

**ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

**INTEGRATED STATE SIGNIFICANT DEVELOPMENT**

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

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

The reasons for the imposition of the conditions are to:

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

Andrew Refshauge MP  
**Minister for Urban Affairs and Planning,**

Sydney,

2001

File No. S99/01462

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**Schedule 1**

**Application made by:** Stratford Coal Pty Limited (ACN 064 016 164)  
 (“the Applicant”).

**To:** The Minister for Urban Affairs and Planning  
 (DA 39-02-01)

**In respect of:** Land described in Appendix “1”.

**For the following:** Development of an open cut coal mine, and construction and  
 operation of associated surface facilities (“the Development”).

**BCA Classification:** 10(a) Coal crusher

- 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.
  - 3) Section 97 of the Act confers on an Applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 12 months after receipt of notice.

## SCHEDULE 2

### Development Consent Conditions for the Bowens Road North Open Cut Coal Mine

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#### DEFINITIONS:

**AEMR** - Annual Environmental Management Report

**CCC** – Community Consultative Committee

**Construction** – Construction of road works and surface facilities, and clearing of vegetation relating to the construction of road works and surface facilities

**DA** - Development Application

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

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

**EIS** - Environmental Impact Statement

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

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

**Surface facilities** – mine waste emplacements, soil stockpiles, perimeter bunds, dedicated coal crusher, ROM coal and product stockpiles, diversion drains, runoff collection ponds, mine water dam, excess water pipeline

#### Government Authorities

**GSC** - Gloucester Shire Council

**DLWC** - Department of Land and Water Conservation

**DMR** - Department of Mineral Resources

**DUAP** – Department of Urban Affairs and Planning

**EPA** - Environment Protection Authority

**MSB** - Mine Subsidence Board

**NPWS** - National Parks and Wildlife Service

**NSW Agriculture** - New South Wales Agriculture

**NSW Fisheries** - New South Wales Fisheries

**RTA** - Roads and Traffic Authority

**Red type represents 1 October 2002 modification**

**Blue type represents 17 November 2005 modification**

**Green Type represents 20 June 2005 modification**

## 1. General

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

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

- (a) The development is to be carried out generally in accordance with development application No. 39-02-01, and the EIS dated February 2001, prepared by Resource Strategies and certified in accordance with Section 78A(8) of the Act, and the following documentation:
- (i) additional information provided to the Department in response to the issues raised during the exhibition period in a document entitled “Proposed Bowens Road North Open Cut Coal Mine Responses to DUAP Highlighted Submissions” undated and sent by electronic mail to DUAP on 4 May 2001;
  - (ii) additional information regarding the bat fauna assessment provided to the Department in a facsimile from Resource Strategies dated 5 June 2001;
  - (iii) additional information regarding issues raised in a submission by NSW Agriculture, provided to the Department in electronic mail from Resource Strategies dated 5 June 2001;
  - (iv) additional information regarding the buffer distance from Dog Trap Creek provided to DLWC and the Department in a facsimile from Resource Strategies dated 3 July 2001;
  - (v) the modification application (MOD-21-4-2002) and accompanying Statement of Environmental Effects titled “Bowens Road North Open Cut Coal Mine – Project modification” dated April 2002 and prepared by Resource Strategies Pty Ltd on behalf of Stratford Coal Mine, including:
    - correspondence dated 30 August 2002 from Stratford Coal Pty Ltd to PlanningNSW regarding the withdrawal of the Ellis property from the Development Consent; and
  - (vi) the modification application described in the letter from stratford Coal to the Department, dated 4 March 2005;

as may be modified by the conditions set out herein.

- (a)(a) If there is any inconsistency between the material in the above documents, the material in the most recent document shall prevail to the extent of the inconsistency.
- (b) If, at any time, the Director-General is aware of environmental impacts from the proposal that pose serious environmental concerns due to the failure of environmental management measures in place to ameliorate the impacts, the Director-General may order the Applicant

to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.

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

### ***1.2 Period of Approval/Project Commencement***

- (a) This consent is limited to a period of 14 years from the date of the mine lease approval for the Stratford Coal Mine.
- (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, and GSC, at least two weeks prior to commencement of construction and Mining Operations respectively.

### ***1.3 Dispute Resolution***

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

### ***1.4 Security Deposits and Bonds***

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

## **2. Mine Management**

### ***2.1 Mine Management Plan, Operations and Methods***

- (a) No mining undertaken in accordance with this consent shall occur until the Applicant has submitted and had accepted by the DMR, a Mining Operations Plan (MOP) in accordance with current guidelines issued by DMR. The Plan covers mining operations for a period of up to seven years.
- (b) The MOP shall:
- (i) be prepared in accordance with DMR Guidelines for the Preparation of Mining Operations Plans (Document 08060002.GUI or its most recent equivalent);
  - (ii) demonstrate consistency with the conditions of this consent and any other statutory approvals;
  - (iii) demonstrate consistency with the Environmental Management Plans for the project site;
  - (iv) provide the basis for implementing mining operations, environmental management, and ongoing monitoring;
  - (v) include a mine rehabilitation and land use management plan;
  - (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; and
  - (vii) further consider the acid-generating potential of the coal seam in consultation with, and to the satisfaction of, DMR.
- (c) In preparing the Mine Operations Plan, the Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of those services.
- (d) A copy of the MOP, excluding commercial in confidence information, shall be forwarded to GSC 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 and any general infrastructure components, in consultation with DUAP, DLWC and GSC and for approval of DMR and the Director-General.

### ***2.2 Limits on Production***

- (a) Run of Mine coal production from the Bowens Road North project shall not exceed 0.90 million tonnes per annum (Mtpa).

### ***2.3 Hours of Operation***

- (a) <sup>1</sup>Coal mining, coal handling, processing and stockpile operations on the Bowens Road North Open Cut Mine may only be carried on between 7.00am to 7.00pm.

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<sup>1</sup> EPA General Terms of Approval

- (b) <sup>2</sup>Subclause (a) above does not apply if a delivery of material outside the hours of operation is required by police or other authorities for safety reasons and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification shall be provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.
- (c) <sup>3</sup>The hours of operation specified in subclause (a) above, may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

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<sup>2</sup> EPA General Terms of Approval

<sup>3</sup> EPA General Terms of Approval

### **3. Land and Site Environmental Management**

#### **3.1 *Appointment of Environmental Officer***

- (a) The Applicant shall ensure that a suitably qualified and experienced Environmental Officer is available throughout the life of the mine, whose appointment is to be approved by the Director-General, in the first instance before the Officer commences duties. The Officer shall:
  - (i) be responsible for the preparation of the environmental management plans (refer to Condition No. 3.2);
  - (ii) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;
  - (iii) be responsible for receiving and responding to complaints in accordance with Condition 10.2(a);
  - (iv) facilitate an environmental induction and training program for all persons involved with construction activities, mining and remedial activities; and
  - (v) make recommendations to the Mine Manager to take reasonable steps to avoid or minimise adverse environmental impacts. The Mine Manager shall issue instructions to stop work if an adverse impact on the environment is likely to occur.
- (b) The Applicant shall notify the Director-General, DMR, EPA, NPWS, DLWC, GSC, and CCC (refer condition 10.1) of the name and contact details of the Environmental Officer upon appointment and any changes to that appointment.

#### **3.2 *Environmental Management Strategies and Plans***

- (a) The Applicant shall prepare an Environmental Management Strategy providing a strategic context for the environmental management plans [refer condition 3.2(d)]. The Environmental Management Strategy shall be prepared following consultation with the NPWS, DLWC, EPA, DMR, GSC, and the CCC (refer condition 10.1) and to the satisfaction of the Director-General. The strategy shall be provided to the Director-General no later than the time the first Environmental Management Plan under sub-clause (d) below is submitted.
- (b) The Environmental Management Strategy shall include, but not be limited to:
  - (i) statutory and other obligations which the Applicant is required to fulfil during construction and mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
  - (ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer;
  - (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) steps to be taken to ensure that all approvals, plans, and procedures are being complied with;
  - (vii) processes for conflict resolution in relation to the environmental management of the project; and
  - (viii) 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 GSC, EPA, DLWC, NPWS, DMR, MSB and the CCC within fourteen days of approval by the Director-General.
- (d) The Applicant shall prepare the following environmental management plans:
- (i) Flora and Fauna Management Plan (refer condition 3.4(a));
  - (ii) Landscape and Revegetation Management Plan (refer condition 3.6(a));
  - (iii) Land Management Plan (refer condition 3.8(a));
  - (iv) Site Water Management Plan (refer condition 4.1(a));
  - (v) Erosion and Sediment Control Plan (refer condition 4.5(a));
  - (vi) Soil Stripping Management Plan (refer condition 4.5(d));
  - (vii) Dust Management Plan (refer condition 6.1(b));
  - (viii) Blasting/Vibration Management Plan (refer condition 6.3(f));
  - (ix) Noise Management Plan (refer condition 6.4.3(a));
  - (x) Lighting Management Plan (refer condition 6.5(b)).

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

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

### ***3.3 Heritage Assessment, Management and Monitoring***

#### **European Heritage**

- (a) Should any historical relics be unexpectedly discovered on the site during excavation, all excavation or disturbance to the area is to stop immediately and the Heritage Council of NSW shall be informed in accordance with section 146 of the NSW Heritage Act 1977.



- (b) Work may not recommence in the area described in subclause (a) until any necessary Excavation Permit under section 139 of the NSW Heritage Act 1977 has been approved by the Heritage Council of NSW.

#### Aboriginal Heritage

- (c) Lodgement and approval of a NPWS Consent to Destroy (with Salvage) shall be obtained by the Applicant from the NPWS Director-General prior to any works associated with the destruction and/or interference of the Aboriginal site identified with the bank on the eastern dam during the Aboriginal Cultural Heritage Assessment Report.
- (d) Written endorsement from the Forster Local Aboriginal Land Council shall be obtained by the Applicant to be submitted with the NPWS Consent to Destroy (with Salvage) for the Aboriginal site identified during the Aboriginal Cultural Heritage Assessment.
- (e) The Applicant shall ensure that destruction and salvage of all Aboriginal relics approved within the NPWS Consent to Destroy (with Salvage), not being human remains from the identified Aboriginal site, be undertaken by experienced Aboriginal representatives of the Forster Local Aboriginal Land Council.
- (f) The Applicant and/or consent holder shall provide to the NPWS Northern Aboriginal Heritage Unit a listing of any Aboriginal relics salvaged (excluding human remains) from the identified Aboriginal site by representatives of the Forster Local Aboriginal Land Council.
- (g) Should human skeletal remains and/or any other Aboriginal sites be uncovered during excavation works, all works shall cease immediately and the NPWS Northern Aboriginal Heritage Unit and the Forster Local Aboriginal Land Council shall be contacted immediately and/or as soon as possible.

### **3.4 Flora and Fauna Assessment, Management and Monitoring**

#### Assessment and Management

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

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

- i) **Measures required prior to commencing work at Bowens Road North**

- details of strategic vegetation management, outlining timeframes for clearing and re-vegetation activities and a map illustrating the Plan. The Plan should aim to maximise scope for new vegetation to establish and restore ecological integrity;
- details of the schedule for clearing activities incorporating seasonal habitat requirements for species such as bats and other mammals, with the objective of avoiding incidents during sensitive hibernation and breeding periods.

## **ii) Clearing of vegetation**

- details of pre-clearance inspections to be conducted by a qualified ecologist. Pre-clearance inspections shall include searching for, trapping and releasing fauna that may be impacted by construction activities, relocating tree hollow roosts for bats in cleared areas where practical (or providing artificial bat roosts in adjacent vegetation where relocation is not practical). Pre-clearance inspections shall be conducted prior to the commencement of Mining Operations;
- details of how micro habitats including stags, tree hollows and nests will be either retained *in situ*, salvaged and relocated to adjacent habitat and rehabilitation works, or compensated for by the provision of alternative habitat (eg. roosting boxes). Where practical, the salvage and relocation of micro habitats shall occur in preference to the provision of artificial habitat;
- details of how native vegetation remnants adjoining proposed disturbance areas would be protected from accidental damage. This shall include details of the use of sediment fences;

## **iii) Reconstruction of native bushland – Post Mining fauna habitat**

- strategies for the establishment of long-term post-mining land use objectives over the site;
- details for replacing community types that currently exist on site with communities of the same or similar dominant species composition, notably Dry Sclerophyll Woodland, Riparian Vegetation, and Heathland;
- measures to re-instate vegetation communities and to use local endemic species for revegetation as soon as possible;
- 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;
- strategies for the preparation of the site for habitat rehabilitation, as part of the revegetation;
- strategies for the development of an area of compensatory woodland habitat around the south-western perimeter of the mine, including the riparian margin of Avondale Creek as shown on Figure 5.1 of the EIS, and connecting existing vegetation remnants. The area shall be clearly illustrated and measures identified to conserve the area, at least while the land is under the ownership of Stratford Coal Pty Ltd. Planting of the area shall be initiated no later than the commencement of Mining Operations;
- methods of revegetation;
- measures to monitor the success of revegetated areas and plant additional species where necessary;
- measures to manage existing areas of remnant vegetation and promote regeneration, including fencing to exclude grazing animals, where appropriate, and control of feral animals where practical, and maintain weed and fire controls;
- strategies to manage the impact of surface water management, erosion and sediment control measures, and flooding mitigation measures on flora and fauna, including the impact of heavy machinery;

- development of a protocol for identifying and managing significant impacts on any threatened flora and fauna species not identified in the EIS, during construction or operation of the coal mine (refer also to subclause (e) below); and
  - details of the habitat monitoring program (refer to subclause (i) below).
- (iv) details of the inter-relationship of this plan with:
- the Wildlife Corridor Management Plan for Stratford Coal Mine; and
  - other fauna and flora management requirements under the development consent for Stratford Coal Mine.
- (b) Where practical, trees that would be partially submerged by the mine water dam shall be retained in situ to allow their continued use as fauna roosts.
- (c) Revegetated areas shall be protected from grazing by domestic stock. The revegetation program shall also aim to extend and re-establish existing native vegetation on and, where possible, adjacent to the site.
- (d) Cleared vegetation shall not be burnt unless otherwise approved by the EPA. Where possible, cleared vegetation shall be mulched and stored for use in rehabilitation. All reasonable measures to use surplus vegetation shall be undertaken.
- (e) If threatened species (listed under the Threatened Species Conservation Act, 1995) other than those recognised in the EIS are identified on the site during construction or operation of the coal mine, the Applicant shall immediately notify NPWS. The Applicant shall cease any work which could adversely impact on the identified species, should an appropriately qualified and experienced ecologist (approved by the Director-General) in consultation with NPWS deem it necessary. In the event that work ceases, work shall not recommence until advice has been received from NPWS.
- (f) During the life of the mine and until the revegetated areas are established to the satisfaction of the DMR, the Applicant shall maintain the revegetated areas. Maintenance shall include, where necessary, but not be limited to:
- (i) replanting failed or unsatisfactory areas;
  - (ii) repairing erosion problems;
  - (iii) fire management – fire suppression or fire encouragement;
  - (iv) pest and weed control;
  - (v) control of feral animal populations;
  - (vi) maintain and repair fencing;
  - (vii) fertiliser application;
  - (viii) application of lime or gypsum to control pH and improve soil structure.
- (g) The efforts and progress of the Flora and Fauna Management Plan shall be documented in the AEMR in accordance with the Department of Mineral Resource's Guidelines to the Mining, Rehabilitation and Environmental Management Process (March 1998) or its latest version.

### Monitoring

- (h) The regeneration works shall be monitored by an appropriately qualified and experienced ecologist approved by the Director-General. The results of the monitoring and the

effectiveness of the reforestation shall be reported annually as part of the Annual Environmental Management Report.

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

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

### ***3.5 Site Rehabilitation Management***

The Applicant shall carry out rehabilitation of all mine areas in accordance with the requirements of any Mining Lease granted by the Minister for Mineral Resources and ensure the progressive rehabilitation of the area is also in consultation with DLWC.

### ***3.6 Visual Amenity and Landscaping***

- (a) A Landscape and Revegetation Management Plan shall be prepared by the Applicant and approved by the Director-General prior to commencement of construction. The Plan shall be prepared in consultation with the GSC. The Plan shall include, but not limited to, the following:
  - (i) an on-site landscaping strategy detailing design and proposed planting of trees and shrubs and the construction of mounding or bunding:
    - along public roads including Bowens Road, Wheatleys Road and Wenhams Cox Road;
    - around the open cut and mine water dam;
    - around the waste emplacements; and
    - at any other areas identified as necessary by GSC for the maintenance of satisfactory visual amenity, and as agreed by the Director-General.
  - (ii) appropriate erosion control and sediment control practices for earthworks associated with the landscaping.

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

### ***3.7 Bushfire and other Fire Controls***

The Applicant shall:

- (a) provide adequate fire protection works on site, including the availability of trained personnel, water tankers and fire fighting equipment and annual hazard reduction measures with particular attention to boundaries of adjoining landholdings;

- (b) prior to commencement of mining operations prepare a Bushfire Management Plan for all its holdings contained in the DA, to the satisfaction of GSC and the Rural Fire Service.

### ***3.8 Land Management***

- (a) The Applicant shall, prior to commencement of Mining Operations prepare a Land Management Plan for the areas of the proposed surface facilities, and its holdings in the DA area, to provide for proper land management in consultation with DLWC, GSC, and to the satisfaction of the Director-General. The plan shall include, but not be limited to:
  - (i) pastures and remnant vegetation management;
  - (ii) prevention and rehabilitation of land degradation;
  - (iii) control of weed infestation on topsoil stockpile material;
  - (iv) assessment of the potential for commercial harvesting of standing timber removed from the site;
  - (v) eradication of vermin and noxious weeds as required by the Rural Lands Protection Board, and the Prickly Pear Authority and other relevant authorities, with particular focus on Giant Parramatta Grass;
  - (vi) feral animal control; and
  - (vii) details of the inter-relationship of this plan with the Land Management Plan for Stratford Coal Mine.
  
- (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 GSC requirements.

## 4. Water Management and Monitoring

### 4.1 Surface & Ground Water Management Plans

The Applicant shall:

- (a) prior to the commencement of Construction and Mining Operations, prepare a Site Water Management Plan for the DA area, **or revise and update the existing Plan to address the issues associated with the modification application MOD-21-4-2002. The Plan shall be prepared** in consultation with DLWC and GSC and to the satisfaction of the Director-General and DLWC, **and shall address**, but not be limited to, the following matters:
  - (i) management of the quality and quantity of surface and ground water within the areas covered by the water management plans;
  - (ii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water. This shall include a consideration of the separation of heavily contaminated waters including those containing oil, grease or other pollutants. Refer also to subclause (vii);
  - (iii) measures to prevent the degradation of downstream surface water quality below the pre-mining ANZECC beneficial water use classification due to mining operations, particularly in the Avon River, Avondale Creek, Dog Trap Creek, and the unnamed creeks and ephemeral watercourses in the area;
  - (iv) contingency plans for managing adverse impacts of the development on surface and groundwater quality;
  - (v) demonstration of the robustness of the mine water circuit to handle additional inflows of water to the pit;
  - (vi) details of any discharge arrangements and any requirements to modify the volume of storages on site;
  - (vii) <sup>4</sup>measures to develop and implement a Stormwater Management Scheme to mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* or its latest version (available from the EPA);
  - (viii) measures to ensure that poorer quality class waters are effectively reused on the site including consideration of segregation of waters based on salinity classes and other levels of contamination;
  - (ix) details of a strategy for the decommissioning of water management structures, including mine water dams;

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<sup>4</sup> EPA General Terms of Approval

- (x) details of design and maintenance of all storages, diversions, transmission channels and sedimentation basins for the site, to minimise sedimentation of watercourses;
- (xi) details of any licensing requirements for any extractions, storages, or other constructions on the site;
- (xii) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the effect of changes to groundwater quality and mobilisation of salts. **This shall include a re-evaluation of the groundwater modelling to verify the ingress rates and salt mass balance of the Bowens Road void following the modification to the mine plan as described in the modification application MOD-21-4-2002;**
- (xiii) <sup>5</sup>the response system and remediation requirements, should local groundwaters degrade beyond their current beneficial use classification level;
- (xiv) <sup>6</sup>contingency procedures in the event of a spill or other incident which has the potential to degrade local groundwaters;
- (xv) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plans, and EIS;
- (xvi) a consideration of potential impacts on the Atkins property of accidental releases of water from the mine site. Mitigation measures to be implemented to prevent adverse impacts on the Atkins property shall be detailed in the Plan;
- (xvii) measures to demonstrate that long term increases in downstream salinity will be minimal as a result of providing a free draining void to the Bowens Road open cut mine; and**
- (xviii) outline of the proposed changes to the operation of the mine and methods to address the issues associated with the modification application MOD-21-4-2002.”**

#### Pollution of waters

- (b) <sup>7</sup>Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.
- (c) The Applicant shall ensure that no discharge waters adversely affect any neighbouring property.

#### Mine Water

- (d) The mine water balance shall be recalculated on a six-monthly basis and reported in the AEMR. Any discharge must be synchronised to occur within triggers on river flows.

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<sup>5</sup> DLWC General Terms of Approval

<sup>6</sup> DLWC General Terms of Approval

<sup>7</sup> EPA General Terms of Approval



### Dog Trap Creek

- (e) The Applicant shall liaise with DLWC prior to commencement of construction or operation, to substantiate the adequacy of the proposed buffer between the mine and Dog Trap Creek so that the integrity of the creek is maintained.

### Final Void

- (f) Upon cessation of mining activity, the Applicant shall monitor the quality of waters that accumulate within the final void for a time period to be determined in consultation with DLWC, DMR and EPA. The results of the monitoring of quality shall be compared with the predictions of the EIS and reported to DLWC at a frequency to be determined in consultation with DLWC. Should the results of this monitoring show that the EIS predictions are not accurate in regard to long term water quality, the Applicant shall be responsible for the maintenance and rehabilitation of the final void to the satisfaction of DLWC, EPA and DMR, until relinquishment of the mining lease by DMR.

### Rehabilitation

- (g) The Applicant shall re-establish a post-mining drainage system incorporating each drainage line discharging from the area of the mining development. The drainage system shall be comparable to the drainage density of the pre-mining land. The design and implementation of the post-mining drainage system is to be to DLWC standard.

### Wastewater management

- (h) <sup>8</sup>Any wastewater utilisation areas must effectively utilise the wastewater applied to those areas. This includes the use for pasture or crop production, as well as ensuring the soil is able to absorb the nutrients, salts, hydraulic load and organic materials in the solids or liquids. Monitoring of land and receiving waters to determine the impact of wastewater application may be required by the EPA.

### Remediation

- (i) **The Applicant shall be responsible for the remediation of any downstream riparian impact which may occur as a result of any unlicensed/ non-consensual loss of pit/ void waters from the site, to the satisfaction of DLWC and DMR.**

## **4.2 Surface and Groundwater Monitoring**

- (a) The Applicant shall:
  - (i) construct and locate surface and groundwater monitoring positions, in consultation with DLWC, and to the satisfaction of the Director-General and DLWC, at least three months prior to the commencement of mining operations;
  - (ii) prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the DA area during mining works and

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<sup>8</sup> EPA General Terms of Approval

post mine operations. The program shall be developed in consultation with DLWC, and to the satisfaction of the Director-General and DLWC.

- (iii) incorporate into the Site Water Management Plan details of the monitoring program. The monitoring program shall include: the duration (pre, during and post mining); sites to be sampled; frequency of sampling; the parameters to be measured (including but not limited to the location and depths of aquifers and any groundwater-dependent ecosystems); the depth of bore construction; the need for any contingency plans; the analysis of data and the reporting procedure; and determination of appropriate cut-off criteria for monitoring purposes determined in consultation with DLWC. The results of the monitoring program shall be reported in the AEMR. The monitoring program for post-mining shall be prepared no later than one year prior to the cessation of mine operations.
- (iv) The monitoring program shall have the capacity to collect sufficient data to adequately assess:
- the impact of any licensed groundwater extraction on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;
  - any licensing requirements associated with the monitoring works;
  - <sup>9</sup>if any capture of alluvial groundwater is occurring into the mine workings, and the extent of the cone of depressurisation surrounding the mine;
  - potential adverse impacts or degradation of the groundwater systems through the development of a contingency program with identified stages of implementation; and
  - any concerns or complaints from surrounding landholders on groundwater matters, and any ensuring actions, which shall be maintained and be available to DLWC.
- (v) <sup>10</sup> 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; or
  - if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the *Protection of the Environment Operations Act 1997* in relation to the development or the relevant load calculation protocol, a method approved by the EPA in writing before any tests are conducted,
  - unless otherwise expressly provided in the licence.

#### Requirement to monitor water discharges

- (b) <sup>11</sup>Overflow events from all erosion and sediment control dams or mine water storages are to be monitored (by sampling and obtaining results by analysis) for the concentration of each pollutant specified in Column 1 of Table 1. The Applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns of Table 1.

Table 1: Water and Land

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<sup>9</sup> DLWC General Terms of Approval

<sup>10</sup> EPA General Terms of Approval

<sup>11</sup> EPA General Terms of Approval

<b>Pollutant</b>	<b>Units of measure</b>	<b>Frequency</b>	<b>Sampling Method</b>
TSS	Mg/L	During each overflow event	Representative sample
Conductivity	µS/cm	During each overflow event	Representative sample
pH	pH	During each overflow event	Representative sample

- (c) <sup>12</sup>Additional monitoring of surface water, groundwater, erosion and sediment control structure/dams, and receiving waters, may be required by the EPA to determine the impact on surrounding water quality.

#### **4.3 Licence under the Water Act, 1912**

<sup>13</sup>The Applicant shall obtain a licence from DLWC in respect of boreholes and monitoring piezometers under Part 5 of the *Water Act, 1912*.

#### **4.4 Permit under the Rivers and Foreshores Improvement Act, 1948**

- (a) <sup>14</sup>The Applicant shall obtain a permit under Part 3A of the *Rivers and Foreshores Improvement Act, 1948* for works within forty metres of a river as defined under the Act.
- (b) <sup>15</sup>Subclause (a) applies to proposed mine infrastructure including but not limited to:
- (i) water management structures;
  - (ii) haul roads;
  - (iii) Wenhams Cox Road realignment;
  - (iv) erosion and sediment control features; and
  - (v) perimeter bunds.

#### Dams

- (c) <sup>16</sup>All construction drawings shall be certified by a practising structural engineer or in the case of unstable land a geotechnical engineer.
- (d) <sup>17</sup>Any discharge from the dam shall not result in erosion or bank/bed instability of existing flow lines.
- (e) <sup>18</sup>No materials shall be used that may pollute the watercourse.
- (f) <sup>19</sup>All proposed dams shall be designed for, amongst other things, toe stability; forces from flooding, hydraulic pressures, seepage, attack from burrowing fauna and revegetation.
- (g) <sup>20</sup>The surface of the excavated area shall be progressively regraded to a smooth and even slope from the water to the bank of the watercourse and drain towards the low flow channel.

<sup>12</sup> EPA General Terms of Approval

<sup>13</sup> DLWC General Terms of Approval

<sup>14</sup> DLWC General Terms of Approval

<sup>15</sup> DLWC General Terms of Approval

<sup>16</sup> DLWC General Terms of Approval

<sup>17</sup> DLWC General Terms of Approval

<sup>18</sup> DLWC General Terms of Approval

<sup>19</sup> DLWC General Terms of Approval

### Perimeter Bunds

- (h) <sup>21</sup>Any bunds shall be designed for, amongst other things, toe stability; forces from flooding, hydraulic pressures, seepage, attack from burrowing fauna and revegetation.

### Road Drainage Crossings

- (i) <sup>22</sup>Erosion of the bed and banks upstream and downstream of the crossings shall be prevented with suitable scour protection.

### Wenhams Cox Road Re-Alignment

- (j) <sup>23</sup>The location and construction of the road must minimise the disturbance to the riparian vegetation located adjacent to Dog-Trap Creek.

## **4.5 Soil Management**

- (a) The Applicant shall prepare an Erosion and Sediment Control Plan for the surface facilities and mining operations in consultation with the DLWC **or revise and update the existing Plan to address the issues associated with the modification application MOD-21-4-2002**, 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-Director-General.
- (b) The Erosion and Sediment Control Plan required under subclause (a) shall include but not be limited to:
- (i) details of temporary and permanent sediment and erosion control systems to be used during both mine construction and operation, including for earthworks associated with landscaping;
  - (ii) details of soil salinity management where relevant;
  - (iii) <sup>24</sup>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 Plan should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing) or its latest version;
  - (iv) details of the proposed measures to maximise the retrieval of topsoil for subsequent use in the rehabilitation program;
  - (v) consideration and management of erosion and sedimentation of surface watercourses/waterbodies, including all creeklines within the DA areas;

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<sup>20</sup> DLWC General Terms of Approval

<sup>21</sup> DLWC General Terms of Approval

<sup>22</sup> DLWC General Terms of Approval

<sup>23</sup> DLWC General Terms of Approval

<sup>24</sup> EPA General Terms of Approval

- (vi) a program for reporting on the effectiveness of the sediment and erosion control systems and performance against objectives contained in the approved Erosion and Sediment Control Management Plan, and EIS;
  - (vii) details of the inter-relationship between the Plan and any measures for soil or erosion control under the development consent for Stratford Coal Mine.
- (c) The Applicant shall implement works necessary to stabilise the diversions associated with the Bowens Road North Open Cut. These works shall be implemented following finalisation of the review of the water management system for the mine and shall be to the satisfaction of DLWC.
- (d) The Applicant shall also prepare a Soil Stripping Management Plan to the requirements of DMR and DLWC **or revise and update the existing Plan to address issues associated with the modification application MOD-21-4-2002 and the matters listed below.**

that shall include, but not be limited to:

- (i) details of the management of soil stockpiles, soil stripping techniques and scheduling;
- (ii) details of the management of weed infested topsoil. If the topsoil is proposed to be used in rehabilitation works, measures to ensure it is adequately sterilised or treated.
- (iii) a program for reporting on the effectiveness of the soil stripping methods and performance against objectives contained in the soil stripping management plan, and EIS;
- (iv) details of the inter-relationship between the Plan and any measures for soil stripping under the development consent for Stratford Coal Mine; and
- (v) **outline of the proposed changes to the operation of the mine and methods to address the issues associated with the modification application MOD-21-4-2002.**

#### ***4.6 Limit to Open Cut Pit & Associated Infrastructure***

The Applicant shall ensure that the open cut pit and associated infrastructure are located a least 40 metres from the bank of Avondale Creek.

## 5. Hazardous Materials and Overburden Management

### 5.1 *Overburden Emplacement and Management*

- (a) The Applicant shall construct and manage the overburden emplacement **in general accordance with the layout depicted in Figure 1 in Appendix 2, and to the satisfaction** of the DMR.
- (b) The Applicant shall undertake measures, as far as practical, to prevent spontaneous combustion from occurring on the site.

### 5.2 *Waste*

- (a) <sup>25</sup>The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*.

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

- (b) The Applicant shall reuse, recycle or dispose of all waste (including but not limited to solid waste, liquid waste and putrescible matter) from the site to the satisfaction of GSC or EPA, as relevant.

### 5.3 *Hazards*

- (a) The Applicant shall adopt the risk prevention and remedial measures as nominated in Section I3.2.3 of Appendix I of the EIS.
- (b) The relevant plans for the Stratford Coal Mine, as detailed in Section I3.2.3 of Appendix I of the EIS shall be expanded to incorporate the Bowens Road North Coal mine.

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<sup>25</sup> EPA General Terms of Approval

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

### 6.1 Air Quality Management and Monitoring

#### Air Quality Standards/Goals

- (a) The Applicant shall comply with the air quality standards/goals as outlined in Tables 2 and 3 below. These goals/standards apply for the cumulative impacts of Bowens Road North Coal Mine and Stratford Coal Mine (Stage 1) and for the impacts of Bowens Road North Coal Mine alone (Stage 2).

**Table 2 Health Based Air Quality Criteria for Particulate Matter Concentrations**

Pollutant	Standard/Goal	Agency
Total Suspended Particulate Matter (TSP)	90µg/m <sup>3</sup> (annual mean)	National Health and Medical Research Council (NH&MRC)

**Table 3 NSW EPA Amenity Based Criteria for Dust Fallout**

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

#### Dust Management Plan

- (b) The Applicant shall, prior to the commencement of construction or operation, prepare a Dust Management Plan **or revise and update the existing Plan to address**, detailing air quality safeguards and procedures for dealing with dust emissions from the construction and operation of the Bowens Road North mine, **as modified by the modification application MOD 21-4-2002**, to the satisfaction of the Director-General. The Plan shall be prepared in consultation with the GSC and EPA and shall be updated as required by the Director-General. The Plan shall include, but not be limited to, details of:
- (i) the identification of dust affected properties in accordance with the criteria detailed in condition 6.1(a);
  - (ii) specifications of the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations;
  - (iii) outline the procedure to notify property owners and occupiers as identified in the EIS or by monitoring as likely to be affected by dust from the mine in excess of criteria detailed in condition 6.1(a);
  - (iv) mitigation measures to be employed to minimise dust emissions;
  - (v) the establishment of a protocol for handling dust complaints that include recording, reporting and acting on complaints;
  - (vi) outline of response and/or management measures to be undertaken in the event of complaints from a landowner where dust levels are demonstrated to be below the dust criteria in condition 6.1(a);

- (vii) appropriate mechanisms for community consultation;
- (viii) outlining proactive/predictive and reactive mitigation measures to be employed to minimise dust emissions including visible dust emanating from the site;
- (ix) equipment to be available and used to control dust generation;
- (x) methods to determine when and how the mine operation is to be modified to minimise the potential for dust emissions, particularly from surface activities;
- (xi) identification of longer term strategies directed towards mitigating dust levels;
- (xii) details of locations and frequency of dust monitoring and deposition gauges at the residential areas as agreed by the Director-General;
- (xiii) details of the inter-relationship of this plan with the dust management plan of the Stratford Coal Mine;
- (xiv) a program to continue baseline monitoring undertaken prior to development consent;
- (xv) measures to alter mining operations at any time when driver visibility or traffic safety on any nearby public roads is adversely affected by dust from mining operations; and
- (xvi) a program to undertake ambient monitoring of PM<sub>10</sub> concentrations and dust deposition rates at nearest sensitive receptors;
- (xvii) 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
- (xviii) outline of the proposed changes to the operation of the mine and methods to address the issues associated with the modification application MOD-21-4-2002.

#### Air Quality and Dust Monitoring

- (b) The Applicant shall:
  - (i) undertake monitoring at locations described in the Dust Management Plan (refer to Condition 6.1(a));
  - (ii) monitor and report against the NSW EPA goals of 50µg/m<sup>3</sup> (24-hour average) and 30µg/m<sup>3</sup> (annual mean). The results of this monitoring and reporting are to be incorporated into the AEMR;
  - (iii) <sup>26</sup> establish in consultation with the EPA, dust deposition and total suspended particulate (TSP) matter monitoring sites. The sampling method, units of measure, interval and frequency of monitoring will be as set out in the *Approved Methods for sampling and analysis of Air Pollutants in NSW*;
  - (iv) include sites for monitoring impacts of dust at the nearest non-mine owned residences and locations as may be determined to be necessary by the Director-General and in accordance with the Dust Management Plan referred to in Condition 6.1(a);
  - (v) consider the use of existing relevant monitoring locations at Stratford mine;
  - (vi) provide reporting once every six months on the performance of the control measures and of the monitoring system detailed in the EIS and conditions of this consent, unless otherwise agreed by the Director-General. The reports shall be provided to the Director-General, CCC and GSC within seven days of completion of the report; and

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<sup>26</sup> EPA General Terms of Approval



- (vii) provide all results and analysis of air quality monitoring in the AEMR including a determination of the dust deposition rate in  $\text{g/m}^2/\text{month}$ , which shall be plotted in the AEMR.
- (c) In the event that a landowner or occupier considers that dust from the project at his/her dwelling or over more than 25% of his/her vacant land is in excess of the criteria detailed in Tables 2 and 3 above, and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
  - (i) consult with the landowner or occupant affected to determine his/her concerns;
  - (ii) make arrangements for, and bear the costs of, appropriate independent dust investigations in accordance with the Dust Management Plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and contribution of the Bowens Road North mine;
  - (iii) modify the mining activity or take other steps in accordance with the Dust Management Plan if exceedences are demonstrated to result from Bowens Road North 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 investigation(s) to the satisfaction of the Director-General, where necessary.

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

- (d) If the independent dust investigations in sub-clause (c) above confirm that cumulative dust levels from Stratford Coal Mine and Bowens Road North Coal mine during Stage 1, or Bowens Road Coal Mine alone during Stage 2, are in excess of the relevant criteria detailed in Tables 2 and 3 above, and if the measures in sub-clause (c)(iii) (1) above do not reduce the dust levels below the criteria in Tables 2 and 3, 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 11.1.
- (e) Further independent investigation(s) shall cease if the Director-General is satisfied that the relevant criteria in Tables 2 and 3 are not being exceeded and are unlikely to be exceeded in the future.
- (f) <sup>27</sup>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

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<sup>27</sup> EPA General Terms of Approval

- any methodology which is required by or under the *Protection of the Environment Operations Act 1997* to be used for the testing of the concentration of the pollutant;
- if no such requirement is imposed by or under the *Protection of the Environment Operations Act 1997*, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
- if no such requirement is imposed by or under the *Protection of the Environment Operations Act 1997* or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

## **6.2 Dust Suppression and Control**

- (a) The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas of the DA area following the completion of mining and associated activities in that area to minimise the generation of wind blown dust.
- (b) <sup>28</sup>Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

## **6.3 Blast Management and Monitoring**

### Overpressure

- (a) <sup>29</sup>The overpressure level from blasting operations on the premises must not:
  - (i) Exceed 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months; and
  - (ii) Exceed 120dB (Linear Peak) at any time,

The airblast overpressure values stated above apply when the measurements are performed with equipment having a lower cut-off frequency of 2Hz or less. If the instrumentation has a higher cut off frequency then a correction of 5dB should be added to the measured value. Equipment with a lower cut-off frequency exceeding 10Hz should not be used for the purpose of measuring airblast overpressure.

### Ground vibration (ppv)

- (b) <sup>30</sup>Ground vibration peak particle velocity from the blasting operations at noise sensitive receivers must not:
  - (i) Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
  - (ii) Exceed 10mm/s at any time, when measured at any point within one (1) metre of any affected residence or other noise sensitive location such as a school or hospital.

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<sup>28</sup> EPA General Terms of Approval

<sup>29</sup> EPA General Terms of Approval

<sup>30</sup> EPA General Terms of Approval

### Time of blasting

- (c) <sup>31</sup>Blasting operations on the premises may only take place between 9.00am and 5.00pm Mondays to Saturdays inclusive.
- (d) <sup>32</sup>The hours of operation for blasting operations specified in this condition may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.

### Frequency of blasting

- (e) <sup>33</sup>Blasting at the premises is limited to one (1) blast each day on which blasting is permitted unless under extenuating circumstances as determined by the Mine Manager. In such cases when an additional blast is deemed necessary the EPA shall be notified in writing within twenty four hours of the additional blast occurring.

### Blasting/Vibration Management Plan

- (f) The Applicant shall prepare and implement a Blasting/Vibration Management Plan to the satisfaction of the Director-General, prior to the commencement of any blasting. The Plan must include, but not be limited to, the following matters:
  - (i) compliance standards;
  - (ii) mitigation measures;
  - (iii) remedial action;
  - (iv) monitoring methods and program;
  - (v) monitoring program for flyrock distribution;
  - (vi) measures to be undertaken to demonstrate that the Bowens Road North mine is achieving best practice in minimising air blast overpressure, ground vibration levels, fumes and odours from blasting activities. This shall include specific reference to best practice measures employed to meet the blasting criteria under subclauses 6.3(a) and 6.3(b) at the Ellis, Atkins and Clarke residences;
  - (vii) measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables) and livestock on non-mine owned land;
  - (viii) measures to consider the blasting activities from the Stratford mine. This shall include details of the proposed measures to ensure that cumulative blast related impacts are managed;
  - (ix) procedures for the notification of occupiers of buildings and residents prior to detonation of each blast;
  - (x) measures to ensure no damage by flyrock to people, property, livestock and powerlines; and
  - (xi) details of the inter-relationship of this plan with the blasting requirements of the development consent for Stratford Coal Mine.
- (g) The applicant shall, as a minimum, advise occupiers of buildings and residents within two (2) kilometres of blasting locations of future blasting events on at least a monthly basis, and of any changes to the proposed blast schedules.

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<sup>31</sup> EPA General Terms of Approval

<sup>32</sup> EPA General Terms of Approval

<sup>33</sup> EPA General Terms of Approval

- (h) Upon written request of the owner of any dwellings located within two (2) kilometres of the blasting locations, the Applicant shall arrange at its own costs, for the inspection by a technically qualified person agreed to by both parties, to record the material condition of any structure on such property within 14 days of receipt of the request. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner within fourteen (14) days of receipt of the report.
- (i) The Applicant shall, in consultation with GSC and RTA, prepare a Road Closure Management Plan to the satisfaction of the Director-General prior to the commencement of any blasting within 500 metres of any public road (including but not limited to Wenhams Cox Road and Bowens 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 the relevant road and the period which the road will be closed during blasting activities;
  - (iii) methods for ensuring the safety of road users and the general public during the blast period;
  - (iv) strategies for informing road users and the local community of the proposed road closure;
  - (v) details of the procedures for permitting the passage of emergency vehicles during the road closure. This shall also include details of the proposed methods for sufficiently notifying emergency service providers of the proposed times and period of the road closures;
  - (vi) methods for clearing the road of any debris resulting from a blast; and
  - (vii) details of the disruptions that are likely to occur during the closure period.
- (j) The Applicant shall incur the costs for any damage to any public road resulting from any blast related activities. The repairs shall be undertaken to a standard acceptable to GSC and/or the RTA as relevant.

#### Blast Monitoring

- (k) The applicant must monitor ground vibration and overpressure of all blasts.
- (l) <sup>34</sup>Ground vibration or the overpressure must be measured at all noise sensitive sites (eg. residences, hospitals, schools etc), selected in consultation with the EPA.

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<sup>34</sup> EPA General Terms of Approval

## 6.4 Noise Control

### 6.4.1 Noise Criteria

#### Noise Management Zone

- (a) At dwellings where the noise criteria in Table 4 below are demonstrated to be exceeded, or are exceeded during mining operations, the Applicant shall undertake management measures as outlined in condition 6.4.1 (e) and the Noise Management Plan.

**Table 4: Intrusive  $L_{Aeq(15\text{minute})}$  Noise Criteria for Stages 1 and 2 of the Bowens Road North Project**

Location	Intrusive Criteria $L_{Aeq(15\text{ minute})}$ dB(A) <sup>4</sup>	
	Day <sup>1</sup>	Evening <sup>1</sup>
Stratford / Craven residential <sup>2</sup>	36	36
Stratford / Craven rural <sup>3</sup>	35	35

- Note:
- Day period is 7am to 7pm, Evening period is 7pm to 10pm
  - Stratford/Craven residential area includes but is not limited to:
    - Stratford and Craven villages; and
    - Properties of Isaac (South), Isaac (North), Grono/D Blanch, Blanch, Standen/Mulliett, Van Der Drift, Battaglini, Lowrey as described in the EIS.
  - Stratford/Craven rural area includes but is not limited to properties owned by McIntosh, Tiedeman, Williams, Campbell, Thompson, Bowen, Bignell, Morgan, and Clarke as described in the EIS.
  - The noise limits apply for winds up to three (3) metres per second and/or Pasquill Stability Classes of A,B,C,D,E, and F.

#### Noise Acquisition Zone

- (b) The acquisition zone for intrusive noise in Stages 1 and 2 of the Bowens Road North Project is defined by predicted or demonstrated exceedence of the noise levels at any non-mine owned dwellings of the dB(A)  $L_{Aeq(15\text{ minute})}$  noise levels shown in Table 5 below.

**Table 5: Intrusive  $L_{Aeq(15\text{minute})}$  Noise Acquisition Criteria for Stages 1 and 2 of the Bowens Road North Project**

Location	Intrusive Noise Acquisition Criteria $L_{Aeq(15\text{ minute})}$ dB(A) <sup>4</sup>	
	Day <sup>1</sup>	Evening <sup>1</sup>
Stratford / Craven residential <sup>2</sup>	> 41	> 41
Stratford / Craven rural <sup>3</sup>	> 40	> 40

- Note:
- Day period is 7am to 7pm, Evening period is 7pm to 10pm
  - Stratford/Craven residential area includes but is not limited to:
    - Stratford and Craven villages; and

- Properties of Isaac (South), Isaac (North), Grono/D Blanch, Blanch, Standen/Mulliett, Van Der Drift, Battaglini, Lowrey as described in the EIS.
3. Stratford/Craven rural area includes but is not limited to properties owned by McIntosh, Tiedeman, Williams, Campbell, Thompson, Bowen, Bignell, Morgan, and Clarke as described in the EIS.
  4. The noise limits apply for winds up to three (3) metres per second and/or Pasquill Stability Classes of A,B,C,D,E, and F.
- (c) The properties in Table 6 below are predicted to experience noise levels greater than the intrusive acquisition criteria identified in Table 5 above, and shall be acquired by the Applicant if requested by the landowner in accordance with Condition 11.1.

**Table 6: Dwellings Predicted to be Within the Intrusive Noise Acquisition Zone**

<b>Property Number (as stated in the EIS)</b>	<b>Property Owner</b>
46	Wadland (Stratford/Craven rural)
24	Ellis (Stratford/Craven rural)
90b	Bagnall (Stratford/Craven residential)
58	Bramley (Stratford/Craven rural)

- (d) Subclause (c) shall only apply whilst the Stratford Coal Mine is in operation. The provisions of subclauses (a), (b), and (e) – (n) shall continue to apply to the properties listed in Table 6 after cessation of operations at the Stratford Coal Mine.
- (e) In the event that a landowner or occupier of a non-mine owned property considers that noise from the project once operational is in excess of:
- the noise levels depicted in Tables 4 or 5 above; or
  - the noise levels depicted in Table 5 over more than 25% of his/her vacant land,
- and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
- i) consult with the landowner or occupant affected to determine his/her concerns;
  - ii) make arrangements for, and bear the costs of, appropriate independent noise investigations in accordance with the noise management plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and:
    - during Stage 1, the cumulative contribution of Stratford Coal Mine and Bowens Road North Coal Mine to the effect; or
    - during Stage 2, the contribution of Bowens Road North Coal Mine to the effect.
  - iii) take steps in accordance with a noise reduction plan prepared as part of the noise management plan, if exceedences are demonstrated to result from:
    - the cumulative contribution of Stratford Coal Mine and Bowens Road North Coal Mine during Stage 1; or
    - the contribution of Bowens Road North Coal Mine during Stage 2.
- This shall include:
- 1) introduction of additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria in Table 4 above are achieved, as far as possible; or

- 2) with the agreement of the landowner, and in the case of cumulative impacts the other relevant mining operations, undertaking of noise control at the dwelling to achieve acceptable internal noise levels due to Bowens Road North Coal Mine alone or due to all mining activities, as relevant; or
  - 3) entering into an agreement with the landowner, and in the case of cumulative impacts the other relevant mining operations in the area and the landowner, to provide such other forms of benefit or amelioration of the impacts of noise as may be agreed between the parties, as providing acceptable compensation for the noise levels experienced;
- iv) conducting follow up investigation(s) to the satisfaction of the Director-General, where necessary.

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

- (f) If the independent noise investigation(s) in sub-clause (e) above confirms that noise criteria in Table 5 are being exceeded by:
- the cumulative contribution of Stratford Coal Mine and Bowens Road North Coal Mine during Stage 1; or
  - the contribution of Bowens Road North Coal Mine during Stage 2, and the measures in condition 6.4.1(e)(iii) do not reduce the noise levels below the criteria in Table 5, 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 11.1.
- (g) If continued complaints and noise investigations confirm that noise criteria in Table 4 are being exceeded, but are less than the noise levels in Table 5, the Applicant shall continue to negotiate with the landowner, and other mines in the vicinity where relevant, until a resolution to the satisfaction of the Director-General is reached.
- (h) If a landowner disputes any noise mitigation or other measures proposed by the Applicant in accordance with sub-clause (e) above, the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with GSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.
- (i) Further independent investigations shall cease if the Director-General is satisfied that the relevant criteria in Tables 4 and 5 are not being exceeded and are unlikely to be exceeded in the future.
- (j) The Applicant shall, after commencement of mine construction and operations, and thereafter quarterly unless otherwise directed by the Director-General, undertake monitoring of affected residences to verify noise predictions, including management and acquisition zones. Any alterations to predictions, management and acquisition zones, shall be provided to the affected resident(s) and to the CCC together with necessary action in accordance with this Condition.

- (k) <sup>35</sup> EPA Applicable Noise Limits for EPA licence purposes (refer to Schedule C)
- (l) <sup>36</sup>For the purpose of noise measurement for subclause (k) above, noise from the premises must be measured 30 metres from the residence (rural situations), where the boundary is more than 30 metres from the residence, to determine compliance with this condition over a period of 15 minutes using “FAST” response on the sound level meter.
- (m) <sup>37</sup>The  $L_{Aeq(15 \text{ minute})}$  noise emission limits identified in subclause (k) above, apply for winds up to three (3) metres per second and/or Pasquill Stability Classes of A,B,C,D,E, and F.
- (n) The Applicant shall implement appropriate mitigation measures to ensure noise impacts of operations (e.g. maintenance works) within the Bowens Road North Project area, carried on between 10.00pm and 7.00am, do not exceed 35dBA at receivers, under meteorological conditions of winds up to three (3) metres per second and/or Pasquill Stability Classes of A,B,C,D,E, and F.

#### 6.4.2 Noise Mitigation Measures

- (a) <sup>38</sup>Prior to carrying out any mining operations on the Ellis Property (with the exception of the winning of material for the construction of earth barriers), the Applicant shall establish the earth barriers depicted in Figure 1 in Appendix 3.
- (b) <sup>39</sup>Additional earth barriers may be required by the EPA should unacceptable noise impacts occur on sensitive receptors.

#### 6.4.3 Noise Management Plan

- (a) The Applicant shall, prior to commencement of mining construction or operations, prepare and implement a Noise Management Plan (incorporating construction and operational noise), or revise and update the existing plan to address the issues associated with the modification application MOD 21-4-2002, to the satisfaction of the Director-General. The EPA and GSC should also be consulted prior to the finalisation of the Management Plan. The Plan shall:
- i) include details of the methods to be used for the continuous monitoring of noise to evaluate, assess and report the  $L_{Aeq}$  (15 minute) and  $L_{Aeq}$  (period) noise emission levels due to the normal operations of the Bowens Road North Coal Mine;
  - ii) provide details regarding operating configuration; determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;
  - iii) detail management measures where the target criteria in Table 4 of this consent are predicted to be exceeded, or are exceeded during mining operations. These measures should include but not be limited to:
    - noise monitoring on site and within the community, notwithstanding the requirements for noise compliance reports for Stages 1 and 2 of the Bowens Road

<sup>35</sup> EPA General Terms of Approval

<sup>36</sup> EPA General Terms of Approval

<sup>37</sup> EPA General Terms of Approval

<sup>38</sup> EPA General Terms of Approval

<sup>39</sup> EPA General Terms of Approval



- North project. The selection of representative monitoring locations within the community must be carried out in consultation with the Director-General;
- prompt response to any community issues of concern;
  - refinement of on site noise mitigation measures and mine operating procedures where practical;
  - discussions with relevant property holders to assess concerns;
  - consideration of acoustical mitigation at receivers; and
  - consideration of negotiated agreements with property owners.
- iv) specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations;
  - v) outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;
  - vi) establish a protocol for handling noise complaints that include recording, reporting and acting on complaints, particularly where complaints are received and it is demonstrated noise levels are in excess of the criteria contained in this consent;
  - vii) record appropriate mechanisms for community consultation;
  - viii) outline proactive/predictive and reactive mitigation measures to be employed on the site to limit noise emissions;
  - ix) identify longer term strategies directed towards mitigating noise levels that exceed the noise target levels in Table 4;
  - x) outline measures to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);
  - xi) 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;
  - xii) include details of the inter-relationship of this plan with the Noise Management Plan for Stratford Coal Mine; and
  - xiii) outline of the proposed changes to the operation of the mine and methods to address the issues associated with the modification application MOD-21-4-2002.
- (b) The Applicant shall also:
- i) make copies of the Noise Management Plan available to the EPA, GSC and CCC within fourteen days of approval, or as otherwise agreed to be the Director-General; and
  - ii) include a summary of noise monitoring results in the AEMR.

#### 6.4.4 Noise Monitoring

- (a) <sup>40</sup>The level of noise emitted from the premises must be monitored for 72 hours every three (3) months at locations agreed to in consultation with the EPA. The monitoring must determine  $L_{Aeq,15 \text{ min}}$ ,  $L_{A10,15 \text{ min}}$ ,  $L_{A90,15 \text{ min}}$  and  $L_{A1,1 \text{ min}}$  levels and include an assessment of the impact of operational noise on adjoining residents.

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<sup>40</sup> EPA General Terms of Approval

## **6.4.5 Mobile Equipment**

Deleted

## **6.4.7 Noise Compliance**

(a) <sup>41</sup>A noise compliance assessment must be submitted to the EPA within three (3) months of the commencement of the Bowens Road North Open Cut Coal mine and a further noise compliance assessment report shall be submitted to the EPA after the commencement of Stage 2 of Bowens Road Open Cut Coal mine.

## **6.5 *Lighting Emissions***

- (a) The Applicant shall screen or direct all on-site lighting away from residences and roadways to the satisfaction of GSC.
- (b) The Applicant shall, prior to commencement of construction, prepare a Lighting Management Plan to the satisfaction of the Director-General, outlining details of the proposed process and measures to address complaints that may be received from residents or road users impacted by lighting from the mine site and details of measures to minimise light emissions.
- (c) The Applicant shall report on the effectiveness of the lighting emission controls in the AEMR.

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<sup>41</sup> EPA General Terms of Approval

## **7. Transport and Utilities**

### ***7.1 Road Transport***

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

### ***7.2 Road Construction***

- (a) <sup>42</sup>Design plans and environmental management plans for the realignment of Wenhams Cox Road are to be submitted to GSC for approval by the Director of Technical Services. Plans are to be prepared in accordance with GSC's "Standard Conditions for Engineering Works".
- (b) Construction and management of the intersection of Bowens Road and the Bowens Road North Mine / Stratford Coal Mine haul road are to be to the satisfaction of Gloucester Shire Council.
- (c) <sup>43</sup>All costs relating to road opening, dedications and closures are to be met by the Applicant.

### ***7.3 Road Work Schedule***

The Applicant shall notify GSC and residents using the road of the schedule of roadworks and disruptions to road usage, at least 24 hours prior to the scheduled roadworks or disruption to road usage.

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<sup>42</sup> Gloucester Council General Terms of Approval

<sup>43</sup> Gloucester Council General Terms of Approval

#### **7.4 Provision of Utility Services**

In preparing the Mining Operations Plan (refer to Condition 2.1), the Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of services (such as transmission lines, pipelines, optic cables etc).

#### **7.5 Rail**

<sup>44</sup>The applicant shall ensure that no loading and rail movements associated with coal destined for domestic markets shall occur between the hours of 10.00pm and 7.00am, unless determined unavoidable by Rail Access Corporation, National Rail and/or Freight Corp. In the event of any complaints received due to any rail movements for domestic coal from the mine during these hours, the applicant shall furnish the Director-General with a report which provides details of the consultation measures the applicant has taken with Rail Access Corporation, National Rail and/or Freight Corp to avoid loading and rail movements during these hours of 10.00pm to 7.00am.

#### **7.6 Air Strip**

Management measures to ensure adequate air safety and reasonable access for the rural air strip to the east of the Bowens Road North Coal Mine are to be detailed in the MOP.

#### **7.7 Access**

All existing access arrangements from Wenhams Cox Road shall be retained.

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<sup>44</sup> EPA General Terms of Approval

## **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 requirements 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 GSC within two weeks of approval of the relevant government authority.
- (b) All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall be included in the relevant environmental management plan. Only accredited laboratories shall be used for laboratory analysis.

### **8.1 Third Party Monitoring / Auditing**

#### Independent Environmental Auditing

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

### **8.2 Meteorological**

- (a) Meteorological monitoring shall be undertaken by the Applicant utilising the existing meteorological station installed for the Stratford Coal Mine. The monitoring results from this station shall be incorporated in the AEMR.

- (b) Meteorological monitoring shall be undertaken in accordance with subclause (a) above, for the life of the Bowens Road North Coal Mine.

## **9. Reporting**

### **9.1 Reports on Operations**

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

### **9.2 Annual Environmental Management Report (AEMR)**

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

### 9.3 Recording and Reporting Requirements

#### Monitoring Records

- (a) <sup>45</sup>The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the *Protection of the Environment Operations Act 1997*, in relation to the development or in order to comply with any load calculation protocol must be recorded and retained as set out in subclauses (b) and (c).
- (b) <sup>46</sup>All records required to be kept by the licence must be:
- (i) in a legible form, or in a form that can readily be reduced to a legible form;
  - (ii) kept for at least 4 years after the monitoring or event to which they relate took place; and
  - (iii) produced in a legible form to any authorised officer of the EPA who asks to see them.
- (c) <sup>47</sup>The following records must be kept in respect of any samples required to be collected:
- (i) the date(s) on which the sample was taken;
  - (ii) the time(s) at which the sample was collected;
  - (iii) the point at which the sample was taken; and
  - (iv) the name of the person who collected the sample.
- (d) <sup>48</sup>The Applicant must provide an annual return to the EPA in relation to the development as required by any licence under the *Protection of the Environment Operations Act 1997* in relation to the development. In the return the Applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return. This may form part of the AEMR.

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<sup>45</sup> EPA General Terms of Approval

<sup>46</sup> EPA General Terms of Approval

<sup>47</sup> EPA General Terms of Approval

<sup>48</sup> EPA General Terms of Approval



## 10. Community Consultation/Obligations

### 10.1 Community Consultative Committee

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

## ***10.2 Complaint Handling Procedures***

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

## 11. Proponents Obligations

### 11.1 Area of Affection – Land Acquisition

**Note:** In Condition 11.1 (a)-(g) "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.

- (a) The Applicant shall negotiate and purchase a property, as identified by Conditions 6.1 (d), or 6.4.1 (c and e), within six (6) months of a written request from the affected land owner. The owner of any dwelling, or vacant land (as described in Condition 6.1 (d) and 6.4.1(e)), located in areas that exceed noise and/or air quality criteria established in accordance with conditions 6.1 (a) and 6.4.1 (b) of this consent, and at any time after the granting of development consent, may request the Applicant in writing to purchase the whole of that property.
- (b) In respect of a request to purchase land arising under this condition, the Applicant shall pay the owner the acquisition price which shall take into account and provide payment for:
- (i) a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by the Bowens Road North Project the subject of this DA, having regard to:
    - 1) the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
    - 2) the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date.The sum outlined above does not include the value associated with the businesses operating on that land (eg. annual turnover/profit or goodwill) but is limited to physical structures and improvements only.
  - (ii) the owner's reasonable compensation for disturbance allowance and relocation costs within the Gloucester or Great Lakes Local Government Area, or within such other location as may be determined by the Director-General in exceptional circumstances; and
  - (iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.

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

- (c) In the event that the Applicant and any owner referred to in this condition cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then:
- (i) either party may refer the matter to the Director-General, who shall request the President of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners, a fair and reasonable acquisition price for the land as described in sub-clause (b) and/or terms upon which it is to be acquired;

- (ii) in the event of a dispute regarding outstanding matters that cannot be resolved, the independent valuer shall refer the matter to the Director-General, recommending the appointment of a qualified panel. The Director-General, if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of:
  - 1) the appointed independent valuer,
  - 2) the Director-General or nominee, and
  - 3) the President of the Law Society of NSW or nominee.

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

- (d) The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in sub clauses (b) and (c).
- (e) Upon receipt of a determination pursuant to sub-clauses (b) and (c), the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the property shall cease, unless otherwise agreed by the Director-General.
- (f) In the event that the Applicant and the land owner agree that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.
- (g) The provisions of this condition do not apply to a land owner who is the holder of an authority under the Mining Act, 1992.

### ***11.2 Contributions to Council***

The applicant shall pay contributions to Council in the amount of:

- (a) \$18,000 as a developer contribution, payable prior to the commencement of construction; and
- (b) \$16,250 per annum as a community infrastructure contribution, payable quarterly and indexed to CPI Sydney (all groups) Index.

### ***11.3 Mining Act***

Deleted

## 12. Further Approvals and Agreements

### 12.1 Statutory Requirements

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

(b) Structural Adequacy

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

(c) Verification of Construction

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

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

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

**SCHEDULE A continued**  
**Notes for Independent Dispute Resolution Process**

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

## SCHEDULE C

The following noise limits apply to this development:

### Applicable noise limits

Land Holder	Daytime $L_{Aeq, 15min}$ (7.00am to 7.00pm)		Evening $L_{Aeq, 15min}$ (7.00pm to 10.00pm)	
	Stage 1: Cumulative Bowens Road North/Stratford dB(A)	Stage 2: Bowens Road North dB(A)	Stage 1: Cumulative Bowens Road North/Stratford dB(A)	Stage 2: Bowens Road North dB(A)
McIntosh	39	37	39	37
Atkins	38	38	35	35
Tiedeman	38	35	35	35
Campbell	37	35	37	35
Thompson	36	35	36	35
Williams	35	35	35	35
Bowen	35	35	35	35
Clarke	35	35	35	35
Bignell	35	35	35	35
Morgan	35	35	35	35
Isaac (South)	41	37	41	36
Isaac (North)	40	36	40	36
Craven Village	40	37	40	36
Grono/D Blanch	40	38	40	37
Blanch	40	38	40	38
Standen/Mulliett	39	36	39	36
Stratford Village	38	36	36	36
Van Der Drift	38	36	38	36
Battaglini	38	36	38	36
Lowrey	36	36	36	36
All other Craven Village residential properties	40	37	40	36
All other Stratford Village residential properties	38	36	36	36
All other Stratford/Craven rural properties	35	35	35	35

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

**Appendix 1**  
**Land proposed to be developed**

Name	Land
CIM Resources Limited in 7/10 Share CIM Stratford Pty Ltd in 2/10 Share ICA Coal Pty Ltd in 1/10 Share	Part of Lot 1 DP 198031
CIM Resources Limited in 7/10 Share CIM Stratford Pty Ltd in 2/10 Share ICA Coal Pty Ltd in 1/10 Share	Part of Lot 1 DP 718347
CIM Resources Limited in 7/10 Share CIM Stratford Pty Ltd in 2/10 Share ICA Coal Pty Ltd in 1/10 Share	Part of Lot 80 DP 979859
Removed from Appendix 1 – 1 October 2002. Reinstated to Appendix 1 – 20 June 2005 SG Ellis & Sons Pty Ltd Stratford 2422	Part of Lot 78 DP 979859
CIM Resources Limited in 7/10 Share CIM Stratford Pty Ltd in 2/10 Share ICA Coal Pty Ltd in 1/10 Share	Lot 52 DP 979859
CIM Resources Limited in 7/10 Share CIM Stratford Pty Ltd in 2/10 Share ICA Coal Pty Ltd in 1/10 Share	Lot 1 DP 194827
CIM Resources Limited in 7/10 Share CIM Stratford Pty Ltd in 2/10 Share ICA Coal Pty Ltd in 1/10 Share	Lot B DP 116316
Mr D K L'Estrange Mtgee. Commonwealth Bank of Australia	Lot 771 DP 826955
Removed from Appendix 1 – 1 October 2002. Reinstated to Appendix 1 – 20 June 2005 S G Ellis & Sons Pty Ltd Stratford 2422 EASEMENT DP 826955 Powerlines	Part of Lot 772 DP 826955



## APPENDIX 2

Figure showing “Proposed North east Extension”

### APPENDIX 3

Figure showing location of noise bunds – “Bowens Road North Pit extension shown as proposed area of disturbance”.