

A P P E N D I X

**RELEVANT CONSENT
CONDITIONS**

A

Dendrobium Mine Consent Conditions

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

INTEGRATED STATE SIGNIFICANT DEVELOPMENT

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

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

The reasons for the imposition of the conditions are to:

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

Andrew Refshauge MP
Minister for Urban Affairs and Planning,

Sydney,

20 November 2001

File No. S00/01177

Schedule 1

Application made by:	BHP Billiton (ABN 19 000 019 625) (“the Applicant”).
To:	The Minister for Urban Affairs and Planning (DA 60-03-2001)
In respect of:	Land described in Appendix “1”.
For the following:	Stage 1, being the development of an underground coal mine, and construction and operation of associated surface facilities (“the Development”).
BCA Classification:	Pit Top Area Class 10 – Portal Class 8 – Bulkstore modifications and compressor house Class 7 – Workshop modifications, compressor house and pump house at water tank Class 5 – Office and bath house modifications Kemira Valley Area Class 10 – Portal, electrical substation buildings,

conveyor structures, rail tunnel, culvert structures,
retaining wall, chemical dosing room, OBD access
modifications

Class 5 – Rail tunnel control room

Ventilation Shaft Area

Class 10 - Fan building

Washery Area

Class 10 – Dryer building, electrical switchroom, washery
building modifications

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

SCHEDULE 2

Development Consent Conditions for the Dendrobium Underground Coal Mine

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DEFINITIONS:

AEMR - *Annual Environmental Management Report*

Coal Drying Facility - *is defined as the coal dryer facility that will be situated on land within the Steelworks*

CCC – *Community Consultative Committee*

Construction – *Construction of road works and surface facilities*

DA - *Development Application*

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

Dendrobium - *refers to the ex-Nebo site located on Cordeaux Road*

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

EIS - *Environmental Impact Statement*

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

Independent Dispute Resolution Process - *The Independent Dispute Resolution Process is defined in a flow chart which indicates the DUAP will appoint an independent dispute facilitator to deal with the matters of concern (refer Schedule A)*

Independent Expert Review Panel – *refers to the Independent Expert Review Panel established under Condition 8(c)(i) of this consent. The Panel shall be established for the life of the mine, and shall be responsible for reviewing and providing independent advice to the Director-General, and other regulatory authorities, as to the results of the various monitoring programs undertaken by the Applicant*

KVCLF – *Kemira Valley Coal Loading Facility*

Mining Area – *Includes Mining Areas 1, 2, and 3, Ventilation Shaft sites and associated access roads and infrastructure*

Mining Operations – Includes the underground mining area, emplacement of coal wash in Stage 3, coal loading at the KVCLF, coal transportation from the KVCLF to Port Kembla, coal washing, and coal drying. Mining operations is taken to commence with the start of longwall operations

Minister – Minister for Urban Affairs and Planning

MOP – Mining Operations Plan

Mtpa - Million tonnes per annum

ROM - Run-of-Mine coal production

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

Steelworks - is defined as the Port Kembla Steelworks

Surface facilities – Includes the construction of an access drift, conveyors, three ventilation shafts and fans, upgrade of the existing washery at the Port Kembla Steelworks, coal dryer, upgrade and modification works at the Dendrobium site, upgrade of the Kemira Valley Coal Loading Facility, construction of the 150,000 tonne ROM coal stockpile, and temporary coal stockpile at Dendrobium.

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

Government Authorities

WCC - Wollongong City Council

WdSC – Wollondilly Shire Council

WSC – Wingecarribee Shire Council

DLWC - Department of Land and Water Conservation

DMR - Department of Mineral Resources

DSC - Dams Safety Committee

EPA - Environment Protection Authority

MSB - Mine Subsidence Board

NPWS - National Parks and Wildlife Service

NSW Agriculture - New South Wales Agriculture

NSW Fisheries - New South Wales Fisheries

RTA - Roads and Traffic Authority

SCA – Sydney Catchment Authority

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

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

1.1 Adherence to terms of DA, EIS, etc.

- (a) The development is to be carried out generally in accordance with Development Application No. 60-03-2001, the EIS dated March 2001 prepared by Olsen Environmental Consulting and certified in accordance with Section 78A(8) of the Act, and the species impact statement dated April 2001 prepared by Biosis Research, and where the development may be modified by the following documentation:
- (i) additional traffic information supplied by Olsen Environmental Consulting in a letter dated 5 April 2001;
 - (ii) additional air quality information requested by the EPA and supplied by Olsen Environmental Consulting in a letter dated 27 April 2001;
 - (iii) additional noise information requested by the EPA and supplied by BHP in a letter dated 4 May 2001;
 - (iv) Additional water related issues requested by the EPA and supplied by Olsen Environmental Consulting in a letter dated 20 May 2001;
 - (v) ¹Letter from Olsen Environmental Consulting to DUAP dated 21 May 2001 concerning the changes to the Project as described in the EIS;
 - (vi) ²Outcomes of meetings and correspondences between EPA and BHP-Billiton since the lodgement of the DA;
 - (vii) BHP Billiton Dendrobium Mine Project Commission of Inquiry, Primary Submission (The Dendrobium Project, dated 30 July 2001);
 - (viii) BHP Billiton Dendrobium Mine Project Commission of Inquiry, Submission in Reply (The Dendrobium Project, undated); and
 - (ix) BHP Billiton Dendrobium Mine Project Commission of Inquiry, Environmental Effects of Subsidence Associated with the Dendrobium Project, prepared by National Environmental Consulting Services for BHP Billiton and dated August 2001

as may be modified by the conditions set out herein.

¹ EPA General Terms of Approval

² EPA General Terms of Approval

Staged Development

- (b) Longwall mining or any associated infrastructure under the areas identified as Areas A, B and C shown in Figures 1-3 in Schedule 3 of this consent, requires a further approval of the Minister. Prior to the Minister considering whether to approve mining development in these areas, the Applicant must prepare and submit an environmental impact assessment report for each area to the Director-General. The form and content of the reports shall be determined by the Director-General, in consultation with the Government Authorities listed at the beginning of this consent, the Independent Expert Review Panel and the Community Consultative Committee.
- (i) The assessment report for Area A shall address the following issues:
- an assessment of the potential impact of longwall mining on the integrity of the Illawarra Escarpment;
 - details of stress relaxation associated with regional horizontal displacements;
 - the cumulative nature of horizontal displacements due to neighbouring mine workings;
 - an assessment of the various causes of land slippage, cliff falls etc on the Illawarra Escarpment and the Kemira Valley, such as from natural, regional horizontal displacement and full mine subsidence (vertical displacement, strains and tilts);
 - the reliability of a geotechnical engineer determining the current stability of slopes;
 - the effectiveness of the proposed preventative measures related to slope stabilisation;
 - the type of slope monitoring to be implemented when mining longwalls 1 to 3;
 - details of how monitoring of longwalls 1 to 3 will give timely warning of slope instability;
 - the duration of monitoring after the completion of mining of longwalls 1 to 3;
 - provide information and evidence in relation to how the mining dimensions have been chosen in order to provide protection to Kembla Creek and Camp Gully Creek;
 - evidence in relation to how far conventional subsidence effects (that is, excluding horizontal displacement) extend from the mine workings. This shall include consideration of any additional or cumulative effects associated with past workings in the region or other future workings proposed in the area;
 - evidence of consultations with the SCA, DMR, Independent Expert Review Panel [refer to Condition 8(c)(i)], DLWC, EPA, NPWS, WCC, WSC, CCC, and the Director-General.

- (ii) The assessment report for Area B shall incorporate further investigative work quantifying the likely effects of longwall mining in the Cordeaux Crinanite such that it can be demonstrated that a hydraulic linkage between Lake Cordeaux and the underground workings will not occur. The report shall be prepared in consultation with the DMR, SCA and DSC.
- (iii) The assessment report for Area C shall include revised modelling and impact prediction of subsidence in this area, based on information obtained by the Applicant through on going monitoring as part of this consent. Where mitigation measures are proposed, the Applicant shall provide full justification for such measures based on the experience of mitigation measures in its subsidence environmental management plans required by this consent.

This assessment shall include but not be limited to an assessment of:

- revised modelling and impact prediction of subsidence in this area, based on information obtained by the Applicant as part of its on-going monitoring program of subsidence (refer to Condition 3.3.3);
 - surface and groundwater impacts;
 - impacts of subsidence on hanging swamps and other sensitive habitat;
 - impacts on flora and fauna, particularly threatened species, populations and ecological communities. A revised species impact statement will be required to be prepared in accordance with the requirements of the Director-General of the NPWS and submitted with the report;
 - the need for compensatory habitat or other offsets;
 - impacts on any known sites of Aboriginal archaeology
 - Address impacts on matters of National Environment Significance (*Environment Protection Biodiversity Conservation Act 1999*);
 - Evidence of consultations with the SCA, DMR, Independent Expert Review Panel [refer to Condition 8(c)(i)], DLWC, EPA, NPWS, WCC, WSC, CCC, and the Director-General.
- (c) The proposed emplacement of coal wash at the Stage 3 site at West Cliff requires a further approval of the Minister. Prior to the emplacement of any coal wash material as a result of the Dendrobium proposal in the Stage 3 area at the West Cliff site, the Applicant is required to satisfy the requirements of Condition 5.1 of this consent concerning the consideration of alternatives to the emplacement of coal wash material at the Stage 3 area.

<p>Note: Prior to making a determination with respect to Condition 1.1(b) and (c) above, the Minister may publicly notify and exhibit the additional information in accordance with the <i>Environmental Planning and Assessment Regulation 2000</i>.</p>

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

1.2 Period of Approval/Project Commencement

- (a) This approval is for a period of 21 years from the date of granting of a mining lease pursuant to this consent.
- (b) At least two weeks prior to the commencement of construction and Mining Operations respectively or within such period as agreed by the Director-General, the Applicant shall submit for the approval of the Director-General a compliance report detailing compliance with all the relevant conditions that apply prior to the commencement of construction and Mining Operations.
- (c) Date of commencement of construction and Mining Operations is to be notified in writing to the Director-General, DMR, SCA, WCC, WSC, and WdSC at least two weeks prior to commencement of construction and Mining Operations respectively.

1.3 Dispute Resolution

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

1.4 Security Deposits and Bonds

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

2. Mine Management

2.1 Mine Management Plan, Operations and Methods

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

2.2 Limits on Production or Hours of Operation

- (a) Run of Mine coal production shall not exceed 5.2 Mtpa. The Applicant must notify the Director-General, and WCC prior to any short term increase in production above this level.

3. Land and Site Environmental Management

3.1 Appointment of Environmental Officer

- (a) The Applicant shall employ a suitably experienced Environmental Officer(s) throughout the life of the mine whose appointment is to receive prior approval of the Director-General. The Officer(s) shall:
 - (i) be responsible for the preparation of the environmental management plans (refer Condition 3.2);
 - (ii) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;
 - (iii) be responsible for receiving and responding to complaints in accordance with Condition 10.2(a);
 - (iv) facilitate an environmental induction and training program in environmental awareness and responsibilities for all persons involved with construction and operational activities including but not limited to mining, transportation, processing and rehabilitation/remedial activities; and
 - (v) have the authority to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.
- (b) The Applicant shall notify the Director-General, SCA, NSW Fisheries, DMR, EPA, NPWS, DLWC, WCC, WdSC, WSC and CCC (refer condition 10.1) of the name and contact details of the Environmental Officer(s) upon appointment and of any changes to that appointment.

3.2 Environmental Management Strategies and Plans

- (a) The Applicant shall prepare an Environmental Management Strategy providing a strategic context for the environmental management plans [refer condition 3.2(d)]. The Environmental Management Strategy shall be prepared in consultation with the EPA, SCA, DLWC, DUAP, NSW Fisheries, NPWS, WCC, WdSC, WSC and DMR and to the satisfaction of the Director-General, prior to commencement of construction, except as otherwise agreed by the Director-General for specified staged construction activities. The Strategy shall be provided to the Director-General no later than the time the first Environmental Management Plan under sub clause (d) below and MOP are submitted.

Where conditions require the preparation and submission of management plans prior to construction, these plans can be developed in a staged fashion so that only the sections relevant to a particular construction activity need to be completed prior to that particular construction activity commencing, provided the management of any construction activity and its associated impacts is not jeopardised.

Should the CCC not be formed at the preparation of the Environmental Management Strategy or environmental management plans, the Applicant shall

consult the CCC once formed on the Strategy and plans. The Applicant shall provide a report to the Director-General on the issues raised as a result of these consultations and the Director-General may require the Environmental Management Strategy or environmental management plans be revised in light of this report.

- (b) The Environmental Management Strategy shall include, but not be limited to:
- (i) statutory and other obligations which the Applicant is required to fulfil during construction and mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - (ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer(s);
 - (iii) overall environmental management objectives and performance outcomes, during construction, mining and decommissioning of the mine, for each of the key environmental elements for which management plans are required under this consent;
 - (iv) overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by mining operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;
 - (v) identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;
 - (vi) overall objectives and strategies to protect economic productivity within the area affected by mining;
 - (vii) steps to be taken to ensure that all approvals, plans, and procedures are being complied with;
 - (viii) processes for conflict resolution in relation to the environmental management of the project; and
 - (ix) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.
- (c) The Applicant shall make copies of the Environmental Management Strategy available to WCC, WdSC, WSC, EPA, SCA, NSW Fisheries, DLWC, NPWS, DMR, MSB and the CCC within fourteen days of approval by the Director-General. The Environmental Management Strategy shall be reviewed to the requirements of the Director-General at least following each Independent Environmental Audit, as required by Condition 8.1(a).
- (d) The Applicant shall prepare the following environmental management plans:
- Longwall Mining Community Communication & Consultation Plan (refer condition 3.3.1)
 - Subsidence Environmental Management Plans (refer to condition 3.3.2)
 - Archaeology and Cultural Management Plan (refer condition 3.4)
 - Flora and Fauna Management Plan (refer condition 3.5)
 - Erosion and Sediment Control Plan (refer condition 3.6(a))
 - Landscape Management Plan (refer condition 3.8)

- Bushfire Management Plan (refer condition 3.9)
- Land Management Plan (refer condition 3.10(a))
- Assets Protection Plan (refer to condition 3.11)
- Site Water Management Plan (refer condition 4.1)
- Waste Management Plan (refer condition 5.2(a))
- Land Stability Management Plan (refer condition 5.4(a))
- Air Quality Management Plan (refer condition 6.1(a))
- Blast Management Plan (refer condition 6.3(a))
- Road Closure Management Plan (refer to condition 6.3(h))
- Noise Management Plan (refer condition 6.4.2(a))
- Construction Noise Management Plan (refer condition 6.4.2(b))
- Lighting Management Plan (refer condition 6.5)
- Traffic Management Plan (refer condition 7.2(a))

These environmental management plans may also form part of the overall Site Management Plan and/or Mining Operations Plan.

- (e) The Applicant shall make copies of the environmental management plans in sub-clause (d) above available to relevant government agencies, WCC, WdSC, WSC and the CCC and ensure that the plans are made publicly available within 14 days of approval by the Director-General.
- (f) The management plans are to be revised, and updated as necessary, at least every 3 years or as otherwise directed by the Director-General in consultation with the relevant government agencies and the CCC. Revisions and updates of all management plans will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at WCC, WdSC, and WSC within two weeks of approval by DUAP.

3.3 Subsidence Management and Monitoring

3.3.1 Longwall Mining Community Communication and Consultation Plan

The Applicant shall prepare and implement a “Community Communication and Consultation Plan” relating to longwall extraction throughout the DA area, prior to First Workings in consultation with the SCA and CCC. The Plan shall be approved by the Director-General and the final approved plan made available for public inspection at WCC, WSC, and WdSC. The Plan shall include but not be limited to provision of a timetable and information on:

- Future mining activities the subject of this approval and specific impacts (based on best available information) affecting the Metropolitan Special Area; and
- Consultation arrangements in preparing the Plan and during longwall mining, including arrangements for site visits as required.

3.3.2 Subsidence Environmental Management Plans

- (a) The Applicant shall prepare and implement a Subsidence Environmental Management Plan for each longwall panel or group of panels for which an application for secondary workings approval under s.138 of the *Coal Mines Regulation Act 1982* will be sought. The plan is to be approved by the Director-General, in consultation with and taking into account requirements of the Director-General of the DMR and the Sydney Catchment Authority, prior to the submission of the s.138 application to the DMR.

Note: A protocol shall be developed between the Director-Generals of DUAP, DMR and the Chief Executive of the SCA prior to consideration of the first Subsidence Environmental Management Plan required by this condition. The protocol shall ensure coordinated considerations between the Subsidence Environmental Management Plans and s138 determination. The protocol shall be made publicly available.

- (b) Each Subsidence Environmental Management Plan shall be consistent with the conditions of this consent, the Environmental Management Strategy and any relevant environmental management plans.
- (c) In preparing the Subsidence Environmental Management Plans, the Applicant shall:
- (i) consult with the SCA, DLWC, NSW Fisheries, DSC, DMR, NPWS and the CCC (refer to Condition 10.1) throughout the preparation process and take their views into account;
 - (ii) update geological data (ie geological structures, seam thickness, coal quality) based on current knowledge;
 - (iii) review, and if necessary update, the mine plan based on current geotechnical knowledge, the response of dam structures to subsidence and the reliability of the subsidence prediction technique for the local conditions;
 - (iv) review and revise as necessary, subsidence predictions taking into account the results of any relevant subsidence monitoring that has been undertaken;
 - (v) review, based on information available at the time, the potential impacts of the proposed mining on ecologically sensitive areas, archaeological resources, heritage resources, surface structures, water catchments and water loss to the mine workings and, take these into consideration in any refinement of the mine plan and design of appropriate mitigation measures. Works should be designed where possible to avoid areas of archaeological sensitivity;
 - (vi) prior to seeking approval to mine in Mining Area 3, provide details of the proposed layout of the longwall panels for Mining Area 3. This shall include discussions on the reasons for selecting the proposed longwall panel layout, consideration of alternative layouts and consideration of environmental issues in the layout for the selected and alternative layout designs;
 - (vii) provide a description of the proposed area to be impacted by the longwall;
 - (viii) an assessment of the likely impacts of subsidence;

- (ix) details of proposed surface and groundwater management;
- (x) details of feasible options to appropriately avoid, minimise and remediate impacts from subsidence
- (xi) describe the physical landforms and environment of the area, including, but not limited to, watercourses, upland swamps, aquifers, cliff lines and overhangs, and archaeological sites;
- (xii) details of the surface infrastructure that may be subject to subsidence and the proposed measures to ensure they are not impacted, including infrastructure owned or managed by the SCA;
- (xiii) comprehensive subsidence predictions, taking into account the results of any relevant previous subsidence monitoring undertaken;
- (xiv) develop and provide technical details and evidence of feasible mitigation measures that can be implemented to reduce subsidence impacts, including consideration of compensatory habitats.

3.3.3 *Subsidence Monitoring*

The Applicant shall undertake a detailed and ongoing monitoring program of subsidence resulting from mining to the satisfaction of the Director-General and the DMR and in consultation with DLWC, SCA, NSW Fisheries, and Independent Expert Review Panel [refer to Condition 8(c)(i)] throughout the life of the mine and for a period of at least five years after the completion of mining, or other such period as determined by the Director-General in consultation with DLWC, SCA, NSW Fisheries and DMR. Monitoring shall include the following:

- (i) a survey of affected stream channel systems, including monitoring of rainfall, surface and near surface water flows, water ponding and water quality. This monitoring is to commence at least one year prior to mining affecting the stream channel system, or as otherwise directed by the Director-General, and is to be supported with visual records as well as technical records;
- (ii) monitoring of groundwater levels and quality. This monitoring is to commence at least one year prior to mining affecting the groundwater system
- (iii) monitoring of land slips and slides;
- (iv) monitoring of rock shelters and overhangs;
- (v) monitoring of remedial measures;
- (vi) a comparison of predicted impacts with actual impacts, including mapping of subsidence profiles;
- (vii) monitoring of subsidence around and at SCA assets in accordance with the Asset Protection Plan (refer to Condition 3.11), to the satisfaction of the SCA.

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

3.3.4 *Adverse longwall subsidence impacts*

- (a) The Applicant shall investigate and undertake to the satisfaction of the Director-General, and in consultation with the SCA, other options if subsidence impacts, such as a decrease in water quality, ponding or quantity, as a result of the mine are demonstrated to be greater than those predicted in the EIS from that which existed prior to mining. This may include altering mining methods or mining in another area within the Stage 1 DA area.

- (b) The Applicant shall investigate and undertake to the satisfaction of the Director-General and in consultation with DMR and SCA, other mining options if subsidence impacts, such as a decline in ecological integrity (eg. loss of indicator or significant species, changes in vegetation association composition or extent), as a result of the mine are demonstrated to be greater than those predicted in the EIS from that which existed prior to mining. These options may include altering mining methods or mining in another area within the Stage 1 DA area
- (c) The Applicant shall make every reasonable effort to ensure that any member of the public entering an area affected by surface subsidence in the mining area is made aware of any danger caused by the surface subsidence, including impacts on roads, cliff lines and caves.
- (d) The Applicant shall ensure that any impact due to surface subsidence within the Crown road system is restored and safeguarded to the extent that public access is not compromised.
- (e) The Applicant must monitor and remediate any mine related erosion or provide stabilising structures in any areas that have significant risk of destabilisation occurring as a result of Dendrobium longwall panel mining, in accordance with DLWC guidelines, to the satisfaction of DLWC and in consultation with SCA, for any streams that are affected by subsidence.
- (f) The Applicant shall undertake or sponsor research on the potential physical, chemical or biological changes to the environment as a result of subsidence. This research must also investigate and assess methods for mitigating and remediating damage. The research program is to be approved by the Director-General in consultation with the SCA, DLWC, NPWS and NSW Fisheries.

3.3.5 Subsidence impacts on threatened fish, aquatic habitat and terrestrial habitat

Assessment and Management

- (a) ³The following actions shall be carried out by the Applicant in accordance with NSW Fisheries guidelines and to the satisfaction of NSW Fisheries and in consultation with the SCA;
 - (i) Prior to the commencement of Secondary Workings, carry out a pre-mining survey to catalogue the biophysical characteristics of watercourses above and within the potential impact area of the longwall panels;
 - (ii) Monitor the condition of watercourses above longwall panels in the mining area during mining and continue monitoring for a period of one year after mining to identify any impacts on aquatic habitats, fish passage, and potential Macquarie Perch spawning or habitat sites;

³ NSW Fisheries General Terms of Approval

- (iii) Monitor Macquarie perch (along with other incidentally sampled fish) populations which occur in Cordeaux Dam and its tributaries as well as selected sites in other parts of the catchment within the mining area where subsidence impacts occur, with sampling to occur before, during and no less than two years after mining impacts;
- (iv) Include specific actions in Subsidence Environmental Management Plans (refer to Condition 3.3.2 (c)(xiv)) to address subsidence impacts on aquatic habitats, and implement these actions when adverse subsidence impacts occur;
- (v) Include specific environmental compensatory measures to rehabilitate aquatic habitats in nearby (or distant) streams in Subsidence Environmental Management Plans (refer to Condition 3.3.2 (c)(xiv)) as compensation for adverse subsidence impacts on aquatic habitats, and implement these actions when and if adverse subsidence impacts reach specific trigger points developed under in the Subsidence Environmental Management Plans (refer to Condition 3.3.2 (c)(xiv)). These compensatory measures may include,
 - Assisting NSW Fisheries to conduct surveys to determine the population status of the various eastern drainage Macquarie perch populations;
 - Assisting NSW Fisheries to conduct research to determine the genetic status and relationships of the various lake bound and riverine populations of Macquarie perch; and
 - fair and reasonable contribution towards the funding of the construction of fishways to rehabilitate fish habitats and ameliorate impacts on Macquarie perch populations at Pheasants Nest Weir (on the Cordeaux River) and Broughtons Pass Weir (on the Cataract River) having regard for the need to control the movement of pest fish species.

Auditing

⁴As a specific component of the Third Party Monitoring/Auditing (refer to Condition 8.1 (b) (i)) the audit shall assess compliance with the provisions of Condition 3.3.5.

- (b) The following actions shall be carried out by the Applicant in accordance with NPWS guidelines regarding standard survey methodologies, in consultation with NPWS and to the satisfaction of the Director-General;
 - (i) Prior to the commencement of Mining Operations, carry out a pre-mining surveys and on-going monitoring to catalogue the biophysical characteristics of vegetation and fauna habitat above the longwall panels;

The pre mining survey is to establish permanent monitoring sites within the areas above each long-wall mining area. At least 10 permanent

⁴ NSW Fisheries General Terms of Approval

vegetation quadrats (20m x 20m) are to be established within each upland swamp, or as otherwise agreed by NPWS. Quadrats are to be located so as to represent the range of biotic and abiotic conditions within each upland swamp. In areas of similar biotic and abiotic conditions that will not be affected by subsidence an equivalent number of vegetation quadrats are to be established as “controls”;

Criteria are to be established for fauna assessments (at least 5 replicates in each upland swamp) in consultation with NPWS with an equal number of assessments at “control” sites in areas not affected by subsidence but with similar biotic and abiotic conditions.

Vegetation and fauna surveying and monitoring will be accompanied by monitoring of abiotic conditions, including soil moisture, depth to water table, records of rainfall in locality over preceding quarter, temperature range and average in locality over quarter

- (ii) Vegetation and fauna monitoring at the permanent survey sites is to be undertaken at an appropriate frequency to enable impacts to be determined, commencing within one year prior to the commencement of mining in the relevant area in consultation with NPWS, until the commencement of mining in the longwall mining area. The assessments will be undertaken twice a year at all sites during mining and for a period after the completion of mining in consultation with NPWS. The results of the assessments shall be reported in an annual flora and fauna monitoring report in the AEMR.
- (iii) Establish a program to monitor selected known threatened or significant species locations in order to detect any changes in distribution and abundance.
- (iv) Include specific actions in Subsidence Environmental Management Plans (refer to Condition 3.3.2 (c)(xiii)) to address subsidence impacts on ecological values, and implement these actions when adverse subsidence impacts occur;
- (v) Include specific environmental offsets and compensatory measures to restore ecological values in Subsidence Environmental Management Plans (refer to Condition 3.3.2 (c)(xiii)) as compensation for adverse subsidence impacts on ecological values, and implement these actions when and if adverse subsidence impacts reach specific trigger points developed under Condition 3.3.2 (c)(xiii).

Auditing

As a specific component of the Third Party Monitoring/Auditing (refer to Condition 8.1 (b) (i)) the audit shall assess compliance with the provisions of Condition 3.3.5.

3.3.6 Longwall subsidence impacts on steep slopes

Assessment and Management

The following actions shall be carried out by the Applicant to the satisfaction of the SCA and in consultation with DLWC.

- (a) Prior to the commencement of Secondary Workings, carry out a premining survey to catalogue the biophysical characteristics of cliffs and other slopes at risk of mass movement above and within the potential impact areas of the longwall panels;
- (b) Monitor the condition of these cliffs and steep slopes during mining and continue monitoring for a period up to completion of subsidence to identify any impacts on slope stability; and
- (c) Include specific actions in Subsidence Environmental Management Plans (refer to Condition 3.3.2(c)(xiv)) to address subsidence impacts on cliffs and steep slopes, and implement these actions where adverse subsidence impacts occur.

Auditing

As a specific component of the Third Party Monitoring/Auditing (refer to Condition 8.1 (b) (i)) the audit shall assess compliance with the provisions of Condition 3.3.6.

3.4 Heritage Assessment, Management and Monitoring

Assessment and Management

The Applicant shall prior to the commencement of Secondary Workings in the mining area and construction activities at the Dendrobium and KVCLF sites respectively:

- (a) prepare an Archaeology and Cultural Management Plan to address Aboriginal and European cultural heritage issues for the Mining Area, Dendrobium and KVCLF areas. The Plans shall be prepared in consultation with the Illawarra Local Aboriginal Land Council, Tharawal Local Aboriginal Land Council, the Wodi Wodi Elders Group, the Wadi Wadi Coomaditchie Aboriginal Corporation, the Korewal Elouera Jerrungarugh Tribal Elders Aboriginal Corporation, NPWS, SCA, WSC, WdSC and WCC and to the satisfaction of the Director-General. A Plain English version of this plan and its outcomes is to be distributed through the Aboriginal community via the above groups. The Plans shall include but not be limited to:
 - (i) provision of management strategies for known Aboriginal heritage sites for all parts of the DA area not affected by mining;
 - (ii) identification of any future salvage, excavation and monitoring programs for any known heritage/archaeological sites within the DA area, prior to and during construction;

- (iii) set out management procedures and protocols for issues relating to Aboriginal heritage for all stages of the development (induction of employees on archaeological and heritage issues; training of field crews, Aboriginal community participation; staging of works; salvage etc);
- (iv) details of a program for archival recording of known Aboriginal sites;
- (v) details of a program for salvaging known Aboriginal sites which may be affected by mining or construction activities;
- (vi) details of consultation undertaken with the Illawarra Local Aboriginal Land Council and Tharawal Local Aboriginal Land Council in the preparation of this Plan;
- (vii) details of the measures to fully document, in accordance with the NSW Heritage Council guidelines, any non-indigenous heritage sites that will be required to be removed or likely to be damaged as a result of the development;
- (viii) details of proposed monitoring that will be undertaken in the areas adjacent to the non-indigenous heritage sites identified within the DA area during their excavation and removal, to identify any further cultural material that may exist;
- (ix) details of the methods to dispose of the excavated non-indigenous heritage sites in a manner approved by the NSW Heritage Council, and following consultation with WCC;

Issues Specific to the Plan for the Mining Area include:

- (i) details of the proposed measures to monitor the potential impacts of subsidence on Aboriginal sites, particularly rock art. This shall also include details of the proposed mitigation and remedial measures to manage any potential impacts;
- (ii) details of the proposed measures to monitor the potential impacts of subsidence on non-indigenous heritage sites (it should be noted the EIS does not identify all the heritage sites in the mining area and consequently a thorough survey is required). This shall include details of the proposed mitigation and remedial measures to manage any potential impacts. There shall be pre and post mining dilapidation surveys of the structures on the Lionel Walker property and of the Cordeaux Manor homestead and associated buildings;
- (iii) include specific actions in Subsidence Environmental Management Plans (refer to Condition 3.3.2 c (v)) to address subsidence impacts on Aboriginal artefacts and areas of Aboriginal cultural significance and implement these actions when adverse subsidence impacts occur

Issues Specific to the Plan for Dendrobium and KVCLF sites include:

- (i) details of how the heritage values of the Collieries Training School can be feasibly preserved;
- (ii) details of the proposed methods to archivally record non-aboriginal heritage sites that are required to be either demolished or modified, prior to their demolition or modification, in consultation with the NSW Heritage Office and WCC;
- (iii) details of full archival recording prior to any demolition works. The archival recording must be in accordance with the NSW Heritage Office publication “How to prepare archival records of heritage items Part 11 Minimum Requirements for Archival Recording”. The archival record must be made of all buildings wherever change or demolition is proposed;
- (iv) details of how the external appearance of the bath house will generally remain unaltered. In order to gain better viewing from the interior of the building, the floor must be raised rather than altering the windows;
- (v) details of how the two existing doors will be retained and the new roller shutters match the colour of the building;

<p>Note: A copy of the excavation permit application and a copy of the excavation permit issued by the NSW Heritage Council must be lodged with WCC prior to commencement of works on site.</p>

- (b) If, during the course of construction of any surface facilities or mining activities, the Applicant becomes aware of any heritage or archaeological sites not previously identified, all work in the vicinity of the site shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, WCC, the NSW Heritage Office, the Illawarra Local Aboriginal Land Council, Tharawal Local Aboriginal Land Council, the Wodi Wodi Elders Group, the Wadi Wadi Coomaditchie Aboriginal Corporation, the Korewal Elouera Jerrungarugh Tribal Elders Aboriginal Corporation,. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.
- (c) The Applicant is to consult regularly with the Aboriginal community organisations outlined in 3.4 (a) using consultation principles and strategies consistent with those outlined in the “*Guidelines for best practice community consultation in the NSW Mining and Extractive Industries*”. The results of these consultations shall be documented in the AEMR
- (d) Any proposed works that will affect non-indigenous heritage items, (including the items listed in Section 8.8.2 of the EIS where they are relics as defined in Section 4 of the *Heritage Act 1977*) including demolition of the items, will

require an approval under section 139 of the *Heritage Act 1977* and an application for an excavation permit under section 140 of the *Heritage Act 1977* to disturb the relics will be required. This may also require additional approvals from WCC if the items are listed on the Heritage Schedule of the Local Environmental Plan.

Monitoring

- (e) The Applicant shall monitor the effectiveness of the measures outlined in the Archaeology and Cultural Management Plan [Condition 3.4(a)]. A summary of monitoring results shall be included in the AEMR.
- (f) The Applicant shall prepare a monitoring program in consultation with the relevant interest groups of known indigenous heritage sites identified within the DA area, during the period of construction and mining operations. The monitoring program shall be included in the Archaeology and Cultural Heritage Management Plan (Condition 3.4 (a)) and a summary of results will be included in the AEMR.

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

Assessment and Management

The Applicant shall prior to the commencement of construction activities at the Mining Area, Dendrobium and KVCLF sites respectively:

- (a) prepare and implement a Flora and Fauna Management Plan for the management of flora and fauna issues (including threatened invertebrate species) for the Mining Area, Dendrobium and KVCLF areas. The Plans are specifically required to outline procedures for clearing or disturbing vegetation and other habitat types, along with measures for habitat reinstatement, rehabilitation and management.

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

Clearing of vegetation and disturbance of surface rock

- (i) details of pre-clearance inspections, including the identification and inspection of habitat features, such as surface rock that may act as overwintering shelter, trees containing tree hollows, including stags, prior to clearing of any vegetation or the disturbance of surface rocks. The inspections will include identification of significant flora species, species utilising the site or its habitat features. This shall be undertaken by an appropriately qualified and experienced ecologist for the presence of any threatened species utilising the site or its habitat features;
- (ii) the description of appropriate methods for avoiding or minimising impacts on any threatened species should they be detected during any activity or pre-activity inspection; and
- (iii) details of the methods for salvaging and relocating habitat features, including hollow bearing limbs/stags, that have been identified, to areas regenerated with native vegetation, to augment and reconstruct faunal habitat. Any such habitat features, including limbs and trunks must not be burnt or otherwise rendered unsuitable as habitat.

Reconstruction of native bushland – Post Mining fauna habitat

- (i) the establishment of long-term post-mining land use objectives over the site;
- (ii) details of the methods proposed to meet the principal goal - to replace each community type that currently exists on site that will be removed or reduced in area, with communities of the same species composition and ecological processes;
- (iii) measures to connect existing areas and future areas of habitat rehabilitation to form a network of wildlife corridors throughout the site and to adjoining lands to facilitate species recruitment through natural immigration;
- (iv) strategies for the preparation of the site for habitat rehabilitation, as part of the revegetation;
- (v) details of the utilisation of local endemic species or species naturally occurring for regeneration;
- (vi) methods of revegetation;
- (vii) measures for the dispersal of rocks and logs of varying sizes throughout the proposed revegetated areas to provide refuge and basking sites for herpetofauna;
- (viii) measures to ensure the creation of variation within the microtopography to provide habitat features such as pond depressions, elevated areas, and wind shelters
- (ix) development of a protocol for identifying and preventing significant impacts on any threatened flora and fauna species, during development through construction and operation of the coal mine; and
- (x) details of the habitat maintenance and monitoring program (refer to subclause (i) below).

Issues Specific to the Plan for the Mining Area include:

- (i) details of restricting vehicles associated with the mine to a 30km/hr speed limit within Mining Area 2 to minimise the potential impacts on Koalas;
 - (ii) details of the use of the existing seismic line for the access track to the ventilation Shaft Site 2 area and details of the construction and use of a bridge to cross over the creekline that ensures that there is no detrimental effect on the habitat of the Red-crowned toadlet;
 - (iii) details of measures to monitor for potential impacts to Upland Swamps;
 - (iv) details of the proposed management of weeds entering the site, such as from vehicles. The proposed management measures shall be detailed within a weed management plan and shall include the hand removal of weeds (in preference to the use of herbicides);
 - (v) details of compensatory measures to address vegetation areas that will be cleared as a result of the mining related activities;
 - (vi) details for undertaking ongoing threatened species surveys of the area, including the Upland Swamps. This should include details of the proposed management strategies to mitigate the potential impact of the proposal on these threatened species and their habitats. The results of these ongoing surveys shall be reported in the AEMR (refer to condition 9.2(a));
 - (vii) details of ongoing threatened species assessment, including further details of the potential and actual impact of subsidence on threatened species and their habitats, including details of the proposed management measures to mitigate the potential and actual impact of subsidence on threatened species and their habitats;
 - (viii) details of the proposed measures to mitigate the potential impact of the ventilation shafts on the ecology of the area, particularly on threatened species and their habitats;
- (b) The access track to the ventilation Shaft Site 2 area shall be restricted to the area already cleared for the seismic line. Prior to the construction of the Shaft Site 2, the Applicant shall also provide a bridge across the watercourse near the site to avoid impacts on the threatened Red-crowned Toadlet and its habitat. This shall include the use of environmentally sensitive material for the construction of the bridge and implementation of appropriate design, construction techniques, and sedimentation and erosion control measures.
- (c) If threatened species, not identified in the EIS as being affected by the development, are identified on the site during construction or operation of the mine, the Applicant shall cease any work immediately which could adversely impact on the species, pending investigation and negotiation of ameliorative measures. The Applicant shall advise the NPWS or NSW Fisheries and engage a suitable qualified person to investigate, and identify appropriate amelioration measures.

- (d) The Applicant shall ensure that the clearing of vegetation for the construction and operation of the ventilation shafts is minimised, where practicable.
- (e) The Applicant shall ensure that any vegetated areas cleared for construction purposes and not utilised in the Mining Operations are appropriately revegetated.
- (f) The Applicant shall use locally endemic species for revegetation purposes.
- (g) The Applicant shall during the life of the mine and until the revegetated areas are established to the satisfaction of the DMR, maintain revegetated areas. Maintenance shall include, where necessary, but not be limited to:
 - replacement and enhancement of habitat features
 - replanting failed or unsatisfactory areas
 - replanting failed or unsatisfactory areas
 - repairing erosion problems
 - fire management – fire suppression or fire encouragement
 - pest and weed control
 - control of feral animal populations
 - maintain and repair fencing
 - fertiliser application
 - application of lime or gypsum to control pH and improve soil structure.
- (h) As well as the requirements under subclause (g), the efforts and progress of the Flora and Fauna Management Plan shall be documented in the Annual Environmental Management Report in accordance with the Department of Mineral Resource's Guidelines to the Mining, Rehabilitation and Environmental Management Process (March 1998) or its latest version.
- (i) Measures to control invasion of weeds as a result of construction activities shall be addressed and managed.

Monitoring

- (j) The revegetation works shall be monitored by the environmental officer. The results of the monitoring and the effectiveness of the revegetation shall be reported as part of the Annual Environmental Management Report.
- (k) The Applicant shall prepare and implement a detailed monitoring program for habitat areas within the DA area, including any wetlands and aquatic habitats, during the development and for a period after the completion of the development to be determined by the Director-General in consultation with NPWS, DLWC and the SCA. The monitoring program shall be included in the Flora and Fauna Management Plan (Condition 3.5(a)) and a summary of the results shall be provided in the AEMR. The program shall:
 - (i) establish base-line data on the utilisation of undisturbed areas by fauna and animals, and base-line data for areas proposed to be mined;
 - (ii) monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works.

- The Applicant shall carry out any further works required by the Director-General and DMR as a result of the monitoring; and
- (iii) establish an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristics and structure and to propose contingency measures for improvements to revegetation if required;

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

3.6 Prevention of Soil Erosion

- (a) The Applicant shall prepare an Erosion and Sediment Control Plan for the surface facilities and proposed mining area in consultation with SCA, DLWC, and WCC, taking account of the DLWC “*Draft Guideline for Establishment of Stable Drainage Areas on Rehabilitated Minesites*” or its latest version, and to the satisfaction of DLWC and the Director-General. The Plan shall be prepared and implemented prior to the commencement of construction.
- (b) The Erosion and Sediment Control Plan shall include but not be limited to:
- (i) details of temporary and permanent erosion and sediment control systems to be used during both construction and/or the expansion of the rejects emplacement area, including earthworks associated with landscaping;
- (ii) ⁵details of the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The document should be prepared in accordance with the requirements outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing). The document shall include details on the following but need not necessarily be limited to:
- Dendrobium Pit top Area;
 - Kemira Valley Facility;
 - Rail Line;
 - the Coal Dryer area;
 - Management of any contaminated soils/materials;
 - Construction of Pipe for Excess Mine Water including discharge location at Unanderra;
 - Spoil Emplacement Activities;
 - Demolition Activities;
 - Surface Conveyor Construction;
 - Bunding in accordance with the EPA Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

A copy of this document must be provided with the supporting information in applying for the variation of a EPL

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- (iii) ⁶details of how all vehicles leaving the site will be subject to equipment or facilities to provide a cleaning process for the removal of materials from wheels and underneath the bodies of vehicles unless otherwise approved by the EPA. The facilities must be designed and installed with the aim of:
 - preventing materials being carried from the premises to external surfaces.
 - collecting, treating and disposing of any wash-down.
 - (iv) details of soil salinity management where relevant;
 - (v) the consideration of the location and purpose of structures in the erosion and sediment control plan to maximise similarities between pre-development and post-development drainage networks with reference to catchment areas, drainage densities and discharge characteristics;
 - (vi) consideration and management of erosion and sedimentation of affected surface watercourses/waterbodies, including creeklines within the DA areas;
 - (vii) measures to construct banks, channels and similar works to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring; and
 - (viii) a program for reporting on the effectiveness of the erosion and sediment control systems and performance against objectives contained in the approved Erosion and Sediment Control Management Plan, and EIS.
- (c) The Applicant shall, as far as practicable, re-establish a post-mining drainage system which is comparable to the drainage density and discharge characteristics of the pre-mining land for each affected drainage line discharging from the area of the mining development. The design and implementation of the post-mining drainage system is to be prepared prior to the cessation of mining in consultation with SCA and DLWC and to the satisfaction of the Director-General.
 - (d) The Applicant shall implement soil erosion mitigation measures at ventilation shafts to the satisfaction of DLWC and in consultation with SCA, including a sedimentation structure to collect runoff from disturbed areas. There shall be no discharge of wastes to the adjacent waters.

3.7 Site Rehabilitation Management

- (a) The Applicant shall carry out rehabilitation of all mine areas in accordance with the requirements of the Mining Lease granted by the Minister for Mineral

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Resources and ensure the progressive rehabilitation of the area is also to the satisfaction of DMR, SCA and DLWC.

- (b) ⁷The Applicant shall prepare and implement a progressive rehabilitation strategy to the satisfaction of the EPA. The strategy shall address the following:
- The identification of measures to prevent both wind blown dust emissions and contaminated stormwater runoff from any unsealed areas of the site;
 - The identification of measures to rehabilitate the Windy Gully Effluent Lagoons and areas where there was associated infrastructure;
 - Spoil Emplacement areas;
 - Temporary 14,000 Tonne Coal Stockpile area; Dendrobium Ventilation Shaft Sites where used by Dendrobium;
 - Staging and timing for rehabilitation works at the premises;
 - Ongoing management strategies to ensure the success of rehabilitation strategies; and
 - Proposed growing mediums.

This strategy must be included with the documentation required in condition 4.1(s).

3.8 Visual Amenity and Landscaping

- (a) Landscape Management Plans shall be prepared by the Applicant and approved by the Director-General for the ventilation shaft sites, Dendrobium and KVCLF site prior to commencement of construction of these areas respectively. The Plans shall be prepared in consultation with SCA, DMR, WCC, WSC and WdSC. The Landscape Management Plans shall include, but not be limited to, the following:
- i) An on-site landscaping strategy detailing design and proposed planting of trees and shrubs and/or the construction of mounding or bunding:
- 1) screening of new infrastructure, where required, from public roads including Stones Road and Cordeaux Road;
 - 2) around the Dendrobium site, Drift Access, and KVCLF site to reduce visual impacts including lighting effects;
 - 3) strategies for improving the visual quality along the Kemira Rail line and embankment, particularly for road users and private residences, including such measures as supplementary planting to fragmented existing plant communities, uniform fencing strategy, screen planting, regular waste management; and weed control and management;
 - 4) at any other affected areas identified as reasonably necessary by WCC for the maintenance of satisfactory visual amenity, and as agreed by the Director-General;
 - 5) strategies for ensuring that the proposal does not dominate the Illawarra Escarpment area;

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- 6) details of the vehicular entry to the Dendrobium site, including detailed plans to show the treatment of this area, in particular the proposed car parking to the avenue, and screening the site from Cordeaux Road;
 - 7) details of the design of the proposed car park on the entry road to Dendrobium to ensure the significant mature trees of the western boundary are retained to buffer the site from Cordeaux Road. Further detail of how the car park and entry road modification will impact on the existing trees shall also be outlined;
 - 8) further details on the proposed emplacement site, vegetation and supplement planting. Details of how the existing modified and degraded remnant rainforest will be supplemented to embellish existing communities. All vegetation disturbed through construction must result in compensatory planting specifically adjacent to the conveyor easement and access road.
 - 9) details of additional vegetation screening to Stones Road – as indicated on Figure 22 – Kemira Valley Coal Loading Facility – Landscape Concept Development, to ameliorate views from Cordeaux Heights to the proposed coal stockpile;
 - 10) details of weed control and management in the KVCLF area;
 - 11) further details of seed sourcing for utilisation in revegetation works must be provided, as well as details of revegetation programs and maintenance programs for the area; and
 - 12) details of work at the Bradford Breaker site, temporary coal stockpile and upcast ventilation shaft No. 1.
- ii) Appropriate erosion control and sediment control practices for earthworks associated with the landscaping.
 - iii) Details of visual appearance of new buildings, structures, facilities or works (including paint colours and specifications). New buildings and structures shall be designed and constructed so as to present a neat and orderly appearance and to blend as far as practicable with the surrounding landscape.
 - iv) Details, specifications and staged work programs to be undertaken, maintenance and monitoring of all landscape works and maintenance of building materials and cladding.
 - v) Details of a monitoring program to assess the effectiveness of visual impact mitigation measures. The program will be developed in consultation with WCC and be prepared to the satisfaction of the Director-General;
 - vi) Reporting of monitoring results in the AEMR and to WCC and the CCC. Monitoring results would specifically identify any remedial works required;
 - vii) Details of contingency measures to be applied in the case that proposed visual mitigation measures are not successful;
 - viii) the process of incorporating vegetation screening and fauna protection corridors into the proposed visual and landscaping works, where practicable;

- ix) use of indigenous species;
- x) The Applicant must, wherever possible avoid the destruction of mature significant vegetation; and
- xi) The Applicant shall use seeds and stock of endemic species in consultation with WCC.

3.9 Bushfire and other Fire Controls

The Applicant shall:

- (a) provide adequate fire protection works on site, including the availability of trained personnel, water tankers, fire fighting equipment and hazard reduction measures with particular attention to boundaries of adjoining landholdings;
- (b) submit an annual report on fire management activities to the SCA, WCC, WdSC and WSC; and
- (c) prepare a Bushfire Management Plan for all its holdings contained in the DA area, prior to commencement of mining operations, to the satisfaction of SCA, WCC and the Rural Fire Service, as relevant.

3.10 Land Management

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

3.11 Asset Protection Plans

At least 6 months prior to the commencement of First Workings in the Metropolitan Special Area, the Applicant shall prepare Asset Protection Plans for all SCA assets

which have the potential to be affected by the proposal. The Asset Protection Plans shall be prepared to the satisfaction of the SCA and in consultation with other asset owners and relevant regulatory authorities. The Plans must include extensive pre-mining surveys carried out prior to, during and after completion of mining. The plans shall include ongoing monitoring requirements, risk identification and assessment, preventative and remedial actions, contingency measures, communication and reporting requirements and dilapidation surveys. The Applicant shall be responsible for the preparation and update of the plans and the cost of implementation and compliance with the requirements of the plans.

The Asset Protection Plans shall remain in force throughout the life of the mine and until the impacts of mining have reduced to a minimal level acceptable to the SCA, DSC and the DMR.

The plan provisions shall be audited at least once per longwall panel and an audit report prepared and submitted to the SCA, DSC, DMR and other relevant regulatory authorities. At least annually and following each audit the plans shall be reviewed and updated to incorporate new information from studies and monitoring carried out and any Audit findings and recommendations.

4. Water Management and Monitoring

4.1 Surface & Ground Water Management Plans

The Applicant shall:

- (a) prior to the commencement of Construction for the Mining Area, Dendrobium and KVCLF site respectively, prepare Site Water Management Plans for these sites, in consultation with DLWC, EPA, SCA, WSC, WdSC and WCC, and to the satisfaction of the Director-General, which shall include, but not be limited to, the following matters:
 - (i) management of the quality and quantity of surface and ground water within the areas covered by the water management plans, particularly for American and Brandy and Water Creeks;
 - (ii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;
 - (iii) measures to ensure the ANZECC criteria for aquatic ecosystems relevant to the mining area continue to be met and where relevant the criteria for raw drinking water are met in the water storages;
 - (iv) contingency plans for managing adverse impacts of the development on surface and groundwater quality, including contingency measures to manage any impacts identified by monitoring that the management strategies have failed to predict or control;
 - (v) details of a dispute resolution process to resolve issues where deepening and/or increased operational costs of licensed bores where the water table has been lowered by mining activities, is disputed between the Applicant and affected landowner;
 - (vi) measures to ensure that waters of poorer quality are effectively segregated and reused on the site;
 - (vii) measures to manage excess mine water, including details of methods for adequately treating and disposing excess mine water, and details of contingency plans for managing any adverse impacts;
 - (viii) details of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams;
 - (ix) measures to isolate heavily contaminated waters, including waters containing oil and grease, or other pollutants, operation chemical residues or other criteria, to avoid mixing with reuse or discharge waters;
 - (x) measures for assessing chemical water quality impacts of the mining operation above and below the mine site;

- (xi) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts;
- (xii) details of a surface water and groundwater monitoring program (refer to clause 4.2(a)(ii); and
- (xiii) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the water management plan, and EIS where relevant.

Issues Specific to the Plan for the Mining Area includes:

- (i) details of the proposed management of stormwater and general surface runoff diversion at the Ventilation Shaft sites to ensure separate effective management of clean and dirty water;
- (ii) details of measures to monitor potential water quality impacts as a result of any disturbance to Upland Swamps as a result of the proposal (refer also to Conditions 3.3.2 and 3.5(a));
- (iii) ⁸documentation of how appropriate measures will be implemented to ensure activities undertaken in the catchments of Class S waters will be in compliance with condition 4.1(x). A copy of this document must be provided with the supporting information in applying for the variation of the relevant EPL;
- (iv) details of measures to manage and mitigate any potential impacts as a result of accessing the site, particularly from sedimentation related impacts from access roads and tracks;
- (v) ⁹on-site strategies which promote the sustainable use and management of local natural resources including:
 - (a) strategies to minimise inflows to mine workings;
 - (b) details of a remediation plan should the actual inflow exceeds that predicted or is deemed excessive by the DLWC;
 - (c) details of proposed remedial action for activities deemed as unsustainable.
- (vi) details of the proposed management of human wastewater;
- (vii) details of the proposed management of the chemical and fuel storage areas, including potential leakages of contaminants from machinery.
- (viii) details of the proposed location of the truck wash down stations at the entry points of the catchments during construction of ventilation shafts and remediation works;

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⁹ DLWC General Terms of Approval

- (ix) details of specific environmental compensatory measures to rectify water quality impacts to the requirements of the Director-General and in consultation with SCA and DLWC, should the monitoring required in Condition 4.2(a)(iii) identify the ANZECC aquatic ecosystems and raw drinking water quality criteria is not being met.

Issues Specific to the Plan for Dendrobium and KVCLF includes:

- (i) details of the management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water at the proposed KVCLF site;
- (ii) contingency plans for managing potential adverse impacts as a result of disturbance to inground chemical contamination at the Dendrobium site;
- (iii) ¹⁰details of how all blackwater from the Dendrobium amenity facility will be connected to the Sydney Water Corporation Sewerage system;
- (iv) details of measures to manage and monitor any potential water quality impacts as a result of the construction and use of the 150,000 tonne coal stockpile in the Kemira Valley and the temporary coal stockpile at the Dendrobium site;
- (v) details of the measures to monitor the potential for leakages to occur to the pipeline transporting water from the Kemira Valley site to Port Kembla. This shall include details of contingency measures to manage any potential impacts;
- (vi) measures to manage excess mine water, including details of methods for adequately treating and disposing excess mine water, and details of contingency plans for managing any adverse impacts, including the proposed disposal of effluent from the Sewage Treatment Plant into the flooded Nebo workings;
- (vii) ¹¹details of how the Main Sedimentation Basin at Kemira Valley will be managed to ensure compliance with subclause (viii) below and minimisation of overflow events. This documentation must include but need not necessarily be limited to the following:
 - (a) measures needed to maintain adequate capacity within the main sedimentation basin following a rainfall event; and
 - (b) identification of suitable lining to prevent the leakage of collected polluted stormwater.

This strategy must be included with the documentation required in Condition 4.1(s) and implemented prior to undertaking any other works in Kemira Valley.

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- (viii) ¹²details of how the KVCLF will be designed, constructed and operated so that there will be no discharge to waters under dry weather conditions or storm event(s) of less than 1:10 year, 72 hour duration, average recurrence interval, (that is, 460.8 mm of total rainfall within the 72 hour period).
- (b) The Applicant shall undertake a study of groundwater effects and then undertake annual assessments of the accuracy of the groundwater model predictions compared with monitored groundwater impacts in consultation with DLWC. Details of the assessments shall be reported in the AEMR and the scope of the assessment shall be determined in consultation with DLWC. Should the assessment identify significant differences between the model predictions and monitored impacts, the Applicant shall revise the assessment of the potential impacts on groundwater systems in consultation with DLWC and implement any further mitigation measures in consultation with DLWC.
- (c) In the event that the development adversely affects groundwater users, the Applicant shall in consultation with DLWC, liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply.

Channel Diversion

- (d) Prior to the close of mining activities, the Applicant shall submit a report to the satisfaction of DLWC and in consultation with SCA, detailing the proposed works to re-instate creeks identified by the DLWC. The report shall include, but not be limited to:
 - (i) design plans for proposed works that show details of works location, cadastre, extent of works, current channel profile shape slope cross sections (at downstream limit, upstream limit and mid point of proposed works) and works to modify river channel;
 - (ii) rehabilitation plans that show current riparian zone features and planned revegetation of the riparian zone adjacent to channel modification works. The report shall detail how the proposed revegetation shall result in a structured vegetation community of grasses, shrubs and trees of appropriate native species for a minimum distance of 20 metres from the top of the high bank.
 - (iii) plans that show works to restore the channel back to a natural condition. The channel restoration shall ensure that the original slope, cross section and meander is re-instated. Bed protection with constructed riffles and bed controls will need to be identified as a component of the design plans;
 - (iv) details of a maintenance program for the channel restoration and revegetation works for a minimum period of two years after commencement of restoration works to ensure a stable site;

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- (v) contingencies should the modification works or restoration works suffer damage from either natural events or other interference, the Applicant shall ensure all works comply with design plans submitted under sub-clause (i) above;
- (vi) measures to ensure that the proposed works do not initiate bed or bank erosion in Brandy and Water Creek.

Groundwater

- (e) ¹³The Applicant shall not discharge any mine waters into or onto:
 - any adjoining public or crown land;
 - any other persons land without written permission;
 - any creek, river or water course or aquifer without approval from DLWC;
 - any native vegetation as defined under the Native Vegetation Conservation Act (1997); or
 - any wetlands of environmental significance.
- (f) ¹⁴The Applicant shall notify the DLWC if a flowing supply is encountered from the works associated with the mine.
- (g) ¹⁵The Applicant shall notify DLWC should a producing aquifer above the coal measures of high or poor quality water be encountered during the construction of the dewatering works. This water shall be excluded by:
 - (i) inserting the appropriate length(s) of casing to a depth sufficient to exclude the overlying producing aquifer from the coal measure;
 - (ii) cementing between the casing(s) and the walls of the borehole from the ground level to the top of the coal seam; and
 - (iii) any change from these recommended actions must be approved by the DLWC before undertaking the work.
- (h) ¹⁶The Applicant shall notify the DLWC if the works are to be abandoned and, contingent with mine safety requirements, seal off the works by:
 - (i) backfilling the work to ground level with clay or cement after withdrawing the casing; or
 - (ii) other methods agreed to or directed by the DLWC.
- (i) ¹⁷Prior to the construction of any bore to be used for water supply purposes, a bore licence application shall be submitted and a licence obtained from the DLWC for the proposed work. Details of the location of the work, target aquifer for water supply development and volume of water sought (megalitres per annum) shall be indicated in support of the application.

¹³ DLWC General Terms of Approval

¹⁴ DLWC General Terms of Approval

¹⁵ DLWC General Terms of Approval

¹⁶ DLWC General Terms of Approval

¹⁷ DLWC General Terms of Approval

- (j) ¹⁸Prior to the construction of any bore or use of any work for the purposes of re-injection of mine or other waters used on-site, a bore licence application shall be submitted and a licence obtained from the DLWC. Details of the location of the work, water quality of tailwater to be re-injected, target aquifer for re-injection and volume of tailwater to be re-injected (megalitres per annum) shall be indicated with the application submitted.
- (k) ¹⁹The Applicant shall provide the DLWC with an estimate of mine water make and requirements for pumping, including rate, annual volume, location, and identification of any impacts due to pumping.
- (l) ²⁰The Applicant shall, within 1 year of the commencement of longwall mining in each of the designated mining areas (ie Dendrobium Mining Areas 1, 2, & 3), provide the DLWC with the following information for each extraction area:
 - (i) a plan showing the main areas of current and expected water make within the mine workings. The plan should also show the location of agreed monitoring locations for groundwaters and dependent vegetation habitats (refer also to Condition 4.2 (a));
 - (ii) identify hydraulic characteristics of overlying and intercepted groundwater systems, and determine changes to groundwater systems due to coal extraction and dewatering operations;
 - (iii) identify any overlying groundwater dependent ecosystems and surface water environments, and determine potential impacts from coal extraction and dewatering activities to these systems;
 - (iv) reports detailing any pumping tests and groundwater/surface water simulation studies undertaken; and
 - (v) if an Environment Protection licence from the NSW Environment Protection Authority is not current for the mine operations, the Applicant shall submit to the DLWC in an annual report, the results of bi-monthly water quality samples from monitored groundwater and surface water systems. Samples must be collected and analysed by a NATA registered organisation. The following suite of analyses should be included: electrical conductivity, total dissolved solids, pH, alkalinity, turbidity, dissolved oxygen, temperature, iron, and manganese (refer also to Condition 4.2 (a));
 - (vi) collect water level data from all agreed groundwater monitoring locations; and
 - (vii) maintain accurate records of volume (megalitres per year) of water pumped from the mine.
- (m) The Applicant shall ensure that there is no disposal of mine waters in the Special Area.
- (n) There shall be no earth works, shaft sites, roads or other infrastructure located within 50 metres of any watercourse (except where there is existing roads and

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¹⁹ DLWC General Terms of Approval

²⁰ DLWC General Terms of Approval

infrastructure located in these areas or the alternative would cause a greater adverse environmental impact) in the Metropolitan Special Area.

- (o) Spoil generated during the construction of the ventilation shafts shall be managed within the Metropolitan Special Area to the satisfaction of the SCA and DMR.

STORMWATER MANAGEMENT

Kemira Valley Coal Loading Facility

- (p) Prior to the commencement of construction, the Applicant shall undertake hydrologic and hydraulic modelling to determine the effect of stormwater on the two proposed culverts on either side of the KVCLF. The modelling must investigate the effects of both the 1 in 100 year and Probable Maximum Flood (PMF) events in both the blocked and unblocked states. In particular, the Applicant must investigate the effects that large events such as the PMF or a blocked culvert will have on the potential breach of stormwater into the coal stockpile. The Applicant must assume a 100% blockage for structures with a major diagonal opening width of less than 6 metres. Where a structure is provided with a major diagonal opening width in excess of 6 metres, a 25% bottom up blockage shall be assumed.

The Applicant must provide the details of the modelling and any measures proposed to mitigate or eliminate the ingress of stormwater into the coal stockpile to WCC's Manager – Design. It must be demonstrated that the effects will not result in an unreasonable ingress of contaminants into the natural watercourse immediately downstream of the site.

Dendrobium Portal

- (q) Prior to the commencement of construction, the Applicant shall undertake hydrologic and hydraulic modelling to determine the effect of stormwater on the proposed new crossing in the location of the New Drift Portal at the Dendrobium Pit Top as detailed in Appendix 2 & 5 of Volume 4 of the EIS. The modelling shall investigate the effects of both the 1 in 100 year and PMF events in both the blocked and unblocked states. The Applicant must assume a 100% blockage for structures with a major diagonal opening width of less than 6 metres. Where a structure is provided with a major diagonal opening width in excess of 6 metres, a 25% bottom up blockage shall be assumed. The results of the modelling and any proposed mitigation measures shall be to the satisfaction of WCC's Manager – Design.

Emplacement Sites

- (r) Prior to the commencement of construction, the Applicant must undertake hydrologic and hydraulic modelling to determine the extent of influence that the 1 in 100 year and PMF events have on the two emplacement areas and the temporary coal stockpile that are proposed as highlighted in Appendix 6 of Volume 4 of the EIS. The extent of the influence and the resulting stream

velocities both pre and post emplacement shall be quantified. Where it is found that the proposed emplacement areas are influenced by large storm events, the Applicant must undertake a detailed construction sequence identifying the measures that are proposed to minimise the time that loose or insufficient volume of materials are susceptible to erosion and scour both in the short and long term. The results of the modelling and any proposed mitigation measures shall be to the satisfaction of WCC's Manager – Design.

- (s) ²¹The Applicant must document and implement measures that will minimise the discharge of pollutants from the Dendrobium Surface Facilities, Kemira Valley Coal Loading Facility, Coal Dryer area, conveyor and rail transport systems during wet weather and to meet condition 4.1(a)(vii) of the EMP for the Dendrobium site. The EPA must be consulted in the development of the measures and a copy of this document must be provided with the supporting information for an EPL variation.

Concentration Limits – Excess Mine Water Disposal to Allans Creek

- (t) ²²The EPL will specify concentration limits for particular pollutants discharged at the location identified at the discharge point which must not be exceeded and include the following specified in the table.

Discharge Concentration Limits to Allans Creek

<i>Pollutant</i>	<i>Units of measure</i>	100% concentration limit
Arsenic	µg/L	140
Copper	µg/L	8
Nickel	µg/L	560
Zinc	µg/L	43
PH	pH	6.5 – 8.5
Oil and Grease	mg/L	10
Total Suspended Solids	mg/L	25
Dissolved Oxygen	% saturation	80 – 110
BOD	mg/L	20
Turbidity	Ntu	25

Note: During Review of the EPL, the EPA will review the above concentration limits based on the findings of the monitoring program required in condition 4.2(d) to assess the adequacy of these limits, which may result in the EPL being varied.

- (u) ²³The Applicant shall ensure that mine water discharged into Allans Creek:
- Must not exceed ten megalitres per day for the first six months after commencement of draining of the underground workings, including Kemira, Elouera and Mount Kembla Collieries

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- During the period from the end of the first six months until the 30 December 2010, the water discharged must not exceed four megalitres per day.

From 2011, no mine water may be discharged unless otherwise approved by the EPA. The applicant must notify the EPA in writing prior to the commencement of draining the underground workings.

- (v) ²⁴The 14,000 Tonne Temporary Coal stockpile developed in the vicinity of the package sewage treatment facility to hold material removed as a result of the Portal driveage must only be operated for a 6-month period from the commencement of Portal driveage activities. The 6-month period must also include stockpile removal.
- (w) ²⁵The Mine must be designed, constructed and operated so that any water discharges to the flooded underground workings must not cause any significant lowering of the potential for beneficial use of this coal seam aquifer.
- (x) ²⁶The Applicant shall ensure that there is no pollution of Class S (Specially Protected) Waters as defined in *An Atlas of Classified Waters in New South Wales* at all times.
- (y) ²⁷No later than 12 months after the commencement of draining underground workings, the Applicant shall develop a strategy with the aim of eliminating the discharge of excess mine water to Allans Creek to the Satisfaction of the EPA. The strategy shall include but not be limited to the following:
 - (i) Ongoing investigations to identify reuse options where ever possible to continually minimise the amount of excess mine water discharged taking into account the outcomes of Fresh Water Conservation Program specified in Condition (z);
 - (ii) Investigations on alternative discharge options including to the existing underground workings;
 - (iii) Details on any emergency contingency discharge requirements and their management;
 - (iv) A process to assess the feasibility and cost of options to reduce the discharge to Allans Creek;
 - (v) A process to identify preferred options for implementation; and
 - (vi) The identification of a timetable for implementation of the selected options to meet cessation date for discharge.
- (z) ²⁸The Applicant shall develop a program to investigate and implement opportunities to reuse excess mine water from the Dendrobium Coal Mine in the Wollongong Industrial area for industrial or commercial use thereby reducing their need for fresh water. As part of this program the Applicant shall:

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- prepare and submit a report to the EPA by 30 December 2004 that describes what opportunities to re-use excess mine water from the Dendrobium Coal Mine and a timetable for their implementation; and
- after receiving written approval from the EPA, the Applicant must implement the opportunities to re-use identified water sources within the agreed time frame. The EPL may be varied subject to the findings and recommendations of the program.

Note: 1. The applicant must implement the strategy proposed in Condition (y) above with the submission of an annual progress report with the EPL annual report on the outcomes of the strategy, which may include investigations and works to meet the discharge cessation goal. The EPL may be varied subject to the findings and recommendations of the progress reports.

2. The Applicant will be required to obtain a licence under Part 5 of the Water Act 1912 to authorise the mine dewatering and associated mining activities that may affect groundwater resources and dependent ecosystems in the area of the proposed mine development. The lands authorised by this licence relate to Consolidated Coal Lease No 768 situated in the Parishes of Dendrobium, Cordeaux and Kembla, County of Camden.

Discharge Cessation Program

(aa) ²⁹The following licensed discharges will be withdrawn from the Elouera Colliery EPL at the times specified in the following table.

EPA Discharge Identification No.	Description of Location	Time frame for cessation of discharge
5	Dendrobium Site – at Windy Gully.	Within 12 months after the commencement of Dendrobium Pit Top Area construction
6	Dendrobium Site – A pipe 10 meters south of Diesel Transport Portal	6 months after the commissioning of the pipeline to Allans Creek
7	Dendrobium Site – Junction of three separate pipes 15 meters from Forest 11 Portal.	Closure of Elouera Colliery or no later than the 30 September 2005 unless otherwise approved by the EPA

To withdraw the discharges referred to in the above table the applicant must provide documentary evidence to the EPA that the discharges have ceased by the specified time frame.

4.2 Surface and Groundwater Monitoring

(a) The Applicant shall:

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- (i) construct and locate surface and groundwater monitoring positions, as identified in the relevant Site Water Management Plans (Condition 4.1(a, b and c)) in consultation with SCA, DLWC, and to the satisfaction of the Director-General, prior to the commencement of Construction works at the Mining Area, Dendrobium and KVCLF sites;
- (ii) prepare a detailed monitoring program where impacts are expected in respect of ground and surface water quality and quantity, including water in and around the DA area during mining works and post mine operations in consultation with DLWC and SCA which shall form part of the Site Water Management Plans. The monitoring program shall have the capacity to collect sufficient data to adequately assess as relevant:
 - 1) the impact on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;
 - 2) any concerns or complaints from surrounding landholders on groundwater matters, and any ensuing actions, which shall be recorded and be available to DLWC; and
 - 3) ³⁰an efficient monitoring system to measure dewatering activity, both quality and quantity, in accordance with a schedule of monitoring sites and parameters.
- (iii) report on the monitoring results and raw data in the AEMR on the following matters:
 - 1) a basic statistical analysis (mean, range, variance, standard deviation) of the results for the parameters measured in individual bores / wells and as a subset of the aquifer;
 - 2) an interpretation of the water quality results and changes in time for water quality and water levels (supported with graphs, contour plots showing changes in aquifer pressure levels);
 - 3) an interpretation of the water balance identifying the volume of water and comparing this to predictions made in the EIS or the previous AEMR;
 - 4) details of the collection of daily rainfall and water level measurements at sites agreed to by DLWC where possible;; and
 - 5) provide an electronic copy of the data forwarded to DLWC.

Notes: 1. Under the provisions of Part V (s116) of the Water Act (1912), this licence shall be valid for 5 years from the date of issue, after which it shall lapse and renewal shall be required.

2. The approval for proposed works under this licence shall lapse if the work is not installed within three years of the date of licence issue.

- (b) ³¹Prior to the construction of any bore for the purposes of groundwater investigation and/or groundwater monitoring, a bore licence application shall be submitted and a licence obtained from the DLWC. Completion details of all groundwater investigation bores are required to be forwarded to the DLWC.

³⁰ DLWC General Terms of Approval

³¹ DLWC General Terms of Approval

- (c) ³²The Applicant shall, after receipt of the groundwater licence (under Part 5 of the Water Act), annually provide the DLWC with an interpreted report on monitoring, detailing the quantity of water pumped from the mine in the previous 12 months, the water level data described in Condition 4.1 (l)(vi) above, water quality data described in Condition 4.1 (l)(v) (if required) and detailing any changes to the environment that may trigger the need for remedial action.
- (d) ³³For each monitoring / discharge point specified below, the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency specified opposite in the other columns unless otherwise approved by the EPA:

Discharge Concentration Limits to Allans Creek

<i>Pollutant</i>	<i>Units of measure</i>	Frequency	Sampling Method
Arsenic	µg/L	Every 8 Days	Composite Sample
Copper	µg/L	Every 8 Days	Composite Sample
Nickel	µg/L	Every 8 Days	Composite Sample
Zinc	µg/L	Every 8 Days	Composite Sample
PH	PH	Continuous	Continuously
Oil and Grease	mg/L	Weekly	Grab Sample
Total Suspended Solids	mg/L	Every 8 Days	Composite Sample
Dissolved Oxygen	% Saturation	Continuous	Continuously
BOD	mg/L	Every 8 Days	Composite Sample
Conductivity/Salinity	uS/cm	Continuous	Continuously
Turbidity	Ntu	Continuous	Continuously
Flow	KL/Day	Continuous	Continuously

Note: For a constant flow from the licensed discharge point no fewer than 6 sub-samples must be collected over a 24 hour period to make up a composite sample. If the flow is variable, the applicant must develop and provide to the EPA, a sampling protocol that representatively samples over the full range of flow conditions.

- (e) ³⁴The EPA will review the monitoring program annually in consultation with the applicant to assess the adequacy of the monitoring program which may result in the EPL being varied.
- (f) ³⁵The applicant must prepare and implement a surface water monitoring program to monitor the environmental performance of works to construct, operate and rehabilitate the Dendrobium Pit Top Area and to assess that activities at the Dendrobium pit top is not polluting receiving waters. The program must include details on but need not necessarily be limited to the following:
- (i) Monitoring Locations including:

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- American Creek;
 - Stormwater Pollution Controls.
- (ii) Monitoring methodologies and standards to be employed;
 - (iii) Variables and substances which are proposed to be monitored;
 - (iv) Representativeness of the sampling;
 - (v) Monitoring frequency based on rainfall event;
 - (vi) Reporting and assessment of results; and
 - (vii) Opportunities to integrate the monitoring program with other monitoring programs in the vicinity.
- (g) ³⁶The applicant shall consult with the EPA on the development of the program outlined in Condition (f) above and a copy of the program must be forwarded to the EPA with the supporting information provided with the application for EPL variation.

Biological Assessment Monitoring Program – Kemira Valley

- (h) ³⁷No later than 1 month after the granting of development consent, the applicant must develop a bioassessment monitoring program, to the satisfaction of the EPA, that would enable any impacts on the ecology of the receiving waters resulting from a discharge from the main sedimentation basin to be adequately quantified and assessed.

The program referred to above must include details and procedures on but need not necessarily be limited to the following:

- An assessment of the current health of all relevant aspects of the ecology of the receiving waters;
- A specific sampling design which would enable a rigorous assessment of the impact of a discharge from the main sedimentation basin on the health of the receiving waters;
- Identification of bioassessment monitoring methodologies and standards to be employed to assess creek health;
- Monitoring location(s);
- Monitoring frequency;
- Representativeness of the sampling;
- Assessment of results;
- Reporting; and
- Opportunities to integrate with other monitoring programs.

Note: The applicant must prepare a report for submission to the EPA no later than 3 months after each overflow event.

- (i) ³⁸The applicant must develop a monitoring program, to the satisfaction of the EPA, no later than 6 months after commissioning the Kemira Valley Stock Pile facility to characterise potential pollutants and water quality variables and

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determine the impact of possible overflows from the Main Sedimentation Basin.

- (j) ³⁹The program referred to in Condition (i) above must include details and procedures on but need not necessarily be limited to the following:
- The characterisation of pollutants and mass discharges of individual pollutants from possible overflows to Brandy and Water Creek; and
 - A sampling design showing the sampling and analytical methodologies, and statistical basis for the characterisation plan to produce representative data with a high level of statistical certainty; and
 - The direct toxicity of the possible overflow discharge from the main sedimentation dam and dilution rates required to avoid toxicity.
- (k) ⁴⁰The applicant must implement the program proposed in conditions (i) and (j) above with completion of the program and submission of a report to the EPA no later than 18 months after commissioning. The EPA may vary the EPL subject to the findings and recommendations of the program.
- (l) ⁴¹The EPA will review the necessity to expand, reduce or continue the bioassessment monitoring program, taking into consideration the findings of the submitted reports required under condition (h) and (k) above, at the EPL review.

Discharge Monitoring Program for Kemira Valley Facility

- (m) ⁴²A monitoring program must be developed and implemented to the satisfaction of the EPA, that enables any discharge from the sedimentation basin to the receiving waters to be quantified and to assess compliance with clause (viii) of the specific Plan for the Dendrobium and KVCLF site under Condition 4.1(a). The program must include details on but need not necessarily be limited to the following:
- The monitoring methodologies and standards to be employed;
 - The variables and substances which are proposed to be monitored;
 - Monitoring frequency based on rainfall event;
 - The quantity of water collected in the main sedimentation basin;
 - Rainfall frequency and intensity or other appropriate measures to assess the design criteria specified in clause (viii) of the specific Plan for the Dendrobium and KVCLF site under Condition 4.1(a), is not compromised;
 - Reporting and assessment of results; and
 - Opportunities to integrate the monitoring program with other monitoring programs in the vicinity.

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⁴⁰ EPA General Terms of Approval

⁴¹ EPA General Terms of Approval

⁴² EPA General Terms of Approval

Re-injection Monitoring Program

- (n) ⁴³The applicant must develop a Re-injection Monitoring Program, to the satisfaction of the EPA, to demonstrate that any re-injection of water to the flooded underground mine workings is being undertaken in compliance with Condition 4.1(w). The program will document the measures to be implemented and must include details on but need not necessarily be limited to the following:
- the location of re-injection into the flooded underground workings;
 - method of discharge;
 - volume and frequency of discharge;
 - the monitoring methodologies and standards to be employed to assess compliance with Condition and 4.1(w);
 - monitoring location(s);
 - the parameters and substances that are proposed to be monitored, including sampling and analysis frequency;
 - representativeness of the sampling;
 - reporting and assessment of results; and
 - opportunities to integrate the monitoring program with other monitoring programs.

⁴³ EPA General Terms of Approval

5. Coal Wash Emplacement Area, Waste, Hazards Management, and Land Stability

5.1 Stage 3 Coal Wash Emplacement Area

Alternatives to waste emplacement at Area No 3 West Cliff and reporting

- (a) The Applicant shall fully evaluate the technical and commercial aspects of using alternatives to the proposed waste emplacement area No 3 at the West Cliff site. The report with recommendations shall be submitted to the Director-General, NPWS, Waste Task Force (the existing task force which reviews BHP waste management), and WdSC no later than 31 December 2003. The report shall consider, but not be limited to:
- Filling up existing waste emplacement areas available to the applicant;
 - Underground disposal;
 - Coal wash brick;
 - Road pavement; and
 - Power station use.
- (b) From the date of submission of the report, the Applicant shall provide an annual written report to the Director-General, NPWS, Waste Task Force, and WdSC, detailing progress undertaken during that period to pursue alternatives to the use of Emplacement Area No.3. The Applicant shall provide any reasonable additional information relevant to these reports and any other reasonable requirements for the reports, if so requested by the Director-General.
- (c) The Applicant shall submit a report by 31 December 2008 with recommendations to the Director-General, NPWS, Waste Task Force, and WdSC whether any alternatives to Emplacement Area No 3 are feasible. This will include consideration whether modifications will be required to this consent.
- (d) The Director-General may, after considering any submission made by relevant government authorities, Waste Task Force, and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those requirements within such time as the Director-General may require.

<p>Note: The Financial Security Agreement outlined by the Applicant, in Appendix D of Volume 1 of the EIS regarding the investigation of alternative beneficial uses for Coal Washery Refuse must be formalised in consultation with the BHP Waste Management Task Force.</p>

Use of Emplacement Area No 3

- (e) Should the Applicant seek approval for the use of Emplacement Area Stage No 3 in accordance with Condition 1.1(c) of this consent, the Applicant shall

ensure that a further detailed assessment is undertaken to the satisfaction of the Director-General. This assessment shall include, but not be limited to the following:

- (i) investigations into alternative layouts for the emplacement of the coal wash. This shall consider, following targeted surveys, the location of threatened species, populations and ecological communities and their habitats listed on the *Threatened Species Conservation Act, 1995*; and Matters of National Environmental Significance under the *Environment Protection Biodiversity Conservation Act, 1999*;
 - (ii) a new species impact statement in accordance with the requirements of the Director-General of the NPWS;
 - (iii) the preparation of a Vegetation Removal Plan, which allows the emplacement of the areas of least ecological significance first. This plan shall be prepared in consultation with the NPWS and will consider threatened species and their habitats addressed in the EIS and SIS and sites of Aboriginal cultural heritage and Archaeological significance;;
 - (iv) details for retaining vegetation links between the lower section of Brennan's Creek near West Cliff which supports Koala habitat with the northern areas where Koalas are known to occur;
 - (v) details of compensatory measures at least a 2:1 ratio. The Applicant must formally negotiate this package to the satisfaction of the Director-General and in consultation with NPWS at least 12 months prior to the commencement of clearing for emplacement and be agreed to in writing by the Director-General, in consultation with NPWS;
 - (vi) a detailed assessment of the potential impact of the proposal on any archaeological sites or sites of Aboriginal cultural significance in consultation with all relevant local Aboriginal groups and the NPWS; and
 - (vii) detailed assessment of the potential impact of the proposal on water quality, particularly on the George's River, including details of proposed management and contingency measures to mitigate any potential impacts.
- (c) The assessment shall be reviewed by the Independent Expert Review Panel referred to in Condition 8(c)(i) which will make recommendations to the Director-General.
- (d) The Director-General may, after considering any recommendations made by the Independent Expert Review Panel, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those requirements within such time as the Director-General may require.

5.2 Waste

- (a) Prior to the commencement of construction or Mining Operations, the Applicant shall prepare and implement a Waste Management Plan for the DA area in consultation with SCA, WCC, WSC and WdSC and to the satisfaction of the Director-General. The Plan shall include, but not be limited to:
 - (i) details of measures to facilitate waste management on site;
 - (ii) details of compliance with the Applicant's obligations under the *Protection of the Environment Operations Act* (1997);
 - (iii) identification of all types and quantities of waste materials produced at the mine site during construction, commissioning and operation;
 - (iv) programs aimed at minimising the production of waste at the mine site through the implementation of operational and management measures;
 - (v) details of the potential reuse and recycling avenues for waste materials produced at the mine site, including collection and handling procedures;
 - (vi) details of appropriate disposal routes in the event that reuse and recycling avenues are not available or are not practicable;
 - (vii) details of the proposed removal of solid waste from the Special Area and details of the proposed methods of disposal; and
 - (viii) programs for involving and encouraging employees and contractors to minimise waste production at the mine site and reuse / recycling where appropriate.
- (b) The Applicant shall dispose of all solid waste and putrescible matter from the DA area to the satisfaction of SCA, WCC, WSC, WdSC or EPA, as relevant.
- (c) The Applicant shall dispose of all treated sewage and sullage to the satisfaction of SCA, WCC and in accordance with the EPA Licence.
- (d) ⁴⁴All liquid and non liquid wastes resulting from activities and processes at the Dendrobium Coal Mine must be assessed, classified and managed in accordance with the EPA's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes (1999), or any other EPA document superseding this guideline.
- (e) ⁴⁵Any, slurries, dusts and sludges associated from activities at the premises must be treated and recycled wherever possible.

5.3 Hazards

1. Prior to the commencement of construction of the coal drying facility, or within such period as otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General the studies listed under a) to d) below:

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- a) a Fire Safety Study for the coal drying facility, prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Study Guidelines* and *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*. The Study shall also be submitted for the approval of the Commissioner of the NSW Fire Brigades;
 - b) a Hazard and Operability (HAZOP) Study for the coal drying facility, with particular focus on flammable gas delivery and combustion systems (natural gas or blast furnace gas). The Study shall be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines* and shall be chaired by an independent qualified person approved by the Director-General prior to the commencement of the Study;
 - c) a Hazard Analysis for the coal drying facility, prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis* and *Multi-Level Risk Assessment*. The Analysis shall specifically include:
 - i) details of the technology to be employed at the coal drying facility, with particular reference to the use of hazardous materials and potential incidents that may be initiated by, or involve, the coal drying facility;
 - ii) a demonstration that the predicted risk impacts associated with the coal drying facility, detailed in *BHPIC Dendrobium Project, Primary Submission - Commission of Inquiry* are accurate and proposed risk mitigating measures are appropriate to reduce significant risk impacts to an acceptable level; and
 - iii) consideration of the potential impacts associated with spontaneous combustion, coal dust deflagration and fires and explosions involving natural gas and/ or blast furnace gas.
 - d) a Construction Safety Study prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines*.
2. Prior to the commencement of operation of the coal drying facility, or within such period as otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General the studies listed under a) to b) below:
- a) an Emergency Plan and detailed emergency procedures for the coal drying facility, prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines*. This condition may be satisfied by updating an existing Emergency Plan for the Steelworks to reflect the development of the coal drying facility; and
 - b) a Safety Management System, covering all operations at the coal-drying facility and associated transport activities involving hazardous materials, prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 9 - Safety Management*. This condition may be satisfied by updating

an existing Safety Management System for the Steelworks to reflect the development of the coal drying facility.

3. The Applicant shall notify the Director-General within 24 hours of any incident with actual or potential significant off-site impacts on people or the biophysical environment. A detailed report outlining the incident, identification of the cause(s) of the incident and measures to be implemented to prevent recurrence of the incident shall be submitted for the approval of the Director-General within seven days of the incident. The Applicant shall undertake such measures as the Director-General may require in response to investigations into the incident, within such period as the Director-General may agree.

The Applicant shall maintain a register of all incidents and shall make the register available for the inspection of the Director-General on request.

4. Within twelve months of the commencement of operation of the coal drying facility, or within such period otherwise agreed by the Director-General, the Applicant shall commission a comprehensive Hazard Audit of the coal drying facility. The Hazard Audit shall be undertaken by an independent, qualified person or team approved by the Director-General prior to the commencement of the Audit. A Report detailing the Hazard Audit and its findings, prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 5 - Hazard Audit Guidelines* shall be submitted for the approval of the Director-General within one month of the completion of the Hazard Audit. Additional Hazard Audits shall be undertaken every three years after the completion of the initial Hazard Audit.
5. The Applicant shall prepare a specific management procedure for the delivery of fuel and other potentially hazardous chemicals into the Metropolitan Special Area to the satisfaction of the SCA. This procedure should include notification to the SCA prior to delivery, spill kits on board delivery vehicles and communication systems to allow immediate notification to the SCA of spills or other incidents which could impact on the local surface or groundwater quality. An emergency procedure should be developed for this specific aspect of the project.
6. ⁴⁶Impervious bunds must be constructed around all fuel, oil and chemical storage areas and the bund volume must be large enough to contain 110 per cent of the volume held in the largest container. The bund must be designed and installed in accordance with the requirements of the EPA Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.
7. ⁴⁷The Applicant shall ensure that any gas condensates are collected and directed to the coke ovens wastewater treatment system.

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5.4 Land Stability

- (a) Prior to the emplacement of material at the Kemira Valley and Dendrobium Mine Sites, the Applicant shall prepare a Land Stability Management Plan to the satisfaction of WCC. The Plan shall address land stability issues and outline proposed mitigation measures to address any potential impacts. The Plan shall include, but not be limited to:
 - (i) details of all previous geotechnical investigations;
 - (ii) detailed supporting geotechnical advice before development proposals are complete for the design and construction of site remedial works which need to be undertaken to enable the site to be developed for mining as proposed;
 - (iii) detailed geotechnical investigations of development areas where no subsurface data is available;
 - (iv) a stability analysis as part of the overall emplacement design process;
 - (v) a determination of the predicted impacts of the development on the structure of the affected local roads and develop a plan of management and maintenance for these roads;
 - (vi) details of the remediation work carried out by Duke Energy and supporting geotechnical advice on how this work is to be completed on land under the control of the Applicant;
 - (vii) geotechnical advice which demonstrates that the existing emplacement has sufficient structural capacity to support the temporary coal stockpile;
 - (viii) details of the investigation of potential instability affecting the mine access bench and proposed remedial works; and,
 - (ix) detailed supporting geotechnical advice before development proposals are complete for the design and construction of site remedial works which need to be undertaken to enable the site to be developed for mining as proposed.

6. Air Quality, Noise and Light Management and Monitoring

6.1 Air Quality Management and Monitoring

Air Quality Standards/Goals

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

Table 1: Health based air quality standards/goals

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

¹ National Health and Medical Research Council.

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

Existing dust fallout level ($\text{g}/\text{m}^2/\text{month}$)	Maximum acceptable increase over existing deposition levels ($\text{g}/\text{m}^2/\text{month}$)	
	Residential	Other
2	2	2
3	1	2
4	0	1

Air Quality Management Plan

- (a) The Applicant shall prepare an Air Quality Management Plan for the Mining Area, Dendrobium and KVCLF detailing air quality safeguards and procedures for dealing with dust emissions from the three areas. The Plans shall be prepared prior to the commencement of construction activities for each of the three activities, and to the satisfaction of the Director-General. The Air Quality Management Plans shall be prepared in consultation with the EPA, SCA, WCC, WSC, and WdSC. The Plans shall include, but not be limited to, details of:
- (i) the identification of dust affected properties in accordance with the relevant air quality standards/goals in Tables 1 and 2;
 - (ii) reporting of the dust emissions from the Mining Area, Dendrobium site and KVCLF site in comparison to all of the air quality standards and goals in Tables 1 and 2;
 - (iii) specification of the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations;
 - (iv) outline the procedure to notify property owners and occupiers likely to be affected by dust from the mine in excess of the relevant standards/goals in Tables 1 and 2;

- (v) measures to reduce the potential for wind erosion and dust production from exposed surfaces. The Dendrobium and KVCLF Plan shall particularly outline measures to reduce impacts from the handling and loading of coal material, and from the transportation of the coal material;
- (vi) methods for making dust monitoring data publicly available, such as the placement of monitoring details and results on the internet;
- (vii) measures to manage and mitigate short term episodic events including investigations into the relationships between short-term variations in dust levels (particularly TSP and dust deposition) and levels of complaints and annoyance, with a view to reviewing the monitoring approaches and criteria for acceptable levels of impact. The Plan for the Dendrobium and KVCLF site shall particularly focus on the potential short term episodic events from the new spoil emplacement and coal stockpiles areas;
- (viii) the establishment of a protocol for handling dust complaints that include recording, investigating, reporting and acting on complaints, including where complaints are received and it is demonstrated dust levels are below the criteria contained in this consent;
- (ix) ⁴⁸details of how the Mine will be designed and operated with the objective that emissions from the Coal Mine do not result in adverse impacts to the environment or human health in the adjacent community;
- (x) ⁴⁹details of how the mine will not cause or permit the emission of offensive odours from the premises. The proponent must comply with section 129 of the Protection of the Environment Operations Act 1997.
- (xi) appropriate mechanisms for community consultation;
- (xii) outlining proactive/predictive and reactive mitigation measures to be employed to minimise dust emissions;
- (xiii) equipment to be available and used to control dust generation;
- (xiv) methods to determine when and how the mine operation is to be modified to minimise the potential for dust emissions, particularly from surface activities if the relevant criteria are exceeded;
- (xv) identification of longer term strategies directed towards mitigating dust levels that exceed the air quality standards/goals in Tables 1 and 2;
- (xvi) details of locations for dust monitoring and deposition gauges at the residential areas and frequency of monitoring, as agreed with the EPA;

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- (xvii) a program to continue baseline monitoring undertaken prior to development consent; and
- (xviii) details of a program to manage roadside and construction dust generation and deposition within the SCA lands during the construction phase. This should include watering work, monitoring and a remediation (revegetation) plan in severely affected areas (This component of the Plan is to be prepared in consultation with the SCA);
- (xix) Monitoring and reporting protocol for PM₁₀ (particulate matter less than 10 microns) and a comparison with the:
 - National Environment Protection Council PM₁₀ goal of 50 µg/m³ (24 hour average); and
 - EPA PM₁₀ goal of 50 µg/m³ (annual average).

Air Quality and Dust Monitoring

- (b) The Applicant shall:
 - (i) undertake monitoring at locations described in the Air Quality Management Plans for the Mining Area, Dendrobium and KVCLF sites (Condition 6.1(a));
 - (ii) establish dust deposition, total suspended particulate (TSP) and PM₁₀ monitoring locations for the mine operations, including sites for monitoring impacts of dust at the nearest non-mined owned residences, and locations as may be determined to be necessary by the Director-General and in accordance with the Air Quality Management Plans referred to in Condition 6.1(a);
 - (iii) provide quarterly reporting on the performance of the control measures and of the monitoring system detailed in the EIS and conditions of this consent, unless otherwise agreed by the Director-General. The reports shall be provided to the Director-General, CCC, WCC, WSC and WdSC; and
 - (iv) provide all results and analysis of air quality monitoring in the AEMR including a determination of the dust deposition rate in g/m²/month, which shall be plotted in the AEMR.
- (c) In the event that a landowner or occupier considers that dust from the project at their dwelling or over more than 25% of their vacant land is in excess of the criteria in Tables 1 and 2, and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
 - (i) consult with the landowner or occupants affected to determine their concerns;
 - (ii) make arrangements for, and bear the costs of appropriate independent dust investigations in accordance with the Air Quality Management Plans, (which may involve an audit of the mine's monitoring program) and to the

- satisfaction of the Director-General, to quantify the impact and determine the source of any effect of the Dendrobium Mine;
- (iii) modify the mining activity or take other steps in accordance with the Air Quality Management Plans if exceedences are demonstrated to result from the mine related activity. This shall include:
- 1) introduction of additional controls, either of dust generation from individual sources on the site or on site operations or modify operations to ensure that the dust criteria are achieved; and/or,
 - 2) enter into an agreement with the landowner or provide such forms of benefit or amelioration of the impact of dust as may be agreed between the parties as providing acceptable compensation for the dust levels experienced.
- (iv) conduct follow up investigations to the satisfaction of the Director-General, where necessary.

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

- (d) If the independent dust investigations in sub-clause (c) above confirm that dust levels emitted from the site are in excess of the criteria in Tables 1 and 2 and if the measures in sub-clause (c)(iii) (1) above do not reduce the dust levels below the criteria in Tables 1 and 2, or if agreement in accordance with sub-clause (c)(iii) (2) above cannot be reached, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 11.2.
- (e) If a landowner disputes any dust mitigation or other measures proposed by the Applicant in accordance with subclause (c)(iii)(2), the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with WCC and WdSC, where relevant. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- (f) Further independent investigations shall cease if the Director-General is satisfied that the criteria in Tables 1 and 2 are not being exceeded and are unlikely to be exceeded in the future.
- (g) ⁵⁰The applicant must prepare and implement an ambient air quality-monitoring program to the satisfaction of the EPA to monitor the environmental performance of all aspects of the construction and operation of the Dendrobium Project and to assess compliance with condition 6.1(a)(ix) and adequacy of dust suppression measures proposed in condition 6.2(e). The Program must address but need not necessarily be limited to the following:
- Monitoring methodologies and standards;

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- Monitoring for concentrations of total suspended particulates (TSP), PM 10 and dust deposition rates;
- Locations where monitoring will be carried out;
- Detailed monitoring cycle and the duration of each monitoring cycle; and
- Reporting.

Monitoring is to be carried out in accordance with *Approved Methods for the Sampling and Analysis of Air Pollutants* NSW December 1999, or other methods approved by the EPA. The program shall also consider the requirements of condition 6.1(b) above. A copy of this document must be provided with the supporting information in applying for the variation of a EPL.

Coal Dryer Hot Gas Exhaust Stack

- (h) ⁵¹For each discharge point specified below, the applicant must monitor the concentration of each pollutant specified in the table below. The applicant must use the sampling method and units of measure specified in the table below.

Coal Dryer Hot Gas Exhaust Stack

Pollutant	Units of measure	Sampling Method (see note 1)
Total NO _x (as NO ₂)	g/m ³	TM-11
Solid Particles	g/m ³	TM-15

Stacks serving the depressurising bag filters and Cyclones

Pollutant	Units of measure	Sampling Method (see note 1)
Solid Particles	g/m ³	TM-15

Note 1: All methods are as specified in the "*Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*" and all monitoring must be conducted strictly in accordance with the requirements outlined in this document.

- (i) ⁵²The applicant must implement an ongoing monitoring program to demonstrate whether they are complying with Solid Particulate limits specified in condition 6.2(n).
- (j) ⁵³No later than three months after the end of commissioning the applicant must investigate the provision of monitoring to provide instantaneous data that demonstrates whether they are complying with condition (i) above. The

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investigations must also include details on but need not necessarily be limited to the following:

- Monitoring to provide instantaneous data for particulates during plant operations; and
- Preferred monitoring strategy.

Note: The applicant must prepare a report for submission to the EPA no later than 7 months after commissioning on the findings of the investigations outlined in Condition (j) above. The EPL may be varied subject to the findings and recommendations of the program.

6.2 Air Quality Control

- (a) The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas of the DA area following the completion of mining and associated activities to minimise the generation of wind erosion dust.
- (b) The Applicant shall keep the surface of the coal stockpiles and any unsealed roads sufficiently damp to minimise the emission of wind blown or traffic generated dust.
- (c) ⁵⁴Activities occurring during the construction phase of the development must be carried out in a manner that will minimise the generation of dust.
- (d) ⁵⁵The Applicant shall ensure that there are no visible dust emissions from any activity undertaken by any aspects of the Dendrobium Project including but not limited from the mine, construction and operation of the coal wash emplacement, coal dryer, rail transportation and resulting from the installation and operation of the coal dryer.
- (e) ⁵⁶At least 6 months prior to the commencement of construction of the Mine or unless otherwise approved by the EPA, the Applicant must document and implement measures that demonstrate how the Applicant will ensure that Condition (d) above will be complied with during the coal mine and coal dryer operations. The EPA must be consulted in the development of the measures and a copy of this document must be provided with the supporting information for an EPL variation.
- (f) ⁵⁷As part of the documented dust control measures required to comply with Condition (e) above, the Applicant must design dust suppression measures for stockpile management that will:

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- operate at all times when weather conditions conducive to dust generation are present or are predicted, including at times outside normal working hours when the premises may be unattended, on weekends or holidays;
 - operate so that performance of any system is not compromised as a result of varying heights of the stockpile;
 - operate so that the performance of the dust suppression system is not compromised as a result of varying wind speeds and low humidity. (*Note: There may be periods in the year when there are high strength winds which may affect the performance of the water sprays.*)
 - be integrated with a fully automated high wind early warning management system;
 - operate to suppress dust at transfer points and coal discharge to the stockpile;
 - operate so that there is adequate water supply for dust suppression.
 - *Note: adequate water supply must be retained at the Kemira Valley site without compromising the design criteria specified in conditions 4.1(a)(viii) in the specific Plan for the Dendrobium and KVCLF site so the dam is available for any subsequent rainfall events;*
 - operate to suppress dust during front end loader activities at stockpiles;
 - operate to suppress dust during rail loading operations; and
 - operate to suppress dust from any temporary stockpiles.
- (g) ⁵⁸As part of the documented dust control measures required to comply with condition (e) above, the Applicant must design dust suppression measures for coal transport activities to ensure:
- (i) trains are not overloaded; and
 - (ii) there are no visible dust from coal wagons during haulage operations.
- (h) ⁵⁹Prior to the commencement of construction of additional underground mine ventilation air discharge vents, the Applicant must demonstrate, to the satisfaction of the EPA, that the emission points have been designed to ensure that offensive odour, human health and environmental impacts will not occur.
- (i) ⁶⁰On commissioning of new underground mine ventilation air discharge vents, the Applicant shall quantify the ventilation air discharge vent efflux parameters including: the concentration of odour (OU/m³), emission rate of odour (OU/s), concentrations and emission rates of all other relevant air pollutants, volumetric flow rate (m³/s), discharge velocity (m/s), and temperature (°C). The location of sampling ports and source emissions sampling and analysis shall be conducted strictly in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales*.
- (j) ⁶¹Trucks which are entering and leaving the premises and carrying loads must be sealed or covered at all times, except during loading and unloading.

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- (k) ⁶² All internal permanent roadways must be sealed unless otherwise approved by the EPA..
- (l) ⁶³ All sealed surfaces intended to carry vehicular traffic must be managed with the aim of preventing wind blown dust emissions.
- (m) ⁶⁴ The Applicant shall ensure that the Coal Dryer is designed and operated with the objective that emissions from the Coal Dryer do not result in any adverse impacts to the environment or human health in the adjacent community.
- (n) ⁶⁵ For each discharge point specified in the table below, the concentration of a pollutant discharged at that point must not exceed the concentration limits specified for that pollutant in the table.

Coal Dryer Hot Gas Exhaust Stack

Pollutant	Units of measure	100% concentration limit	Reference conditions	Averaging period
Total NO _x (as NO ₂)	g/m ³	0.2	273 ⁰ K, dry, 101.3 kPa, 7% O ₂	As per test method
Solid Particles	g/m ³	0.02	273 ⁰ K, dry, 101.3 Kpa	As per test method

Stacks serving the depressurising bag filters or Cyclones

Pollutant	Units of measure	100% concentration limit	Reference conditions	Averaging period
Solid Particles	g/m ³	0.02	273 ⁰ K, dry, 101.3 kPa	As per test method

- (o) ⁶⁶ The coal drying plant must only use blast furnace offgas or natural gas as fuel for the drier.
- (p) ⁶⁷ Prior to commencement of construction of the coal drying plant, the Applicant must demonstrate to the satisfaction of the EPA that the emission points have been designed to ensure that offensive odour or adverse impacts to human health or the environment will not occur.

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6.3 Blast Management and Monitoring

Blasting Overpressure

- (a) ⁶⁸The Applicant shall ensure that any blasting at the Elouera Colliery (Dendrobium Site), the KVCLF or the Shaft No. 1 site must be undertaken so that the airblast overpressure level from blasting operations carried out in or on these sites must not exceed:
- (i) 115 dB(Lin Peak) for more than 5% of the total number of blasts during the construction period relevant to each site; and
 - (ii) 120 dB (Lin Peak) at any time;
 - (iii) at receiver locations R1, R2, R3, R5, R6, R9, R15, R22 and R39 nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS and the residence most affected by blasting at the Shaft No.1 site.

Ground Vibration

- (a) ⁶⁹The Applicant shall ensure that ground vibration peak particle velocity from blasting operations carried out in or on the Elouera Colliery (Dendrobium Site), the KVCLF or the Shaft No. 1 site must not exceed:
- (i) 5 mm/s for more than 5% of the total number of blasts carried out on the premises during the construction period; and
 - (ii) 10 mm/s at any time;
 - (iii) at receiver locations R1, R2, R3, R5, R6, R9, R15, R22 and R39 nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS and the residence most affected by blasting at the Shaft No.1 site.

Time and Frequency of Blasting

- (a) ⁷⁰Any blasting at the Elouera Colliery (Dendrobium Site), the KVCLF or the Shaft No. 1 site must only be undertaken between the following hours:
- 7:00 am to 6:00 pm Mondays to Fridays; and
 - 8:00 am to 1:00 pm on Saturdays.

Blast Management Plan

- (a) The Applicant shall prepare and implement a Blast Management Plan to the satisfaction of the Director-General, prior to the commencement of any blasting. The Plan must include, but need not be limited to, the following matters:
- details of the proposed location and number of blasts;

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- an assessment of the potential impacts of the blasting activities, including details of the compliance of the blast activities with the relevant blast related criteria;
 - measures to mitigate any potential impacts;
 - compliance standards;
 - remedial action;
 - monitoring methods and program;
 - measures to be undertaken to demonstrate that the Dendrobium Mine is achieving best practice in minimising both air blast overpressure and ground vibration levels;
 - measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables), native fauna and livestock nearby;
 - procedures for the notification of neighbours prior to detonation of each blast and of a monthly program, and of any changes to the blasting program; and
 - measures to ensure no damage by flyrock to people, property, livestock and powerlines.
- (b) The Applicant shall ensure that blasting shall not take place within 500 metres of a public road while such road is open to traffic. Roads shall not be closed for blasting purposes during the times that school buses use the road.
- (c) The Applicant shall prepare a Road Closure Management Plan to the satisfaction of the Director-General, and in consultation with WCC prior to the commencement of any blasting within 500 metres of a public road. The Plan shall include, but not be limited to, the following matters:
- (i) details of the proposed safety management measures during the period of the road closure and blast;
 - (ii) details of the procedures for closing any roads and the period which the road will be closed during blasting activities;
 - (iii) methods for ensuring the safety of road users and the general public during the blast period;
 - (iv) strategies for informing road users and the local community of the proposed road closure;
 - (v) details of the procedures for permitting the passage of emergency vehicles during the road closure. This shall also include details of the proposed methods for sufficiently notifying emergency service providers of the proposed times and period of the road closures;
 - (vi) methods for clearing the road of any debris resulting from a blast; and
 - (vii) details of the disruptions that are likely to occur during the closure period.

Blast Monitoring

- (d) The applicant must monitor ground vibration and overpressure of all blasts.

- (e) Ground vibration or the overpressure must be measured at noise sensitive sites (eg. residences, hospitals, schools etc), selected in consultation with the EPA.

6.4 Noise Control

6.4.1 Noise Levels

Intrusive Noise Criteria

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

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

Location as identified in the EIS	Intrusive Criteria ^{1,2} [Day / Evening / Night] ³ L_{eq} (15 minute)
Dendrobium Site	
R1	40/40/39 dB(A)
R3	40/40/37 dB(A)
R5	40/40/37 dB(A)
R6	40/40/37 dB(A)
R9	40/40/39 dB(A)
R15	40/40/39 dB(A)
R22	41/41/40 dB(A)
KVCLF	
R2	42/42/38 dB(A)
R39	37/35/35 dB(A)

¹These criteria apply for winds up to 3 metres per second and Pascall Stability Classes of A, B, C, D, E, and F.

²All measured or predicted noise levels to be rounded to the nearest decibel.

³Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).

Noise Acquisition Criteria

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

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

Location as identified in the EIS	Intrusive Criteria ^{1,2} [Day / Evening / Night] ³ L_{eq} (15 minute)
Dendrobium Site R1 R3 R5 R6 R9 R15 R22	greater than 45/45/44 dB(A) greater than 45/45/42 dB(A) greater than 45/45/42 dB(A) greater than 45/45/42 dB(A) greater than 45/45/44 dB(A) greater than 45/45/44 dB(A) greater than 46/46/45 dB(A)
KVCLF R2 R39	greater than 47/47/43 dB(A) greater than 42/40/40 dB(A)

¹ These criteria apply for winds up to 3 metres per second and Pascall Stability Classes of A, B, C, D, E, and F.

² All measured or predicted noise levels to be rounded to the nearest decibel.

³ Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).

(c) In the event that a landowner or occupier of a non-mine owned property, considers that noise from the project once operational at their dwelling is in excess of:

- the noise levels depicted in Tables 3 or 4 above; or
- that a landowner considers that the noise levels depicted in Table 4 is being exceeded over more than 25% of their vacant land,

and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:

- consult with the landowner or occupants affected to determine their concerns;
- make arrangements for, and bear the costs of, in consultation with the owners of other mine operations in the vicinity where necessary, appropriate independent noise investigations in accordance with the noise management plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect;
- modify the Dendrobium Mine operations or take other steps in accordance with a noise reduction plan prepared as part of the noise management plan, if exceedences are demonstrated to result from Dendrobium Mine. This shall include:
 - introduction of feasible and reasonable additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria in Table 3 are achieved, as far as possible; and/or

- with the agreement of the landowner, undertaking of noise control at the dwelling to achieve acceptable internal noise levels; and/or
 - entering into an agreement with the landowner or provide such other forms of benefit or amelioration of the impact of noise as may be agreed between the parties, as providing acceptable compensation for the noise levels experienced;
- (iv) conduct follow up investigations to the satisfaction of the Director-General, where necessary.

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

- (d) If the independent noise investigations in sub-clause (c) above confirm that noise limits in Table 4 are being exceeded by Dendrobium Mine and the measures in Condition 6.4.1 (c) (iii) do not reduce the noise levels below the criteria in Table 4, the Applicant shall at the written request of the landowner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 11.2.
- (e) If continued complaints and noise investigations confirm that noise limits in Table 3 are being exceeded, but are less than the noise levels in Table 4, the Applicant shall continue to negotiate with the landowner until a resolution to the satisfaction of the Director-General is reached.
- (f) If a landowner disputes any noise mitigation or other measures proposed by the Applicant in accordance with sub-clause (c) above, the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with WCC, WSC, and WdSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- (g) Further independent investigations shall cease if the Director-General is satisfied that the relevant criteria in Tables 3 and 4 are not being exceeded and are unlikely to be exceeded in the future.
- (h) The Applicant shall, after commencement of the mine longwall operations, undertake monitoring of affected residences to verify noise predictions, including management and acquisition zones to the requirements of the Director-General. Any alterations to predictions, management and acquisition zones, shall be provided to the affected resident(s) and to the Community Consultative Committee together with necessary action in accordance with this Condition.
- (i) EPA Applicable Noise Operational Limits for EPA licence purposes (refer to Schedule B)
- (j) For the purpose of noise measurement for subclause (i) above and this consent in general, the L_{Aeq} noise level must be measured or computed at the most affected area within 30 metres of the residence or at the boundary, if the

boundary is closer than 30 metres to the residence, over a period/s of 15 minutes using “FAST” response on the sound level meter.

- (k) In the event a resident is identified in the acquisition zone by either subclause (b), (c) or (d) above and does not wish to request acquisition, the Applicant shall:
- (a) take feasible and reasonable measures to minimise noise levels in the event of complaints from the resident in the acquisition zone; and
 - (b) if requested to instigate noise mitigation measures in lieu of acquisition, shall consider the feasibility of such measures and instigate those measures at its discretion in consultation with the resident, unless otherwise agreed by the Director-General.

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

Construction Noise

Construction Hours for the Elouera Colliery (Dendrobium Site)

- (a) ⁷¹With the exception of construction activities associated with the new drift portal and driveage, all construction activities at the Elouera Colliery (Dendrobium Site) must be restricted to the following times where these activities are audible at residential premises:
- (i) 7:00 am to 6:00 pm Mondays to Fridays; and
 - (ii) 8:00 am to 1:00 pm on Saturdays.

Construction of the New Drift Portal and Driveage Activities

- (b) ⁷²Noise levels from construction activities associated with the new drift portal and driveage undertaken outside of the hours:
- (i) 7:00 am to 6:00 pm Mondays to Fridays; and
 - (ii) 8:00 am to 1:00 pm on Saturdays;

must not exceed the noise limits specified for the receiver locations nominated in the following table.

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Construction Noise limits for New Drift Portal and Driveage, $L_{A10,15min}$

Receiver Location (See Note)	Construction Noise limits for New Drift Portal and Driveage, $L_{A10,15min}$	
	6:00 pm to 10:00 pm Mondays to Fridays, 7:00 am to 8:00 am and Saturdays, Midnight to 8:00 am 1:00 pm to 10:00 pm Saturdays, Sundays and Public Holidays, 10:00 8:00 am to 10:00 pm Sundays and pm to Midnight All Days Public Holidays	
	dB(A)	dB(A)
R1	40	39
R3	40	37
R5	40	37
R6	40	37
R9	40	39
R15	40	39
R22	41	40

Note: Receiver locations nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.

- (c) ⁷³To protect against sleep disturbance, construction activities associated with the new drift portal and driveage must not exceed the noise limits at the facades of residential dwellings at the specified receiver locations nominated in the following table between the times of 10:00 pm and 7:00 am.

Construction Noise Limits for New Drift Portal and Driveage, $L_{A1,1min}$

Receiver Location (See Note)	Construction Noise Limits for New Drift Portal and Driveage, $L_{A1,1min}$
	dB(A)
R1	49
R3	47
R5	47
R6	47
R9	49
R15	49
R22	50

Note: Receiver locations nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.

- (d) ⁷⁴Vibration levels from construction activities associated with the new drift portal and driveage must not exceed the limits specified in the table below, when measured at the most affected residence:

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Construction Vibration Limits for New Drift Portal and Driveage

Place	Time	Construction Vibration Limits for New Drift Portal and Driveage (rms) mm/s	
		Continuous	Intermittent or Impulsive
Most Affected Residence	Day Time	0.20	6.00
Most Affected Residence	Night Time	0.14	2.00

- (e) ⁷⁵Regenerated noise levels from construction activities associated with the new drift portal and driveage must not exceed the limits specified in the table below, when measured at the most affected residence:

Regenerated Noise Limits from Construction Activities Associated with the New Drift Portal and Driveage

Place	Time	Regenerated noise limits (L_{Amax}) from construction activities associated with the new drift portal and driveage
Most Affected Residence	6:00 pm – 10:00 pm	40dB(A)
Most Affected Residence	10:00 pm – 7:00 am and at all times on Sundays and Public Holidays	35dB(A)

- (f) ⁷⁶Noise limits specified in the table below from construction activities at the KVCLF must not exceed the noise limits specified for the receiver locations nominated in the following table.

Construction Noise Limits for the KVCLF $L_{A10,15min}$

Receiver Location (See Note)	Construction Noise Limits for the KVCLF $L_{A10,15min}$ dB(A)
R2	42
R39	37

Note: Receiver locations nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.

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- (g) ⁷⁷All construction activity at the KVCLF must be restricted to the following times where these activities are audible at residential premises:
- (i) 7:00 am to 6:00 pm Mondays to Fridays; and
 - (ii) 8:00 am to 1:00 pm on Saturdays.
- (h) ⁷⁸Noise levels from construction activities at the Shaft No.1 must not exceed an $L_{A10,15min}$ of 35 dB(A) at the most affected residence.
- (i) ⁷⁹Noisy construction activities associated with the Coal Dryer and other works for the Dendrobium Project in the Steelworks such as pile driving and jack picking activities must only be conducted between the hours of 7.00 am to 6.00 pm Mondays to Fridays and between the hours of 7.00 am to 1.00 pm on Saturday. There must be no construction activities that generate offensive noise on Sundays or public holidays. The hours of operation specified in this condition may be varied with written consent by the EPA if the applicant can demonstrate to the EPA that the amenity of the residents in the locality will not be adversely affected.

Sleep Disturbance

- (a) ⁸⁰To protect against sleep disturbance, noise levels from operations at the Elouera Colliery (Dendrobium Site) must not exceed the noise limits specified at the facades of residential dwellings at the specified receiver locations nominated in the following table between the times of 10:00 pm and 7:00 am.

Noise Limits for Dendrobium Operations, $L_{A1,1min}$

Receiver Location (See Note)	Noise Limits for Dendrobium Operations, $L_{A1,1min}$ dB(A)
R1	49
R3	47
R5	47
R6	47
R9	49
R15	49
R22	50

***Note:** Receiver locations nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.*

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Rail Haulage Noise

- (a) ⁸¹Rail Haulage activities must be undertaken so that wheel squeal, brake squeal and locomotive wheel slippage do not occur on the Kemira Valley Rail Line.
- (b) ⁸²Noise levels from locomotives used on the Kemira Valley Rail Line for the Dendrobium Coal Project must not exceed the noise limits specified in the following table.

Operating Condition	Speed & Location of Measurement	Noise Limits
Idle with compressor radiator fans and air conditioning operating at maximum load occurring at idle	Stationary 15 metre contour	70 dB(A) L_{Amax}
All other throttle settings under self load with compressor radiator fans and air conditioning operating	Stationary 15 metre contour	87 dB(A) L_{Amax} 95 dB(Lin) L_{max}
All service conditions	0 to 50 kilometres per hour, 15 metres from centreline of track	87 dB(A) L_{Amax} 95 dB(Lin) L_{max}

- (c) ⁸³The noise limits specified in sub-clause (b) above must be assessed with a sound level meter operated with a fast time weighting.
- (d) ⁸⁴All locomotives used on the Kemira Valley Rail Line for the Dendrobium Coal Project must comply with the tonality emission requirements outlined below:
 - (i) All measured noise levels must be assessed for tonality unless otherwise specified;
 - (ii) Assessment of tonality is to be based on one-third octave analysis. To comply with the requirements of non-tonality the sound pressure level in each one-third octave band must not exceed the level of the adjacent bands on both sides by:
 - (a) 5 dB if the centre frequency of the band containing the tone is above 400 Hz;
 - (b) 8 dB if the centre frequency of the band containing the tone is between 160 and 400 Hz, inclusively; and
 - (c) 15 dB if the centre frequency of the band containing the tone is below 160 Hz; and
 - (iii) In addition, the overall linear noise level must not exceed the overall A-weighted noise level by more than 15 dB.
- (e) ⁸⁵The noise limits specified in sub-clause (d) above must be assessed at 15 metres from the centreline of the track with a sound level meter operated with a

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fast time weighting. The assessment of tonality for sub-clause (d)(ii) and the comparison between linear and A-weighted levels in sub-clause (d)(iii) are to be conducted using all one-third octave bands between 10Hz and 20kHz.

- (f) ⁸⁶Locomotives used on the Kemira Valley Rail Line for the Dendrobium Coal Project shall not have L_{Amax} levels that are greater than the L_{Amax} levels of the D47 and D51 Class Locomotives that currently use the line, when measured under the same speed and operating conditions.

6.4.2 Noise Management Plan

- (a) The Applicant shall prepare Noise Management Plans for the Dendrobium and KVCLF site. The Plans for the Dendrobium and KVCLF shall be prepared prior to construction activities on the site. The Plans shall be prepared to the satisfaction of the Director-General. The EPA and WCC shall be consulted on the Plan for the Dendrobium and KVCLF sites. This consultation shall occur prior to the finalisation of each Plan. The Plan shall:
- (i) include details of the conduct of noise investigations at three monthly intervals, unless otherwise agreed by the Director-General, to evaluate, assess and report the $L_{eq(15\text{ minute})}$ noise emission levels due to the normal operations of the Dendrobium Mine;
 - (ii) detail proposed methodologies including determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;
 - (iii) detail management measures where the Intrusive criteria in Table 3 of this consent is predicted to be exceeded, or is exceeded during mining operations;
 - (iv) outline the design of any noise monitoring and modelling or other studies including the means for determining the noise levels emitted by the Dendrobium Mine operations;
 - (v) detail a monitoring program, mitigation measures, remedial action and measures demonstrating that the Dendrobium Mine is achieving best practice in minimising low frequency noise, irrespective of set standards;
 - (vi) particularly focus on the management of night time noise (10.00pm – 7.00am) for each year of operation;
 - (vii) redefine both the noise acquisition and management zones for Dendrobium Mine on a yearly basis, unless otherwise agreed by the Director-General. This review shall draw upon the noise monitoring results obtained during the previous year and incorporate noise modelling to provide a forward plan of predicted noise levels for the year ahead to the

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satisfaction of the Director-General, and as otherwise agreed by the Director General;

- (viii) specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations;
- (ix) outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;
- (x) establish a protocol for handling noise complaints that includes recording, investigating, reporting and acting on complaints, including where complaints are received and it is demonstrated that noise levels are below the criteria contained in this consent;
- (xi) record appropriate mechanisms for community consultation;
- (xii) outline proactive/predictive and reactive mitigation measures to be employed on the site to limit noise emissions;
- (xiii) identify longer term strategies directed towards mitigating noise levels that exceed the noise target levels in Table 3;
- (xiv) all matters listed in Section 7.1.3 of the Environmental Noise and Vibration Impact Assessment (report no. TA368-01F05 (REV 12)) prepared by Renzo Tonin and Associates P/L and contained in Volume 3 of the EIS;
- (xv) outline measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);
- (xvi) details of measures to be implemented to ensure the construction and operation of the Coal Dryer does not generate offensive noise. This should include details of the management of noise emissions during the construction stages of the dryer such as from long concrete pours, community consultation and complaints handling, and construction times; and
- (xvii) survey and investigate noise reduction measures from plant and equipment annually, subject to noise monitoring results and/or complaints received, and report in the AEMR at the conclusion of the first 12 months of operations and set targets for noise reduction taking into consideration valid noise complaints in the previous year.

Note: A copy of this document must be provided with the supporting information in applying for the variation of a EPL.

The Plan for the Dendrobium and KVCLF site shall include:

- (i) The Plan for the Dendrobium and KVCLF site shall particularly focus on the potential construction noise impacts;

- (ii) provide details and methods to implement specific noise measures that will address the road noise impact of increased traffic anticipated for the hour around midnight;
 - (iii) provide details and methods to implement specific noise mitigation measures that will address the road noise impact at the Mt Kembla Public School and Mt Kembla Long Day Care Centre;
 - (iv) provide details and methods to implement specific noise mitigation measures that will address the rail noise impact at the following locations:
 - 200 Cordeaux Road, Mt Kembla - dwelling
 - 3 residences on Leigh Crescent, Cordeaux Heights as identified in the Applicant's Submission in Reply to the Commission of Inquiry.
 - (v) details of how the Applicant must manage train loading cycles so that there are no trains scheduled between the hours of 12 midnight and 6:00am extending to between 11:00pm and 6:00am after five years from the commencement of longwall extraction of coal;
 - (vi) ⁸⁷details of how the Kemira Valley Rail line will be operated with an objective of minimising noise and vibration impacts;
 - (vii) ⁸⁸details of a program to investigate all feasible and reasonable measures of reducing noise and vibration impacts from the Kemira Valley Rail Line. In doing so, the investigations must give due consideration to, but shall not be limited to the following issues:
 - driver training;
 - dynamic brake usage;
 - wagon bunching;
 - vibration;
 - locomotive muffler modification; and
 - the potential for active noise control on locomotives.
 - (viii) details of measures to manage any potential impacts associated with the ventilation shafts and any vibration impacts.
- (b) Prior to the commencement of construction of the Mining Area, Dendrobium and KVCLF site, Vent Shaft site 1 and Coal Dryer, the Applicant must prepare, and subsequently implement, Construction Noise Management and Vibration Plans in consultation with the EPA and to the satisfaction of the Director-General, for these areas. The Plans must include, but need not be limited to, the following matters:
- compliance standards;
 - community consultation;

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- measures to minimise construction noise and vibration impacts associated with construction activities at the Dendrobium site, KVCLF, Coal Dryer and Vent Shaft Site 1;
- all reasonable and feasible measures for minimising construction noise and vibration impacts;
- all matters listed in Section 7.1.3 of the Environmental Noise and Vibration Impact Assessment (report no. TA368-01F05 (REV 12)) prepared by Renzo Tonin and Associates P/L and contained in Volume 3 of the EIS; and
- details of measures to manage regenerated noise and vibration impacts arising from construction associated with the new drift portal and driveage;
- complaints handling monitoring/system;
- site contact person to follow up complaints;
- mitigation measures. The Plan for the Dendrobium and KVCLF site shall particularly focus on the mitigation of construction related noise;
- the design/orientation of the proposed mitigation methods demonstrating best practice;
- construction times;
- contingency measures where noise complaints are received;
- monitoring methods and program.

A copy of this document must be provided with the supporting information for an EPL variation.

(c) The Applicant shall also:

- (i) make copies of the Noise Management and Construction Noise Management Plans available to the EPA, WCC, WSC, WdSC, and CCC within fourteen days of approval by DUAP, or as otherwise agreed to by the Director-General; and
- (ii) include a summary of noise monitoring results in the AEMR.

(d) The Applicant shall ensure that construction activity does not result in noise emissions likely, in the opinion of the EPA, to cause annoyance at residences not owned by the Applicant, having regard to the volume, impact or tone of the noise.

(e) ⁸⁹The Applicant shall provide a report to the EPA no later than 12 months after the commencement of operations at the Dendrobium Coal Mine. The report must include:

- details on the investigation of measures as specified in the specific Noise Management Plan for the Dendrobium and KVCLF site in condition 6.4.2(a)(vi);
- assessment of the feasibility and cost of these measures;
- selection of measures for implementation;
- time table for implementation of the selected measures; and
- inclusion of any other recommendations.

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6.4.3 Noise Monitoring

- (a) ⁹⁰The Applicant must prepare a noise monitoring program, to the satisfaction of the EPA to assess ongoing compliance with the conditions specifying noise and vibration limits for the construction and operation of the Dendrobium Coal Project. The program shall include, but not be limited to:

- an outline of methodologies for noise monitoring to assess compliance;
- location of noise monitoring;
- frequency of noise monitoring including justification of the proposed frequency; and
- reporting

A copy of this document must be provided with the supporting information in applying for the variation of a EPL

- (b) ⁹¹The Applicant must develop to the satisfaction of the EPA with the application for EPL variation a noise compliance monitoring procedure that provides details on how compliance with the noise limits in the EPA's licence for the coal dryer will be demonstrated. The procedure must include, but not be limited to, the following:

- Near field monitoring locations to the dryer; and
- A plan of the site nominating the near field monitoring locations.

A copy of this document must be provided with the supporting information in applying for the variation of a EPL

- (c) ⁹²No later than three months after commissioning the dryer the applicant must implement a noise-monitoring program to confirm performance and to demonstrate whether they are complying with the noise limits in Schedule B and the outcomes of the noise compliance monitoring procedure required in condition 6.4.3(b) above. The program must include details on but need not be limited to the following:

- methodologies for noise monitoring;
- location of noise monitoring;
- frequency of noise monitoring;
- identification of monitoring sites at which pre and post development noise levels can be ascertained; and
- recommended noise reduction strategies including a time frame for implementation to achieve compliance with noise planning goals if required.

The applicant must prepare a report for submission to the EPA no later than eight months after commissioning on the findings of the program and demonstrate compliance with Condition 6.4.3(d). The EPL may be varied subject to the findings and recommendations of the program.

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⁹¹ EPA General Terms of Approval

⁹² EPA General Terms of Approval

6.5 *Lighting Emissions*

- (a) The Applicant shall, prior to commencement of construction, prepare a Lighting Management Plan for the Mining Area and Dendrobium and KVCLF sites in consultation with WCC and WSC and to the satisfaction of the Director-General. The Plan shall include details of the implementation of visual controls to screen, direct or manage all on-site lighting from mine related activities in respect of residences and roadways. The Plan shall include, but not be limited to:
 - i) details of the planting of vegetation screens, such as along Cordeaux Road and Stones Road, to screen potential lighting impacts associated with the Dendrobium and KVCLF site;
 - ii) details of the tree and shrub screening around the Drift Access and conveyors to reduce potential lighting impacts;
 - iii) details of technical measures and work practices necessary to minimise the spillage of light from areas to be illuminated, and to minimise the total night time glow from the mine;
 - iv) details of the construction or placement of visual screens to screen lighting impacts;
 - v) details of the proposed process and measures to address complaints that may be received from residents or road users impacted by lighting from the sites; and
 - vi) details of any other effective operating practices to manage potential lighting impacts.
- (b) The Applicant shall report on the effectiveness of the lighting emission controls in the AEMR.
- (c) The Applicant shall ensure that on-site lighting does not directly emit light into the line of sight of nearby dwellings. The light emitted from any direct flood lighting and any vehicle headlights shall be directed away from dwellings and public roads.
- (d) The Applicant shall ensure that light emitted from locomotive headlights whilst a locomotive is on or moving off the rail line shall be screened from dwellings to the satisfaction of WCC or as otherwise agreed by the Director-General.

7. Transport and Utilities

7.1 Rail Transport

- (a) All coal shall be transported via the KVCLF by rail.
- (b) The Applicant must manage train loading cycles so that there are no trains scheduled between the hours of 12 midnight and 6.00 am extending to between 11.00 pm and 6.00 am after five years from the commencement of longwall extraction of coal, unless otherwise agreed by the Director-General.
- (c) ⁹³Notwithstanding condition (b) above, the number of train loading cycles may be exceeded on no more than 2 occasions per year, provided that the total number of train loading cycles does not exceed 6 during the Night Shift period between 11:20 pm and 7:20 am. In the event that train movements are required at night the EPA is to be notified as soon as is practicable. This notification is to include justification of the need for additional loading cycles. Details on the number of night time train movements must be included in the EPL Annual Return.

Note: 1. The EPA will review condition (c) above at the EPL review after commencement of operations of the Dendrobium Mine development to review the adequacy of the condition, taking into consideration notifications to the EPA by the applicant of night time train movements and any complaints regarding noise from night time train movements.

2. The EPA recommends the applicant should undertake community liaison on matters such as the operation and scheduling of coal rail haulage activities including the development of a notification system with the community consultative group on night time train movements. In addition the EPA also supports the applicant's recommendation that BHP Billiton's annual report must detail:

- those times when trains movements occur within the hours of 12-15am to 6-15am;
- the reasons why these train movements occurred; and
- the measures being undertaken by the applicant to eliminate or at least minimise the likelihood of these night time train movements occurring again.

7.2 Road Transport

- (a) Prior to the commencement of construction, the Applicant shall prepare a Traffic Management Plan for the management of construction and operational traffic, in consultation with WCC and to the satisfaction of the Director-General. The Plan shall include, but not be limited to procedures for:
 - defining acceptable hours of operation for delivery vehicles, generally to be restricted to 7-8am, 9:30am-2:30pm, and 4pm-5pm Monday-Friday and 8am-1pm Saturday without prior notification to residents (refer also to Conditions 7.2(d) below), except where there is a safety related emergency. These times may be amended should an agreement be reached between the

⁹³ EPA General Terms of Approval

Applicant, Mt Kembla Primary School and WCC, and to the satisfaction of the Director-General;

- traffic control measures when truck movements are planned through residential areas, including management along Stones Road and at its intersection with Cordeaux Road;
 - details of traffic safety improvements to Cordeaux Road between Gibsons Road and Stones Road, Mount Kembla to the value of up to \$150,000. This work is to consist of a hierarchy of controls including, but not limited to, signage, linemarking, speed limits, delineation, and minor widening;
 - details of traffic safety improvements to Cordeaux Road between Stones Road and Harry Graham Drive, Mount Kembla. This shall include provisions for pedestrian refuges, traffic calming measures and pedestrian/cycleway links. These measures shall also be developed in consultation with Mount Kembla Primary School, and the Community Consultative Committee. The value of these safety improvements are also included in the \$150,000 referred above;
 - details of the appropriate shift change times so that they do not conflict with the local School's pickup and drop off times. These details shall be determined in consultation with WCC and Mount Kembla Primary School;
 - details of measures to implement traffic management for Stones Road to mitigate the risks and impacts of construction traffic on Stones Road for the duration of the construction period of the mine;
 - procedures for ensuring safe conduct of trucks along Stones Road including passing bays, signage, traffic control measures along the road and at intersections;
 - details of how the recommendations outlined in the Forbes Rigby Report dated August, 2001 will be adopted;
 - details of procedures for addressing complaints that may be received from private residents concerning traffic issues associated with the mine. Details of how these issues were addressed shall be reported in the AEMR (refer to Condition 9.2(a));
 - heavy vehicle speed limits;
 - procedures for regular monitoring of compliance with the Plan;
 - details of a Driver Code of Conduct to be applied to BHP Billiton employees and contractors working at the mine and associated facilities during both construction and operational phases. It will include procedures for:
 - ❑ Hours of operation;
 - ❑ Travelling speeds;
 - ❑ Use of brakes;
 - ❑ Training in the Code; and
 - ❑ Procedures for ensuring compliance with and enforcement of the Code.
- (b) The Applicant shall ensure that no coal wash spills occur on any public roads as a result of the transportation of the coal wash material associated with the Dendrobium mine. In the case that coal wash is spilled onto any public roads, the Applicant will ensure that measures are undertaken to clean up the spill and the costs for doing so are borne by the Applicant, or the Applicant can arrange for the Company used to transport the coal wash to cover the costs.

- (c) There shall be no movement of heavy vehicles associated with the mine construction or operations on Cordeaux Road during the period identified for school drop off and pickup. The Applicant shall liaise with WCC and Mt Kembla Public School in determining the school drop off and pickup period and for determining the appropriate period for heavy vehicle movements.
- (d) ⁹⁴The Applicant must ensure that during construction and operation, delivery vehicles access the mine during daylight hours only, and not between 8.00 am and 9.30 am and 2.30 pm and 4.00 pm Monday to Friday. Deliveries shall occur outside these times only at times of safety, or production related emergencies and the Director-General and WCC is to be notified. These times may be amended should an agreement be reached between the Applicant, Mt Kembla Primary School and WCC, and to the satisfaction of the Director-General;
- (e) ⁹⁵Prior to the operation of the coal mine, measures must be developed and implemented to minimise the environmental impact of incidents involving spillage of coal as a result of transfer, handling and transporting activities. The measures must include but should not necessarily be limited to procedures identifying immediate cleaning of the site and reporting (refer also to Condition 7.2(b)).
- (f) The Applicant shall investigate and report to the Director-General on alternative afternoon/night shift change-over times to reduce mine related traffic on Cordeaux Road after 11.00 pm at least six (6) months prior to commencement of the longwall extraction of coal. The Applicant shall comply with the requirements of the Director-General.

7.3 Road Safety

- (a) The Applicant shall ensure that appropriate warning signs are placed advising of the turning movements of heavy vehicles at the intersection of the mine access road and Cordeaux Road, and also at the intersection of Stones Road with Cordeaux Road. The Applicant shall ensure that the selection and placement of warning signs is undertaken in consultation with the CCC and to the satisfaction of WCC.
- (b) Prior to the commencement of construction, the Applicant, in consultation with WCC and CCC, shall address current road safety concerns along Cordeaux Road and identify corrective measures. The evaluation shall include an assessment of historical traffic accidents. The developer's contribution to such measures shall be addressed as part of the agreement in Condition 11.3.
- (c) Prior to the commencement of construction of the road to the ventilation shaft and/or commencement of the underground drivage, the Applicant, in consultation with WCC and CCC, shall identify appropriate traffic calming

⁹⁴ WCC General Terms of Approval

⁹⁵ EPA General Terms of Approval

measures to improve safety in the vicinity of Mt Kembla Public School and the Mt Kembla Pre-School. The developer's contribution to such measures shall be addressed as part of the agreement in Condition 11.3.

7.4 Road Construction

- (a) The Applicant shall undertake the following works to the satisfaction of WCC and the RTA:
 - (i) intersection improvements at the existing junction of Dendrobium Colliery entrance and Cordeaux Road as part of the initial construction activities at the site; and
 - (ii) upgrading of traffic management at the intersections of Central Road/Cordeaux Road/Gibsons Road to safely manage traffic queuing at the level crossing prior to commencement of mine operations resulting in increased train movements.
- (b) Prior to the commencement of construction activities in the Metropolitan Special Area, the Applicant shall carry out an assessment of all the roads (existing and future) that it would use in the Metropolitan Special Area. This assessment is to include an evaluation of environmental issues. Particular attention is required where roads cross watercourses. This assessment is to be done in consultation with the SCA. Any necessary upgrades shall be approved by the SCA.
- (c) ⁹⁶The Applicant shall obtain a Section 138 approval under the *Roads Act 1993* from WCC prior to any works within the road reserve. All works carried out within the road reserve must be to the satisfaction of WCC's Manager – Works and WCC's Manager – Design.
- (d) ⁹⁷The Applicant must undertake the following to the satisfaction of WCC:
 - (i) the rail overbridge east of Boorea Boulevard must be reconstructed to comply with the load requirements of Austroads Bridge Design Code with a clear deck width of 7.2m and a clear shared footpath of 2m as shown in Hatch Drawing 00005 submitted on 14/8/01. The costs of this bridge reconstruction shall be shared equally between the Applicant and WCC;
 - (ii) continuously monitor the condition of the road bridge located between Central Road and the rail overbridge during the construction period of the mine. If significant movement or damage occurs the Applicant is to advise WCC and immediately repair the bridge to a trafficable condition as directed by WCC. The funding for the repairs must be appropriately proportioned between WCC and the Applicant taking into account the current state of the bridge.

⁹⁶ WCC General Terms of Approval

⁹⁷ WCC General Terms of Approval

- (e) ⁹⁸The Applicant shall ensure that rail ballast does not enter the road reserve where the rail line abuts the road reserve, prior to commencement of mine operations. The details of this work are to be finalised in consultation with WCC.

7.5 Road Maintenance

- (a) The Applicant shall contribute during operations and fully fund during rehabilitation to maintain Stones Road to Australian Standards, from the Kemira Valley Coal Loader gate to its intersection with Cordeaux Road during the life of the mine and rehabilitation of the site. Prior to decommissioning of the mine, the road shall be inspected by WCC to determine any works required (refer also to Condition 7.5(b) below).
- (b) The Applicant shall, prior to commencement of construction, undertake a dilapidation report in accordance with the RTA document 'ROCOND 90 – Road Construction Manual (1990), on the existing condition of Stones Road from Cordeaux Road to the Kemira Valley Coal Loading Facility in conjunction with WCC's Manager – Works. The Applicant must then maintain this length of Stones Road for the construction period of the mine and the rehabilitation of the site at a standard no less than recorded in the dilapidation report, unless the damage is attributable to influences other than the project such as poor drainage or atypical residential development. Prior to decommissioning of the mine the road must be inspected by WCC to determine the extent of works required by the Applicant to restore the road to its pre-development condition. WCC's Geotechnical Engineer must also review the report (refer also to Condition 7.5(a) above).
- (c) A road maintenance agreement for Stone's Road is to be entered into with WCC including a requirement for a joint inspection every four months during construction to determine and assess as to whether further maintenance is required, and to stipulate that should maintenance be required and not be carried out within one month of the inspection, then WCC will be entitled to carry out such maintenance work at the developers cost.
- (d) The Applicant shall share the reasonable costs associated with the maintenance and security of the SCA's roads located within the Special Area which the Applicant will need to use taking into account other users of these roads.
- (e) Where existing access roads in the Special Area are proposed to be used by the Applicant for construction related activities and these require upgrading the Applicant shall be responsible for the costs of this upgrading.

7.6 Submission of Engineering Plans for Roadworks

- (a) The Applicant shall submit appropriate design plans (including pavement investigation) and specifications for roadworks on public roads associated with the development to WCC for approval.

⁹⁸ WCC General Terms of Approval

- (b) The Applicant shall make application under s138 of the Roads Act 1993 to WCC for approval of all roadworks associated with the development and submit appropriate design plans (including pavement investigation) and specifications. The Applicant shall also be required to provide construction plans when the design plans are approved by WCC.
- (c) The Applicant shall be responsible for the structural testing of all bridges within the Metropolitan Special Area which they will use during the construction period. Where this indicates the need for works the Applicant shall be responsible for the costs.

7.7 Provision of Utility Services

Refer Mining Operations Plan (Condition 2.1(c)).

Note: Road and infrastructure locations and project operations should not compromise the access restrictions and site security of the Schedule 1 Special Areas.

8. Monitoring/Auditing

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

Independent Expert Review Panel

- (c)
 - (i) Prior to the submission of the first Subsidence Environmental Management Plan to the Director-General (refer to Condition 3.3.2), the Applicant shall, at its own costs, establish and provide for ongoing funding for an Independent Expert Review Panel. The Panel shall review and provide independent advice to the Director-General, and through the Director-General to other regulatory authorities, as to the results of the various monitoring programs undertaken by the Applicant as required by Conditions 3, 4, 5, and 6 of this consent and are reported annually within the AEMR (refer to Condition 9.2(a)). The Independent Expert Review Panel shall also provide advice to the Director-General on each Subsidence Environmental Management Plan (refer to Condition 3.3.2). The first payment shall be paid by the date of the commencement of Mining Operations or prior to the submission of the first s138 application to DMR, and annually thereafter. The Independent Expert Review Panel shall review the AEMR and provide an Annual State of the Environment Report to the Director-General providing independent advice and recommendations on the mining operation.

Representatives of the Independent Expert Review Panel will consist of independent experts in relevant disciplines and may include experts in subsidence, water quality / quantity, ecology, visual impact, noise, dust, blasting, Aboriginal heritage and archaeology. The Director-General shall select the relevant disciplines and appoint the experts in consultation with relevant government agencies and the CCC.

The Annual State of the Environment Report provided by the Independent Expert Review Panel shall be considered by the Director-General as part of the Director-General's consideration of each Subsidence Environmental Management Plan (refer to Condition 3.3.2). The Annual State of the Environment Report shall be provided to the Director-General in an electronic format so that it can be made available on the Department's Website.

The functions of the Independent Expert Review Panel shall include, but not limited to:

- overviewing the adequacy of the monitoring programs and independent audits undertaken and interpreting and discussing the monitoring and audit results;
 - consideration as to whether the impacts outlined in the monitoring programs are greater than predicted;
 - providing recommendations as to the need to change or modify the mining operation to mitigate any potential impact that may occur from the mine, where appropriate;
 - an assessment of the performance / adequacy of the mitigation / remediation measures required by these consent conditions. This shall include consideration of whether the conditions are working effectively and details of whether any conditions should be modified to address any issues following the review;
 - an assessment of the proposed layout of the longwall panels for Mining Area 3. This shall include an assessment of the environmental issues associated with the proposed layout design and of any alternative layouts proposed by the Applicant and of the environmental performance of the mine in Mining Areas 1 and 2 [refer to Condition 3.3.2(c)(vi)];
 - providing details of the ongoing interaction between the mine and the environment, particularly the Metropolitan Special Area and Illawarra Escarpment area. This shall include: consideration of the impact of the proposal on water quality and quantity; ecological integrity and threatened species; impact of subsidence on cliff faces, cave overhangs, hanging swamps, permanent watercourses crossing bare rock, valley floors and steep valley slopes and the integrity of the Illawarra Escarpment area and its foothills; and any other requirements of the Director-General, in consultation with relevant government agencies and CCC;
 - outlining the performance of the mining operation over the previous 12 month period. This shall include consideration of the mines performance and compliance with the requirements of the monitoring programs required by the conditions of this consent, and other licences and approvals relating to the mine; and
 - provide an Annual State of the Environment Report to the Director-General on the issues outlined above. The first report shall be prepared prior to the commencement of Mining Operations, or prior to the submission of the first s.138 application to DMR, then annually thereafter, or as otherwise directed by the Director-General;
- (ii) Copies of the Annual State of the Environment Report shall be provided to those parties which receive the AEMR (condition 9.2(a)) and shall be made publicly available at WCC, WSC and SCA within two weeks of the report's completion. The reports shall also be placed on a publicly advertised website on the internet.
- (iii) The Director-General may, after considering any submission made by the Independent Expert Review Panel, notify the Applicant of any requirements

with regard to any recommendations in the Annual State of the Environment Reports. The Applicant shall comply with those requirements within such time as the Director-General may require.

8.1 Third Party Monitoring/Auditing

Independent Environmental Audit

- (a) Every three years from the date of this consent until completion of mining in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the mining and infrastructure areas of the development in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, WCC, WSC, WdSC, EPA, DLWC, DMR, SCA, NPWS, NSW Fisheries and CCC within two weeks of the report's completion for comment.
- (b) The audit shall:
 - (i) assess compliance with the requirements of this consent, licences and approvals;
 - (ii) assess the development against the predictions made in the EIS;
 - (iii) review the effectiveness of the environmental management of the mine, including any avoidance, mitigation and remedial measures;
 - (iv) be carried out at the Applicant's expense; and
 - (v) be conducted by a duly qualified independent person or team approved by the Director-General in consultation with SCA, WCC, WSC and WdSC. Such approval shall not be unreasonably withheld.
- (c) The Director-General may, after considering any submission made by the relevant government agencies, WCC, WSC, WdSC and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. This may include any requirements to revise the Environmental Management Strategy [refer to Condition 3.2(c)]. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.

8.2 Subsidence Monitoring / Auditing

Subsidence Audit

- (a) An Independent Environmental Audit for subsidence monitoring, effects, mitigation and remediation shall be completed after each longwall panel, or as otherwise directed by the Director-General, in consultation with the relevant government agencies.
- (b) The audit shall:

- assess compliance with the requirements of this consent, licences and approvals;
 - in the event of any non-compliance, report on the effectiveness of the subsidence management of the mine as it may relate to the area of non-compliance;
 - be carried out at the Applicant's expense; and
 - be conducted by a duly qualified independent person or team approved by the Director-General in consultation with the Applicant, SCA, WCC, WSC and CCC.
- (c) Copies of the report shall be submitted by the Applicant to the Director-General, SCA, NPWS, EPA, DLWC, DMR, WCC, WSC, DSC, NSW Fisheries and CCC within two weeks of the report's completion for comment. Plain English versions of the report are to be distributed through the local Aboriginal community via the relevant groups outlined in 3.4 (a).
- (d) The Director-General may, after considering any submission made by relevant government authorities, and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those requirements within such time as the Director-General may require.

8.2 Meteorological Station(s)

- (a) The Applicant shall establish a meteorological station(s) at a relevant location(s) in accordance with the requirements of AS 2922 1987 "Ambient Air Guide for Siting of Sampling Units" or its updated version or as directed by the EPA. The Meteorological station(s) must be capable of recording wind direction and speed, temperature and sigma theta and be operated in accordance with the requirements of AS 2923-1987 "Ambient Air Guide Horizontal Wind for Air Quality Application", or subsequent relevant standards. The Applicant shall analyse and document the meteorological data on a monthly basis to adequately characterise the site.
- (b) ⁹⁹The Applicant must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The applicant must use the sampling method, units of measure, averaging period and sample at the frequency specified opposite in the other columns unless other wise approved by the EPA:

⁹⁹ EPA General Terms of Approval

Parameter	Units of measure	Averaging Period	Frequency	Method¹
Wind Speed @ 10 m	m/s	1-hour	Continuous	AM-2 & AM-4
Wind Direction @ 10 m	Degrees	1-hour	Continuous	AM-2 & AM-4
Sigma Theta @ 10 m	Degrees	1-hour	Continuous	AM-2 & AM-4
Temperature @ 2 m	K	1-hour	Continuous	AM-4
Temperature @ 10 m	K	1-hour	Continuous	AM-4
Total Solar Radiation @ 10 m	W/m ²	1-hour	Continuous	AM-4
Other	Units of measure	Averaging Period	Frequency	Method¹
Siting	NA	NA	NA	AM-1 & AM-4
Rainfall including rainfall intensity	mm	See method	Continuous	Bureau of Meteorology Standards

Note: ¹NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales

9. Reporting

9.1 Reports on Operations

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

9.2 Environmental Reporting

Annual Environmental Management Report (AEMR)

- (a) The Applicant shall, throughout the life of the mine and for a period of at least three years after the completion of mining in the DA area, prepare and submit an Annual Environmental Management Report (AEMR) to the satisfaction of the Director-General and DMR on all aspects of the proposal. The AEMR shall review the performance of the mine against the Environmental Management Strategy and the relevant Mining Operations Plans, the conditions of this consent, and other licences and approvals relating to the mine. To enable ready comparison with the predictions made in the EIS, diagrams and tables, the report shall include, but not be limited to, the following matters:
 - (i) an annual compliance audit of the performance of the project against conditions of this consent and statutory approvals;
 - (ii) a review of the effectiveness of the environmental management of the mine in terms of EPA, DLWC, NPWS, DMR, DSC, NSW Fisheries, SCA, WCC, WSC and WdSC requirements;
 - (iii) results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person;
 - (iv) identify trends in monitoring results over the life of the mine;
 - (v) an assessment of any changes to agricultural land suitability resulting from the mining operations;
 - (vi) a listing of any variations obtained to approvals applicable to the subject area during the previous year;
 - (vii) subsidence during the preceding twelve months;
 - (viii) socio-economic impact of the development including the workforce characteristics of the previous year;
 - (ix) the outcome of the water budget for the year, the quantity of water used from water storages and details of discharge of any water from the site due to subsidence and/or upsidence;
 - (x) rehabilitation report;
 - (xi) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results; and
 - (xii) a report on the surveillance of any prescribed dam on the site to the satisfaction of the DSC and the SCA.
- (b) In preparing the AEMR, the Applicant shall:
 - (i) consult with the Director-General, SCA and DMR during preparation of each report for any additional requirements;
 - (ii) comply with any requirements of the Director-General or other relevant government agency; and

- (iii) ensure that the first report is completed and submitted within twelve months of this consent, or at a date determined by the Director-General in consultation with the DMR and the EPA.
- (c) The Applicant shall ensure that copies of each AEMR are submitted at the same time to the Director-General, DMR, EPA, DLWC, NPWS, DSC, NSW Fisheries, SCA, WCC, WSC, WdSC, and CCC, and made available for public information at WCC, WSC, and WdSC within fourteen days of submission to these authorities and made available to any landowner within the vicinity of the development upon request. The AEMR shall also be provided to the Director-General in an electronic format so that it can be made available on the Department's Website.
- (d) ¹⁰⁰Construction noise compliance reports must be submitted to the EPA 6 and 12 months after the commencement of construction activities to assess the performance of the applicant in complying with the noise limits during the construction phase of the development. The outcomes of these reports may result in the EPL being varied.
- (e) ¹⁰¹The Applicant must advise the EPA in writing at least 24 hours before:
 - the Portal Driveage activities occur;
 - commencement of Dendrobium Pit Top Area construction;
 - commissioning of pipeline to Allans Creek; and
 - closure of Elouera Colliery.
- (f) ¹⁰²The Applicant must complete and supply to the EPA an Annual Return in the approved form comprising:
 - a Statement of Compliance; and
 - a Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence.

9.3 Contingency Planning

¹⁰³No later than 3 months after the granting of development consent, the Applicant must document and implement measures to minimise the environmental impacts of any emergency situations that could arise at the Dendrobium Coal Mine and Coal Dryer. The documentation must:

- (i) identify any threats to the environment and/or public health that could arise from the disruption of operations of the Dendrobium Coal Mine and Coal Dryer. These threats may include excessive rainfall, fire, explosion, problems during construction and operation of the Mine, compromise of the excess mine water discharge system, pump failures, haulage mishap, power or other utility failure, natural disaster, landslip, accidental spills and discharges etc;

¹⁰⁰ EPA General Terms of Approval

¹⁰¹ EPA General Terms of Approval

¹⁰² EPA General Terms of Approval

¹⁰³ EPA General Terms of Approval

- (ii) identify any subsequent direct or indirect environmental effects of disruption in the operation of the Mine and Coal Dryer may have on other operations at the premises;
- (iii) identify the pollution that would result due to the disruption of operations and what impact the pollution would have on the health of the community and the environment;
- (iv) Develop actions to respond to any possible impacts as a result overflows from water pollution controls including the identification of measures to effectively rehabilitate the receiving environment as soon as possible if there are any unacceptable impacts based on the finding of the bioassessment monitoring program;
- (v) develop actions to effectively respond to the disruption of operations so the risk of pollution is minimised;
- (vi) develop a communications strategy for alerting relevant agencies and the potentially affected community in the event of the disruption to operations leading to significant pollution;
- (vii) ensure that all relevant employees are familiar with the documentation; and
- (viii) when developing this documentation, identify any opportunities to integrate with BHP emergency plans.

A review of the adequacy of these measures must be undertaken by a person with appropriate expertise and skills.

10. Community Consultation/Obligations

10.1 Community Consultative Committee

The Applicant shall:

- (i) establish a Community Consultative Committee. Selection of representatives shall be agreed by the Director-General and the appointment of an independent Chairperson shall be to the satisfaction of the Director-General in consultation with the Applicant and WCC, WSC and WdSC. The Committee shall comprise two (2) representatives of the Applicant (including the Environmental Officer), one (1) representative of each Council, two (2) representative from a recognised environmental group, four community representatives (including one member of the Mt Kembla Residents Committee), to monitor compliance with conditions of this consent and other matters relevant to the operation of the mine during the term of the consent.

Representatives from relevant government agencies or other individuals may be invited to attend meetings as required by the Chairperson. The Committee may make comments and recommendations about the implementation of the development and environmental management plans, monitor compliance with conditions of this consent and other matters relevant to the operation of the mine during the term of the consent. The Applicant shall ensure that the Committee has reasonable access to the necessary plans for such purposes. The Applicant shall consider the recommendations and comments of the Committee and provide a response to the Committee and Director-General.

- (ii) The Applicant shall, at its own expense:
 - a) nominate two (2) representatives to attend all meetings of the Committee;
 - b) provide to the Committee regular information on the progress of work and monitoring results;
 - c) promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the development;
 - d) provide access for site inspections by the Committee;
 - e) provide meeting facilities for the Committee, and take minutes of Committee meetings. These minutes shall be available for public inspection at WCC, WSC and WdSC within 14 days of the meeting.
- (iii) If required by the Committee, the Applicant shall establish a trust fund or other funding arrangement that may be agreed between the Applicant and Committee, to be managed by the Chair of the Committee to facilitate the functioning of the Committee, and pay \$5000 per annum to the fund or other arrangement, for the duration of mining in the DA area, or as otherwise directed by the Director-General. The monies are to be used only if required for the engagement of consultants to interpret technical information and the like. The annual payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee

meeting. A record of the finances of the trust fund during each year shall be provided to the Director-General and Applicant by the Chair on each anniversary of the first payment. Any unspent monies shall be returned to the Applicant each year.

10.2 Community Consultation

Complaints

- (a) The Environmental Officer employed by the mine (refer condition 3.1) shall be responsible:
 - (i) for establishing and maintaining a system for recording complaints received with respect to construction works and mine operations on a dedicated and publicly advertised telephone line, 24 hours per day 7 days per week, entering complaints or comments in an up to date log book, or other suitable data base, and ensuring that an initial response is provided to the complainant within 24 hours. The complaints protocol shall be prepared and implemented to the satisfaction of the Director-General prior to commencement of construction or Mining Operations; and
 - (ii) for providing a report of complaints received with respect to the construction and operation of the mine, every six months throughout the life of the project to the Director-General, WCC, WSC, WdSC, EPA, DMR, SCA and CCC, or as otherwise agreed by the Director-General. A summary of this report shall be included in the AEMR (condition 9.2(a)).
- (b) The Applicant must nominate at least two persons (and their telephone numbers) who will be available to the EPA on a 24 hours basis, and who have authority to provide information and to implement such measures as may be necessary from time to time to address a pollution incident or to prevent pollution from continuing as directed by an authorised officer of the EPA. This shall include a complaint management response system must be developed and implemented to provide responses to complaints from the community. The system must incorporate but is not necessarily to be limited to the following elements:
 - A procedure for immediate investigation of complaints;
 - A database of complaints and responses/actions that is readily accessible to the community and regulatory authorities;
 - A complaint verification procedure which correlates potential sources of noise, dust and odour with an operation or activity by assessing relevant meteorological data; and
 - Providing feedback to the complainant, community and regulatory authorities on the outcomes of the investigations.

Recording of pollution complaints

- (c) ¹⁰⁴The Applicant shall keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies. The record must include details of the following:
- the date and time of the complaint;
 - the method by which the complaint was made;
 - any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - the nature of the complaint;
 - the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - if no action was taken by the licensee, the reasons why no action was taken.
- (d) ¹⁰⁵The record of a complaints referred to in Condition (c) above must be kept for at least 4 years after the complaint was made. The record must be produced to any authorised officer of the EPA who asks to see them.
- (e) ¹⁰⁶The Applicant must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence. The Applicant must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint. This condition does not apply until 3 months after this condition takes effect.

¹⁰⁴ EPA General Terms of Approval

¹⁰⁵ EPA General Terms of Approval

¹⁰⁶ EPA General Terms of Approval

11. Proponents Obligations

11.1 Cumulative Impact Management

In the event that the cumulative impact of noise or dust contributed by the operation of the Dendrobium Mine and any future mining activities, at dwellings, or vacant land (as described in Condition 6.1 and 6.4), in the vicinity of the operation, is in excess of the noise or dust criteria contained in these conditions of consent, the Applicant shall negotiate with the other companies and landowner to determine appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts to the satisfaction of the Director-General.

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

Note: In Condition 11.2 (a)-(h) "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.

- (a) The owner of any dwelling, or vacant land (as described in Condition 6.1 and 6.4) located in areas that exceed noise and/or air quality acquisition criteria established in accordance with conditions 6.1 and 6.4 of this consent, may request the Applicant in writing to purchase the whole of that property.
- (b) The Applicant shall negotiate and purchase a property, as identified in sub-clause (a) above, within six (6) months of a written request from the affected land owner.
- (c) In respect of a request to purchase land arising under this condition, the Applicant shall pay the landowners an acquisition price which shall take into account and provide payment for:
 - (i) a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by the Dendrobium Mine, having regard to:
 - the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
 - the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date.
 - (ii) the owner's reasonable compensation for disturbance allowance and relocation costs within the Wollongong, Wollondilly or Wingecarribee Local Government Area as relevant, or within such other location as may be determined by the Director-General in exceptional circumstances;

- (iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.

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

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

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

- (e) The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in sub clauses (b) and (c).
- (f) Upon receipt of a determination pursuant to sub-clauses (b) and (c), the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the property shall cease, unless otherwise agreed by the Director-General.
- (g) In the event that the Applicant and the landowner agree that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.

- (h) The provisions of this condition do not apply to a landowner who is the holder of an authority under the Mining Act, 1992.

11.3 Contributions to Council

Community Enhancement

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

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

11.4 Responsibility for the Costs of Remediation

The Applicant shall be responsible for the cost of all remedial works required including reasonable costs of Government agencies, arising from impacts of the Dendrobium Project and not recoverable through the *Mine Subsidence Compensation Act 1961* including but not limited to remediation of natural features, rehabilitation of ecological systems, and the provision of supplementary water flows, as determined by the Director-General.

12. Further Approvals and Agreements

12.1 Statutory Requirements

- (a) The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Local Government Act 1993, Protection of the Environment Administration Act 1991, Protection of the Environment Operations Act 1997, Rivers and Foreshores Improvement Act 1948, Water Act 1912, National Parks and Wildlife Act 1974, Sydney Water Catchment Management Act 1998 and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements issued pursuant to statutory powers by the WCC, WSC, WdSC, EPA, SCA, DSC, DMR, NPWS, DLWC, RTA, NSW Agriculture, and NSW Fisheries, are fully met.

(b) Structural Adequacy

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

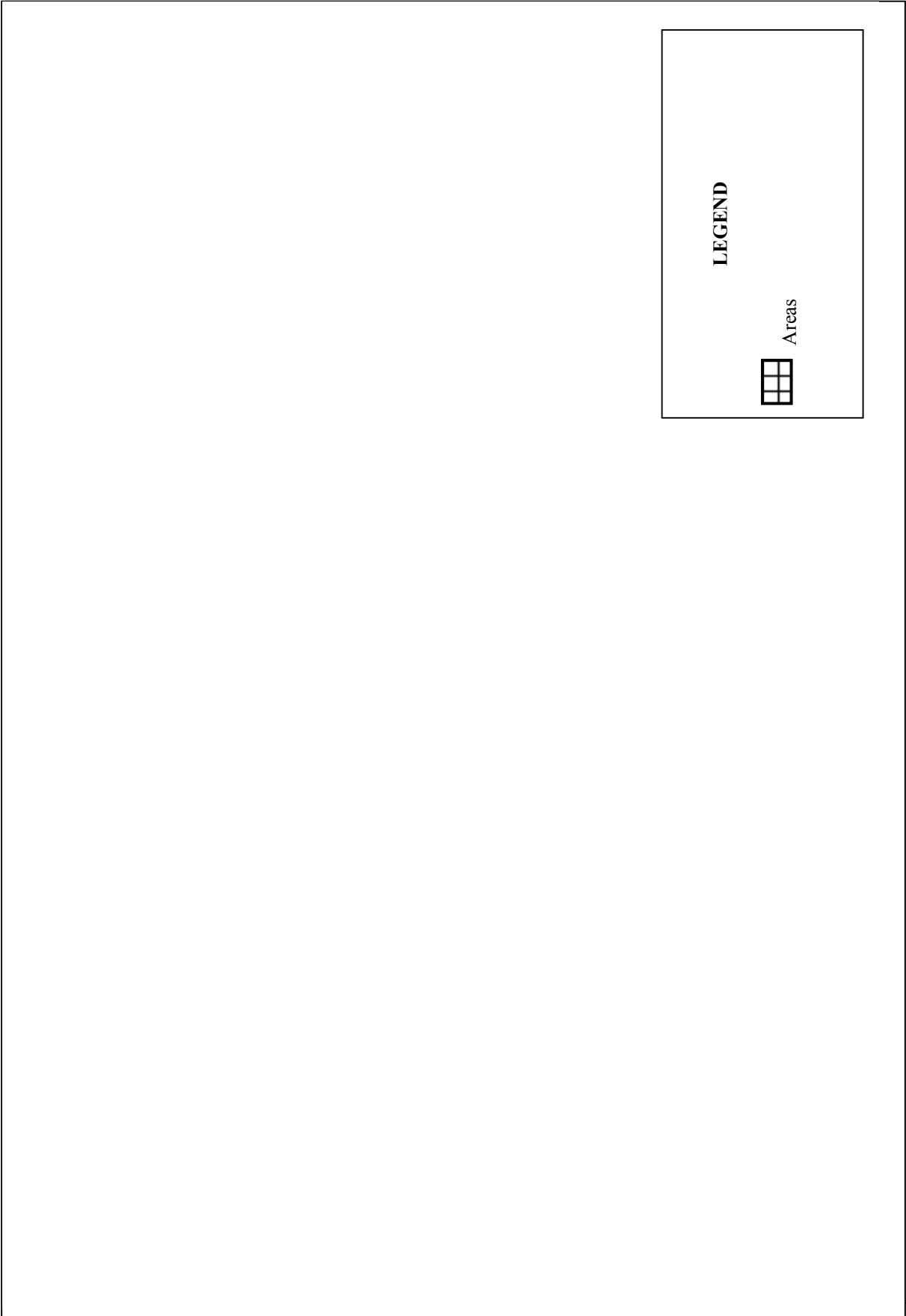
(c) Verification of Construction

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

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

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

Figure 1: Sections of Area A Requiring Further Approval in Mining Area 1



LEGEND

Areas

A legend box containing the word "LEGEND" in bold, the word "Areas" next to a 3x3 grid icon, which likely represents the sections of Area A requiring further approval.

Figure 2: Sections of Area B Requiring Further Approval in Mining Area 2

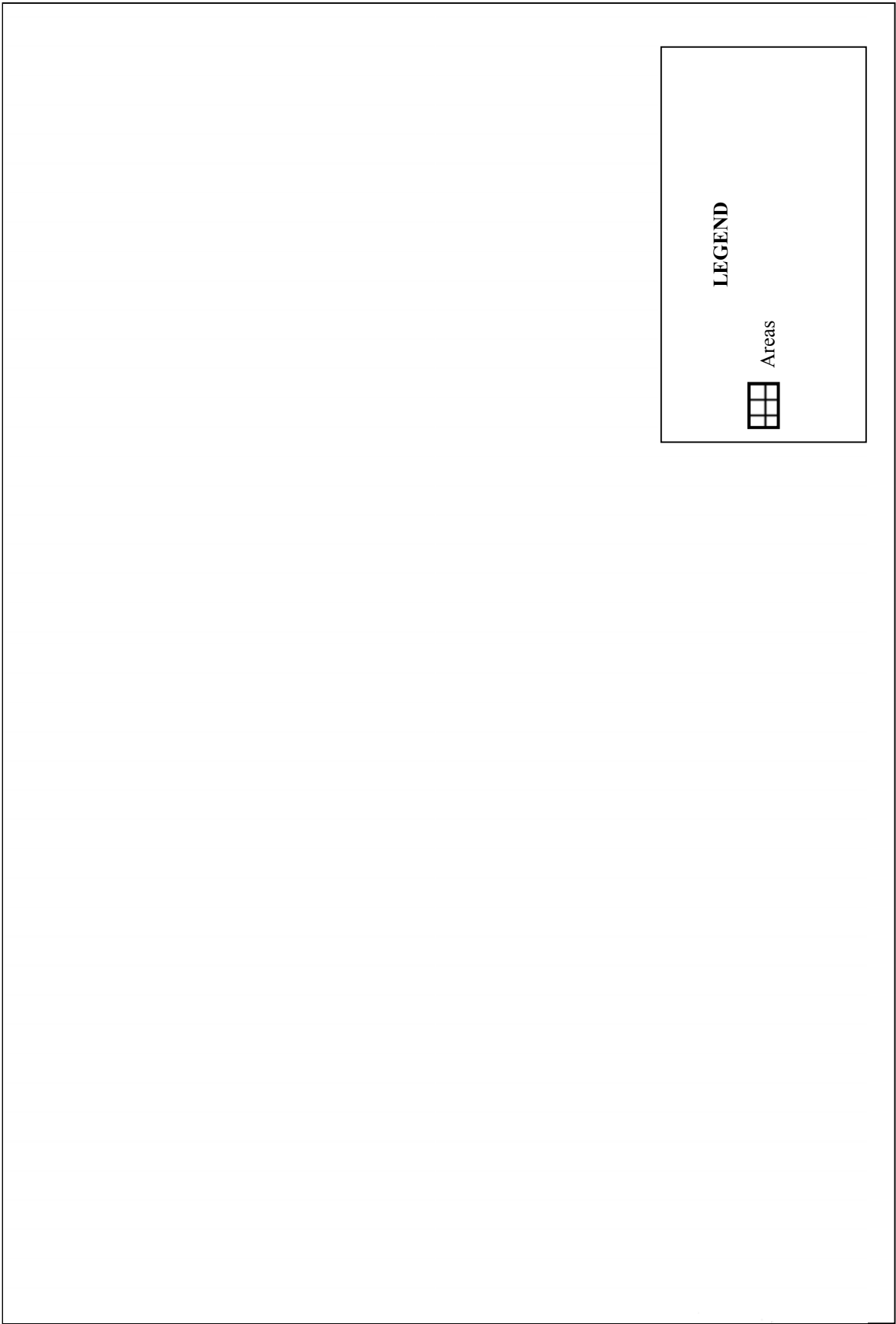
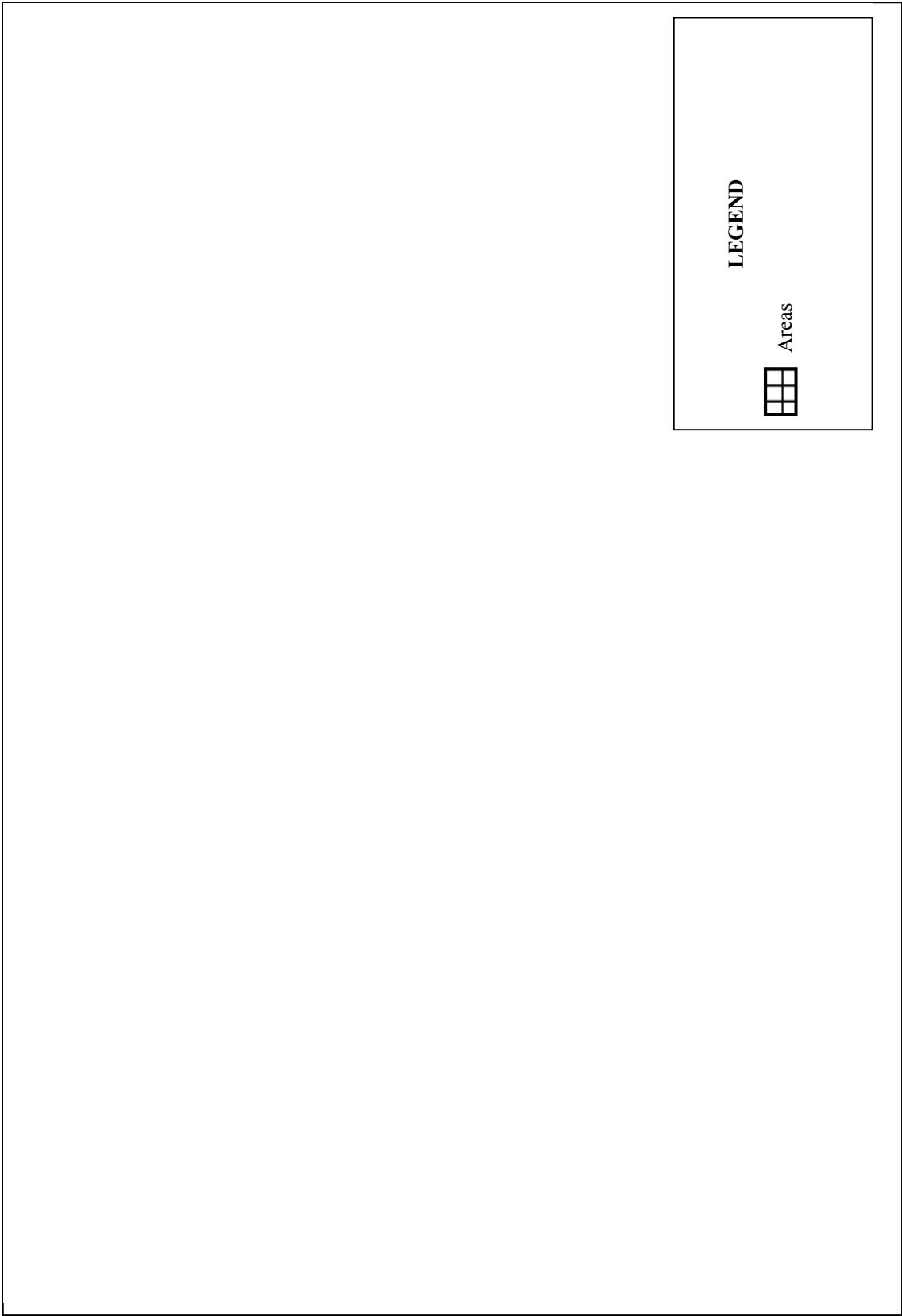


Figure 3: Sections of Area C Requiring Further Approval in Mining Area 3



SCHEDULE A
Explanatory Flow Charts

SCHEDULE B

EPA Operational Noise Limits

In addition to EPA GTAs which relate to operational noise which have been included in conditions of consent the following additional operational noise limits would also apply:

Operational Noise Limits for the Elouera Colliery (Dendrobium Site)

- L1** Noise limits specified in the table below from operations at the Elouera Colliery (Nebo Site) must not exceed the noise limits specified for the receiver locations nominated in the following table.

Noise Limits for Elouera Colliery (Nebo Site) Operations

Receiver Locations (See Note)	Noise Limits for Elouera Colliery (Nebo Site) Operations, $L_{Aeq,15min}$		
	Day dB(A)	Evening dB(A)	Night dB(A)
R1	40	40	39
R3	40	40	37
R5	40	40	37
R6	40	40	37
R9	40	40	39
R15	40	40	39
R22	41	41	40

Note: Receiver locations nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.

Operational Noise Limits for KVCLF

- L2** Noise limits specified in the table below from the operation of the KVCLF must not exceed the noise limits specified for the receiver locations nominated in the table.

Noise Limits for KVCLF Operations, $L_{Aeq,15min}$

Receiver Locations (See Note)	Noise Limits for KVCLF Operations, $L_{Aeq,15min}$		
	Day dB(A)	Evening dB(A)	Night dB(A)
R2	42	42	38
R39	37	35	35

Note: Receiver locations nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.

Operational Noise Limits for Shaft No 1

L3 Operational noise levels from the Shaft No.1 site shall not exceed an L_{Aeq} level of 50 dB(A), measured at receiver location R40.

Note: Receiver location R40 nominated in the Environmental Noise and Vibration Impact Assessment provided in the EIS.

L4 Operational noise levels from the Shaft No.1 site shall not exceed an $L_{Aeq,15min}$ level of 35 dB(A) at the most affected residence at any time.

Operational Noise Limits for Coal Dryer

L5 The level of noise from the operation of the Dendrobium Coal dryer including any associated activities must not exceed the limit of $L_{Aeq,period}$ of 35 dB(A) for the day time, evening and night time periods at the most affected residence in Birmingham St, Cringilla.

Consolidated Coal Lease 724

CONSOLIDATED COAL LEASE

COAL MINING ACT, 1973

NO. 724

DATED *4th July* A.D. 1991

NATURAL RESOURCES
THE MINISTER FOR ~~MINERALS AND ENERGY~~
OF THE STATE OF
NEW SOUTH WALES
TO

THE COAL CLIFF COLLIERIES PTY LIMITED

RECORDED in the Department of Minerals ~~and~~ Resources
~~Energy~~, at Sydney, this *twenty second*
day of *August* A.D. 1991, at
the hour of *two* o'clock in the

after noon, and numbered in the Register. *724*

THIS LEASE TO BE READ
IN CONJUNCTION WITH NEW
LEASE CONDITION REF
DMR L97/0297
11/6/98

D. Kinsela
Deputy Registrar (Coal)

Certified copy OF OFFICE COPY OF
Examined by ~~CONSOLIDATED COAL LEASE N°724~~

Guoiauma
M Stone

Certified copy CCL 724
Examined by

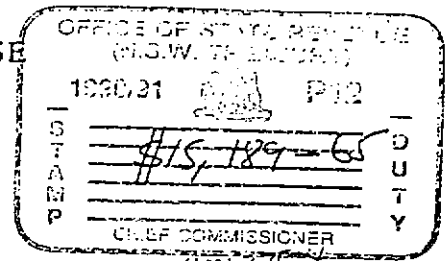
Guoiauma

Date *8th July 1991*

10.9.91

4

COAL MINING ACT, 1973
CONSOLIDATED COAL LEASE



THIS DEED made the fourth day of July One thousand nine hundred and ninety one in pursuance of the provisions of the Coal Mining Act 1973 (hereinafter called "the said Act") between THE HONOURABLE IAN CAUSLEY, M.P. ~~WILLIAM PICKARD, M.P.~~ NEIL EDWARD Minister for Natural Resources ~~Minerals and Energy~~ of the State of New South Wales (hereinafter called "the Minister") which expression shall where the context admits or requires include the successors in office of the Minister and the person acting as such Minister for the time being) of the one part and The Coal Cliff Collieries Pty Limited Crown Central Corner Crown & Keira Streets WOLLONGONG NSW 2500

(which with its successors and permitted assigns is hereinafter called "the registered holder") of the other part WHEREAS the registered holder was until the execution hereof by the Minister the registered holder of the leases specified in the Schedule of Leases numbered 1 annexed hereto AND WHEREAS the Minister considered that the said leases should be consolidated in conformity with Part 1VA of the Coal Mining Act 1973 and has otherwise complied with the requirements of that Part relating to the grant of a consolidated coal lease NOW THIS DEED WITNESSETH that in consideration of the rent and royalty hereinafter reserved and of the covenants hereinafter contained and on the part of the registered holder to be paid performed and observed the Minister in pursuance of the provisions of the said Act DOTH HEREBY demise and lease unto the registered holder ALL THAT piece or parcel of land being the aggregate of all areas of land subject to the leases specified in the said Schedule of Leases annexed hereto and more particularly described and delineated in the plan marked "A" annexed hereto for the purpose of prospecting and mining for coal TO HOLD the said land containing by admeasurement about 13,113 hectares

with the appurtenances thereto subject

to such rights and interests as may be lawfully subsisting therein or which may be reserved by the said Act at the date of these presents and subject also to such conditions provisos and stipulations as are herein contained UNTO the registered holder from and including the date hereof for the period expiring on 26th September 2011 *

for the purpose aforesaid and for no other purpose YIELDING AND PAYING unto the owner for the time being of any private lands the surface whereof is hereby demised yearly and every year during the said term the yearly rent at the rate required by the said Act and the Regulations thereunder at the time the rent is required to be paid AND YIELDING AND PAYING in respect of any Crown lands the surface whereof is hereby demised yearly and every year during the said term the yearly rent at the rate required by the said Act and the Regulations thereunder at the time the rent is required to be paid AND YIELDING AND PAYING in respect of coal reserved to or owned by the Crown in the Crown lands and private lands hereby demised yearly and every year during the said term the yearly rent at the rate required by the said Act and the Regulations thereunder at the time the rent is required to be paid such rents to be paid yearly in advance respectively to the owner for the time being of the private lands hereby demised and to the Minister in Sydney in respect of the Crown lands hereby demised and to the Minister in Sydney in respect of coal reserved to or owned by the Crown in the Crown lands and private lands hereby demised the first of such payments to be made to the owner and the Minister respectively on or before the thirty first day of December 1991 and thereafter such payments to be made to the respective owners and the Minister respectively on or before the thirty first day of December in each year of the said term upon and subject to the covenants conditions and provisos hereinafter appearing AND the registered holder DOTH HEREBY covenant with the Minister as follows:

means the person for the time being holding office or acting as ^{Director General} ~~and Energy~~ Department of Minerals and Energy Sydney: The words "coal", "Crown lands", "mine" when used as a noun or when used as a verb, "owner" and "private lands" have the meanings respectively assigned to them by the said Act: Words importing the singular number shall include the plural the masculine gender the feminine or neuter gender and vice versa:

Any covenant on the part of two or more persons shall be deemed to bind them jointly and severally.

2. THAT the registered holder shall pay to the owner of any private lands the surface whereof is hereby demised and unto the Minister in respect of any Crown lands the surface whereof is hereby demised and unto the Minister in respect of coal reserved to or owned by the Crown in the said Crown lands and private lands hereby demised rent or rents as required by the Coal Mining Act, 1973, and the Regulations thereunder at the times and in the manner hereinbefore appointed therefor clear of all deductions and shall when called upon produce to the Minister or some officer appointed by him in respect of the said private lands a receipt for such rent or otherwise satisfy the Minister that such rent has been paid.
3. THAT the registered holder shall during the said period pay to the Minister in Sydney in respect of all coal won from the land hereby demised royalty at the rate fixed by the Minister pursuant to section 820 of the Coal Mining Act, 1973 at the time the coal is won.
4. THAT the registered holder shall not plead acceptance of rent by or on behalf of the owners or by or on behalf of the Minister as a waiver of the right of the Minister to enforce observance of the covenants herein contained or of the covenants and conditions to be observed under the Acts or laws referred to in Clause 7 (d) herein or of the right of the Minister to cancel this lease for breach of any such covenant.
5. THAT the registered holder shall at all times during the said term keep and preserve the said mine from all avoidable injury or damage and also the levels, drifts, shafts, watercourses, roadways, works, erections and fixtures therein and thereon in good repair and condition and in such state and condition shall on the expiration or sooner determination of the said term or any renewal thereof deliver possession thereof and of all and singular the premises hereby demised to the Minister or other persons authorised to receive possession thereof.
6. Subject to the requirements of any order issued pursuant to section 70 (4) of the Coal Mining Act, 1973 -
 - (i) the registered holder shall not, unless with the written approval of the Minister and subject to such conditions as he may impose, carry out a mining purpose on the lands described in Column 1 of the Schedule numbered 2 annexed hereto other than a mining purpose specified opposite that description in Column 2 of that schedule:
 - (ii) The registered holder shall not carry out a mining purpose specified in Column 2 of Schedule 2 except in accordance with the conditions of this lease including any conditions that may be referred to in Column 3 of that schedule opposite that purpose.
7. THAT the conditions and provisions set forth and numbered 2, 6, 7, 10, 11, 13 (A), (i), (iii), (B), (C), (D), (E), (F), 14 to 17 (inclusive), 19 to 37 (inclusive), 41, 42, 45 to 60 (inclusive),

in the Schedule numbered 3 headed "Conditions of Consolidated Coal Leases - 1985" annexed hereto are embodied and incorporated with these presents as conditions and provisions of the lease hereby granted AND that the registered holder shall observe fulfil and perform the same.

PROVIDED always and it is hereby declared as follows:

- (a) THAT this lease is granted subject to amendment as provided under sections 82D and 82K of the Coal Mining Act, 1973.
- (b) THAT if the registered holder at any time during the period of this demise -
 - (i) fails to fulfil or contravenes the covenants and conditions herein contained; or
 - (ii) fails to comply with any provision of the said Act or with any provision of the Mining Act, 1973 with which the registered holder is required to comply; or
 - (iii) fails to use the land hereby demised bona fide for the purpose for which this lease was granted; or
 - (iv) uses the land hereby demised for any purpose other than that for which it has been demised,this lease may be cancelled by the Minister by instrument in writing and the cancellation shall have effect from and including the date on which notification of the cancellation is published in the

Government Gazette and the production of a copy of the Government Gazette containing a notification purporting to be signed by the Minister declaring this lease to be cancelled shall be conclusive evidence of the facts stated therein.

- (c) THAT no implied covenant for title or for quiet enjoyment shall be contained herein.
- (d) THAT all the conditions and provisions contained in the Coal Mining Act, 1973 and the Regulations thereunder and the Coal Mines Regulation Act, 1982 or any other law now or hereafter to be passed or prescribed so far as the same may be applicable are embodied and incorporated with these presents as conditions and provisions of the lease hereby granted and the registered holder hereby covenants to observe fulfil and perform the same.
- (e) THAT such of the provisions and conditions herein declared and contained as require or prescribe anything to be done or not to be done by the registered holder shall in addition to being read and construed as conditions of the lease hereby expressed to be granted be also read and construed as covenants by the registered holder with the Minister to observe and perform the said provisions and conditions.
8. Upon the execution hereof by the Minister the leases specified in the Schedule of Leases shall, subject to the provisions of section 82S of the Coal Mining Act, 1973, be deemed to be cancelled in accordance with section 82H(4) of the said Act.

IN WITNESS WHEREOF the parties hereto have executed this Deed the day and year first abovewritten

SIGNED SEALED AND DELIVERED)
BY THE HONOURABLE ~~NEIL EDWARD~~)
IAN CAUSLEY, M.P.)
~~WILLIAM PICKARD, M.P.~~)

as such Minister as aforesaid)
in the presence of:)

Dated

- 4. JUL 1991


SIGNED SEALED AND DELIVERED)
by the said)

THE COAL CLIFF COLLIERIES)
PTY LIMITED)

Dated

21TH JUNE 1991.

in the presence of:


J. SEEDHOUSE
SECRETARY.



This and the succeeding page is the Schedule numbered 1 and referred to in the annexed Consolidated Coal Lease No. 724 under the Coal Mining Act, 1973, granted to The Coal Cliff Collieries Pty Limited dated this *fourth* day of *July* 1991.

[Signature]

Registered Holder

[Signature]

Witness to Minister's Signature

SCHEDULE OF LEASES

<u>Lease No.</u>	<u>Portion/ Diagram No.</u>	<u>Parish</u>
Mineral Lease No. 690 (48 Vic No. 10)	72, 73	Southend
Mineral Lease No. 709 (48 Vic No. 10)	ML 2	Southend
Mineral Lease No. 731 (48 Vic No. 10)	MP 2/2	Southend
Mineral Lease No. 732 (48 Vic No. 10)	MP 2/1	Southend
Mineral Lease No. 9 (C & S Act 1906)	ML 18	Southend
Mineral Lease No. 31 (C & S Act 1906)	MP 27	Southend
Mineral Lease No. 45 (C & S Act 1906)	MP 26	Southend
Mineral Lease No. 65 (C & S Act 1906)	ML 19	Southend
Mineral Lease No. 70 (C & S Act 1906)	MP 17	Southend
Mineral Lease No. 71 (C & S Act 1906)	MP 16	Southend
Mineral Lease No. 72 (C & S Act 1906)	MP 18	Southend
Mineral Lease No. 73 (C & S Act 1906)	MP 19	Southend
Mineral Lease No. 94 (C & S Act 1906)	ML 20	Southend, Wedderburn
Mineral Lease No. 95 (C & S Act 1906)	ML 21	Wedderburn
Mineral Lease No. 96 (C & S Act 1906)	ML 22	Southend, Wedderburn
Mineral Lease No. 97 (C & S Act 1906)	ML 23	Southend
Mineral Lease No. 98 (C & S Act 1906)	ML 24	Southend
Mineral Lease No. 99 (C & S Act 1906)	ML 1	Eckersley, Wedderburn
Mineral Lease No. 198 (C & S Act 1906)	ML 3	Southend
Mineral Lease No. 716 (C & S Act 1906)	ML 6	Southend
Mineral Lease No. 886 (C & S Act 1906)	ML 45	Bulgo, Heathcote and Southend
Mineral Lease No. 1281 (C & S Act 1906)	ML 44	Southend
Mineral Lease No. 1300 (C & S Act 1906)	ML 42	Southend
Mineral Lease No. 1337 (C & S Act 1906)	ML 40	Southend
Mineral Lease No. 1346 (C & S Act 1906)	ML 41	Southend
Mineral Lease No. 1372 (C & S Act 1906)	ML 64	Southend
Mineral Lease No. 1410 (C & S Act 1906)	ML 71	Southend
Private Lands Lease No. 116 (C & S Act 1906)	86	Southend
Private Lands Lease No. 152 (C & S Act 1906)	76, 77 & 78	Southend
Private Lands Lease No. 202 (C & S Act 1906)	60, 62, 64, 66, 67, 68, 87, 88, 89 & 56	Southend
Private Lands Lease No. 498 (C & S Act 1906)	PML 13	Southend
Private Lands Lease No. 525 (C & S Act 1906)	PML 14	Southend
Private Lands Lease No. 529 (C & S Act 1906)	PML 16	Southend
Private Lands Lease No. 530 (C & S Act 1906)	PML 15	Southend
Private Lands Lease No. 544 (C & S Act 1906)	PML 18	Southend

<u>Lease No.</u>	<u>Portion/ Diagram No.</u>	<u>Parish</u>
Private Lands Lease No. 56 (Act 1924)	PML 4	Southend
Private Lands Lease No. 73 (Act 1924)	17	Southend
Private Lands Lease No. 193 (Act 1924)	PML 5	Southend
Private Lands Lease No. 1360 (Act 1924)	PML 37	Southend
Private Lands Lease No. 1361 (Act 1924)	PML 4	Heathcote
Coal Lease No. 112 (Act 1973)	D 1103	Heathcote, Bulgo
Coal Lease No. 113 (Act 1973)	ML 72	Southend
Coal Lease No. 114 (Act 1973)	ML 62	Southend
Coal Lease No. 117 (Act 1973)	D 1070	Heathcote
Coal Lease No. 123 (Act 1973)	D 1042	Southend
Coal Lease No. 128 (Act 1973)	D 1059	Heathcote
Coal Lease No. 172 (Act 1973)	D 1153	Appin
Coal Lease No. 174 (Act 1973)	D 2338	Wedderburn
Coal Lease No. 182 (Act 1973)	D 1123	Southend
Coal Lease No. 227 (Act 1973)	D 1120	Southend
Coal Lease No. 241 (Act 1973)	D 1196	Southend
Coal Lease No. 242 (Act 1973)	D 1195	Heathcote
Coal Lease No. 305 (Act 1973)	D 6150	Wedderburn,
		Eckersley
Coal Lease No. 333 (Act 1973)	D 6387	Appin
Coal Lease No. 334 (Act 1973)	D 6376	Wedderburn
Coal Lease No. 562 (Act 1973)	Pts 1A, 21, 172, 174, 170 & 173	Southend
Coal Lease No. 564 (Act 1973)	Pt 171, Pts 172 & 174	Southend
Special (Crown & Private Lands) Lease No. 7 (Act 1969)	ML 75	Appin, Wedderburn, Eckersley, and Heathcote
Mining Purposes Lease No. 1414 (Act 1906)	ML 39	Wedderburn
Mining Purposes Lease No. 17 (Act 1973)	D 1140	Wedderburn
Mining Purposes Lease No. 32 (Act 1973)	D 923	Southend
Mining Purposes Lease No. 33 (Act 1973)	ML 73	Southend
Mining Purposes Lease No. 34 (Act 1973)	ML 74	Southend
Mining Purposes Lease No. 199 (Act 1973)	D 5214	Wedderburn
Mining Purposes Lease No. 262 (Act 1973)	D 6917	Wedderburn

This and the succeeding nine pages is the Schedule numbered 2 and referred to in the annexed Consolidated Coal Lease No. 724 under the Coal Mining Act, 1973, granted to The Coal Cliff Collieries Pty Limited dated this *fourth* day of *July* 1991.

[Signature]

 Registered Holder

[Signature]

 Witness to the Minister's Signature

PART "A" - DETAILS OF LANDS & PURPOSES

COLUMN 1	COLUMN 2	COLUMN 3
Lands shown with stippling and numbered 1 on the Plan annexed hereto and marked "B".	<ol style="list-style-type: none"> Constructing, maintaining or using in connection with mining any of the following namely:- shaft, shaft appurtenances, borehole, tunnel, drive, drain, dam, reservoir, railway, tramway, building, machinery, bridge, road, telephone line, magazine, and coal preparation plant The generation of electricity . The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity. The storing of fuel, machinery, tools, timber or equipment. The dumping or depositing of any overburden, coal, minerals, mine residues or tailings. Erecting dwellings for the use of persons employed on or about a mine or land subject to a lease for mining purposes. 	Conditions Nos. 1 & 2 of Part "B" of this Schedule.
Lands shown with stippling and numbered 2 on the Plan annexed hereto and marked "B".	<ol style="list-style-type: none"> Constructing, maintaining or using in connection with mining any of the following namely:- adits, bin, borehole, bridge, building, coal preparation plant, conveyor systems, dam, drain, drift, machinery, magazine, railway, reservoir, road, shaft, shaft appurtenances, telephone line, tramway and tunnel. 	Conditions Nos. 3 & 4 of Part "B" of this Schedule.

COLUMN 1	COLUMN 2	COLUMN 3
	<ol style="list-style-type: none">2. The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity.3. The dumping or depositing of coal, minerals, mine residues or tailings.4. The storing of fuel, machinery, tools, timber or equipment in connection with mining.5. Erecting dwellings for the use of persons employed on or about a mine or land subject to a lease for mining purposes.6. Laying, maintaining and using a pipeline or cable in connection with mining.7. Establishing, maintaining and using a nursery and associated facilities for the propagation of plants, shrubs and trees required for the rehabilitation of lands used in connection with mining or mining purposes.	
Lands shown with stippling and numbered 3 on the Plan annexed hereto and marked "B".	<ol style="list-style-type: none">1. Constructing, maintaining or using in connection with mining any of the following namely:- borehole, building, and machinery.2. The generation of electricity .3. The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity.4. Laying, maintaining and using a pipeline in connection with mining.	Conditions Nos. 5 to 9 (inclusive) of Part "B" of this Schedule.
Lands shown with stippling and numbered 4 on the Plan annexed hereto and marked "B".	<ol style="list-style-type: none">1. Constructing, maintaining or using in connection with mining any of the following namely:- road, telephone line.2. The generation of electricity.	Conditions Nos. 10 & 11 of Part "B" of this Schedule.

COLUMN 1	COLUMN 2	COLUMN 3
	<ol style="list-style-type: none"> 3. The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity. 4. Laying, maintaining and using a pipeline or cable in connection with mining. 	
Lands shown with stippling and numbered 5 on the Plan annexed hereto and marked "B".	<ol style="list-style-type: none"> 1. Constructing, maintaining or using in connection with mining any of the following namely:- borehole, building, machinery, road, shaft, shaft appurtenances, telephone line. 2. The generation of electricity . 3. The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity. 4. Laying, maintaining and using a pipeline or cable in connection with mining. 	Conditions Nos. 12 & 13 of Part "B" of this Schedule.
ands shown with stippling and numbered 6 on the Plan annexed hereto and marked "B".	<ol style="list-style-type: none"> 1. Constructing, maintaining or using in connection with mining any of the following namely:- adits, borehole, bridge, building, coal preparation plant, conveyor systems, dam, drain, drift, jetty, machinery, magazine, railway, reservoir, road, shaft, shaft appurtenances, telephone line, tramway and tunnel. 2. The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity. 3. The dumping or depositing of coal, minerals, mine residues or tailings. 4. The storing of fuel, machinery, tools, timber or equipment in connection with mining. 	Conditions Nos. 14 to 44 (inclusive) of Part "B" of this Schedule.

COLUMN 1

COLUMN 2

COLUMN 3

5. Laying, maintaining and using a pipeline or cable in connection with mining.
6. Establishing, maintaining and using a nursery and associated facilities for the propagation of plants, shrubs and trees required for the rehabilitation of lands used in connection with mining or mining purposes.
7. Depositing, with the approval of the Minister, earth, rock, ash, mine wastes or other wastes or other substances in shafts, tunnels or other mine workings for the purpose of filling, stowing or making safe those workings.
8. The generation of electricity.

Lands shown with stippling and numbered 7 on the Plan annexed hereto and marked "B".

1. Constructing, maintaining or using in connection with mining any of the following namely:- drain, road, shaft and shaft appurtenances.
2. The erection, maintenance and use of standards, posts, wires and appliances for the transmission of electricity in connection with mining.

Conditions Nos. 45 to 50 of Part "B" of this Schedule.

PART "B" - DETAILS OF ADDITIONAL CONDITIONS

1. Unless otherwise directed by the Minister the registered holder shall ensure that water discharged from the area demised shall have pH value between 5.5 and 8.0 and shall contain less than 30 milligrams of suspended matter per litre.
2. Before constructing on the area demised a permanent access road to Main Road No. 177 the said lessee shall obtain the approval of the Road and Traffic Authority and the responsible Council.
3. The registered holder shall provide and maintain to the satisfaction of the Minister an arboreal screen on that part of the subject area where it adjoins Main Road No. 177 and if so directed by the Minister the registered holder shall plant such trees and/or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.
4. Any access to the subject area from Main Road No. 177 is to be developed in accordance with the requirements of the Roads and Traffic Authority and the registered holder shall bear the full cost of such development.
5. The registered holder shall ensure that water shall not be discharged on the Public Road.
6. The registered holder shall ensure that the water is discharged into the existing natural water course below the existing culvert on Lawrence Hargrave Drive between Coalcliff and Stanwell Park and shall ensure that the works hereby authorised do not cause any undue damage to or erosion of the subject area or the land in the vicinity thereof.
7. The registered holder shall as far as may be practicable carry out the said works so as not to interfere in any way with the public use and enjoyment of the subject area.
8. The registered holder shall if so requested so to do by the Roads and Traffic Authority modify or remove at no cost to that Authority the works within the road reserve of Main Road No. 185.
9. The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination or pollution of the South Pacific Ocean or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination or pollution of the said ocean or any undue interference to fish or their environment.
10. Except with the permission of the Minister first had and obtained and subject to such conditions as the Minister considers necessary, the registered holder shall not erect on the subject area any plant for the purpose of generating electricity.

11. The registered holder shall carry out the works hereby authorised so as not to interfere with or impair the stability or efficiency of any power transmission line traversing the subject area and the registered holder shall not construct any of the works hereby authorised within any power transmission line easement except with the approval in writing of the Electricity Commission of New South Wales.
12. Except with the permission of the Minister first had and obtained and subject to such conditions as the Minister considers necessary, the registered holder shall not erect on the subject area any plant for the purpose of generating electricity.
13.
 - (a) The shaft or other surface operational sites shall be drained to the Water Board's satisfaction in such a manner as will prevent the discharge therefrom of rainwater, surface water and other drainage by a direct route to stored water or any watercourse.
 - (b) No drainage from underground mine workings shall be pumped up the shaft on to the Catchment Area, unless it is impractical to disposal of it otherwise, and in such case, special treatment may be required or the drainage pumped clear of the Catchment Area, as the Water Board may decide.
14.
 - (a) The registered holder shall not knowingly destroy, deface or damage any aboriginal or palaeontological relic or other item of archaeological interest within the subject area and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.
 - (b) The registered holder shall within twenty-four (24) hours notify the Director of National Parks and Wildlife of the discovery of any such relic or other item.
 - (c) The registered holder will not continue any operations likely to interfere with or disturb any such relic or other item without the concurrence of the Director of National Parks and Wildlife, provided that such concurrence must be given or refused within twenty-eight (28) days of the notification referred to above.
15. The Water Board would expect the registered holder to supervise its personnel and conduct its operations in the strictest possible manner so that not even accidental pollution of the water supply could occur. In the event of any dispute, the Board's decision would be final.
16. The registered holder shall submit to the Water Board for its approval, full sets of the survey and design plans of all the proposed surface installations, well in advance of the time intended to commence construction thereof, and no works shall commence until the Board's approval is given thereto.

17. The registered holder shall comply with any restrictions and/or requirements by the Board as to ground surface disturbance, scrub or tree cutting and removal, clearing, burning off, and other related activities.
18. Any timber, vegetation, etc., cut or removed shall be disposed of as specified by, and to the satisfaction of, the Water Board's Catchment Services Manager.
19. The registered holder shall stabilise all cut and fill banks by guniting or other process approved by the Water Board and shall restrict development in order to provide what, in the opinion of the Board, is considered necessary to provide an adequate barrier or buffer zone between the workings and the stored water of any dam, or any river or water course. The registered holder shall place as directed by the Board, all material cut and not required for fill purposes.
20. The shaft or other surface operational sites shall be drained to the Board's satisfaction in such a manner as will prevent the discharge therefrom of rainwater, surface water and other drainage by a direct route to stored water or any water course.
21. The drains shall be equipped with silt arrestor pits of adequate capacity, constructed so as to permit of cleaning without the accidental escape of silt therefrom.
22. No drainage from underground mine working shall be pumped up the shafts on to the Catchment Area, unless it is impractical to dispose of it otherwise and in such case, special treatment may be required or the drainage pumped clear of the Catchment Area, as the Board may decide.
23. All waste water from any premises erected on the subject area shall be caught in approved fittings and piped to a Treatment Plant which shall include grease traps and percolating filter. If the effluent issuing from the percolating filter has not been purified to the satisfaction of the Water Board, then such further measures as may be deemed necessary by the said Board, shall be adopted.
24. Any cleared areas shall be treated in such a manner as to minimise soil erosion. Ground cover vegetation shall be established and maintained, by artificial means if necessary, to the satisfaction of the Water Board.
25. The registered holder shall submit to the Water Board for its approval, full sets of survey and design plans for all access or other roads proposed to be located on the Catchment Area, well in advance of the time intended to commence construction thereof, and no work shall commence thereon until the Board's approval is given thereto.

26. Such roads shall be sealed with bitumen, properly drained, and constructed entirely at the holder's expense. The Board reserves the right to use for its own lawful purposes and without cost to itself any roads so constructed on its Catchment Area.
27. In respect of such roads, the holder shall ensure that:-
 - (i) Cut and fill in the road formation are kept to a minimum.
 - (ii) All material cut are not required as fill is disposed of as approved, or directed, by the Board.
 - (iii) All embankments are stabilised by guniting, or other process approved by the Board, so as to prevent erosion.
 - (iv) All roads are provided with suitable concrete lined drains, silt traps, culverts, kerbs and gutters so as to prevent erosion.
 - (v) All roads including vehicle parking bays are constructed, sealed and maintained to Roads and Traffic Authority standards having regard to the loads required to be hauled.
 - (vi) Vegetation is re-established as directed by the Water Board.
 - (vii) Fencing and gates with locks are provided at locations approved by the Water Board so as to prevent unauthorised entry to the Catchment Area or any operational area.
28. The registered holder shall observe any requirements of the Water Board as to the method or order of construction of any road works approved in accordance with these conditions, so as to prevent erosion or siltation or pollution of the Catchment Area or any watercourse or the stored waters of any dam.
29. The registered holder's road making operations shall be limited strictly to the width approved by the Board to be cleared for the routes of any such roads. The parking of plant or stockpiling of materials beyond the approved width shall be prohibited except in areas specially approved in advance by the Board for such purposes.
30. The use of the Water Board's access and fire roads, and access through locked gates shall be such as will not interfere with or impede the use of the roads by the Board or any other user authorised by the Board. Usage shall also be subject to such conditions as may be found necessary in the filed.
31. The Water Board shall be indemnified against any claims arising out of the holder's use of the Board's fire roads, tracks and property and any damage caused by the holder's operations shall be made good by the holder.

32. The use of the proposed pit top or other surface operational sites by personnel shall be subject to the provision of satisfactory hygiene arrangements including sewage or waste water treatment works designed and constructed to the requirements of the Health Commission of New South Wales.
33. The effluent and any other sullage, including bathroom wastes shall be disposed of in a manner satisfactory to the Board, and shall be pumped to a disposal area clear of the catchment lands through mild steel cement lined pipes. Pumping arrangements shall be to the Board's approval and shall include 100% stand-by arrangements with a holding tank (for emergency use) capable of holding at least three days discharge. The effluent shall be chlorinated by the holder to the Board's satisfaction if so required.
34. The registered holder, at his own expense, shall carry out at any site or access thereto any structural or civil engineering works which may be directed by the Water Board with a view to avoiding pollution or siltation of the Board's water supply or catchment areas.
35. The registered holder shall limit the use of petrol, oil, grease or similar materials to the minimum essential and shall arrange that the use of these materials shall be carried out in locations specially provided to the satisfaction of the Water Board.
36. The registered holder shall allow entrance by authorised officers or employees of the Board to the works at any time for the purposes of their official duties, and the production of an "Authority to Enter" card or other official badge issued by the Board shall be accepted by the registered holder as sufficient proof of identity.
37. The registered holder shall ensure that entry onto the Catchment Area from the point at which the access road leaves the public road is controlled so that only persons engaged on bona fide business with the registered holder enter onto the Catchment Area at this point.
38. The provision of fencing, gates and locks, and the manning of the entrance and the locking of the entrance gate when personnel are not engaged at the shaft site, shall be the responsibility of the registered holder and shall be carried out to the satisfaction of the Water Board.
39. The registered holder shall provide and maintain suitable signs at the mine and access road junction, warning all persons that trespassing on the Catchment Area, the lighting of fires or the throwing of cigarette butts or matches on to any part of the Catchment Area are strictly prohibited.
40. The registered holder shall provide and maintain at its own expense manproof mesh and barbed wire fencing around the whole perimeter of the proposed sites enclosing all buildings, paved areas and works, and also across the access road, at its commencement with the public road to provide a suitable barrier to prevent unauthorised access.

41. The Board accepts no obligation to provide a source of supply of water for the registered holder's works, but, if it does agree to do this, the method and source of supply shall be determined by the Board, and all supply requirements such as pumping equipment and pipelines, shall be designed and constructed under the Board's direction and supervision at the registered holder's cost. Storage tanks of adequate capacity shall be required at the work sites to minimise access to the supply source for operation of the pumping equipment. Adequate precautions to prevent backflow or overflow shall be required.
42. Such a supply shall be metered and water charged for at the ruling rate per kilo litre for water so supplied.
43. The operation of the shaft for access to and ventilation of underground colliery workings, the bringing of coal to the surface or for the draining of methane gas via in-seam and under-seam boreholes shall not be commenced until the works described in previous conditions are completed to the satisfaction of the Water Board. However, this provision shall not include works necessary to gain access to the coal seam.
44. The Water Board reserves the right to use the road constructed on the area leased, without cost to itself.
45. (a) Any shaft on the subject area shall be used for ventilation purposes only, and
(b) Provided however that the Minister may consent, subject to such conditions as he may impose, to the use of any such shaft for other than ventilation purposes.
46. The registered holder shall maintain the access road in a stable condition to the satisfaction of the Minister during the life of the operations.
47. The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contaminated waters discharging or escaping from the subject area onto surrounding areas and shall comply with any direction given, or which may be given, in this regard by the Minister.
48. The registered holder shall ensure that the route of the power line is determined as required by the Water Board.
49. Upon completion of operations or sooner determination of this lease the registered holder shall remove the power supply line and rehabilitate the area to the satisfaction of the Water Board.
50. The registered holder shall ensure that that section of Fire Road 10R from the junction with Fire Road 10B to the new access track and not required for access to the operations demised under this lease is to be reshaped, drained and blocked off to allow for natural revegetation.

THIS and the subsequently 21 pages is the schedule numbered 3 and referred to in the annexed Consolidated Coal Lease No. 724 under the Coal Mining Act, 1973, granted to The Coal Cliff Collieries Pty Limited dated this

fourth day of *July* 1991.

[Signature]
.....
Registered Holder

[Signature]
.....
Witness to the Minister's Signature

CONDITIONS OF CONSOLIDATED COAL LEASES - 1985

METHODS OF OPERATION

1. The registered holder shall extract as large a percentage of the coal in the subject area as is possible consistent with the provisions of the Coal Mines Regulation Act 1982 and the regulations thereunder and shall comply with any direction which may be given in this regard by the Minister.
2. Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder shall not carry out open cut or surface mining operations within the subject area or the removal of overburden within or within the lands overlying the subject area.
3. Any approval or consent given including any approval or consent given pursuant to any condition or term contained in a lease referred to in Schedule No 1 annexed hereto to the effect that the registered holder may undertake open cut or surface mining operations or the removal of overburden within the subject area shall be deemed to be a consent given for the purposes of the foregoing Condition No 2 subject to the same conditions of that approval or consent.

BARRIERS, MINING AND PROSPECTING RESTRICTIONS

4. Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose, the registered holder shall not mine for, work, win or remove any coal from those parts of the subject area within the highwater level subsidence control zone defined:-
 - (a) on the surface by the highwater level of
..... and a point 2.44 metres in elevation above that highwater level;
 - (b) in the seam by a line defined by an angle of draw of 35° drawn landwards from the line drawn vertically beneath a point 2.44 metres in elevation above the highwater level of
 - (c) in the seam by a line defined by an angle of draw of 35° drawn lakewards from the line drawn vertically beneath the highwater level of
5. Any approval or consent given by the Minister including any approval or consent given pursuant to any condition or term contained in a coal lease referred to in Schedule No 1 annexed hereto to the effect that the registered holder may mine for, work, win or remove any coal from those parts of the subject area within the highwater level subsidence control zone as defined in Condition No 4 of this Schedule shall be deemed to be a consent given for the purposes of the said Condition No 4 subject to the same conditions of that approval or consent.

6. Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder shall not work or cause to be worked any seam of coal by underground methods within the subject area within the barrier defined as follows:-

The land within the zone beneath and adjacent to
 Illawarra

Railway enclosed by an angle of draw of 35° from the vertical plane of the boundary parallel to and thirty (30) metres horizontally distant from either side of the railway lands, such angle of draw being measured outwards from the point on the vertical plane of the said boundary at the surface or at the level of the horizontal plane of the railway track, whichever may be the higher, to the floor of the coal seam in which mining operations are being carried out.

7. Any approval or consent given by the Minister including any approval or consent given pursuant to any condition or term contained in a coal lease referred to in Schedule No 1 annexed hereto to the effect that the registered holder may mine for, work, win or remove any coal from those parts of the subject area within the barrier defined in Condition No 6 of this Schedule shall be deemed to be a consent given for the purposes of the said Condition No 6 subject to the same conditions of that approval or consent.

8. (a) Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder shall not mine for, work, win or remove any coal from that part of the subject area shown as a barrier..... metres wide on the plan annexed hereto and marked

- (b) Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder shall not mine for, work, win or remove any coal from those parts of the subject area shown as barriers
 metres wide on the plan annexed hereto and marked

9. Any approval or consent given by the Minister including any approval or consent given pursuant to any condition or term contained in a coal lease referred to in Schedule No 1 annexed hereto to the effect that the registered holder may mine for, work, win or remove any coal from those parts of the subject area within the barrier(s) defined in Condition No 8 of this Schedule shall be deemed to be a consent given for the purposes of the said Condition No 8 subject to the same conditions of that approval or consent.

10. The registered holder shall not work or cause to be worked any seam of coal within the subject area without leaving, if the Minister, by order, given in writing to the registered holder, so directs, a barrier of such width or a protective pillar or pillars of such size or sizes as is specified in the order, against any surface improvements or any feature whether natural or artificial.

11. (a) Where the registered holder desires to commence prospecting operations in the subject area he shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.

- (b) Where the registered holder notifies the Director-General pursuant to subparagraph (a) of this condition he shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.
12. The registered holder shall not prospect or mine for coal within the area(s) shown on the plan annexed hereto and marked insofar as such area(s) relate(s) to the surface and land below the surface to the depth(s) specified on that plan.

METHODS OF OPERATION (PRESCRIBED DAMS)

13. (A) Subject to the provisions of paragraphs (C) and (D) of this condition the registered holder shall not mine any coal from within any part of the subject area which is within the restricted zone of the
Coal.Cliff.Dam...Stanwell...Dam.or..Brennan's.Creek.....
 Dam unless with the consent of the Minister first had and obtained pursuant to paragraph (E) of this condition.

For the purpose of this condition the restricted zone shall comprise;-

- (i) (a) the area of land underlying the stored waters at full supply level of the ..Coal.Cliff.Dam...Stanwell.....
Dam.or..Brennan's.Creek.... Dam, and
- (b) the area of land contained by an angle of draw of 35° measured outwards from the vertical projection of the boundary of the full supply level of the Coal.Cliff.Dam...Stanwell.Dam.or..Brennan's.Creek.....
 Dam through the point of intersection with the floor of the seam in which mining operations are to be carried out, and
- (c) the area of land contained by an angle of draw measured outwards from the vertical projection of the boundary of the full supply level of the ..Coal.Cliff.Dam.....
Stanwell Dam or Brennan's Creek.....
 Dam through a point of intersection with the floor of the seam in which mining operations are to be carried out, such point being on the vertical projection from a point measured outwards horizontally a distance of 0.5D from the point of intersection referred to in sub-paragraph (b) of this paragraph. For the purpose of this paragraph, D shall be the difference in level between the full supply level of the ..Coal.Cliff.Dam...Stanwell.Dam.or.....
Brennan's.Creek... Dam and the point of intersection referred to in sub-paragraph (b) of this paragraph.
- (ii) (a) any area of land underlying the structure of the

 Dam; and

- (b) any area of land within metres/kilometres of any part of the structure of the Dam and any land underlying that land.
- (iii) (a) any area of land underlying the structure of the Coal Cliff Dam, Stanwell Dam or Brennan's Creek Dam, and
- (b) the area of land downstream from the dam structure contained by an angle of draw of 35° measured outwards from the intersection of the horizontal projection of the full supply level of the Coal Cliff Dam, Stanwell Dam or Brennan's Creek Dam with the vertical projection from the downstream toe of the Coal Cliff Dam, Stanwell Dam or Brennan's Creek Dam structure through the point of intersection with the floor of the seam in which mining operations are to be carried out, and
- (c) the area of land downstream from the dam structure from the inclined plane between the two points of intersection mentioned in sub-paragraph (b) of this paragraph and contained by an angle of draw measured outwards from the point of intersection first mentioned in sub-paragraph (b) of this paragraph, through a point of intersection with the floor of the seam in which mining operations are to be carried out, such point being on a vertical projection from a point measured outwards horizontally a distance of:-

0.5D, in the case of non rigid embankment dams and non rigid appurtenances thereto, including unlined spillways; or

1.0D, in the case of rigid concrete or masonry dams and concrete faced embankment dams and rigid appurtenances thereto including concrete or masonry spillways,

from the point of intersection secondly mentioned in sub-paragraph (b) of this paragraph. For the purpose of this sub-paragraph D shall be the difference in level between the projection of the full supply level of the Coal Cliff Dam, Stanwell Dam or Brennan's Creek Dam and the point of intersection secondly referred to in sub-paragraph (b) of this paragraph.

- (d) the area of land upstream from the dam structure contained by an angle of draw of 35° measured outwards from the intersection of the horizontal projection of the full supply level of the Coal Cliff Dam Stanwell Dam or Brennan's Creek Dam with the vertical projection from the upstream toe of the Coal Cliff Dam Stanwell Dam or Brennan's Creek Dam structure through the point of intersection with the floor of the seam in which mining operations are to be carried out, and
- (e) the area of land upstream from the dam structure from the inclined plane between the two points of intersection mentioned in sub-paragraph (d) of this paragraph and contained by an angle of draw measured outwards from the point of intersection first mentioned in sub-paragraph (d) of this paragraph through a point of intersection with the floor of the seam in which mining operations are to be carried out, such point being on a vertical projection from a point measured outwards horizontally a distance of:-

0.5D, in the case of non rigid embankment dams and non rigid appurtenances thereto, including unlined spillways; or

1.0D, in the case of rigid concrete or masonry dams and concrete faced embankment dams and rigid appurtenances thereto including concrete or masonry spillways,

from the point of intersection secondly mentioned in the sub-paragraph (d) of this paragraph. For the purpose of this sub-paragraph D shall be the difference in level between the projection of the full supply level of the Coal Cliff Dam Stanwell Dam or Brennan's Creek Dam and the point of intersection secondly referred to in sub-paragraph (d) of this paragraph.

- (B) Subject to the provisions of paragraphs (C) and (D) of this condition, where the registered holder desires to mine coal from within any part of the subject area which is within the restricted zone he shall, at least twelve (12) months before such mining is to be commenced or such lesser time as the Minister may permit, notify the Minister of his desire to do so and shall submit to the Minister with any such notification:-
- (i) a plan of the system whereby the coal is proposed to be mined from within any part of the subject area which is within the restricted zone, and
 - (ii) such further information as may be required by the Minister.

(C) Any approval or consent given by the Minister including any approval or consent given pursuant to any condition or term contained in a coal lease referred to in Schedule No 1 annexed hereto to the effect that the registered holder may use a system of working within any part of the subject area within the restricted zone of the
 Coal Cliff Dam, Stanwell Dam or Brennan's Creek
 Dam shall be deemed to be a consent given for the purposes of paragraph (E) subject to the same conditions of that approval or consent.

(D) Where on the effective date of this lease, the registered holder is mining coal from within any part of the subject area which is within the restricted zone and the registered holder desires to continue such mining he shall, within a period of thirty (30) days from the said effective date, notify the Minister of his intention to do so and shall submit to the Minister with any such notification:-

- (i) a plan of the system whereby the coal is being and is proposed to be mined from within any part of the subject area which is within the restricted zone, and
- (ii) such further information as may be required by the Minister.

Subject to the registered holder having complied with the preceding provisions of this paragraph the registered holder may, unless the Minister otherwise directs, continue such mining until the Minister gives his consent pursuant to paragraph (E) of this condition or until the Minister notifies the registered holder that he has refused to give such consent.

(E) Subject to the provisions of paragraphs (C) and (D) of this condition no coal shall be mined from within any part of the subject area which is within the restricted zone except in accordance with such system as may be consented to by the Minister and subject to such conditions as he may impose. The Minister shall not grant any such consent unless the requirements referred to in sub-paragraph (i) of this paragraph have been complied with.

(i) This sub-paragraph is complied with if:-

- (a) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act and the owner of the dam have been notified in writing of the desire to mine referred to in Condition No 13 (B) or the desire to continue mining referred to in Condition No 13 (C) and (D);
- (b) the notification referred to in paragraph (a):-
 - (i) is accompanied by a description or plan of the area that would be mined or continued to be mined; and
 - (ii) specifies a period within which recommendations may be made to the Minister by the Dams Safety Committee in connection with the mining proposal.

- (c) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal.
 - (d) the Dams Safety Committee has, within the period specified under paragraph (b) (ii), or within such further period as the Director-General in special circumstances may allow, made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations, and
 - (e) where the Dams Safety Committee has made recommendations under paragraph (d), the consent is in terms that are:-
 - (i) in accordance with those recommendations, or
 - (ii) where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph.
 - (ii) Where the Minister does not accept the recommendations of the Dams Safety Committee made as provided by sub-paragraph (i), or where the Dams Safety Committee has failed to make any such recommendations and has not informed the Minister in writing that it does not propose to make any such recommendations, the consent shall be in terms that are, in relation to matters dealing with the safety of the dam:-
 - (a) as determined by agreement between the Minister and the Minister administering the Dams Safety Act, 1978, or
 - (b) in the event of failure to reach such agreement - as determined by the Premier.
 - (F) The Minister, on notice from the Dams Safety Committee, may at any time or times:-
 - (i) cancel any consent to a system where a notice pursuant to Section 18 of the Dams Safety Act, 1978 is given,
 - (ii) suspend for a period of time, alter, omit from or add to any system consented to or conditions imposed by him.
14. In any part of the subject area which is not within the restricted zone of the
Coal Cliff Dam, Stanwell Dam or Brennan's Creek

 Dam as defined in Condition No. 13 the registered holder shall extract as large a percentage of the coal in the subject area as is possible consistent with the provisions of the Coal Mines Regulation Act 1982 and the regulations thereunder and shall comply with any direction which may be given in this regard by the Minister.

SHAFTS, DRIFTS, ADITS

15. The registered holder shall comply with the provisions of the Coal Mines Regulation Act 1982 and the regulations thereunder concerning the closing of any shafts and outlets within the subject area and the surface lands the subject of or affected by any such shafts and outlets upon their closure shall be rehabilitated to the satisfaction of the Minister.
16. The registered holder shall comply with any direction which may be given by the Minister regarding the dumping, depositing or removal of any material extracted during the construction of any shaft, drift or adit on the subject area.

DUMPS AND COAL PREPARATION PLANT

17. The registered holder shall comply with any direction which may be given by the Minister regarding the stabilisation and revegetation of any dumps of coal, minerals, mine residues or tailings situated on the subject area.
18. Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder shall not erect or operate on the subject area any coal preparation plant or any other plant for the purpose of the beneficiation of coal.
19. The registered holder shall comply with any direction which may be given by the Minister regarding the spraying of coal dumps on the subject area.

MANAGEMENT AND REHABILITATION OF LANDS (GENERAL)

20. (a) The registered holder shall not later than the date of the first anniversary of the grant of this lease submit for the Minister's approval an environmental management plan relating to the operations of the registered holder on the subject area.
- (b) The plan shall describe the methods to be used to protect the environment, including the methods to be used to -
 - (i) dispose of mine wastes;
 - (ii) minimise air, noise and water pollution;
 - (iii) minimise erosion; and
 - (iv) rehabilitate the surface of any lands disturbed by mining operations and associated activities.
- (c) The Minister may, by notice in writing, direct the registered holder to amend any plan submitted to the Minister in such manner and within such period as may be specified in that notice and the registered holder shall comply with that direction and submit the plan as so amended to the Minister for his approval.
- (d) The registered holder shall conduct operations in accordance with the plan approved by the Minister and any conditions contained in the Minister's approval of that plan.

- (e) The registered holder shall before each anniversary of the grant of this lease review the plan to ensure that it adequately deals with the matters referred to in paragraph (b). Where the registered holder is of the opinion that the plan should be amended the registered holder shall submit an amended plan for the Minister's approval.
- (f) On each anniversary of the grant of this lease, the registered holder shall submit a report to the Minister-
 - (i) describing the environmental management measures used to protect the environment and the rehabilitation works carried out in the previous twelve months and their effectiveness.
 - (ii) containing a description of the environmental management measures and the rehabilitation works planned to be carried out in the succeeding twelve months.
- 21. The registered holder shall maintain the subject area in a clean and tidy condition at all times to the satisfaction of the Minister.
- 22. The registered holder shall take all precautions against causing outbreak of fire on the subject area and shall comply with any direction which may be given in this regard by the Minister.
- 23. The registered holder shall carry out regular inspections of above-ground conveyor systems and shall promptly remove any spillages and comply with any directions which may be given in this regard by the Minister.
- 24. The registered holder shall not interfere in any way with any fence on or adjacent to the subject area unless with the consent in writing of the owner thereof.
- 25. Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this lease or any renewal thereof, the registered holder shall remove from such surface such buildings, machinery plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.
- 26. Subject to any specific condition of this lease providing for rehabilitation of any particular part of the subject area affected by mining or activities associated therewith, the registered holder shall;-
 - (a) reinstate, level, regrass, reforest and contour to the satisfaction of the Minister, any part of the subject area that may, in the opinion of the Minister, have been damaged or deleteriously affected by mining operations and to ensure such areas are permanently stabilised; and
 - (b) fill in, seal or fence, to the satisfaction of the Minister, any excavation within the subject area.

RIVERS, STREAMS, ETC.

27. The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any stream or watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any stream, watercourse or catchment area, or any undue interference to fish or their environment.

TREES (PLANTING AND PROTECTION OF) FLORA AND FAUNA AND ARBOREAL SCREENS

28. The registered holder shall plant such grasses, trees or shrubs or such other vegetation as may be required by the Minister and care for same during the currency of this lease or any renewal thereof, to the satisfaction of the Minister.
29. The registered holder shall carry out operations in such a manner as to interfere as little as possible with natural flora and fauna and shall not cut or damage any tree, shrub or other vegetative cover except such as may directly obstruct or prevent the carrying out of the operations.
30. The registered holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.

SOIL EROSION

31. The registered holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the registered holder shall observe and perform any instruction which may be given by the Minister or the Director-General with a view to minimising or preventing soil erosion.
32. The registered holder shall ensure that any topsoil or other material suitable for topdressing purposes which may be disturbed during operations shall be removed separately for replacement as far as may be practicable and the registered holder shall plant or sow such grasses, shrubs or trees in the replaced surface material as may be considered necessary by the Minister to control or prevent soil erosion.
33. In the event of any excavations being made the registered holder shall ensure that such are refilled and the top dressing material previously removed is replaced and levelled. All such refilling and levelling shall be done to the satisfaction of the Minister.
34. The registered holder shall ensure that the run off from any disturbed area including the overflow from any depression or ponded area is discharged in such a manner that it will not cause erosion.

35. The registered holder shall cover with top dressing material, to the Minister's satisfaction, such parts of the subject area as may be stipulated by the Minister and shall plant and maintain, to the Minister's satisfaction, such grasses, trees or shrubs or such other vegetation as may be required by the Minister.
36. Notwithstanding the provisions of Condition 29, the registered holder shall not destroy or injure any tree, sapling, shrub or scrub on any protected land, as defined by the Soil Conservation Act, 1938, except in accordance with an authority issued by the Catchment Areas Protection Board, under Section 21D of that Act.

ROADS

37. (a) The registered holder shall pay to City of Greater Wollongong Council &/or Wollondilly Shire Council &/or Campbelltown City Council &/or Sutherland Council, Department of Lands or the Commissioner for Main Roads the cost incurred by such Council or Department or Commissioner of making good any damage caused by operations carried on by or under the authority of the registered holder or any person claiming through or under the registered holder to any road -
- (i) adjoining the surface or the excepted surface, as the case may be, of the subject area;
 - (ii) traversing the surface or the excepted surface, as the case may be, of the subject area.
- (b) AND THE REGISTERED HOLDER HEREBY COVENANTS with the said Council that the registered holder will pay to the said Council the cost incurred by the said Council of making good any such damage caused as aforesaid and that the registered holder hereby covenants with the said Commissioner that the registered holder will pay to the said Commissioner the cost incurred by the said Commissioner of making good any such damage caused as aforesaid.
- (c) AND IT IS HEREBY AGREED AND DECLARED that the amount to be paid by the registered holder under the provisions of this condition shall include in addition to the cost of all necessary labour and materials all costs and expenses reasonably incurred in and about the making of surveys the preparation of plans and specifications and estimates the supervision and inspection of the works and all administrative and overhead costs and expenses of the Council or the Department of Lands or the Commissioner for Main Roads as the case may be related or attributable to the works undertaken to make good any damage to any road. A certificate under the hand of the Town or Shire Clerk of the said Council or the Secretary for Lands or the Commissioner for Main Roads or the person for the time being acting as such Clerk, Secretary or Commissioner as to the amount of the cost of making good any damage to any road shall in all respects and for all purposes be conclusive evidence of the amount of such cost and of the due determination thereof PROVIDED HOWEVER that the amount to be paid by the registered holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Lands or the Commissioner for Main Roads as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.

38. In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the registered holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the registered holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.

CATCHMENT AREAS - Refer to Condition No. 60.

39. (i) The registered holder shall carry out operations in such a way as to conform strictly to all provisions of the Water Board Act, 1987, and the by-laws thereunder applying to the prevention of pollution of the.....

 Catchment Area or the preservation of the purity of the water supply provided thereby or derived therefrom or for the protection of the property of the Water Board on the Catchment Area and also to all requirements of the said Board from time to time under the said Act or any of the by-laws for the time being in force.
- (ii) If the registered holder shall at any time be using or about to use any process which in the opinion of the Water Board is likely to pollute the Catchment Area or the water supply or to endanger any property of the said Board on the Catchment Area the registered holder upon service of a notice in writing under the hand of the Minister or the Director-General to do so shall (i) discontinue the use of such process within twenty-four (24) hours or (ii) thereafter refrain from adopting such process at any time, as the case may require.
- (iii) The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination pollution or siltation of any stream or watercourse or catchment area and shall observe any instruction which may be given by the Minister or the Director-General with a view to preventing or minimising the contamination pollution or siltation of any stream watercourse or catchment area.
- (iv) The registered holder hereby covenants with Us Our Heirs and Successors and as a separate covenant the registered holder hereby covenants with the Water Board and its Successors that the registered holder shall at all times hereafter save harmless and keep Us and the said Board and Our Heirs and Successors and the Successors of the said Board indemnified from payment of compensation and from and against all actions proceedings claims and demands in respect of any injury loss or damage arising out of or in any way connected with any interference with or deprivation or loss of access to the land and premises of this lease which may occur by reason of any works or operations undertaken or carried out by the said Board or arising out of or in any way connected with any discontinuance or alteration of any process consequent upon the service of a notice in pursuance of the provisions of Condition No 39(ii) or arising out of or in any way connected with the operation of any by-laws relating to a Catchment Area in force at the date hereof or made by the said Board at any time hereafter and the registered holder hereby agrees that for the purpose of this condition the said Board shall be deemed to be a party to this lease.

40. (a) Operations shall be carried out in such a way as not to cause any pollution of the Catchment Area.
- (b) If the registered holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the registered holder shall refrain from using or cease using as the case may require such process within twenty-four (24) hours of the receipt by the registered holder of a notice in writing under the hand of the Minister or the Director-General requiring the registered holder to do so.
- (c) The registered holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.

STATE FORESTS AND FOREST RESERVES

41. (i) This lease does not confer the power to cut or remove any timber within State Forest 921 except such as directly obstructs or prevents the carrying on of operations and the registered holder shall obtain authority under the provisions of the Forestry Act, 1916 or any Act amending the same and the Regulations thereunder before making use of the timber so cut for other than in connection with operations. The sanction of the District Forester or his deputy shall be obtained before proceeding to cut any other timber within the said..... State Forest 921.....
- (ii) The registered holder shall take all precautions against causing outbreak of fire on the said..... State Forest 921..... and shall not burn off any grass dry herbage or surface litter except with the consent of the District Forester first had and obtained and shall under the direction and control of the local Forest Officer stack and burn the heads of any trees destroyed during the course of operations and the registered holder shall not permit any fireplace to be constructed unless protected by stone wallings and fires lit therein shall not be left unattended.
- (iii) This lease is issued subject to any condition and/or restrictions, which may be prescribed in accordance with the provisions of the Forestry Act, 1916 or any Act amending the same and the Regulations thereunder and the Regulations under the Bush Fires Act, 1949.
- (iv) In the event of operations encroaching on or within ten (10) metres of any constructed road or firebreak the registered holder shall provide a suitable deviation to the same standard as the previous road or firebreak and upon the completion of operations or the sooner determination of this lease or any renewal thereof the registered holder shall restore the road or firebreak to its original position and condition to the satisfaction of the Minister.

- (v) The registered holder shall not interfere with any Crown improvements unless with the consent in writing of the Minister first had and obtained and subject to such conditions as he may impose.
- (vi) (a) Any necessary clearing shall be done only with the prior permission of the District Forester or his deputy and compensation shall be paid for any mature trees or semi-mature trees damaged or destroyed at the rate fixed by the Forestry Commission of New South Wales and such compensation shall be payable on demand at the end of each calendar month.
- (b) In the event of any non-merchantable trees being destroyed by the operations hereby authorised compensation payable to the Forestry Commission of New South Wales shall relate to the cost of establishment and tending of the part of the forest affected by the operations.
- (c) For the purpose of allowing inspection and assessment of compensation payable for the timber to be destroyed, the registered holder shall provide two weeks notice to the District Forester or his deputy prior to the commencement of any clearing operations.
- (vii) The registered holder shall not cause damage to forest roads or tracks by operating vehicles on the subject area during wet weather.
- (viii) The Minister reserves the right to suspend operations immediately if weather conditions and/or the operations are causing damage to any assets of the Forestry Commission of New South Wales.
- (ix) During operations and progressively, the registered holder shall rehabilitate, consolidate and make trafficable all roads and firebreaks at present existing and which may be affected by the operations to the satisfaction of the District Forester or his deputy.

TRIG. STATIONS AND RESERVES

- 42. (a) The marks in connection with any trigonometrical station erected on or near the subject area shall not be interfered with and the unrestricted right of access to such station by authorised persons and also the right to clear sight lines to surrounding stations is reserved at all times.
- (b) The registered holder shall take all necessary precautions to preserve the trigonometrical station and the cairn mast and vanes which may be erected upon the subject area.
- (c) No buildings or other structures shall be erected which would make observations to and from surrounding trigonometrical stations difficult to effect.

- (d) In the event of operations interfering with or damaging any trigonometrical station erected on or near the subject area, or if required to do so by the Minister, the registered holder shall, at his own expense, relocate any such trigonometrical station to the satisfaction of, and in a position required by, the Department of Lands and the Minister and, if required to do so by the Minister, and subject to such conditions as he may impose, the registered holder, upon completion of operations and at his own expense, shall relocate any such trigonometrical station to its original position.
43. The registered holder shall permit the free and uninterrupted passage of stock through that part or those parts, as the case may be, of the subject area covered by Reserve No and shall conduct operations as not to cause any danger to persons and travelling stock.
44. The registered holder shall as far as may be practicable so conduct operations as not to interfere in any way with the public use and enjoyment of

TRANSMISSION AND TELEPHONE LINES

45. The registered holder shall comply with any direction which may be given by the Minister regarding any telephone line, or transmission line traversing the surface or excepted surface, as the case may be, of the subject area.

LABOUR/EXPENDITURE

46. The registered holder shall:-
- (a) ensure that at least⁵²⁵..... competent workmen are efficiently employed on the subject area on each week day except Saturday or any week day that is a public holiday, or
 - (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than\$9,187,500.00..... during each year of the term of the lease.

Costs or expenses incurred which are not, in the opinion of the Director-General, directly associated with the prospecting or mining operations, shall not be accounted expenditure for the purposes of this condition. The Minister may, at any time or times after a period of two (2) years from the date on which this lease has effect or from the date on which the renewal of this lease has effect, as the case may be, by instrument in writing served on the registered holder of the lease, increase or decrease the amount of expenditure required under this condition provided that not more than one variation in the amount of expenditure shall be made in any period of two years.

ADDITIONAL INFORMATION

47. The registered holder shall if directed to do so by the Minister and within such time as he may stipulate furnish to the Minister:-
- (a) such information as may be required by, and to the satisfaction of the Minister regarding the ownership of the land within the subject area;

- (b) such information as may be required by, and to the satisfaction of the Minister regarding the ownership of the coal within the subject area prior to 1st January, 1982.
- (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished.
- (d) such information as may be required by, and to the satisfaction of the Minister regarding the financial viability of the registered holder and operations within and associated with the subject area.
- (e) such information as may be required by and to the satisfaction of the Minister regarding shareholdings in the registered holder.

ENGINEERS

48. (a) Where the District Inspector of Coal Mines Department of Minerals and Energy is of the opinion that any condition of this lease relating to operations within the subject area, or any provision of the Coal Mining Act, 1973, relating to operations within the subject area, is not being complied with by the registered holder he may serve on the registered holder a notice stating that he is of that opinion and giving particulars of the reason why he is of that opinion and may in such notice direct the registered holder:-
- (i) to cease operations within the subject area in contravention of that condition or Act; and
 - (ii) to carry out within the specified time works, at the expense of the registered holder, necessary to rectify or remedy the situation.
- (b) The registered holder shall comply with the directions contained in any notice served pursuant to sub-paragraph (a) of this condition. Provided however that the Chief Inspector of Coal Mines Department of Minerals and Energy may confirm, vary or revoke any such direction.
- (c) A notice referred to in this condition may be served on the Colliery Manager.

INDEMNITIES

49. The registered holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expenses which may be brought against the registered holder or which the registered holder may incur in respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the registered holder within the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the registered holder or that any such accident or injury shall arise from any act or thing which the registered holder may be licensed or compelled to do hereunder.

50. The registered holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.

DISPOSAL OF COAL

51. Where any coal mined from within the subject area, whether by open cut, surface mining or underground methods, is not immediately saleable, the registered holder shall, unless otherwise approved by the Minister, store, for future disposal by the registered holder, any such coal in such a manner and location as the Minister may approve and subject to such conditions, provisions and stipulations as the Minister may impose.

SECURITY DEPOSIT

52. (a) A security in the sum of \$ 492,500.00..... shall be lodged with the Minister by the registered holder for the purpose of ensuring the fulfilment by the registered holder of his obligations under this lease. If the registered holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause a registered holder shall be deemed to have failed to fulfil the obligations of this lease, if he fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof, or of any provision of the Act or regulations made thereunder.
- (b) The registered holder shall provide the security required by sub-clause
- (a) hereof in one of the following forms:-
- (i) cash,
- (ii) an interest-bearing deposit in the name of the Minister in such form and with such institution as may from time to time be approved by the Minister,
- (iii) a banker's certificate, bond or undertaking in such form and given by such surety as may from time to time be approved by the Minister.
53. The registered holder shall not prospect or mine for coal within the areas shown on the plan annexed hereto and marked "B" insofar as such areas relate to the strata specified on that plan other than the mining of coal for the purposes of:-
- (i) shaft, borehole, tunnel or drive in the area numbered 1,
- (ii) adits, borehole, drift, shaft or tunnel in the area numbered 2,
- (iii) borehole in the area numbered 3,
- (iv) borehole or shaft in the area numbered 5,

- (v) adits, borehole, drift, tunnel or shaft in the area numbered 6,
 - (vi) shaft in the area numbered 7.
54. Within Portion PML 5 Parish of Southend the registered holder shall not mine for, work, win or remove any coal from those parts of the area demised being barriers 40 metres wide against those parts of the area demised which adjoins the Mean High Water Mark of the South Pacific Ocean. Provided however that the Minister may grant permission, subject to such conditions as the Minister considers necessary, to work such barriers.
55. Any approval or consent given by the Minister including any approval or consent given to the effect that the registered holder may mine for, work, win or remove any coal from those parts of the subject area within the barrier defined in Condition No. 54 of this Schedule shall be deemed to be a consent given for the purposes of the said Condition No. 54 subject to the same conditions of that approval or consent.
56. PROVIDED FURTHER HOWEVER the registered holder shall also comply with the following additional conditions in respect of that part of the lease within Diagram No. 6150, Parishes of Wedderburn and Eckersley.
- (a) The registered holder shall accept all and any risks to which the registered holder or the registered holder's property may be exposed by reason of the existence of the Holsworthy Army Training Area on the excepted surface of the area demised and the registered holder shall save harmless the Commonwealth Government or persons lawfully using the said Training Area from any claims or injuries to the registered holder or the registered holder's servants or workmen which may arise by reason of the use of the said Training Area by persons authorised so to do.
 - (b) Unless with the consent of the Minister first had and obtained and subject to such conditions as the Minister may impose, the registered holder shall not:
 - (i) remove any pillars, or
 - (ii) carry out mining operations by means of the longwall system

within those parts of the area demised shown by yellow colour on the Plan marked "C" as barriers two hundred (200) metres wide either side of the streamlines of O'Hares Creek and Stokes Creek traversing the excepted surface of the area demised.
 - (c) The registered holder shall not mine for work win or remove any coal from that part of the area demised as shown by black hatching on the Plan marked "C" except with the written permission of the Minister first had and obtained and subject to such conditions as he may impose. PROVIDED HOWEVER that the Minister shall not grant any such permission unless the requirement referred to in Paragraph (i) of this condition has been satisfied.
 - (i) The registered holder has been granted the consent of an authority under the Environmental Planning and Assessment Act, 1979 to use the lands within such part of the subject area for the purpose of obtaining coal.

57. Any approval or consent given by the Minister including any approval or consent given to the effect that the registered holder may mine for, work, win or remove any coal from those parts of the area demised within the barriers defined in Condition No. 56 of this Schedule shall be deemed to be a consent given for the purposes of the said Condition No. 56 subject to the same conditions of that approval or consent.
58. The registered holder shall not carry out any mining operations in that part of the area demised within or beneath the lands subject of Commonwealth Permissive Occupancy No. 200 granted under the Crown Lands Consolidation Act 1913, as amended, to the Commonwealth of Australia unless with the consent of the Minister first had and obtained and subject to such conditions as the Minister may impose.
59. Any approval or consent given by the Minister including any approval or consent given to the effect that the registered holder may mine for, work, win or remove any coal from those parts of the subject area within the barrier defined in Condition No. 58 of this Schedule shall be deemed to be a consent given for the purposes of the said Condition No. 58 subject to the same conditions of that approval or consent.

CATCHMENT AREAS

60. (i) For the purposes of the following paragraphs and sub-paragraphs of this condition "Catchment Area" means "water catchment Special Areas".
- (ii) The registered holder shall carry out operations in such a way as to conform strictly to all provisions of the Water Board Act, 1987, and the by-laws thereunder applying to the prevention of pollution of the Metropolitan, Woronora and/or O'Hares Creek Catchment Areas or the preservation of the purity of the water supply provided thereby or derived therefrom or for the protection of the property of the Water Board on the Catchment Areas and also to all requirements of the said Board from time to time under the said Act or any of the by-laws for the time being in force.
- (iii) If the registered holder shall at any time be using or about to use any process which in the opinion of the Water Board is likely to pollute the Catchment Areas or the water supply or to endanger any property of the said Board on the Catchment Areas the registered holder upon service of a notice in writing under the hand of the Minister or the Director-General to do so shall (i) discontinue the use of such process within twenty four (24) hours or (ii) thereafter refrain from adopting such process at any time, as the case may require.
- (iv) The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination pollution or siltation of any stream or watercourse or catchment area and shall observe any instruction which may be given by the Minister or the Director-General with a view to preventing or minimising the contamination pollution or siltation of any stream watercourse or catchment area.

- (v) The registered holder hereby covenants with Us Our Heirs and Successors and as a separate covenant the registered holder hereby covenants with the Water Board and its Successors that the registered holder shall at all times hereafter save harmless and keep Us and the said Board and Our Heirs and Successors and the Successors of the said Board indemnified from payment of compensation and from and against all actions proceedings claims and demands in respect of any injury loss or damage arising out of or in any way connected with any interference with or deprivation or loss of access to the land and premises of this lease which may occur by reason of any works or operations undertaken or carried out by the said Board or arising out of or in any way connected with any discontinuance or alteration of any process consequent upon the service of a notice in pursuance of the provisions of Condition No. 60 (iii) or arising out of or in any way connected with the operation of any by-laws relating to a Catchment Area in force at the date hereof or made by the said Board at any time hereafter and the registered holder hereby agrees that for the purpose of this condition the said Board shall be deemed to be a party to this lease.
- (vi) PROVIDED HOWEVER the registered holder shall also comply with the following additional conditions in respect of that part of the surface areas included in this lease within the Woronora and/or O'Hares Creek Catchment Areas and within portions ML73 and ML74 Parish of Southend and Diagram No. D5214 Parish of Wedderburn:-
- (a) The registered holder shall not establish any camps or habitations within any areas under the control of the Water Board unless with the consent of the said Board and subject to such conditions as it may stipulate.
 - (b) The registered holder shall make such provisions for sanitation on surface areas as may be directed by the Water Board and shall at all times observe and perform any requirements of the said Board respecting sanitation.
 - (c) Unless with the consent of the Minister or the Director-General first had and obtained and subject to such conditions as he may stipulate, the registered holder shall not erect, install or use on the surface areas within the subject areas any plant or process for the purpose of washing coal or extracting or refining or otherwise treating any oil or other derivative from coal.
 - (d) The registered holder shall accept responsibility for the control and conduct of its employees or other persons engaged in business with the holder at all times whilst they are on that part of the Catchment Area embraced by this lease whether actually working or not.
 - (e) The Water Board shall be indemnified against any claims arising out of the registered holder's use of Board's fireroads, tracks and property and any damage caused by the registered holder's operations are to be made good by the registered holder.

- (f) The registered holder shall not permit any fire place to be constructed unless protected by stone wallings and fires lit therein shall not be left unattended.
- (g) The registered holder shall take adequate precautions to the satisfaction of the Water Board for the prevention of fire, and, in the event of any fire caused by the operations of the registered holder within the Catchment Areas, the registered holder shall be held responsible for the cost of fire suppression activities incurred by the Water Board.
- (h) No fires shall be lit on the surface areas for the purposes of clearing vegetation or other materials without the prior approval of and subject to such conditions as may be stipulated by the Water Board's Catchment Services Manager.
- (i) The registered holder shall keep the surface areas in a clean and tidy condition, maintain ground cover vegetation and establish it artificially where directed, to the satisfaction of the Water Board.
- (j) The registered holder shall give to the Water Board's Catchment Services Manager three days prior notice of its intention to commence any phase of the works hereby authorised.
- (k) The areas are to be kept clean - all surplus construction materials are to be removed from the sites on completion of construction and disposed of as may be directed by the Water Board's Catchment Services Manager.
- (vii) PROVIDED FURTHER HOWEVER the registered holder shall also comply with the following additional conditions in respect of that part of the surface areas included in this lease within the Woronora and O'Hares Creek Catchment Areas and within portions ML73 and ML74 Parish of Southend:-
 - (a) No employee shall go beyond the boundaries of the surface areas whilst engaged on work, and every employee shall go to, and leave the sites by the route indicated by the Water Board.
 - (b) The registered holder shall carry out to the satisfaction of the Water Board any structural works on any surface areas considered necessary by the said Board for the protection of the purity of the stored water.
 - (c) The registered holder shall allow entrance by authorised officers or employees of the Water Board to the subject areas at any time for the purposes of their official duties.
 - (d) The Water Board reserves the right to use the road constructed on the areas without cost to itself.
 - (e) The registered holder shall comply with the requirements of the Water Board's Special Areas Regulation at all times.

- (f) No roads shall be constructed on the surface areas within the subject areas unless the consent of the Water Board is first had and obtained to the proposed route and type of road construction to be used. All such roads shall be constructed and maintained with adequate drainage to ensure a minimum of soil erosion and shall be subject to the approval of the Board's Catchment Services Manager.
- (g) The registered holder shall provide fencing, gates with locks at locations approved by the Water Board to prevent unauthorised entry to the Catchment Area or any operational area. The provision of fencing, gates and locks shall be the responsibility of the registered holder and shall be carried out to the satisfaction of the Water Board.
- (h) The clearing, drainage and development of the subject area including sites of access roads, telephone line and transmission line shall be carried out only with the prior approval of the Water Board and to the satisfaction of the Minister. The registered holder shall comply with any restriction and/or requirement of the Board concerning ground surface disturbance, excavated materials, shrub or tree cutting and removal, burning off and other related activities.
- (i) The registered holder is not to interfere with any fences or other improvements within the surface areas unless with the consent of the Water Board's Catchment Services Manager and subject to such conditions as may be stipulated.

INSTRUMENT FIXING RATE OF ROYALTY
PURSUANT TO SECTION 82 0 OF THE
COAL MINING ACT, 1973

Whereas I propose to consolidate the existing leases set out in the Schedule below pursuant to Part IVA of the Coal Mining Act, 1973, by the grant of a consolidated coal lease to be known as CCL No. 724. Now therefore I, Neil Edward William Pickard, Minister for Minerals and Energy, hereby fix pursuant to Section 82 0 of the Coal Mining Act, 1973, the rate of royalty on coal won from land described in the Schedule at \$1.70 per tonne.

SCHEDULE

All that piece or parcel of land being the aggregate of all areas which at the date of this instrument were comprised in the leases specified hereunder.

<u>Lease No.</u>	<u>Portion/ Diagram No.</u>	<u>Parish</u>
Mineral Lease No. 690 (48 Vic No. 10)	72, 73	Southend
Mineral Lease No. 709 (48 Vic No. 10)	ML 2	Southend
Mineral Lease No. 731 (48 Vic No. 10)	MP 2/2	Southend
Mineral Lease No. 732 (48 Vic No. 10)	MP 2/1	Southend
Mineral Lease No. 9 (C & S Act 1906)	ML 18	Southend
Mineral Lease No. 31 (C & S Act 1906)	MP 27	Southend
Mineral Lease No. 45 (C & S Act 1906)	MP 26	Southend
Mineral Lease No. 65 (C & S Act 1906)	ML 19	Southend
Mineral Lease No. 70 (C & S Act 1906)	MP 17	Southend
Mineral Lease No. 71 (C & S Act 1906)	MP 16	Southend
Mineral Lease No. 72 (C & S Act 1906)	MP 18	Southend
Mineral Lease No. 73 (C & S Act 1906)	MP 19	Southend
Mineral Lease No. 94 (C & S Act 1906)	ML 20	Southend, Wedderburn
Mineral Lease No. 95 (C & S Act 1906)	ML 21	Wedderburn
Mineral Lease No. 96 (C & S Act 1906)	ML 22	Southend, Wedderburn
Mineral Lease No. 97 (C & S Act 1906)	ML 23	Southend
Mineral Lease No. 98 (C & S Act 1906)	ML 24	Southend
Mineral Lease No. 99 (C & S Act 1906)	ML 1	Eckersley, Wedderburn
Mineral Lease No. 198 (C & S Act 1906)	ML 3	Southend
Mineral Lease No. 716 (C & S Act 1906)	ML 6	Southend
Mineral Lease No. 886 (C & S Act 1906)	ML 45	Bulgo, Heathcote and Southend
Mineral Lease No. 1281 (C & S Act 1906)	ML 44	Southend
Mineral Lease No. 1300 (C & S Act 1906)	ML 42	Southend
Mineral Lease No. 1337 (C & S Act 1906)	ML 40	Southend
Mineral Lease No. 1346 (C & S Act 1906)	ML 41	Southend
Mineral Lease No. 1372 (C & S Act 1906)	ML 64	Southend
Mineral Lease No. 1410 (C & S Act 1906)	ML 71	Southend
Private Lands Lease No. 116 (C & S Act 1906)	86	Southend
Private Lands Lease No. 152 (C & S Act 1906)	76, 77 & 78	Southend
Private Lands Lease No. 202 (C & S Act 1906)	60, 62, 64, 66, 67, 68, 87, 88, 89 & 56	Southend
Private Lands Lease No. 498 (C & S Act 1906)	PML 13	Southend
Private Lands Lease No. 525 (C & S Act 1906)	PML 14	Southend
Private Lands Lease No. 529 (C & S Act 1906)	PML 16	Southend
Private Lands Lease No. 530 (C & S Act 1906)	PML 15	Southend
Private Lands Lease No. 544 (C & S Act 1906)	PML 18	Southend

<u>Lease No.</u>	<u>Portion/ Diagram No.</u>	<u>Parish</u>
Private Lands Lease No. 56 (Act 1924)	PML 4	Southend
Private Lands Lease No. 73 (Act 1924)	17	Southend
Private Lands Lease No. 193 (Act 1924)	PML 5	Southend
Private Lands Lease No. 1360 (Act 1924)	PML 37	Southend
Private Lands Lease No. 1361 (Act 1924)	PML 4	Heathcote
Coal Lease No. 112 (Act 1973)	D 1103	Heathcote, Bulgo
Coal Lease No. 113 (Act 1973)	ML 72	Southend
Coal Lease No. 114 (Act 1973)	ML 62	Southend
Coal Lease No. 117 (Act 1973)	D 1070	Heathcote
Coal Lease No. 123 (Act 1973)	D 1042	Southend
Coal Lease No. 128 (Act 1973)	D 1059	Heathcote
Coal Lease No. 172 (Act 1973)	D 1153	Appin
Coal Lease No. 174 (Act 1973)	D 2338	Wedderburn
Coal Lease No. 182 (Act 1973)	D 1123	Southend
Coal Lease No. 227 (Act 1973)	D 1120	Southend
Coal Lease No. 241 (Act 1973)	D 1196	Southend
Coal Lease No. 242 (Act 1973)	D 1195	Heathcote
Coal Lease No. 305 (Act 1973)	D 6150	Wedderburn, Eckersley
Coal Lease No. 333 (Act 1973)	D 6387	Appin
Coal Lease No. 334 (Act 1973)	D 6376	Wedderburn
Coal Lease No. 562 (Act 1973)	Pts 1A, 21, 172, 174, 170 & 173	Southend
Coal Lease No. 564 (Act 1973)	Pt 171, Pts 172 & 174	Southend
Special (Crown & Private Lands) Lease No. 7 (Act 1969)	ML 75	Appin, Wedderburn, Eckersley, and Heathcote
Mining Purposes Lease No. 1414 (Act 1906)	ML 39	Wedderburn
Mining Purposes Lease No. 17 (Act 1973)	D 1140	Wedderburn
Mining Purposes Lease No. 32 (Act 1973)	D 923	Southend
Mining Purposes Lease No. 33 (Act 1973)	ML 73	Southend
Mining Purposes Lease No. 34 (Act 1973)	ML 74	Southend
Mining Purposes Lease No. 199 (Act 1973)	D 5214	Wedderburn
Mining Purposes Lease No. 262 (Act 1973)	D 6917	Wedderburn

Dated: 24 MAY 1991

.....
Minister for Minerals and Energy

Witness: *W. Brown*

WE, BEING OFFICERS OF THE DEPARTMENT OF MINERALS AND ENERGY
HEREBY CERTIFY THAT THIS AND THE PRECEDING PAGE IS A TRUE
AND COMPLETE COPY OF THE ORIGINAL

D.B. Woodward
D.B. WOODWARD.

D. Arthur
D. ARTHUR

IFF.

PLAN ' B '

CONSOLIDATED COAL LEASE No. 724
SUBJECT TO SURVEY.

PAPERS : M85 / 0935

PARISHES APPIN , BULGO , ECKERSLEY
HEATHCOTE , SOUTHCOTE ,
WEDDERBURN

COUNTY : CUMBERLAND

Areas referred to in Condition No. 53 of the Conditions
of Consolidated Coal Lease 1985 annexed to this lease.

1 

PORTION ML39-FORMERLY MINING PURPOSES LEASE No.1414 (ACT 1906).
DEPTH RESTRICTIONS : A-152.4 METRES / B-SURFACE ONLY

2 

DIAGRAM No.1140-FORMERLY MINING PURPOSES LEASE No.17 (ACT 1973).
DEPTH RESTRICTION : 152.4 METRES


3 

DIAGRAM No.923-FORMERLY MINING PURPOSES LEASE No.32 (ACT 1973).
DEPTH RESTRICTION : 30.48 METRES

4 

PORTION ML73-FORMERLY MINING PURPOSES LEASE No.33 (ACT 1973).
DEPTH RESTRICTIONS : A-30.48 METRES / B-152.4 METRES

5 

PORTION ML74-FORMERLY MINING PURPOSES LEASE No.34 (ACT 1973).
DEPTH RESTRICTION : 152.4 METRES

6 

DIAGRAM No.5214-FORMERLY MINING PURPOSES LEASE No.199 (ACT 1973).
DEPTH RESTRICTIONS : A-152.4 METRES / B-15.0 METRES

RISH

D 6387

Georges
of
Appin

OF Stokes

Creek

Diag.

PT ML 75

45

D 153

River

IN

D 6376

DIAG N° 2338

WEDD

58

P.M.L 5

Diag. 1132

Diag 923

1121

M.L 71

Section 126(1) Approval (CMR Act)



NSW DEPARTMENT OF MINERAL RESOURCES
Minerals and Energy House, 29-57 Christie Street
St Leonards, NSW 2065, Australia
P.O. Box 536 St Leonards 1590
Phone (02) 9901 8888 Fax (02) 9901 8777
DX 3324 St Leonards www.minerals.nsw.gov.au

The Manager
West Cliff Coal Mine
Private Mail Bag
APPIN NSW 2560

Dear Mr. Bowman:

Subject: Section 126(1) C.M.R.A. 1982.
Ministerial Approval of an Emplacement Area.

Reference is made to your letter dated 27 March 1998 in which you seek to establish an emplacement area at the West Cliff Coal Mine.

Please be advised that pursuant to Section 126 of the Coal Mines Regulation Act, 1982, approval is hereby granted for the establishment of an emplacement area at the West Cliff Coal Mine, subject to the following conditions :-

- i) That the construction and operation of the proposed emplacement area be conducted in accordance with the design criteria and conditions identified within the letter of application from the mine manager and documents submitted with that letter in support of the application
- ii) That a conceptual rehabilitation plan of the proposed emplacement area, not inconsistent with the overall rehabilitation plan of the mine, be submitted to the District Inspector of Coal Mines for his confirmation within one year of the granting of approval.
- iii) That an independent engineering assessment be made, at periods not exceeding three years of the dams and holding structures associated with the reject disposal project, and that the report of this assessment be kept at the mine for review by the District Inspector of Coal Mines, at his discretion.
- iv) That an environmental audit be conducted, at periods not exceeding twelve months, on the reject disposal project associated with the emplacement area, and that the report of this assessment be kept at the mine for review by the District Inspector of Coal Mines at his discretion.

RL 1/12/99

- v) That a forty metre wide barrier be maintained around the entire emplacement area, within which the mining of coal or removal of overburden shall not take place.
- vi) That a management system be put in place to provide for the operation and management of the emplacement area to the satisfaction of the District Inspector of Coal Mines.
- vii) The Minister reserves the right to vary or revoke this approval at any time for any reason deemed good and sufficient.

Yours faithfully,



R. REGAN.

Chief Inspector of Coal Mines.

By virtue of delegated authority from the Minister for Mineral Resources.

- 1 DEC 1999

Section 90 Consent No. 1124 (NPWS Act)

cc: RW✓
RB✓

14 MAY 1999



23 March 1999

NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE

Mr Dean Dalla Valle
BHP Collieries - West Cliff Mine
Private Mail Bag
Appin NSW 2560

Dear Mr Dalla Valle

Enclosed is a consent to destroy for Brennans Creek Coal Refuse Emplacement Area.

Please note the special conditions attached to this consent.

- 1 This Consent is valid only while the West Cliff mine is operational. Should the mine cease operations within the time period, the Consent would be considered invalid.
- 2 This Consent is conditional on the recording of Rock Art at Brennans Creek 3 and the sandbagging and other protective measures proposed (attached) prior to covering of the shelters.

You should also note that the date of expiry for this consent is five years from the date of issue.

The consent covers only those sites and areas described in Schedules A and B of the consent.

It is requested that a letter (as per item 15 of the general conditions) outlining the activities carried out under the consent (noting the consent number, date of impact, and details of any specific conditions undertaken as per consent requirements) is forwarded to Central Cultural Heritage Unit, NPWS.

Yours faithfully

Bill Lord
Manager
Central Cultural Heritage Manager

cc. Tharawal Local Aboriginal Land Council

Sydney Zone
6th Floor
43 Bridge Street
Hurstville NSW
Australia
PO Box 1967
Hurstville 2220
Fax: (02) 9585 6442
Tel: (02) 9585 6678



#1124

CONSENT #:SZ229

**NATIONAL PARKS AND WILDLIFE ACT 1974
SECTION 90**

PARTIAL C O N S E N T

**CONSENT TO CARRY OUT THE PARTIAL DESTRUCTION OF AN
ABORIGINAL RELIC/PLACE**

WHEREAS the Aboriginal relics described in Schedule "A" are situated upon the land described in Schedule "B", and which constitute relics within the meaning of Section 90 of the National Parks and Wildlife Act 1974, and WHEREAS application has been made by:

Dean Dalla Valle, General Manager

of (address in full):

BHP Collieries - West Cliff Mine
Private Mail Bag
Appin NSW 2560

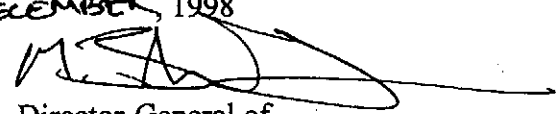
FOR PARTIAL CONSENT to destroy those relics in the course of:
Coal Refuse Emplacement Area.

NOW I, Brian Gilligan, Director-General of National Parks and Wildlife, in pursuance of Section 90 of the said Act, and subject to the Conditions hereunder set out DO HEREBY CONSENT to the destruction of the said relics by the said applicant.

TERMS AND CONDITIONS OF THIS CONSENT

This Consent is issued subject to General Terms and Conditions covering all archaeological Permits and Consents, as well as the Specific Terms and Conditions pertaining to Consents to destroy Aboriginal relics all of which conditions are detailed in the attached pages.

DATED at Sydney this 21st day of December, 1998


for Director-General of
National Parks and Wildlife

SCHEDULE A:

Brennans Creek 3 (NPWS #52-2-1369), Brennans Creek 4 (#52-2-1370) and Brennans Creek 10 (52-2-2051), being shelter sites with deposit, and Brennans Creek 3 with art.

SCHEDULE B:

Located at AMG 299320E 6210400N (Brennans Creek 3), AMG 299050E 6210400N (Brennans Creek 4) and AMG 283340E 6211180N.

SPECIAL TERMS AND CONDITIONS

- 1 This Consent is valid only while the West Cliff mine is operational. Should the mine cease operations within the time period, the Consent would be considered invalid.
- 2 This Consent is conditional on the recording of Rock Art at Brennans Creek 3 and the sandbagging and other protective measures proposed (attached) prior to covering of the shelters.

SPECIFIC CONDITIONS APPLYING TO CONSENTS TO DESTROY ABORIGINAL RELICS

- 1 The Consent covers only those relics described in the instrument of Consent and in any Schedules thereto.
- 2 In the case of Consents granted to cover development activities, the Consent is granted to cover only those circumstances described in the Schedules, and subject to there not being discovered in the course of further operations, in the progress of that development requiring the Consent, any other relics which will be damaged or destroyed by the continuation of the operation. (Destruction of such relics would require the granting of a separate Consent).
- 3 The Consent is conditional upon all relevant development approvals having been obtained.
- 4 Should the relics listed in Schedule 'A' above remain in existence **five (5)** years from the date of this document, the Consent shall be deemed to be void, and any further damage to the relics will require the preparation of a new Consent document.
- 5
 - (i) In the case of Consents granted in conjunction with Permits to excavate or record the Consent covers only material from the site(s) covered by the Permit to excavate.
 - (ii) A Consent so granted as in (i) above is valid for two years or until such date as excavated material must be lodged with The Australian Museum under the terms of the Permit.
 - (iii) The holder of the Consent granted as in (i) above shall furnish the National Parks and Wildlife Service with a report on the activities carried out under the Consent, which report shall be part of the final report to the Service (as per Condition 3, Specific Terms and Conditions for Salvage Permits).



1125

PERMIT #:SZ229A
(HO use only)

**NATIONAL PARKS AND WILDLIFE ACT 1974
SECTION 87(1)**

PERMIT

PERMIT TO CARRY OUT ROCK ART RECORDING

PERMIT ISSUED TO: Caryll Sefton

ADDRESS: 12 Chenhall Street, Woonona 2517

AUTHORITY is hereby given for the person named above to record Aboriginal art as specified under Section 86 and Section 90 of the National Parks and Wildlife Act 1974.

AREA COVERED by Permit for purpose as named above: **Brennans Creek 3 (NPWS #52-2-1369) AMG 299320E 6210400N.**

TERM OF PERMIT: Commences date of permit issue

Expires three months from date of permit issue

REPORTS DUE: Reports due two months from date of permits expiration

TERMS AND CONDITIONS OF THIS PERMIT

This Permit is issued subject to General Terms and Conditions covering all archaeological Permits and Consents, as well as those Specific Terms and Conditions pertaining to each type of Permit. Both are detailed in the attached pages. This Permit is also issued subject to any Special Conditions determined by the Director-General, which appear hereunder:

Recording to be conducted using methods as set out in the application form (dated 30/9/97).

Dated at Sydney this 21st day of ~~DECEMBER~~, 1998

Issued by the Director-General of National Parks and Wildlife

PAK

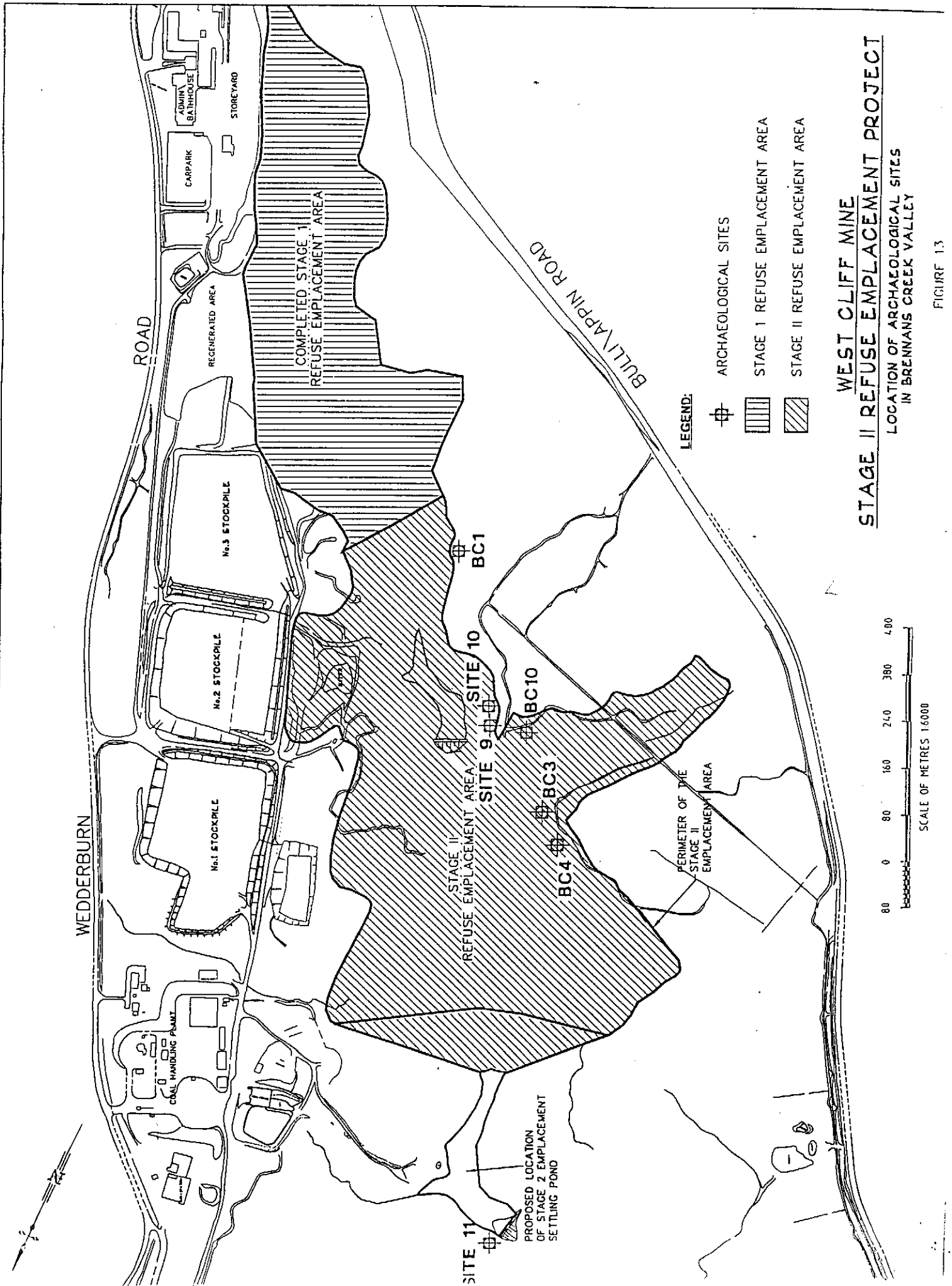
GENERAL TERMS AND CONDITIONS

1. Permits and Consents are not transferable. ✓
2. A Permit covers only that area stated in the Permit ✓
3. A Consent covers only that area stated in the instrument of Consent and in any Schedules thereto. ✓
4. Permits may be revoked at any time at the discretion of the Director-General. ✓
5. Terms and conditions of Permits may be varied at any time at the discretion of the Director-General. ✓
6. The Person to whom the Permit is issued or the Consent granted shall be responsible for the manner in which the work covered by the Permit or Consent is performed. ✓
7. An officer of the National Parks and Wildlife Service, acting on the authority of the Director-General, may at any time examine work done or any objects recovered under any Permit or Consent. ✓
8. Permits and Consents are necessary for all activities for which they are issued or granted, but do not in themselves give authority to enter or work on freehold land or leased Crown Land. Permission must be sought from the owner or occupier and arrangements made with him/her. ✓
9. The holder of the Permit or Consent shall furnish, when required to do so, an undertaking to indemnify the National Parks and Wildlife Service against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses in respect of any accident or injury to any person or property which may arise solely out of the existence of any works associated with the Permit or Consent. ✓
10. All reports received in connection with work carried out under a Permit or Consent shall be treated as confidential but the National Parks and Wildlife Service shall have the right to copy all such reports, to allow consideration thereof by qualified referees. ✓
11. For a period of five years from the date of issue of the Permit or Consent, the holder of the Permit or Consent may refuse to allow the National Parks and Wildlife Service and The Australian Museum, if such information is held by those institutions, to make public any information contained in any report referred to in Condition 10 above, except where it is deemed necessary for management, protection or research reasons. After this period of five years from the date of issue of the Permit or Consent, the Service and The Australian Museum shall have the right to use and authorise the use of information contained in all reports submitted under the Permit or Consent, except where specifically requested by the holder of the Permit or Consent. ✓

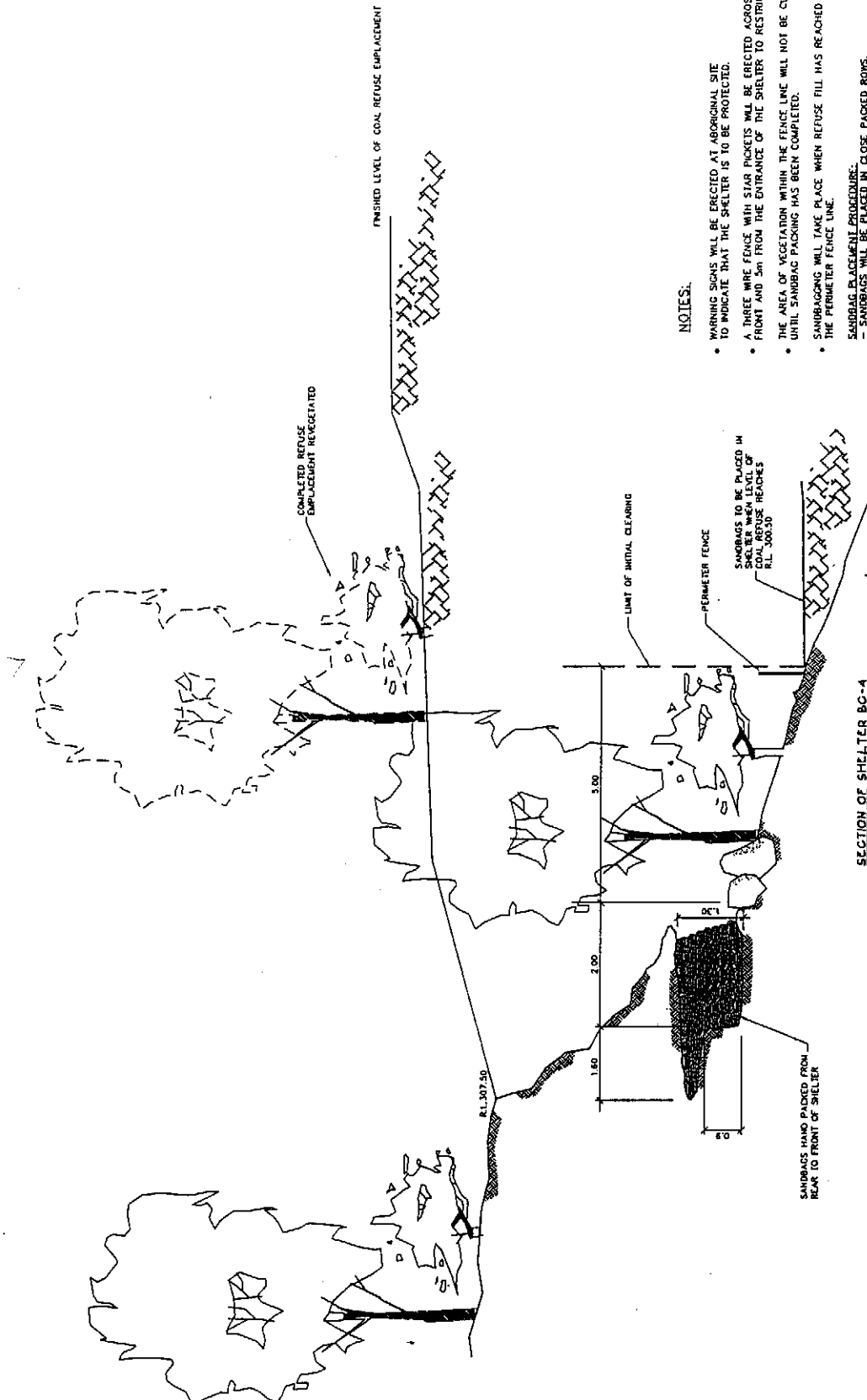


12. Upon publication of any information relating to work done under a Permit or Consent, a copy of such publication(s) shall be forwarded to the National Parks and Wildlife Service, The Australian Museum, Sydney, and the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra, unless permission to do otherwise has been obtained from the Service.
13. The holder of the Permit or Consent shall consult with the local Aboriginal community regarding the work covered by the Permit or Consent and shall respond to any reasonable request to involve the Aboriginal community in the work.
14. The National Parks and Wildlife Service and The Australian Museum may supply copies of relevant reports as furnished by the holder of the permit or Consent to local Aboriginal communities. Upon request by the Service, the holder of the Permit or Consent shall supply a summary of his/her findings with photographs, diagrams, etc., as required, to local Aboriginal communities or other interest local groups.
15. The holder of the Permit or Consent shall keep field records and a copy of all such records shall be lodged with the National Parks and Wildlife Service at the termination of each field work period. A copy of all field records shall be lodged with The Australian Museum at the time the archaeological materials are deposited with the Museum.
16. The holder of the Permit or Consent shall notify the local District office of the National Parks and Wildlife Service at the commencement and completion of fieldwork, and shall supply to District officers details of field work programs and results if requested.
17. In the event of a Permit being revoked -
 - a) The Person to whom that Permit was issued shall
 - (i) Furnish an undertaking to indemnify the National Parks and Wildlife Service against all actions, suits, claims and demands of whatsoever nature, and all costs, charges and expenses in respect of any accident or injury to any person or property which may arise solely out of the existence of any works associated with the Permit;
 - (ii) leave the areas, the subject of that Permit, in a condition satisfactory to the National Parks and Wildlife Service within two weeks from the date of revocation of that Permit;
 - (iii) furnish the National Parks and Wildlife Service within six months from the date of revocation of the Permit, a full report on the work completed at the date of revocation. Such a report shall include a complete list of any material recovered;





WEST CLIFF MINE
STAGE II REFUSE EMPLACEMENT PROJECT
 LOCATION OF ARCHAEOLOGICAL SITES
 IN BRENNANS CREEK VALLEY



SECTION OF SHELTER BC-4

NOTES:

- WARNING SIGNS WILL BE ERECTED AT ABORIGINAL SITE TO INDICATE THAT THE SHELTER IS TO BE PROTECTED.
 - A THREE WIRE FENCE WITH STAG PICKETS WILL BE ERECTED ACROSS THE FRONT AND 5m FROM THE ENTRANCE OF THE SHELTER TO RESTRICT ACCESS.
 - THE AREA OF VEGETATION WITHIN THE FENCE LINE WILL NOT BE CLEARED.
 - UNTIL SANDBAG PACKING HAS BEEN COMPLETED.
 - SANDBAGGING WILL TAKE PLACE WHEN REFUSE FILL HAS REACHED THE PERIMETER FENCE LINE.
- SANDBAG PLACEMENT PROCEDURE:
- SANDBAGS WILL BE PLACED IN CLOSE PACKED ROWS.
 - SANDBAGS WILL BE PLACED ON THE SHELTER FLOOR IN HORIZONTAL LITS WITH CARE BEING TAKEN TO AVOID DISTURBING THE FLOOR DEPOSIT.
 - WHEN A PLAT SANDBAG BASE IS ESTABLISHED, PACKING WILL PROCEED FROM THE FRONT OF THE SHELTER ENSURING THAT THE BAGS ARE PLACED TO THE FRONT OF THE SHELTER.
 - WHEN SANDBAG PACKING IS COMPLETE, VEGETATION IN FRONT OF THE SHELTER WILL BE CLEARED AND REFUSE PLACED TO THE TOP OF THE SANDBAGS.
 - A REFUSE EMBANKMENT WILL BE PUSHED UP AGAINST THE SANDBAGS TO PREVENT COMPACTION EQUIPMENT DISTURBING THE PACKED SHELTER.

<p>OLSEN ENVIRONMENTAL CONSULTING</p> <p>WEST CLIFF MINE PROPOSAL TO PRESERVE ABORIGINAL SITE BC-4 IN BRENNANS CREEK</p>		<p>DATE: 15/05/08 DRAWN: J.R. CHECKED: J.R.</p>	<p>NOTES:</p>
<p>ALL DIMENSIONS & ALL INFORMATION HEREIN INCLUDING ALL COPYRIGHT RECORDS ARE THE PROPERTY OF OLSEN ENVIRONMENTAL CONSULTING. ANY REUSE OR REPRODUCTION WITHOUT THE WRITTEN PERMISSION OF OLSEN ENVIRONMENTAL CONSULTING IS PROHIBITED. IT IS CLARIFIED THAT THE INFORMATION WILL BE PROVIDED TO YOU FOR YOUR USE ONLY AND NOT FOR REUSE IN ANY OTHER PROJECT.</p>		<p>P.O. BOX 161 HELENSBURGH NSW 2508 PH: 943021</p>	<p>DATE: 15/05/08 DRAWN: J.R. CHECKED: J.R.</p>

- (iv) deposit any Aboriginal relics removed during work associated with the Permit, together with a copy of all field records, at The Australian Museum or at another place designated by the Museum, after these relics have been fully examined, or within six months from the date of revocation of that Permit whichever occurs sooner.
- (b) The National Parks and Wildlife Service and The Australian Museum shall have the right to use and authorise the use of information collected under the Permit.



Roger,

The contact name and address for the responsible NP&WS officer is as follows:

National Parkes & Wildlife Service
Sydney Cultural Heritage Unit
Central Region
PO Box 95
PARRAMATTA NSW 2150

Kathryn Przywolnik

WEST CLIFF MINE, Archaeological site BC 10
Consent Number SZ229 (1124)

**Consent to Divert Brennans Creek
(Water Act)**



BHP Steel (AIS) Pty Ltd
Westcliff Mine
Private Mail Bag
APPIN NSW 2560

PHONE: (02) 9895 7764
NAME: Mr W Miller
Our Ref: 10SL55367

Dear Sir/Madam,

**Ref: Your application for a license as per details
shown on the attached schedule**

It has been decided to grant your application and issue a license for five years, with terms and limitations set out herein and conditions as shown on the attached statement. The license fee is \$117.00, of which you have already paid \$30.00 as a deposit. The balance payable is therefore \$87.00.

At any time within 28 days from the date of this letter, the Department will accept a written objection from you to the proposed terms, limitations or conditions. In this event, it will be necessary to refer your application to a Local Land Board for public inquiry.


The Water Act allows a period of 5 weeks for the payment of the balance of the fee. This period commences from the date of this letter, or if you object to the proposed terms, limitations or conditions, from the date of the decision of the public inquiry.

The Department may during periods of water shortage, restrict or suspend the rights held under this license for the taking of water for any purpose from a river or lake or section of a river.

Would you please now forward the balance of fee with the attached account, or advise of your objection.

Please note that this letter is not an approval to use or construct any works. This may only occur after the license is issued to you.

Yours faithfully,


Warren Miller
Licensing Officer
for Regional Licensing Officer
Sydney/South Coast Region

10SL055367

Department of Land and Water Conservation**CONDITIONS STATEMENT****10SL055367**

- (1) THE HOLDER OF THE LICENSE SHALL WITHIN THREE MONTHS OF BEING CALLED UPON BY THE DEPARTMENT OF LAND AND WATER CONSERVATION TO DO SO, INSTALL TO THE SATISFACTION OF THE DEPARTMENT IN RESPECT OF LOCATION, FORM, TYPE AND CONSTRUCTION, AN APPLIANCE OR APPLIANCES FOR THE MEASUREMENT OF THE QUANTITY OF WATER DIVERTED OR TAKEN BY MEANS OF THE LICENSED WORK, SUCH APPLIANCE OR APPLIANCES TO CONSIST OF EITHER A MEASURING WEIR OR WEIRS WITH AUTOMATIC RECORDER OR METER OR METERS OF THE DETHRIDGE TYPE, OR SUCH OTHER CLASS OF METER OR MEANS OF MEASUREMENT AS MAY BE APPROVED BY THE DEPARTMENT, AND SHALL CONTINUOUSLY MAINTAIN SUCH APPLIANCE OR APPLIANCES IN GOOD WORKING ORDER AND CONDITION, AND SHALL, AFTER THE INSTALLATION OF SUCH APPLIANCE OR APPLIANCES, RECORD THE MEASUREMENTS OF ALL WATER DIVERTED OR TAKEN BY MEANS OF THE LICENSED WORK AND SUPPLY PARTICULARS OF SUCH MEASUREMENTS TO THE DEPARTMENT AT SUCH INTERVALS AS SHALL BE DIRECTED BY THE DEPARTMENT. WHENEVER CALLED UPON TO DO SO A TEST CERTIFICATE FURNISHED EITHER BY THE MANUFACTURER CONCERNED OR BY SOME PERSON OR AUTHORITY DULY QUALIFIED SHALL BE SUPPLIED BY THE HOLDER OF THE LICENCE AS TO THE ACCURACY OF THE APPLIANCE OR APPLIANCES INSTALLED.
- (2) IF AND WHEN CALLED UPON BY THE DEPARTMENT OF LAND AND WATER CONSERVATION TO DO SO, THE LICENSEE SHALL CONSTRUCT IN THE DIVERSION CHANNEL NEAR ITS POINT OF OFFTAKE A TIMBER OR CONCRETE REGULATOR TO THE SATISFACTION OF THE SAID DEPARTMENT.
- (3) THE LEVEL OF THE DIVERSION CHANNEL AT ITS OFFTAKE SHALL BE FIXED AT NOT LOWER THAN 0.6 METRES BELOW THE LEVEL OF THE DOWNSTREAM BENCHMARK ESTABLISHED ON A GUM TREE ON THE RIGHT BANK OF THE WATERCOURSE NEAR THE WORK AND PARTICULARS OF WHICH ARE RETAINED IN THE OFFICE OF THE DEPARTMENT OF LAND & WATER CONSERVATION.
- (4) THE LEVEL OF THE BED OF THE DIVERSION CHANNEL AT ITS CONFLUENCE WITH BRENNANS CREEK SHALL BE FIXED AT NOT LOWER THAN 1.8 METRES BELOW THE LEVEL OF THE UPSTREAM BENCHMARK ESTABLISHED ON A GUM TREE ON THE RIGHT BANK OF THE WATERCOURSE NEAR THE WORK AND PARTICULARS OF WHICH ARE RETAINED IN THE OFFICE OF THE DEPARTMENT OF LAND & WATER CONSERVATION.
- (5) ISSUE OF THIS LICENSE IS SUBJECT TO YOU REVEGETATING THE MARGINS OF THE PROPOSED DIVERSION CHANNEL BY PLANTING LOCAL NATIVE PLANT SPECIES.
- (6) ISSUE OF THIS LICENSE IS SUBJECT TO THE CONSTRUCTION OF NATURAL RIFLE POOL SEQUENCES WITHIN THE SUBJECT DIVERSION CHANNEL AS PREVIOUSLY UNDERTAKEN ON THE EXISTING (STAGE ONE) DIVERSION CHANNEL.
- (7) THE DEPARTMENT OF LAND AND WATER CONSERVATION REQUIRES THAT WATER QUALITY MONITORING BE UNDERTAKEN AT BRENNANS CREEK DAM AT THE LOCATION OF THE SPILLWAY. MONITORING IS TO CONSIST OF DAILY GRAB SAMPLES TESTING FOR NON-FILTRABLE RESIDUE (NFR), GREASE AND OIL, TURBIDITY, PH AND CONDUCTIVITY. RESULTS ARE TO BE PROVIDED TO THE DEPARTMENT ON A SIX MONTHLY BASIS.
- (8) THE DEPARTMENT OF LAND AND WATER CONSERVATION REQUIRES THAT WATER QUALITY TESTING BE UNDERTAKEN UPSTREAM OF THE WORKS, IN THE VICINITY OF THE BENCHMARK NOMINATED IN CONDITION (3). SAMPLES MUST BE TAKEN FROM THE NATURAL STREAM CHANNEL UPSTREAM OF THE DIVERSION CHANNEL. THE DEPARTMENT REQUIRES DAILY GRAB SAMPLES FOR A PERIOD OF ONE MONTH WITH TESTING FOR NFR, GREASE AND OIL, TURBIDITY, PH AND CONDUCTIVITY. AT THE END OF THE ONE MONTH PERIOD RESULTS ARE TO BE PRESENTED TO THE DEPARTMENT AT WHICH TIME THE PERIOD OF SAMPLING WILL BE RENEGOTIATED SUBJECT TO ANALYSIS OF THE

RESULTS.

10SL055367

(9) THE DEPARTMENT ALSO REQUIRES INSTREAM BIOLOGICAL MONITORING TO BE CARRIED OUT BIENNALLY IN SUMMER AND WINTER. SUITABLE SURVEY METHODS FOR MONITORING OF MACROINVERTEBRATES AND MACROPHYTES SHOULD BE EMPLOYED AND REPORTED. THE UPSTREAM SITE WILL BE THE SAME AS FOR CONDITION (8). THE DOWNSTREAM SITE WILL BE LOCATED IN THE NATURAL STREAM CHANNEL, DOWNSTREAM OF THE SPILLWAY AND OTHER WORKS ASSOCIATED WITH THE BRENNANS CREEK DAM STRUCTURE. BOTH SITES SHOULD HAVE SIMILAR CHARACTERISTICS EG POOLS. RESULTS MAY BE PROVIDED TO THE DEPARTMENT ANNUALLY WITH THOSE FOR CONDITION (10).

(10) THE DEPARTMENT REQUIRES RIPARIAN BIOLOGICAL MONITORING AT BOTH THE UPSTREAM AND DOWNSTREAM SITES. RIPARIAN FLORA AND FAUNA SURVEYS MUST BE CARRIED OUT ANNUALLY AND THE RESULTS PROVIDED TO THE DEPARTMENT ON AN ANNUAL BASIS. THE SITES FOR THESE SURVEYS ARE AS PER CONDITION (9).

End Of Conditions

Please Note: You are advised that the right to take and use water granted by this entitlement may be varied once the Departments' Sydney South Coast Water Management and River Flow Objectives Policy has been finalised

Department of Land & Water Conservation
CONDITIONS STATEMENT REFERRED TO ON
10SL038404
RENEWED UNDER PART II OF THE WATER ACT, 1912
ON 05-May-2001

(1) THE HOLDER OF THE LICENSE SHALL WITHIN THREE MONTHS OF BEING CALLED UPON BY THE DEPARTMENT OF LAND AND WATER CONSERVATION TO DO SO, INSTALL TO THE SATISFACTION OF THE DEPARTMENT IN RESPECT OF LOCATION, FORM, TYPE AND CONSTRUCTION, AN APPLIANCE OR APPLIANCES FOR THE MEASUREMENT OF THE QUANTITY OF WATER DIVERTED OR TAKEN BY MEANS OF THE LICENSED WORK, SUCH APPLIANCE OR APPLIANCES TO CONSIST OF EITHER A MEASURING WEIR OR WEIRS WITH AUTOMATIC RECORDER OR METER OR METERS OF THE DETHRIDGE TYPE, OR SUCH OTHER CLASS OF METER OR MEANS OF MEASUREMENT AS MAY BE APPROVED BY THE DEPARTMENT, AND SHALL CONTINUOUSLY MAINTAIN SUCH APPLIANCE OR APPLIANCES IN GOOD WORKING ORDER AND CONDITION, AND SHALL, AFTER THE INSTALLATION OF SUCH APPLIANCE OR APPLIANCES, RECORD THE MEASUREMENTS OF ALL WATER DIVERTED OR TAKEN BY MEANS OF THE LICENSED WORK AND SUPPLY PARTICULARS OF SUCH MEASUREMENTS TO THE DEPARTMENT AT SUCH INTERVALS AS SHALL BE DIRECTED BY THE DEPARTMENT. WHENEVER CALLED UPON TO DO SO A TEST CERTIFICATE FURNISHED EITHER BY THE MANUFACTURER CONCERNED OR BY SOME PERSON OR AUTHORITY DULY QUALIFIED SHALL BE SUPPLIED BY THE HOLDER OF THE LICENCE AS TO THE ACCURACY OF THE APPLIANCE OR APPLIANCES INSTALLED.

(2) THE LICENSEE SHALL NOT ALLOW ANY TAILWATER DRAINAGE TO DISCHARGE INTO OR ONTO:

- ANY ADJOINING PUBLIC OR CROWN ROAD;
- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY GROUNDWATER AQUIFER;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(3) YOUR ATTENTION IS PARTICULARLY DRAWN TO THE PROVISIONS OF CONDITION (2) REGARDING DISPOSAL OF DRAINAGE WATERS. THE DISCHARGE OF POLLUTED WATERS INTO A RIVER OR LAKE OTHERWISE THAN IN ACCORDANCE WITH THE CONDITIONS OF A LICENSE UNDER THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT MAY RENDER THE OFFENDER SUBJECT TO PROSECUTION AND PENALTY UNDER THE ACT. THEREFORE WHERE AN APPROVED DRAINAGE DISPOSAL SYSTEM INVOLVES THE POSSIBLE DISCHARGE OF DRAINAGE WATER INTO A RIVER OR LAKE, A LICENSE MAY BE REQUIRED UNDER THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT TO AUTHORISE SUCH DISCHARGE.

(4) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORKS SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOODWATERS FLOWING INTO OR FROM A RIVER.

(5) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOODWATERS OTHER THAN WATER TO BE IMPOUNDED OR OBSTRUCTED.

(6) WHERE ANY INTERNAL COMBUSTION POWERED WORK IS USED FOR THE PURPOSE OF DIVERTING WATER AUTHORISED UNDER THIS LICENCE, THE POWER UNIT AND ANY ASSOCIATED FUEL STORAGE SHALL BE LOCATED OUTSIDE ANY WATERCOURSE OR DRAINAGE DEPRESSION AND A BUNDING WALL OF HAY BALES OR OTHER APPROVED MATERIAL SHALL BE INSTALLED AROUND THE PUMPING PLANT TO AVOID CONTAMINATION OF ANY RIVER OR LAKE THROUGH SPILLS OR LEAKS OF OILS, FUELS OR GREASES.

(7) THE PUMPING AND ANCILLARY EQUIPMENT AND PUMP SITES SHALL BE, AT ALL TIMES, PROPERLY

SECURED AND/OR SEALED SO AS TO PREVENT ANY LEAKAGE OF PETROLEUM BASED PRODUCTS AND/OR NOXIOUS MATERIAL FROM ENTERING ANY RIVER OR LAKE.

- (8) THE EXISTING PROFILE OF THE CHANNEL AND BANK OF ANY WATERCOURSE OR DRAINAGE DEPRESSION MUST NOT BE DISTURBED ANY MORE THAN IS NECESSARY IN ORDER TO SITE AND MAINTAIN THE AUTHORISED DIVERSION WORK. ANY AREA THAT IS DISTURBED WHEN CARRYING OUT SUCH WORK SHALL BE STABILISED AND MAINTAINED BY GRASS COVER, STONE PITCHING OR ANY OTHER APPROVED MATERIAL AS DIRECTED AND TO THIS DEPARTMENT'S SATISFACTION SO AS TO PREVENT THE OCCURRENCE OF EROSION.
- (9) ANY DRAINAGE CHANNELS OR CROSS BANKS ASSOCIATED WITH THE AUTHORISED DIVERSION WORK OR ACCESS ROADS, TO OR FROM THAT WORK, SHALL HAVE INSTALLED AND MAINTAINED A BUNDING WALL OF HAY BALES OR OTHER APPROVED MATERIAL, TO PREVENT SILTATION DUE TO THE AUTHORISED DIVERSION WORK OR ACCESS ROADS FROM REACHING ANY RIVER OR LAKE.
- (10) THE DAM SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION NO W10 BY COAL DEVELOPMENT SERVICES PTY LTD AND DRAWING NOS HLS 160/1105 PREPARED BY LONGWORTH AND MCKENZIE PTY LTD, COPIES OF WHICH ARE RETAINED IN THE OFFICE OF THE DEPARTMENT OF LAND & WATER CONSERVATION. THE CONSTRUCTION OF THE DAM SHALL BE SUPERVISED BY LONGWORTH AND MCKENZIE PTY LTD.
- (11) THE WORK SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH A STATE AND CONDITION SO AS TO ENSURE ITS SAFETY AND TO REMOVE DANGER TO ANY PUBLIC OR PRIVATE INTEREST.
- (12) THE LICENSEE SHALL COMPLY WITH ANY DIRECTION TO OPERATE THE BOTTOM OUTLET WORKS IN THE DAM TO EMPTY THE STORAGE IF IN THE DEPARTMENTS OPINION THE STRUCTURE HAS BEEN OR IS LIKELY TO BE RENDERED UNSAFE BY MINING OPERATIONS.
- (13) THE LICENSEE SHALL NOTIFY THE DEPARTMENT IN WRITING OF THE INTENTION TO UNDERTAKE MINING OPERATIONS BENEATH THE DAM AND/OR THE STORED WATERS AND THE DETAILS AND PROPOSED COMMENCEMENT DATES OF ANY SUCH OPERATION.
- (14) THE LICENSEE DURING THE PERIOD OF CONSTRUCTION OF THE DAM SHALL OPERATE AND MAINTAIN WORKS TO PREVENT POLLUTION OF BRENNANS CREEK, IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE POLLUTION CONTROL COMMISSION.
- (15) THE HOLDER OF THE LICENSE SHALL MAKE SUITABLE PROVISION TO THE SATISFACTION OF THE DEPARTMENT OF LAND & WATER CONSERVATION TO PREVENT TAILINGS OR OTHER MATERIALS FROM BEING WASHED INTO ANY WATERCOURSE BY FLOODS.
- (16) (A) SUBJECT TO ANY ACCESS OR FLOW CONDITION CONTAINED IN THE LICENCE, THE HOLDER MAY IN ANY ONE YEAR COMMENCING 1 JULY DIVERT UP TO THE LICENCED VOLUME OF 1100.0 MEGALITRES OF WATER FOR MINING USE.
- (B) NOTWITHSTANDING PARAGRAPH (A), THE HOLDER MAY DIVERT UP TO TWICE THE LICENCED VOLUME IN ONE YEAR PROVIDED DIVERSIONS DO NOT EXCEED THREE TIMES THE LICENCED VOLUME IN ANY THREE YEAR PERIOD.
- (C) THE HOLDER SHALL MAINTAIN RECORDS OF WATER USAGE AS SPECIFIED BY THE DEPARTMENT AND WHEN REQUESTED TO DO SO, SHALL FURNISH THE RECORDS TO THE DEPARTMENT.

End Of Conditions

Please Note: You are advised that the right to take and use water granted by this entitlement may be varied once the Departments' Sydney South Coast Water Management and River Flow Objectives Policy has been finalised

**Environment Protection Licence No 2504
(POEO Act)**

Environment Protection Licence

Licence - 2504



Licence Details

Number:	2504
Anniversary Date:	01-February
Review Due Date:	01-Feb-2010

Licensee

ENDEAVOUR COAL PTY LIMITED
PO BOX 514
UNANDERRA NSW 2526

Licence Type

Premises

Premises

WESTCLIFF AND NORTHCLIFF COLLIERIES
WEDDERBURN ROAD
APPIN NSW 2560

Scheduled Activity

Coal Mines
Coal Works

Fee Based Activity

Coal Mining (26)

Scale

> 500000 - 2000000 T produced

Region

Metropolitan
Level 3, NSW Govt Offices, 84 Crown Street
WOLLONGONG NSW 2500
Phone: 02 4224 4100
Fax: 02 4224 4110

PO Box 513 WOLLONGONG EAST
NSW 2520

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- Ensure persons associated with you comply with this licence, as set out in section 64 of the Act.
- Control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act).
- Report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

Environment Protection Licence

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The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications
- licence conditions and variations
- statements of compliance
- load based licensing information
- load reduction agreements

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

ENDEAVOUR COAL PTY LIMITED
PO BOX 514
UNANDERRA NSW 2526

subject to the conditions which follow:

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-

Environment Protection Licence

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based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Coal Mines
Coal Works

Fee Based Activity	Scale
Coal Mining (26)	> 500000 - 2000000 T produced

A1.3 Not applicable.

**A2 Premises to which this licence applies**

A2.1 The licence applies to the following premises:

Premises Details
WESTCLIFF AND NORTHCLIFF COLLIERIES
WEDDERBURN ROAD
APPIN
NSW
2560
DEPARTMENT OF MINERAL RESOURCES
DIAGRAM 1140 AND POR ML 39
WESTCLIFF COLLIERY HOLDING AND
NORTHCLIFF COLLIERY HOLDING

A2.2 The premises also includes the North Cliff Colliery located at Lot 7014 DP 103029 and Consolidated Coal Lease 724 as shown on the map provided to the EPA 9 May 2003 attached to letter dated 8 May 2003.

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Electricity Generating Works

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- (a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and

Environment Protection Licence

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- (b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.



2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
5	Discharge to air; Air emissions Monitoring	Discharge to air; Air emissions Monitoring	Exhaust referred to as "Vocsidiser No. 1 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.
6	Discharge to air; Air emission monitoring	Discharge to air; Air emission monitoring	Exhaust referred to as "Vocsidiser No. 2 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.
7	Discharge to air; Air emission monitoring	Discharge to air; Air emission monitoring	Exhaust referred to as "Vocsidiser No. 3 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.
8	Discharge to air; air emission monitoring	Discharge to air; air emission monitoring	Exhaust referred to as "Vocsidiser No. 4 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

P1.3 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

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Water and land

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
1	Discharge to waters Discharge quality monitoring Volume monitoring	Discharge to waters Discharge quality monitoring Volume monitoring	Overflow from West Cliff Colliery dam labelled as 001 'Discharge from Brennan's Creek Dam' on map titled "West Cliff EPA Licence Authorised Discharge Points, DP-2672A" forwarded to the EPA with the Licence Information Form.
2	Discharge to waters Discharge quality monitoring Volume monitoring	Discharge to waters Discharge quality monitoring Volume monitoring	Overflow from North Cliff Colliery's sedimentation dam labelled 001 'Overflow from sedimentation dam' on map titled 'West Cliff Mine No. 3 & 4 Shafts EPA Licence Authorised Discharge Points, faxed to the EPA on 4 July 2001.
3		Discharge to utilisation area.	Spray irrigation on grassed utilisation area shaded as '002 Spray Irrigation' on the Map titled "West Cliff - EPA Licence Authorised Discharge Points, DP-2672A" forwarded to the EPA with the Licence Information Form.
4	Discharge Quality Monitoring. Volume Monitoring.		Effluent irrigation pump discharging to POINT 3



3 Limit conditions

L1 Pollution of waters

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

- L2.1 Not applicable.
L2.2 Not applicable.

L3 Concentration limits

- L3.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.
- L3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.
- L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.

Air

POINTS 5,6,7,8

Pollutant	Units of measure	100 percentile concentration limit
Nitrogen Oxides	mg/Nm ³	10

Water and Land

POINT 2

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	mg/L				10
pH	pH				6.5 - 8.5
Total suspended solids	mg/L				50

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POINT 3

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	mg/L				10
pH	pH				6.5 - 8.5
Total suspended solids	mg/L				50
Biochemical oxygen demand	mg/L				30

L3.4 The reference basis for the air pollutants specified in Condition L3.3 for Points 5-8 is as follows:

For Nitrogen Oxides: dry, 273 K, 101.3kPa (%O₂ to be specified in accordance with Condition U2 of Attachment A, Development Consent I 946-02 dated 17 June 2003).

L4 Volume and mass limits

L4.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:

- (a) liquids discharged to water; or;
- (b) solids or liquids applied to the area;

must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of measure	Volume/Mass Limit
3	kL/day	200

L5 Waste

L5.1 Not applicable.

L6 Noise Limits

L6.1 Not applicable.



4 Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- (a) must be maintained in a proper and efficient condition; and
- (b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Management of utilisation area

O4.1 Effluent application must not occur in a manner which causes surface runoff.

O4.2 Spray from effluent application must not drift beyond the boundary of the premises.

O4.3 The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids.

For the purpose of this condition, 'effectively utilise' include the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.



5 Monitoring and recording conditions

M1 Monitoring records

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
- in a legible form, or in a form that can readily be reduced to a legible form;
 - kept for at least 4 years after the monitoring or event to which they relate took place; and
 - produced in a legible form to any authorised officer of the EPA who asks to see them.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
- the date(s) on which the sample was taken;
 - the time(s) at which the sample was collected;
 - the point at which the sample was taken; and
 - the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

- M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic	ug/L	Special Frequency 1	Grab sample
Chemical oxygen demand	mg/L	Special Frequency 2	Grab sample
Conductivity	uS/cm	Special Frequency 2	Grab sample
Copper	ug/L	Special Frequency 1	Grab sample
Methylene Blue Active Substances	mg/L	Special Frequency 2	Grab sample
Nickel	ug/L	Special Frequency 1	Grab sample
Oil and Grease	mg/L	Special Frequency 2	Grab sample
Total suspended solids	mg/L	Special Frequency 2	Grab sample
Zinc	ug/L	Special Frequency 1	Grab sample
pH	pH	Special Frequency 2	Grab sample

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POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 2	Grab sample
Oil and Grease	mg/L	Special Frequency 2	Grab sample
Total suspended solids	mg/L	Special Frequency 2	Grab sample
pH	pH	Special Frequency 2	Grab sample

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	mg/L	Special Frequency 1	Grab sample
Oil and Grease	mg/L	Special Frequency 1	Grab sample
Total suspended solids	mg/L	Special Frequency 1	Grab sample
pH	pH	Special Frequency 1	Grab sample

POINTS 5,6,7,8

Pollutant	Units of measure	Frequency	Sampling Method
Nitrogen Oxides	mg/Nm3	Quarterly	TM-11

Note: 'Special Frequency 1' is defined as:

"once a month (at intervals of no greater than 5 weeks apart) and during discharge times."

Note: 'Special Frequency 2' is defined as:

"The sampling is to commence as soon as practicable after the commencement of the discharge (in the case of intermittent discharges over one month, not more than one sample is required in any one week)"

M2.2 The monitoring results collected at Point 4 in compliance with Condition M2.1 can be used to determine compliance with the concentration limits specified in Condition L3.3 for discharge from Point 3.

Note: Following the submission of the Annual Return in 2006, the EPA will review the above monitoring pollutants for Point 1 which may result in the licence being varied.

M2.3 Note: Following the first twelve months of operation of the Electricity Generating Works, and subject to the EPA being satisfied with the first twelve months of monitoring results, the sampling frequency at Points 5-8 may be varied to Annual, or as otherwise agreed.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:

- any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the Act, any methodology which a condition of



this licence requires to be used for that testing; or

- (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

- M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Recording of pollution complaints

- M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M4.2 The record must include details of the following:
 - (a) the date and time of the complaint;
 - (b) the method by which the complaint was made;
 - (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - (d) the nature of the complaint;
 - (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - (f) if no action was taken by the licensee, the reasons why no action was taken.
- M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

- M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
 - (a) the date of the issue of this licence or

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- (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:

- (a) the volume of liquids discharged to water or applied to the area;
- (b) the mass of solids applied to the area;
- (c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

POINT 1

Frequency	Unit Of Measure	Sampling Method
Special Frequency 3	kL/day	Special Method 1

POINT 2

Frequency	Unit Of Measure	Sampling Method
Daily during any discharge	kL/day	Special Method 1

POINT 4

Frequency	Unit Of Measure	Sampling Method
Special Frequency 4	kL/day	In line instrumentation

Note: 'Special Method 1' is defined as:

"Visual Staff Height measurement with calibrated V-notch weir structure."

Note: 'Special Frequency 3' is defined as:

"Daily during discharge. In the event a discharge volume could not be taken on any one day from POINT 1, the volume discharged from POINT 1 during that one day may be estimated mathematically by averaging the total estimated volume recorded the previous day and the following day. This estimation method may be used not more than six times during the licence reporting period."

Note: 'Special Frequency 4' is defined as:

Calculating by inline instrumentation every Monday, Tuesday, Wednesday, Thursday, Friday and Saturday. The volume discharged during any Sunday and Monday may be estimated mathematically by dividing by 2 the cumulative flow rate monitored and recorded each Monday."

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M6.2 The monitoring results collected at Point 4 in compliance with Condition M6.1 can be used to determine compliance with the volume limit specified in Condition L4.1 for discharge from Point 3.



6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
- (a) a Statement of Compliance; and
 - (b) a Monitoring and Complaints Summary.
- A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

- R1.3 Where this licence is transferred from the licensee to a new licensee,
- (a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
 - (b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on
- (a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
 - (b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

- R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

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R1.6 Not applicable.

Licensee must retain copy of Annual Return

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- (a) the licence holder; or
- (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- (a) where this licence applies to premises, an event has occurred at the premises; or
 - (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
- and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- (a) the cause, time and duration of the event;
- (b) the type, volume and concentration of every pollutant discharged as a result of the event;

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- (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- (f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- (g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Signage

- G2.1 Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.



Pollution studies and reduction programs

Pollution Reduction Programs (PRPs) – Completed

PRP No	PRP	Description	Completed Date
1	Discharge Water Quality	To chemically characterise the quality of the water discharges from Brennans Creek Dam and the chemical impacts on the ambient water quality of the Georges River	6 Mar 2003
2	Appin Colliery Mine water Trial	To determine the impact on the water quality of the Brennans Creek water system from the use of imported saline Appin Colliery mine water in the Westcliff Coal Preparation Plant.	Removed from licence June 2004 – PRP no longer required
3	Effluent Utilisation Area	To provide a detailed report on the operation of the effluent treatment plant and the irrigation utilisation area	20 Feb 2004
4	Georges River Ecological Assessment Report	The aim of this PRP is to provide a report to investigate if there is an ecologically significant impact on the surface waters receiving the treated mine waters discharged from point 2 is occurring, including Brennans Creek and the Georges River.	5 June 2004
5	Coal Tracking from Truck Wash	The aim of this study is to recognise and address the issue of coal fine tracking from the premises given the potential for this to cause pollution of waters.	1 Sept 2005
6	Georges River Ecological Assessment	The aim of this PRP is to investigate and report on the surface waters receiving the mine waters discharged from Westcliff Colliery premises, including Brennans Creek and the Georges River, to determine if any ecologically significant impact is occurring.	3 Jan 2005

U1 Pollution Reduction Program No 7. – Brennans Creek Discharge Trial

Aim: The aim of this PRP is to trial controlled discharges of water from Brennans Creek Dam (bottom waters) and the Reclaim Pond (the “Trial”) in an endeavour to minimise the frequency of rain induced uncontrolled releases over the dam spillway. The releases will be undertaken in an effort to optimise the salinity and control the pH of discharges.

- U1.1 The Trial must be undertaken in accordance with the document provided to the EPA titled “West Cliff Colliery Water Management System Proposed Pollution Reduction Program Trial” prepared by Ecoengineers Pty Ltd, March 2004 Revision 5.

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- U1.2 For the purposes of the Trial, the following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
10	Discharge to waters Discharge quality monitoring Volume monitoring	Discharge to waters Discharge quality monitoring Volume monitoring	Piped discharge from the Brennans Creek Reclaim Dam as shown on the map titled 'Westcliff BCD Water Release System General Arrangement' Drawing Number DP 3460 dated 17.6.04
11	Quality monitoring		Georges River located approximately 50 meters upstream of the confluence with Brennans Creek
12	Quality monitoring		Georges River located approximately 50 meters downstream of the confluence with Brennans Creek

- U1.3 For the discharge point specified in the table below (by a point number), the concentration of a pollutant discharged at that point must not exceed the concentration limits specified for that pollutant in the table.

- U1.4 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

POINT 10

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	mg/L				10
pH	PH				6.5 - 8.5
Total suspended solids	mg/L				50

- U1.5 For each monitoring/discharge point specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

POINT 10

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Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 5	In situ
Conductivity	uS/cm	Special Frequency 1	Grab sample
Oil and Grease	mg/L	Special Frequency 1	Grab sample
Total suspended solids	mg/L	Special Frequency 1	Grab sample
pH	pH	Special Frequency 5	In situ
pH	pH	Special Frequency 1	Grab sample
Arsenic	ug/L	Special Frequency 1	Grab sample
Copper	ug/L	Special Frequency 1	Grab sample
Nickel	ug/L	Special Frequency 1	Grab sample
Zinc	ug/L	Special Frequency 1	Grab sample
Iron	ug/L	Special Frequency 1	Grab sample

POINT 11

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 5	In situ
pH	pH	Special Frequency 5	In situ

POINT 12

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 5	In situ
pH	pH	Special Frequency 5	In situ

- U1.6 For the purposes of condition U3.5 Special Frequency 5 means every day with the exception of weekends and public holidays.
- U1.7 For the purposes of condition U3.5 Special Frequency 1' means once a month (at intervals of no greater than 5 weeks apart) and during discharge times.
- U1.8 The licensee must use in-situ instrumentation when monitoring for the concentration of pH and conductivity at points 10, 11 and 12 at the frequency defined by Special Frequency 5 in compliance with condition U3.5. The in-situ instrumentation used must be operated and calibrated in accordance with manufacturers specifications for that instrument.
- U1.9 The licensee must prepare and submit an interim and final written report to the Department of Environment and Conservation Manager Sydney Industry in accordance with section 4 of the document detailed in Condition U3.1.

U2 Pollution Reduction Program No 8. – Materials Storage

- U2.1 The aim of this PRP is to ensure materials are stored at the premises in a way which contains leaks and spills and minimises odour and dust generation.

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U2.2 The licensee must prepare and submit to the EPA a report that details a program of works to be undertaken to ensure materials are correctly stored and banded, that is, compliant with the requirements of:

- *Australian Standard AS 1940B1993: The Storage and Handling of Flammable and Combustible Liquids; and*
- *Australian Standard AS 4452B1997: The Storage and Handling of Toxic Substances the Dangerous Goods Act 1975.*

This program of works must cover waste oil tanks, waste oil drums, on site fuel storage and on site chemical and materials storage, including stone dust, and include timelines for all construction work necessary.

It is the intention of the EPA to issue a subsequent PRP requiring the licensee to implement the outcomes of this PRP.

COMPLETION DATE: 30 April 2005

U3 Pollution Reduction Program No 9. – Georges River Ecological Assessment (Continuation)

- U3.1 The aim of this PRP is to further investigate and report on the surface waters receiving the mine waters discharged from Westcliff Colliery premises, including Brennans Creek and the Georges River to determine if any ecologically significant impact is occurring.
- U3.2 The licensee must repeat the ecological assessment described and timetabled in the document titled 'Ecological effects of water discharges from Appin and Westcliff Collieries' by Dr Marcus Lincoln Smith and dated 21 April 2004 and attached to letter dated 19 May 2004 signed Gary Brassington Environmental Coordinator Illawarra Steel Carbon Steel Materials BHP Billiton a further two times, in two successive seasons, that is Spring and Autumn.

The licensee must prepare and submit to the EPA a written report detailing the outcomes of the ecological assessment.

Completion Date: 31 March 2006

Special conditions

- E1.1 Not applicable.



Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
reprocessing of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Ms Debbie Maddison

Environment Protection Authority

(By Delegation)

Date of this edition - 16-Mar-2006

End Notes

- 1 Licence varied by notice 1008874, issued on 09-Jan-2002, which came into effect on 09-Jan-2002.
- 2 Licence transferred through application 141377, approved on 08-Aug-2002, which came into effect on 01-Jul-2002.
- 3 Licence varied by correction to EPA Sub Region data record, issued on 17-Sep-2002, which came into effect on 17-Sep-2002.
- 4 Licence varied by notice 1025524, issued on 10-Jul-2003, which came into effect on 04-Aug-2003.



End Notes

5	Licence varied by notice 1029826, issued on 15-Oct-2003, which came into effect on 22-Oct-2003.
6	Licence varied by notice 1034664, issued on 11-May-2004, which came into effect on 05-Jun-2004.
7	Licence varied by notice 1037771, issued on 18-Jun-2004, which came into effect on 13-Jul-2004.
8	Licence varied by notice 1040023, issued on 20-Sep-2004, which came into effect on 15-Oct-2004.
9	Licence varied by notice 1041777, issued on 25-Oct-2004, which came into effect on 19-Nov-2004.
10	Licence varied by correction to EPA Region, issued on 22-Nov-2004, which came into effect on 22-Nov-2004.
11	Licence varied by notice 1043281, issued on 06-Jan-2005, which came into effect on 31-Jan-2005.
12	Licence varied by change to EPA file number, issued on 02-Feb-2005, which came into effect on 02-Feb-2005.
13	Licence varied by notice 1046029, issued on 05-Apr-2005, which came into effect on 30-Apr-2005.
14	Licence varied by change to DEC Region allocation, issued on 16-Mar-2006, which came into effect on 16-Mar-2006.