committee** CCC Continuous rock face, including overhangs, having a minimum height of 10 Cliffs metres and a slope of greater than 66° Conditions contained in schedules 2 to 7 inclusive Conditions of this approval The demolition of buildings or works, carrying out of works and erection of Construction buildings covered by this approval CPI Consumer Price Index, as published by the Australian Bureau of Statistics The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Day Sundays and Public Holidays Department of Planning and Infrastructure Department Director-General of the Department, or delegate **Director-General** DRE Division of Resources and Energy, within the Department of Trade and Investment, Regional Infrastructure and Services Dams Safety Committee DSC Environmental assessment titled Metropolitan Coal Project Environmental EA Assessment, Volumes 1-3, dated September 2008, and associated response to issues raised in submissions, titled Metropolitan Coal Project Responses to Submissions, Parts A - C, excluding the Statement of Commitments attached to the document EA – Mod 1 Environment assessment titled Metropolitan Mine Replacement Drift Construction Modification Environmental Assessment, dated July 2010 The environmental consequences of subsidence impacts, including: damage Environmental consequences 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 Environmental Planning and Assessment Act 1979 EP&A Act **EP&A Regulation** Environmental Planning and Assessment Regulation 2000 Environment Protection Licence issued under the POEO Act EPL Evening The period from 6pm to 10pm Feasible relates to engineering considerations and what is practical to build Feasible Development of main headings and gate roads to establish access to the First workings coal in the mining area The washery located near Narellan (see Appendix 5) Glenlee washery The independent dispute resolution process as described in Appendix 6 Dispute resolution process A set of circumstances that causes or threatens to cause material harm to Incident the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval In general, the definition of land is consistent with the definition in the EP&A Land Act. However, in relation to the noise and air quality conditions in Schedules 4 and 5 it means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval Harm to the environment is material if it involves actual or potential harm to Material harm to the environment the health or safety of human beings or to ecosystems that is not trivial The area outlined with a solid blue line on the figure in Appendix 3 Mining Area Minister Minister for Planning, or delegate Activities associated with reducing the impacts of the project Mitigation Mine Subsidence Board MSB Negligible Small and unimportant, such as to be not worth considering Night The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays NSW Office of Water NOW Office of Environment and Heritage OEH

POEO Act Protection of the Environment Operations Act 1997 PPR Preferred Project Report titled Metropolitan Coal Project Preferred Project Report, dated May 2009, excluding the Statement of Commitments attached to the report Privately-owned land Land that is not owned by a public agency, or a mining company (or its subsidiary) Project The project described in the EA, as modified by the Preferred Project Report and any subsequent modifications Project Area The areas identified with hatching on the figure in Appendix 2 Proponent Helensburgh Coal Pty Ltd, or its successors in title Reasonable Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements **Reasonable Costs** The costs agreed between the Department and the Proponent for obtaining independent experts to review the adequacy of any aspects of the extraction plan, or where such costs cannot be agreed, the costs determined by the Dispute Resolution Process Rehabilitation The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment Remediation Activities associated with partially or fully repairing or rehabilitating the impacts of the project or controlling the environmental consequences of this impact ROM coal Run-of-mine coal RTA Roads and Traffic Authority Safe, serviceable & repairable Safe means no danger to users, serviceable means available for its intended use, and repairable means damaged components can be repaired economically SCA Sydney Catchment Authority Second workings Extraction of coal from longwall panels, mini-wall panels or pillar extraction All land to which the project application applies, comprising the mining area Site and the surface facilities area, as listed in Appendix 1 and shown in Appendices 2 to 4 Steep slopes An area of land having a natural gradient of between 33° and 66° Subsidence The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts Subsidence effects Deformation of the ground mass due to mining, including all mining-induced ground movements, 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 Surface facilities area The area outlined with a solid red line on the figure in Appendix 4 Swamps 76, 77 and 92 See the figure in Appendix 6 WCC Wollongong City Council WSC Wollondilly Shire Council

# SCHEDULE 2 ADMINISTRATIVE CONDITONS

## **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT**

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

# **TERMS OF APPROVAL**

- 2. The Proponent shall carry out the project generally in accordance with the
  - (a) EA;
  - (b) PPR;
  - (c) EA Mod 1; and
  - (d) conditions of this approval.

Note: The general layout of the project is shown in Appendices 2 to 4.

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

# LIMITS ON APPROVAL

5. The Proponent may undertake mining operations in the mining area for up to 23 years from the date of this approval.

Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.

- 6. The Proponent shall not:
  - (a) extract more than 3.2 million tonnes of ROM coal from the mining area in a calendar year, or
  - (b) transport more than 2.8 million tonnes of product coal from the site in a calendar year.
- 7. The Proponent shall not export any coal reject from the site after 2021 without the written approval of the Director-General.
- 8. The Proponent shall not emplace coal reject on the surface of the site without the written approval of the Director-General.

Note: This condition applies to the Camp Gully Emplacement Area, as well as to the rest of the surface of the site. It does not apply to the proposed additional coal reject stockpile shown in Appendix 4.

#### STRUCTURAL ADEQUACY

- 9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structure, are constructed in accordance with:
  - (a) the relevant requirements of the BCA; and
  - (b) any additional requirements of the MSB in areas where subsidence effects are likely to occur.

Notes:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

## DEMOLITION

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

# **OPERATION OF PLANT AND EQUIPMENT**

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

# STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

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

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

# SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS – MINING

# PERFORMANCE MEASURES

Table 1: Subsidence Impact Performance Measures

1. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 1.

Water Resources	
Catchment yield to the Woronora Reservoir	Negligible reduction to the quality or quantity of water resources reaching the Woronora Reservoir No connective cracking between the surface and the
	mine
Woronora Reservoir	Negligible leakage from the Woronora Reservoir
	Negligible reduction in the water quality of Woronora Reservoir
Watercourses	
Waratah Rivulet between the full supply level of the Woronora Reservoir and the maingate of Longwall 23 (upstream of Pool P).	Negligible environmental consequences (that is, no diversion of flows, no change in the natural drainage behaviour of pools, minimal iron staining, and minimal gas releases)
Eastern Tributary between the full supply level of the Woronora Reservoir and the maingate of Longwall 26	Negligible environmental consequences over at least 70% of the stream length (that is no diversion of flows, no change in the natural drainage behaviour of pools, minimal iron staining and minimal gas releases)
Biodiversity	
Threatened species, populations, or ecological communities	Negligible impact
Swamps 76, 77 and 92	Set through condition 4 below
Land	
Cliffs	Less than 3% of the total length of cliffs (and associate overhangs) within the mining area experience mining- induced rock fall
Heritage	
Aboriginal heritage sites	Less than 10% of Aboriginal heritage sites within the mining area are affected by subsidence impacts
Items of historical or heritage significance at the Garrawarra Centre	Negligible damage (that is fine or hairline cracks that do not require repair), unless the owner of the item and the appropriate heritage authority agree otherwise in writing
Built Features	
Built features	Safe, serviceable and repairable, unless the owner agrees otherwise in writing

Note: The Proponent will be required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this approval (see condition 6 below).

# CATCHMENT MONITORING PROGRAM

- 2. The Proponent shall prepare and implement a comprehensive Catchment Monitoring Program for the project to the satisfaction of the Director-General. This program must:
  - (a) be prepared by suitably qualified and experienced experts whose appointment has been endorsed by the Director-General;
  - (b) be prepared in consultation with NOW, SCA and OEH;
  - (c) be approved by the Director-General before the Proponent is allowed to carry out any second workings in the mining area; and
  - (d) include:
    - detailed baseline data of the existing surface and groundwater resources in the project area;
    - a program for the ongoing development and use of appropriate surface and groundwater models for the project; and

- a program to:
  - monitor and assess any impacts of the project on the quantity and quality of surface and ground water resources in the project area, and in particular the catchment yield to the Woronora Reservoir; and
  - validate and calibrate the surface and groundwater models.

# SPECIFIC REQUIREMENTS FOR FURTHER MODELLING & ASSESSMENT

3. If the subsidence effects and subsidence impacts of the project exceed the relevant predictions by more than 15% at any time after mining has progressed beyond the halfway mark of Longwall 21, or if the profile of vertical displacement does not reflect predictions, then the Proponent shall use appropriate numerical modelling to supplement the subsequent predictions of subsidence effects and subsidence impacts for the project to the satisfaction of the Director-General.

Note: The aim of the numerical modelling is to give a better insight into the mechanisms that may account for the differences between predicted and actual subsidence effects and impacts.

- 4. The Proponent shall not undermine Swamps 76, 77 and 92 without the written approval of the Director-General. In seeking this approval, the Proponent shall submit the following information with the relevant Extraction Plan (see condition 6 below):
  - (a) a comprehensive environmental assessment of the:
    - potential subsidence impacts and environmental consequences of the proposed Extraction Plan;
      - potential risks of adverse environmental consequences; and
      - options for managing these risks;
  - (b) a description of the proposed performance measures and indicators for these swamps; and
  - (c) a description of the measures that would be implemented to manage the potential environmental consequences of the Extraction Plan on these swamps (to be included in the Biodiversity Management Plan – see condition 6(f) below), and comply with the proposed performance measures and indicators.

# **FIRST WORKINGS**

5. The Proponent shall not carry out first workings in the mining area that are not consistent with the approved mine plan without the written approval of the Director-General.

# SECOND WORKINGS

#### **Extraction Plan**

- 6. The Proponent shall prepare and implement an Extraction Plan for all second workings in the mining area to the satisfaction of the Director-General. This plan must:
  - (a) be prepared by a team of suitably qualified and experienced experts whose appointment has been endorsed by the Director-General;
  - (b) be approved by the Director-General before the Proponent is allowed to carry out the second workings covered by the Extraction Plan;
  - (c) include a detailed plan for the second workings, which has been prepared to the satisfaction of DRE, and provides for adaptive management (from Longwall 23 onwards);
  - (d) include detailed plans of any associated surface construction works;
  - (e) include the following to the satisfaction of DRE:
    - a coal resource recovery plan that demonstrates effective recovery of the available resource;
    - revised predictions of the conventional and non-conventional subsidence effects and subsidence impacts of the extraction plan, incorporating any relevant information that has been obtained since this approval; and
    - a Subsidence Monitoring Program to:
      - validate the subsidence predictions; and
      - analyse the relationship between the subsidence effects and subsidence impacts of the Extraction Plan and any ensuing environmental consequences;
  - (f) include a:
    - Water Management Plan, which has been prepared in consultation with OEH, SCA and NOW, to manage the environmental consequences of the Extraction Plan on watercourses (including the Woronora Reservoir), aquifers and catchment yield;
    - Biodiversity Management Plan, which has been prepared in consultation with OEH and DRE (Fisheries), to manage the potential environmental consequences of the Extraction Plan on aquatic and terrestrial flora and fauna, with a specific focus on swamps;

- Land Management Plan, which has been prepared in consultation with SCA, to manage the potential environmental consequences of the Extraction Plan on cliffs, overhangs, steep slopes and land in general;
- Heritage Management Plan, which has been prepared in consultation with OEH and the relevant Aboriginal groups, to manage the potential environmental consequences of the Extraction Plan on heritage sites or values;
- Built Features Management Plan, which has been prepared in consultation with the owner of the relevant feature, to manage the potential environmental consequences of the Extraction Plan on any built features; and
- (g) include a Public Safety Management Plan, which has been prepared in consultation with DRE and the DSC (for any mining within the DSC notification area), to ensure public safety in the mining area.

Note: In accordance with condition 12 of schedule 2, the preparation and implementation of Extraction Plans for second workings may be staged, with each plan covering a defined area of second workings. In addition, these plans are only required to contain management plans that are relevant to the specific second workings that are being carried out.

- 7. In addition to the standard requirements for management plans (see condition 2 of schedule 7), the Proponent shall ensure that the management plans required under condition 6(f) above include:
  - (a) a program to collect sufficient baseline data for future Extraction Plans;
  - (b) a revised assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval;
  - (c) a detailed description of the measures that would be implemented to remediate predicted impacts; and
  - (d) a contingency plan that expressly provides for adaptive management.

#### **Payment of Reasonable Costs**

8. The Proponent shall pay all reasonable costs incurred by the Department to engage independent experts to review the adequacy of any aspect of the Extraction Plan.

# **RESEARCH PROGRAM**

- 9. The Proponent shall prepare and implement a Research Program for the project to the satisfaction of the Director-General, and allocate \$320,000 towards the implementation of the program. This program must:
  - (a) be prepared in consultation with NOW, SCA, OEH and DRE;
  - (b) be submitted to the Director-General for approval by the end of 2010;
  - (c) be targeted at genuine research, as opposed to implementing the matters required by this approval; and
  - (d) be directed at encouraging research into improving:
    - the prediction of valley closure and upsidence, and the resultant subsidence impacts;
    - the assessment of the environmental consequences of subsidence impacts on natural features;
    - the remediation of subsidence impacts on watercourses;
    - the understanding of subsidence impacts and their environmental consequences on swamps;
    - the conservation of the Eastern Ground Parrot on the Woronora Plateau; or
    - the environmental management of underground mining operations in the Southern Coalfield.
- 10. The Proponent shall obtain the Director-General's approval for the allocation of any funding under this program.

## CONSTRUCTION MANAGEMENT – WORONORA SPECIAL AREA

11. The Proponent shall prepare and implement a Construction Management Plan for all surface construction works (excluding remediation or rehabilitation works) in the Woronora Special Area to the satisfaction of the Director-General. This plan must be prepared in consultation with SCA, include detailed plans of the proposed construction works., and be approved by the Director-General before the Proponent is allowed to carry out the construction works.

# SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS – GENERAL

# NOISE

## Noise Impact Assessment Criteria

1. By the end of 2014, the Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25% of any privately-owned land.

Table 2: Noise Impact Assessment Criteria

Day LAeq(15 min)	Evening LAeq(15 min)	Night LAeq(15 min)	Night LA1(I min)
50 dB(A)	45 dB(A)	45 dB(A)	50 dB(A)

Notes:

- To determine compliance with the L<sub>Aeq(period)</sub> noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy) may be accepted. The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the L<sub>A1(1 minute)</sub> noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy may be accepted.
- The noise emission limits identified in the above table apply under meteorological conditions of:
  - > wind speeds of up to 3 m/s at 10 metres above ground level; or
  - temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level,
  - determined in accordance with the NSW Industrial Noise Policy.

## **Noise Acquisition Criteria**

2. If after 2014, the noise generated by the project exceeds the criteria in Table 3 at any residence on privately-owned land, or on more than 25% of any privately-owned land, then the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 5-7 of schedule 5.

Table 3: Noise Acquisition Criteria

Day LAeq(15 min)	Evening LAeq(15 min)	Night LAeq(15 min)
55 dB(A)	50 dB(A)	50 dB(A)

Note: Noise generated by the project is to be measured in accordance with the notes presented below Table 2. For this condition to apply, the exceedances of the criteria must be systemic.

#### Additional Noise Mitigation Measures

3. If after 2014, the noise generated by the project exceeds the criteria in Table 4 at any residence on privately-owned land, then the Proponent shall, upon receiving a written request from the landowner, implement reasonable and feasible noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner. If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.

Table 4: Additional Noise Mitigation Criteria

Day LAeq(15 min)	Evening LAeq(15 min)	Night LAeq(15 min)
53 dB(A)	48 dB(A)	48 dB(A)

Note: Noise generated by the project is to be measured in accordance with the notes presented below Table 2.

#### **Rail Noise**

4. The Proponent shall only use locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208) and ARTC's EPL (No. 3142) or a Pollution Control Approval issued under the former *Pollution Control Act 1970*.

- 5. The Proponent shall use its best endeavours to minimise night-time movements of rolling stock on the Metropolitan rail spur.
- 6. In the event of any rail noise or vibration issues that may arise from the haulage of coal over the life of the Project, the Proponent shall liaise with the CCC and the rail service provider to facilitate resolution of these issues and implement additional noise reduction measures where appropriate.

# Blasting

7. The Proponent shall not undertake blasting operations at the surface facilities area without the written approval of the Director-General.

#### **Noise Management Plan**

8. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with OEH by a suitably qualified expert whose appointment has been approved by the Director-General, and submitted to the Director-General for approval by the end of June 2010. It must also provide for real-time noise monitoring.

## **AIR QUALITY & GREENHOUSE GAS**

#### Odour

9. The Proponent shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.

#### **Greenhouse Gas Emissions**

- 10. The Proponent shall implement all reasonable and feasible measures to minimise:
  - (a) energy use on site; and
  - (b) the scope 1, 2 and 3 greenhouse gas emissions produced on site,

to the satisfaction of the Director-General.

#### Air Quality Impact Assessment Criteria

11. The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the air quality impact assessment criteria listed in Tables 5, 6, and 7 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 5: Long term impact assessment criteria for particulate matter

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

Table 6: Short term impact assessment criterion for particulate matter

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

#### Table 7: Long term impact assessment criteria for deposited dust

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

Note: Deposited dust is 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, or its latest version.

## Land Acquisition Criteria

12. If the dust generated by the project exceeds the criteria in Tables 8, 9, and 10 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 5-7 of schedule 5.

Table 8: Long term land acquisition criteria for particulate matter

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

Table 9: Short term land acquisition criteria for particulate matter

Pollutant	Averaging period	Criterion	Percentile <sup>1</sup>	Basis
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	-150 µg/m <sup>3</sup>	99 <sup>2</sup>	Total <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m³	98.6	Increment <sup>4</sup>

<sup>1</sup>Based on the number of block 24 hour averages in an annual period.

<sup>2</sup>Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with OEH. <sup>3</sup>Background PM<sub>10</sub> concentrations due to all other sources plus the incremental increase in PM<sub>10</sub> concentrations due to

Background  $PM_{10}$  concentrations due to all other sources plus the incremental increase in  $PM_{10}$  concentrations due to the mine alone.

<sup>4</sup>Incremental increase in PM<sub>10</sub> concentrations due to the mine alone.

Table 10: Long term land acquisition criteria for deposited dust

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

Note: Deposited dust is 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.

# Air Quality & Greenhouse Gas Management Plan

13. The Proponent shall prepare and implement an Air Quality & Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with OEH by a suitably qualified expert whose appointment has been approved by the Director-General, and submitted to the Director-General for approval by the end of June 2010. It must also provide for real-time air quality monitoring.

## SOIL & WATER

#### Discharges

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

### Surface Facilities Water Management Plan

- 15. The Proponent shall prepare and implement a Water Management Plan for the surface facilities area and two ventilation shaft sites to the satisfaction of the Director-General. This plan must be prepared in consultation with NOW and OEH by a suitably qualified expert/ whose appointment has been endorsed by the Director-General, and submitted to the Director-General for approval by the end of June 2010. In addition to the standard requirements for management plans (see condition 2 of schedule 7), this plan must:
  - (a) include a comprehensive water balance for the project; and
  - (b) ensure that suitable measures are implemented to minimise water use, control erosion, prevent groundwater contamination, and comply with any surface water discharge limits.

Note: The water balance in this plan must be suitably integrated with both the Catchment Monitoring Program and the Water Management Plans that form part of the Extraction Plan.

#### METEOROLOGICAL

16. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the surface facilities area that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.

## TRANSPORT

#### **Parkes Street Intersection**

- 17. By the end of 2010, the Proponent shall:
  - (a) undertake a road safety audit of the Parkes Street and Colliery Road intersection, in consultation with the RTA and WCC; and
  - (b) implement any recommendations of this audit,
  - to the satisfaction of the Director-General.

#### **Road Maintenance Contributions**

18. From the end of 2009, the Proponent shall make a suitable annual contribution to WCC, WSC, and CC for the maintenance of local roads that are used as haulage routes by the project. If there is any dispute over the amount of the contribution, the matter must be referred to the Director-General for resolution.

#### **Road Transport Restrictions**

- 19. The Proponent shall not:
  - (a) load coal or coal reject onto trucks, or transport it off site by road, outside the hours of 7am and 6pm Monday to Friday;
  - (b) transport more than 170,000 tonnes of coal off site by road in a calendar year;
  - (c) transport any coal off site to the Port Kembla Coal Terminal by road;
  - (d) permit the departure of more than 25 trucks containing product coal for delivery to the Corrimal Cokeworks on any given day; or
  - (e) permit the departure of more than 30 trucks containing product coal for delivery to the Coalcliff Cokeworks on any given day.
- 20. During emergencies (such as the disruption of rail services) the Proponent may exceed the restrictions in condition 19 above with the written approval of the Director-General.

#### Monitoring

21. The Proponent shall monitor the amount of coal and coal reject transported from the site by road and rail each year, and report the results of this monitoring on its website every six months.

### **Traffic Management**

22. The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with the RTA, WCC, local schools and the CCC, and submitted to the Director-General for approval by the end of February 2010. The primary aim of this plan is to minimise the traffic impacts of the project on the residential areas and schools within Helensburgh.

# VISUAL

23. The Proponent shall minimise the visual impacts, and particularly the off-site lighting impacts, of the surface facilities area and two ventilation shaft sites to the satisfaction of the Director-General.

# WASTE

- 24. The Proponent shall:
  - (a)

minimise the waste (including coal reject) generated by the project; and ensure that the waste generated by the project is appropriately stored, handled, and disposed of, (b) ensure that the waste generated by to the satisfaction of the Director-General.

The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must be submitted to the Director-General for approval by the end of 25. June 2010.

# SCHEDULE 5 ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT

# NOTIFICATION OF LANDOWNERS

- 1. If the results of the monitoring required in schedule 4 identify that impacts generated by the project are greater than the relevant impact assessment criteria in schedule 4, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results, notify the Executive Director Mineral Resources, the affected landowners and tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 4.
- 2. If the results of monitoring required in Schedule 4 identify that impacts generated by the project are greater than the relevant air quality impact assessment criteria in schedule 4, then the Proponent shall send the relevant landowners and tenants (including tenants of mine owned properties) a copy of the NSW Health fact sheet entitled "Mine Dust and You" (and associated updates) in conjunction with the notification required in condition 1.

## **INDEPENDENT REVIEW**

3. If a landowner considers the project to be exceeding the impact assessment criteria in schedule 4, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

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

- (a) consult with the landowner to determine his/her concerns;
- (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to:
  - determine whether the project is complying with the relevant impact assessment criteria in schedule 4; and
  - identify the source(s) and scale of any impact on the land, and the project's contribution to this
    impact; and
- (c) give the Director-General and landowner a copy of the independent review.
- 4. If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 4, then the Proponent may discontinue the independent review with the approval of the Executive Director Mineral Resources.

If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 4, then the Proponent shall:

- (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria,

to the satisfaction of the Executive Director Mineral Resources.

However, if the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Executive Director Mineral Resources.

If the independent review determines that the project is not complying with the relevant land acquisition criteria in schedule 4, then the Proponent shall offer to acquire all or part of the landowner's land in accordance with the procedures in conditions 5-7 below, to the satisfaction of the Executive Director Mineral Resources.

#### LAND ACQUISITION

- 5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
  - (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning
      instruments at the date of the written request; and

- presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of 'reasonable and feasible measures' in condition 3 of schedule 4 or condition 4(a) of this schedule;
- (b) the reasonable costs associated with:
  - relocating within the Wollongong local government areas, or to any other local government area determined by the Director-General;
  - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if following this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute (the API) to appoint a qualified independent valuer to:

- (a) consider submissions from both parties;
- (b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- (c) prepare a detailed report setting out the reasons for any determination; and
- (d) provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Director-General shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above and the independent valuer's report. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination.

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

- 6. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 5 above.
- 7. If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall also pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.

# SCHEDULE 6 REHABILITATION & OFFSETS

# REHABILITATION

## **Rehabilitation Objectives**

1. The Proponent shall achieve the rehabilitation objectives in Table 11 to the satisfaction of the Executive Director Mineral Resources.

Table 11: Rehabilitation Objectives

Domain	Rehabilitation objective
Surface Facilities Area	Set through condition 2 below
Waratah Rivulet, between the downstream edge of Flat Rock Swamp and the full supply level of the Woronora Reservoir	Restore surface flow and pool holding capacity as soon as reasonably practicable
Eastern Tributary, between the maingate of Longwall 26 and the full supply level of the Woronora Reservoir	
Cliffs	Ensure that there is no safety hazard beyond that existing prior to mining
Other land affected by the project	<ul> <li>Restore ecosystem function, including maintaining or establishing self-sustaining native ecosystems:</li> <li>comprised of local native plant species; with</li> <li>a landform consistent with the surrounding environment</li> </ul>
Built features	Repair/restore to pre-mining condition or equivalent
Community	Minimise the adverse socio-economic effects associated with mine closure including the reduction in local and regional employment
	Ensure public safety

# Rehabilitation Strategy – Surface Facilities Area

- 2. By the end of October 2011, the Proponent shall prepare a Rehabilitation Strategy for the surface facilities area to the satisfaction of the Director-General. This strategy must:
  - (a) be prepared by a team of suitably qualified and experienced experts whose appointment has been endorsed by the Director-General;
  - (b) be prepared in consultation with relevant stakeholders, including WCC and the CCC;
  - (c) investigate options for the future use of the area upon the completion of mining;
  - (d) describe and justify the proposed rehabilitation strategy for the area; and
  - (e) define the rehabilitation objectives for the area, as well as the proposed completion criteria for this rehabilitation.

# **Progressive Rehabilitation**

3. To the extent that mining operations permit, the Proponent shall carry out rehabilitation progressively, that is, as soon as reasonably practicable following the disturbance.

#### **Rehabilitation Management Plan**

4. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director Mineral Resources. This plan must be prepared in consultation with the relevant stakeholders, and submitted to DRE for approval prior to carrying out any second workings in the mining area.

Note: In accordance with condition 12 of schedule 2, the preparation and implementation of Rehabilitation Management Plans is likely to be staged, with each plan covering a defined area (or domain) for rehabilitation. In addition, while mining operations are being carried out, some of the proposed remediation or rehabilitation measures may be included in the detailed management plans that form part of the Extraction Plan. If this is the case, however, then the Proponent will be required to ensure that there is good cross-referencing between the various management plans.

# OFFSETS

# **Catchment Improvement Works**

- 5. The Proponent shall:
  - (a) pay SCA \$100,000 by the end of 2011 to carry out catchment improvement works within the Woronora catchment area; or
  - (b) carry out catchment improvement works within this area that have an equivalent value to the satisfaction of SCA.

# Offsets

- 6. If the Proponent exceeds the performance measures in Table 1 of this approval, and either
  - (a) the contingency measures implemented by the Proponent have failed to remediate the impact; or
     (b) the Director-General determines that it is not reasonable or feasible to remediate the impact,

then the Proponent shall provide a suitable offset to compensate for the impact to the satisfaction of the Director-General.

Note: Any offsets required under this condition must be proportionate with the significance of the impact.

# SCHEDULE 7 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

# ENVIRONMENTAL MANAGEMENT

## **Environmental Management Strategy**

- 1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:
  - (a) be submitted to the Director-General for approval by the end of September 2009;
  - (b) provide the strategic framework for environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
      - receive, handle, respond to, and record complaints;
      - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance; and
    - respond to emergencies;
  - (f) include:
    - copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and
    - a clear plan depicting all the monitoring currently being carried out within the project area.

#### Management Plan Requirements

- 2. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
      - any relevant limits or performance measures/criteria;
      - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project;
    - effectiveness of any management measures (see c above);
    - a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.

#### Annual Review

(e)

- 3. By the end of March each year, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
  - (a) describe the works that were carried out in the past calendar year, and the works that are proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past calendar year, which includes a comparison of these results against the
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the EA, PPR, and Extraction Plan;
  - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;

- (d) identify any trends in the monitoring data over the life of the project;
- (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measure will be implemented over the next year to improve the environmental performance of the project.

# Revision of Strategies, Plans & Programs

- 4. Within 3 months of the submission of an:
  - (a) audit under condition 8 of schedule 7;
  - (b) incident report under condition 6 of schedule 7;
  - (c) annual review under condition 3 of schedule 7, or
  - (d) modification to the project approval,

the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.

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

#### **Community Consultative Committee**

5. The Proponent shall establish a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version) to the satisfaction of the Director-General.

Note: The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval. In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, affected councils, recognised environmental groups and the general community in Helensburgh and the area of the project.

# REPORTING

#### Incident

6. The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.

#### Regular

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

#### INDEPENDENT ENVIRONMENTAL AUDIT

- 8. By end of December 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate; and
  - (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.

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

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

# ACCESS TO INFORMATION

- 10. From the end of 2009, the Proponent shall make the following information publicly available on its website:
  - (a) a copy of all current statutory approvals;
  - (b) a copy of the current environmental management strategy and associated plans and programs;
  - (c) a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
  - (d) a complaints register, which is to be updated on a monthly basis;
  - (e) a copy of the minutes of CCC meetings;
  - (f) a copy of any Annual Reviews (over the last 5 years);
  - a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; and
  - (h) any other matter required by the Director-General.

APPENDIX 1 SCHEDULE OF LAND (CD)



# APPENDIX 3 PROJECT LAYOUT



APPENDIX 4 SURFACE FACILITIES AREA



APPENDIX 5 HAULAGE ROUTES



# APPENDIX 6 SWAMPS IN THE MINING AREA



APPENDIX 7 INDEPENDENT DISPUTE RESOLUTION PROCESS

# Independent Dispute Resolution Process (Indicative only)

