Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

As delegate for the Minister for Planning and Infrastructure, I approve the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

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

Richard Pearson
Deputy Director-General
Development Assessment and Systems Performance

Sydney 23rd January 2012

SCHEDULE 1

Application Number:	10_0161
Proponent:	LakeCoal Pty Limited
Approval Authority:	Minister for Planning and Infrastructure
Land:	See Appendix 1
Project:	Chain Valley Colliery Domains 1 & 2 Continuation Project

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DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mine plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within the predicted and/or designated ranges and in compliance with the conditions of this approval
Annual Review	The review required by Condition 4 of Schedule 5
Approval	This Project Approval
Approved Mine Plan	The mine plan depicted in Figure 1 in Appendix 2
Benthic communities	Aquatic flora and fauna assemblages that live on or in the bottom of the lake
BCA	Building Code of Australia
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; and any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in Schedules 2 to 5 inclusive
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Infrastructure
Director-General	Director-General of the Department, or delegate
DPI	Department of Primary Industries
DPI (Fisheries)	Fisheries Division of the Department of Primary Industries
DRE	Division of Resources and Energy in the Department of Trade and Investment, Regional Infrastructure and Services
EA	Environmental Assessment titled '*Environmental Assessment – Chain Valley Colliery Domains 1 and 2 Continuation Project*' dated July 2010 and associated response to submissions titled '*Submissions Report – Chain Valley Colliery Domains 1 and 2 Continuation Project',* dated 14 November 2011
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPL	Environment Protection Licence issued under the POEO Act
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; adverse water quality impacts; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding.
Evening	The period from 6pm to 10pm
Executive Director Mineral Resources	Executive Director Mineral Resources within DRE, or the equivalent role
Existing strategies, plans or programs	Any strategy, plan or program described in the EA as existing.
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
First workings	Development of the main headings and gateroads in the underground mining area
Heritage Item	An item as defined under the *Heritage Act 1977* and/or an Aboriginal object or Aboriginal place as defined under the *National Parks and Wildlife Act 1974*
High Water Mark Subsidence Barrier	The area of land defined: a) on the surface by the highwater level of Lake Macquarie and a point 2.44 metres in elevation above that highwater level; and b) in the seam, where it is intersected by lines: • drawn landwards from all points 2.44 metres elevation above the highwater level of Lake Macquarie; and • drawn lakewards from the highwater level of Lake Macquarie, at an angle of 35 degrees from the vertical.
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
INP	NSW Industrial Noise Policy
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this approval where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
LMCC	Lake Macquarie City Council
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mining area	The areas shown as Full Extraction Boundary and Parcel A – First Workings

	shown on Figure 1 of Appendix 2
Mining operations	Includes all extraction, processing, handling, storage and transportation of coal carried out on the site
Minister	Minister for Planning and Infrastructure, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the project prior to or during those impacts occurring
MSB	Mine Subsidence Board
NCC	Newcastle City Council
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NOW	NSW Office of Water, within the Department of Primary Industries
OEH	Office of Environment and Heritage, which includes the Environment Protection Authority, within the Department of Premier and Cabinet
POEO Act	*Protection of the Environment Operations Act 1997*
Privately-owned land	Land that is not owned by a public agency, Vales Point Power Station or a mining company (or its subsidiary)
Project	The project described in the EA
Proponent	LakeCoal Pty Limited, or any other person or persons who rely on this approval to carry out the development that is subject to this approval
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable costs	The costs agreed between the Department and the Proponent for obtaining independent experts to review the adequacy of any aspects of an extraction plan
Rehabilitation	The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment.
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the projects or controlling the environmental consequences of this impact
ROM coal	Run-of-mine coal
RMS	Roads and Maritime Services
Safe, serviceable and repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
Site	The land listed in Appendix 1
Second workings	Extraction of coal by miniwall or pillar extraction methods
SMP	Subsidence Management Plan
Statement of Commitments	The Proponent's commitments in Appendix 5
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
Surface facilities sites	The Chain Valley Colliery surface facilities site; the Summerland Point ventilation shaft site; and any other site subject to existing or proposed surface disturbance associated with the project
WSC	Wyong Shire Council

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent shall carry out the project generally in accordance with the:
   (a) EA;
   (b) Statement of Commitments; and
   (c) conditions of this approval.

   Notes:
   - *The general layout of the project is shown in Appendix 2; and*
   - *The Statement of Commitments is reproduced in Appendix 5.*

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

4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
   (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; and
   (b) the implementation of any actions or measures contained in these documents.

LIMITS ON APPROVAL

Mining Operations

5. The Proponent may carry out mining operations on the site until 31 December 2016.

   Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Director-General and the Executive Director Mineral Resources. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

Coal Extraction and Transport

6. The Proponent shall not extract more than 1.2 million tonnes of coal from the site in any calendar year.

7. The Proponent shall ensure that laden coal trucks only leave the Chain Valley Colliery surface facilities site between 5:30 am and 5:30 pm, Monday to Friday, and not at all on Saturdays, Sundays or public holidays.

8. The Proponent shall ensure that only private roads are used for the transport of coal to Vales Point Power Station by truck, unless otherwise approved by the Director-General for limited periods, should these private roads be unavailable to transport coal.

Hours of Operation

9. The Proponent may undertake mining operations 24 hours a day, 7 days a week.

STRUCTURAL ADEQUACY

10. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

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

DEMOLITION

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

OPERATION OF PLANT AND EQUIPMENT

12. The Proponent shall ensure that all the plant and equipment used at the site, or to transport coal from the site, is:
    (a) maintained in a proper and efficient condition; and
    (b) operated in a proper and efficient manner.

CONTINUATION OF EXISTING MANAGEMENT PLANS

13. The Proponent shall continue to implement existing strategies, plans or programs that apply to existing activities on the site until they are replaced by an equivalent strategy, plan or program approved under this approval.

COMMUNITY TRUST

14. The Proponent shall pay WSC $0.035 for each tonne of ROM coal produced by the project for the purpose of improving public infrastructure and the provision of community projects for the communities of Summerland Point, Gwandalan, Chain Valley Bay and Mannering Park. These payments shall be:
    (a) held in a fund administered by a trust comprising representatives of the local communities, WSC and the Proponent in accordance with a set of guidelines to be established by the trustees;
    (b) made by the end of February 2013, and at yearly intervals thereafter;
    (c) calculated on the ROM coal produced in the previous calendar year; and
    (d) subject to indexation in line with the Consumer Price Index, as published by the Australian Bureau of Statistics.

15. Any dispute about the membership of the trust or the guidelines established by the trustees and/or their application is to be settled by the Director-General, following consultation with the WSC. Any decision by the Director-General shall be final and not subject to further dispute resolution under this approval.

SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS

SUBSIDENCE

1. The Proponent shall ensure that vertical subsidence within the High Water Mark Subsidence Barrier and vertical subsidence of seagrass beds is limited to a maximum of 20 millimetres (mm).

Environmental Performance Measures

2. The Proponent shall ensure that the project does not cause any exceedance of the performance measures in Table 1, to the satisfaction of the Director-General.

Table 1: Environmental Subsidence Impact Performance Measures

Biodiversity	
Threatened species, populations or their habitats and endangered ecological communities	Negligible impact or environmental consequences.
Seagrass beds	Negligible environmental consequences including: • *negligible* change in the size and distribution of seagrass beds; • *negligible* change in the functioning of seagrass beds; and • *negligible* change to the composition or distribution of seagrass species within seagrass beds.
Benthic communities	Minor environmental consequences, including minor changes to species composition and/or distribution.

Notes: 1) The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the Extraction Plan required under this approval (see condition 6 below).
2) Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Director-General will be the final arbiter.
3) The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this approval.

Offsets

3. If the Proponent exceeds the performance measures in Table 1 and the Director-General determines that:
   (a) it is not reasonable or feasible to remediate the impact or environmental consequence; or
   (b) remediation measures implemented by the Proponent have failed to satisfactorily remediate the impact or environmental consequence;

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

Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.

Built Features Performance Measures

4. The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 2, to the satisfaction of the Director-General.

Table 2: Built Features Subsidence Impact Performance Measures

Built Features	
Public infrastructure (including water supply pipelines; high pressure gas pipelines and the gas distribution network; electricity transmission and distribution lines; telecommunications cables and optical fibre networks; roads, trails and associated structures). Other built features (including houses, industrial premises, swimming pools and other improvements).	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired, replaced or fully compensated.
Public Safety	
Public Safety.	Negligible additional risk.

Notes: 1) The Proponent will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the Extraction Plan required under this approval (see condition 6 below).
2) Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Director-General will be the final arbiter.
3) The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this approval.
4) Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.

5. Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 2 is to be settled by the Director-General, following consultation with the MSB and the Executive Director Mineral Resources. Any decision by the Director-General shall be final and not subject to further dispute resolution under this approval.

Extraction Plan

6. The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must:
   (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
   (b) be approved by the Director-General before the Proponent carries out any of the second workings covered by the plan;
   (c) include detailed plans of existing and proposed first and second workings and any associated surface development;
   (d) include detailed performance indicators for each of the performance measures in Tables 1 and 2;
   (e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval;
   (f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 1 and 2; and manage or remediate subsidence impacts and/or environmental consequences;
   (g) include a Benthic Communities Management Plan, which has been prepared in consultation with OEH, DPI Fisheries and LMCC, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on benthic communities, and which includes:
      - surveys of the lake bed to enable contours to be produced and changes in depth following subsidence to be accurately measured;
      - benthic species surveys within the area subject to second workings, as well as control sites outside the area subject to second workings (at similar depths) to establish baseline data on species number and composition within the communities;
      - a program of ongoing seasonal monitoring of benthic species in both control and impact sites;
      - development of a model to predict likely impact of increased depth and associated subsidence impacts and effects, including but not limited to light reduction and sediment disturbance, on benthic species number and benthic communities composition, incorporating the survey data collected;
   (h) include a Seagrass Management Plan, which has been prepared in consultation with OEH, DPI Fisheries and LMCC, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on seagrass beds, and which includes:
      - a program of ongoing monitoring of seagrasses in both control and impact sites; and
      - a program to predict and manage subsidence impacts and environmental consequences to seagrass beds to ensure the performance measures in Table 1 are met;
   (i) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;
   (j) include a Built Features Management Plan, which has been prepared in consultation with DRE, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings on built features, and which:
      - addresses in appropriate detail all items of public infrastructure and other public infrastructure and all classes of other built features;
      - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s; and
      - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate for predicted impacts on potentially affected built features in a timely manner; and
      - in the case of all key and other public infrastructure, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides

for annual auditing of compliance and effectiveness during secondary extraction which may impact the infrastructure;

(k) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1 and 2, or where any such exceedance appears likely;

(l) include a subsidence monitoring program, which has been prepared in consultation with DRE, OEH, and DPI Fisheries, to:
- provide data to assist with the management of the risks associated with subsidence;
- validate the subsidence predictions;
- analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
- inform the contingency plan and adaptive management process;

(m) a Spontaneous Combustion Management Plan, prepared in consultation with DRE;

(n) propose appropriate revisions to the Rehabilitation Management Plan required under condition 40 of Schedule 4; and

(o) include a program to collect sufficient baseline data for future Extraction Plans.

Notes: 1) An SMP that is approved by DRE prior to 31 December 2011 is taken to satisfy the requirements of this condition.
2) The Benthic Communities and Seagrass Management Plans may be prepared jointly with similar plans required for any adjacent colliery.

First Workings

7. The Proponent may carry out first workings within the site, other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain stable and non-subsiding in the long-term, except insofar as they may be impacted by approved second workings.

Note: The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long term stability, with negligible resulting direct subsidence impacts.

Payment of Reasonable Costs

8. The Proponent shall pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent persons to review the adequacy of any aspect of any Extraction Plan.

NOISE

Noise Impact Assessment Criteria

9. The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 3: Noise criteria dB(A)

Location	Day	Evening	Night		
	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$	10 pm - 5 am $L_{Aeq(15\ min)}$	5 - 7 am $L_{Aeq(15\ min)}$	$L_{A1(1\ min)}$
R6	35	35	35	37	45
R8	38	38	38	40	45
R11	51	50	50	51	54
R12	49	49	49	50	53
R13	44	44	44	46	49
R14	36	36	36	37	45
R15	37	37	37	39	45
R17	36	36	36	38	45
R19	40	40	40	42	45
R20	38	38	38	40	45
R21	39	39	39	40	45
R22	40	40	40	41	45
R1-R5, R7, R9, R16, R18, R23 and privately-owned land in all other noise catchments	35	35	35	35	45

Notes:
- *To interpret the locations referred to in Table 3, see the appropriate figure in Appendix 3;*

- *Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the INP; and*
- *Criteria applicable to a particular parcel of land are those criteria for the nearest specified location in Table 3.*

However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Operating Conditions

10. The Proponent shall:
    (a) implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the construction, operational, low frequency and transport noise generated by the project;
    (b) regularly assess the noise monitoring and meteorological data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval;
    (c) minimise the noise impacts of the project during temperature inversions;
    (d) use its best endeavours to achieve the long-term noise goals in Table 4, where reasonable and feasible, and report on progress towards achieving these goals in each Annual Review;
    (e) carry out a comprehensive noise audit of the project in conjunction with each independent environmental audit; and
    (f) prepare an action plan to implement any additional reasonable and feasible onsite noise mitigation measures identified by each audit;

    to the satisfaction of the Director-General.

Table 4: Long-term Noise Goals dB(A)

Location	***Day***	***Evening***	***Night***
	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$
R8	-	37	37
R11 – R13	41	41	41
R19	-	-	41

Notes:
- *To interpret the locations referred to in Table 4, see the appropriate figure in Appendix 3; and*
- *Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the INP.*

Noise Management Plan

11. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
    (a) be submitted for approval to the Director-General within 7 months of the date of this approval;
    (b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;
    (c) outline procedures to manage responses to any complaints or issues raised by the owners of affected residences; and
    (d) include a noise monitoring program that:
        - uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and
        - includes a protocol for determining exceedances of the relevant conditions of this approval.

Construction Noise

12. Prior to the commencement of construction activities at the Summerland Point ventilation shaft site, the Proponent shall submit to the Director-General for approval a Construction Noise Management Plan prepared in accordance with OEH's *Interim Construction Noise Guideline 2009*.

AIR QUALITY & GREENHOUSE GAS

Odour

13. The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

Greenhouse Gas Emissions

14. The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site, to the satisfaction of the Director-General.

Air Quality Assessment Criteria

15. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 5, 6 or 7 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 5: Long-term criteria for particulate matter

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

Table 6: Short-term criterion for particulate matter

Pollutant	Averaging Period	[d] Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m^3

Table 7: Long-term criteria for deposited dust

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

Notes to Tables 5 - 7:

- *[a] Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);*
- *[b] Incremental impact (ie incremental increase in concentrations due to the project on its own);*
- *[c] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.*
- *[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with OEH.*

Operating Conditions

16. The Proponent shall implement best practice air quality management on site, including all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project.

Air Quality & Greenhouse Gas Management Plan

17. The Proponent shall prepare and implement an Air Quality & Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:
    (a) be prepared in consultation with OEH, and submitted for approval to the Director-General within seven months of the date of this approval;
    (b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed air quality management system;
    (c) include an air quality monitoring program, that:
    - uses a combination of volumetric sampling and dust deposition gauges to evaluate the performance of the project;
    - monitors greenhouse gas emissions, particularly methane; and
    - includes a protocol for determining exceedances with the relevant conditions of this approval;

    (d) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site, particularly methane.

METEOROLOGICAL MONITORING

18. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the Chain Valley Colliery surface facilities site that:
    (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
    (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *INP*.

TRANSPORT

Monitoring of Coal Transport

19. The Proponent shall:
    (a) keep accurate records of the amount of coal transported from the site (on a monthly basis);
    (b) make these records publicly available on its website at the end of each calendar year.

Road Transport Protocol

20. The Proponent shall prepare and implement a Road Transport Protocol, in consultation with RMS, NCC, WSC, DRE and CCC. This protocol shall:
    (a) be submitted to the Director-General for approval within seven months of the date of this approval;
    (b) describe the designated haulage routes to be used (as shown in Appendix 4); the maximum number of road movements proposed and the haulage hours permitted under this approval;
    (c) include a Traffic Management Plan, which includes:
        - procedures to ensure that drivers adhere to the designated haulage routes;
        - measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule;
        - contingency plans to apply when (for example) the designated haulage route is disrupted, including procedures for notifying relevant agencies and affected communities of the need to implement such contingency plans;
        - procedures to ensure that all haulage vehicles associated with the Colliery are clearly distinguishable as Chain Valley Colliery coal haulage trucks;
        - details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the Colliery; and
        - measures to ensure that the provisions of the Traffic Management Plan are implemented, eg driver training in the heavy vehicle driver's Code of Conduct and contractual agreements with heavy vehicle operators; and
        - procedures for ensuring compliance with and enforcement of the heavy vehicle driver's Code of Conduct; and
    (d) include a Code of Conduct for heavy vehicle drivers that addresses:
        - travelling speeds;
        - staggering of truck departures to ensure a regular trucking schedule throughout the day;
        - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles;
        - instruction to drivers to adhere to the designated haulage routes;
        - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations; and
        - appropriate penalties for infringements of the Code.

Independent Traffic Audit

21. Within six months of the date of this project approval, and every six months thereafter, unless the Director-General directs otherwise, the Proponent shall commission a suitably qualified person, whose appointment has been approved by the Director-General, to conduct an Independent Traffic Audit of the coal haulage operations. This audit must:
    - be undertaken without prior notice to the Proponent, and in consultation with the RMS, NCC, WSC and CCC;
    - review haulage records;
    - assess the impact of the project on the performance of the road network;
    - investigate the accident records on the haulage route, and any incidents involving haulage vehicles from the project;
    - assess the effectiveness of the Driver's Code of Conduct; and, if necessary,
    - recommend measures to reduce or mitigate any adverse (or potentially adverse) impacts.

    Note: After three such audits, the Director-General may consider a request to reduce audit frequency to every 12 months.

22. Within two months of commissioning the audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, with a response to any of the recommendations contained in the audit report.

Ruttleys Road and Construction Road Intersection

23. The Proponent shall upgrade the Ruttleys Road and Construction Road intersection within 12 months of this project approval, unless the Director-General directs otherwise, by:
    (a) installing additional signage on and adjacent to Construction Road prior to the intersection;
    (b) repairing the surface of Construction Road and ensuring the edge seal of the left turn lane is of sufficient width to accommodate coal trucks;
    (c) installing or replacing "Stop" signs in accordance with Austroads guidelines;

(d) repainting road line markings and raised pavements associated with this intersection;
(e) removing silt from drains adjacent to the intersection and removing gravel and any other debris from the sealed surface of the intersection; and
(f) installing barriers to prevent trucks parking on the gravel area adjacent to the intersection and the electricity substation located in the vicinity of this intersection.

The design and construction of these works must be undertaken in consultation with, and to the relevant satisfaction of, WSC, RMS and Vales Point Power Station.

Maintenance of Ruttleys Road and Scenic Drive

24. Throughout the life of the project, the Proponent shall contribute an amount to fund the maintenance of local roads proportionate to the wear and tear of those roads caused by traffic generated by the colliery's operations and in accordance with road maintenance agreement(s) to be negotiated between the Proponent and WSC. The local roads to be covered by agreement(s) are:
(a) Ruttleys Road from the Pacific Highway intersection to Construction Road; and
(b) Scenic Drive from the Pacific Highway intersection to Coal Plant Road (if coal is proposed to be trucked from the colliery to the Munmorah Power Station).

Each agreement is to take into consideration a Dilapidation Report, prepared at the Proponent's cost, covering the relevant section of road and must include a method for determining reduced pavement life on the road section that is attributable to traffic generated by the colliery's operations.

The road maintenance agreement for Ruttleys Road must be finalised within seven months of the date of this approval. The Dilapidation Report for Scenic Drive must be completed prior to recommencing coal haulage to Munmorah Power Station. The road maintenance agreement for Scenic Drive must be finalised within six months of any recommencement of coal haulage to Munmorah Power Station.

25. Any dispute about the terms of this agreement is to be settled by the Director-General, following consultation with the WSC and the Proponent. Any decision by the Director-General shall be final and not subject to further dispute resolution under this approval.

Coal Transport Options Report

26. Prior to 31 December 2012, and every two years thereafter, the Proponent shall prepare and submit to the Director-General for approval, a study of reasonable and feasible options to reduce or eliminate the use of public roads to transport coal from the project.

SOIL AND WATER

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Proponent is required to obtain all necessary water licences for the project.

Surface Water Discharges

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

Water Management Plan

28. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
(a) be prepared in consultation, NOW, DRE and WSC by suitably qualified and experienced persons whose appointment has been approved by the Director-General;
(b) be submitted for approval to the Director-General within seven months of the date of this approval; and
(c) include:
- a Site Water Balance;
- an Erosion and Sediment Control Plan;
- a Surface Water Management Plan;
- a Groundwater Monitoring Program; and
- a Surface and Ground Water Response Plan.

29. The Site Water Balance must:
(a) include details of:
- sources and security of water supply;
- water use on site;
- water management on site;
- any off-site water transfers;
- groundwater transfers from the underground operations to the surface; and

(b) investigate and implement all reasonable and feasible measures to minimise potable water use from the town water supply and to reuse and recycle water.

30. The Erosion and Sediment Control Plan must:
   (a) be consistent with the requirements of the *Managing Urban Stormwater – Soils and Construction, Volume 2E: Mines and Quarries* (DECC 2008), or its latest version);
   (b) identify activities that could cause soil erosion and generate sediment particularly in relation to activities near waterways;
   (c) describe the location, function, and capacity of erosion and sediment control structures;
   (d) describe what measures would be implemented to maintain the structures over time; and
   (e) describe the sediment and erosion control measures to be implemented for all activities undertaken at the site.

31. The Surface Water Management Plan must:
   (a) include detailed baseline data on surface water flows and quality of the unnamed creek which receives the water from the licenced discharge point identified in the site's EPL;
   (b) detail surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts;
   (c) provide a program to monitor:
      - surface water discharges;
      - surface water flows and quality;
      - stream health and channel stability of the unnamed creek; and
      - water quality of Lake Macquarie; and
   (d) identify and assess practical measures to minimise potable water consumption, maximise recycled water use and improve the management of sewage and surface rainfall runoff for the project, including quantifying the abatement potential of identified measures and their related costs and benefits.

32. The Groundwater Monitoring Program must include:
   (a) detailed baseline data of all groundwater levels (including any alluvial and weathered rock aquifers), yield and quality in the region, and any privately-owned groundwater bores that may be affected by mining operations on site;
   (b) groundwater assessment criteria based upon analysis of baseline data for groundwater, surface water and ecology, including trigger levels for investigating any potentially adverse groundwater impacts; and
   (c) a program to monitor and/or validate the impacts of the project on any alluvial and coal seam aquifers, groundwater bores and groundwater dependent ecosystems.

33. The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:
   (a) respond to any exceedances of the surface water, stream health, and groundwater assessment criteria;
   (b) mitigate and/or offset any adverse impacts on any groundwater dependent ecosystems and riparian or lakeshore vegetation located within and adjacent to the site.

BIODIVERSITY

Biodiversity Management Plan

34. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must:
   (a) be submitted to the Director-General within 7 months of the date of this approval;
   (b) be prepared by a suitably qualified ecologist approved by the Director-General;
   (c) include a detailed description of measures that would be implemented over the life of the project to protect and conserve biodiversity, including the procedures to be implemented for:
      - weed management (both control and suppression) and monitoring;
      - management of retained native vegetation and habitat;
      - feral animal control;
      - fire management (including asset protection zones);
      - management of public access; and
      - ecological monitoring of the:
         - o receiving waters of the minewater discharge from the licenced discharge point identified in the site's EPL;
         - o *Swamp Sclerophyll Floodplain Forest* Endangered Ecological Community located downstream of the licenced discharge point identified in the site's EPL; and
         - o remnant woody vegetation around the ventilation facilities at Summerland Point.

HERITAGE

Heritage Management Plan

35. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This Plan must:
    (a) be prepared in consultation with any relevant Aboriginal stakeholders;
    (b) be submitted for approval to the Director-General within seven months of the date of this approval;
    (c) include consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site;
    (d) detail the responsibilities of all stakeholders; and
    (e) include programs/procedures and management measures for:
    - the ongoing monitoring of site 45-7-0189 at Summerland Point;
    - dealing with previously unidentified Aboriginal objects (excluding human remains), including any need to halt works in the vicinity, assessment of significance, determination of appropriate mitigation measures (by a qualified archaeologist in consultation with Aboriginal stakeholders), re-commencement of works, notifying OEH, and registering the new site(s) in the OEH AHIMS register;
    - dealing with any human remains which may be discovered, including halting of works in the vicinity; notifying NSW Police, OEH, the Department and Aboriginal stakeholders; and not re-commencing any works in the vicinity unless authorised;
    - heritage induction for construction personnel (including procedures for keeping records of inductions);
    - ongoing Aboriginal consultation and involvement (including procedures for keeping records of this);
    - appropriate identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site; and
    - dealing with previously unidentified non-Aboriginal heritage items which may be discovered during the project.

VISUAL

Visual Amenity and Lighting

36. The Proponent shall:
    (a) minimise visual impacts, and particularly the off-site lighting impacts, of the Chain Valley Colliery surface facilities site;
    (b) take all reasonable and feasible measures to further mitigate off-site lighting impacts from the project; and
    (c) ensure that all external lighting associated on site complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting,*

    to the satisfaction of the Director-General.

WASTE

37. The Proponent shall:
    (a) minimise the waste generated by the project; and
    (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of,

    to the satisfaction of the Director-General.

BUSHFIRE MANAGEMENT

38. The Proponent shall:
    (a) ensure that the project is suitably equipped to respond to any fires on site; and
    (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.

REHABILITATION

Rehabilitation Objectives

39. The Proponent shall rehabilitate the surface facilities sites to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA, and comply with the objectives in Table 8.

Table 8: Rehabilitation Objectives

Feature	***Objective***
Surface facilities sites.	Safe, stable & non-polluting. Final land use compatible with surrounding land uses.
Project surface infrastructure.	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise.
Community.	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure.

Notes: 1) These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of this approval; and to all project surface infrastructure part of the project, whether constructed prior to or following the date of this approval.
2) Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of this approval may be subject to the requirements of other approvals (eg under a mining lease or an Subsidence Management Plan approval) or the Proponent's commitments.

Progressive Rehabilitation

40. The Proponent shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.

Rehabilitation Management Plan

41. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director Mineral Resources. This plan must:
    (a) be prepared in consultation with the Department, DPI Fisheries, WSC and the CCC;
    (b) be prepared in accordance with any relevant DRE guideline and be consistent with the rehabilitation objectives in the EA and Table 8;
    (c) provide for detailed mine closure planning, including measures to minimise socio-economic effects due to mine closure, to be conducted prior to the site being closed or placed on care and maintenance;
    (d) build, to the maximum extent practicable, on the other management plans required under this approval; and
    (e) be submitted to the Executive Director Mineral Resources for approval within 12 months of the date of this approval.

SCHEDULE 4
ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing:
   (a) an exceedance of any relevant criteria in Schedule 3, the Proponent shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and
   (b) an exceedance of any relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

   If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Proponent shall:
   (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:
   - consult with the landowner to determine his/her concerns;
   - conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and
   - if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and

   (b) give the Director-General and landowner a copy of the independent review.

3. If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

   If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:
   (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or
   (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria,

   to the satisfaction of the Director-General.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

Management Plan Requirements

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

   Note: The Director-General may waive some of these requirements if they are unnecessary for particular management plans.

Adaptive Management

3. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

   Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:
   (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;

(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
(c) implement remediation measures as directed by the Director-General,

to the satisfaction of the Director-General.

Annual Review

4. By the end of 2012, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
   (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next year;
   (b) include a comprehensive review of the monitoring results and complaints records of the project over the past calendar year, which includes a comparison of these results against the:
      - the relevant statutory requirements, limits or performance measures/criteria;
      - requirements of any plan or program required under this approval;
      - the monitoring results of previous years; and
      - the relevant predictions in the EA;
   (c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;
   (d) identify any trends in the monitoring data over the life of the project;
   (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
   (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

Revision of Strategies, Plans and Programs

5. Within 3 months of:
   (a) the submission of an annual review under Condition 4 above;
   (b) the submission of an incident report under Condition 7 below;
   (c) the submission of an audit under Condition 9 below; and
   (d) any modification to the conditions of this approval (unless the conditions require otherwise),

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

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

Community Consultative Committee

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

   Notes:
   - *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and*
   - *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

7. The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incidents associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within 12 months of this approval and every three years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
   (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
   (b) include consultation with the relevant agencies;
   (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals); and
   (d) recommend appropriate measures or actions to improve the environmental performance and rehabilitation of the project while on care and maintenance or following mine closure.

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

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

ACCESS TO INFORMATION

11. From the end of August 2012, the Proponent shall:
   (a) make copies of the following publicly available on its website:
      - the documents referred to in condition 2 of Schedule 2;
      - all relevant statutory approvals for the project;
      - all approved strategies, plans and programs required under the conditions of this approval;
      - a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any approved plans or programs required under the conditions of this or any other approval;
      - a complaints register, which is to be updated on a monthly basis;
      - minutes of CCC meetings;
      - the annual reviews required under this approval;
      - any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit;
      - any other matter required by the Director-General; and
   (b) keep this information up-to-date,

   to the satisfaction of the Director-General.

APPENDIX 1
SCHEDULE OF LAND

Notes:

1. **All proposed mining activity for the Project (Domains 1 and 2) is to occur under Lake Macquarie.**
2. **The surface facilities for the Colliery are limited to "pit top facilities area" adjacent to Vales Point Power Station, and the "ventilation shaft and fan site" at Summerland Point.**
3. **Refer to Figure 2.1 of the Environmental Assessment for the Project Boundary.**

Project Related Surface Facilities				
Pit Top Facilities Area			**Ventilation Shaft and Fan**	
Lot	**Deposited Plan**		**Lot**	**Deposited Plan**
A	379918		1	226133
B	379918			
C	349733			
A	187570			
1B	339441			

All other areas within Project Boundary				
Lot	**Deposited Plan**		**Lot**	**Deposited Plan**
7339	1167067		19	25593
7330	1148105		20	25593
593	727722		21	25593
594	727722		22	25593
D	349733		23	25593
1	410653		24	25593
23	708344		25	25593
21	708344		26	25593
20	708344		27	25593
19	708344		58	31306
18	708344		59	31306
17	708344		60	31306
34	714879		61	31306
33	714879		62	31306
32	714879		63	31306
31	714879		64	31306
2	1043151		65	31306
426	755266		66	31306
427	755266		67	31306
136	755266		68	31306
2	515214		69	31306
1	515214		70	31306
1	214300		71	31306
2	214300		72	31306
167	755266		73	31306
1	388154		74	31306
144	661695		75	31306

All other areas within Project Boundary (continued)			
Lot	**Deposited Plan**	**Lot**	**Deposited Plan**
76	31306	188	31306
77	31306	189	31306
78	31306	190	31306
79	31306	191	31306
139	31306	192	31306
140	31306	193	31306
141	31306	194	31306
142	31306	195	31306
143	31306	238	31306
144	31306	239	31306
145	31306	240	31306
146	31306	241	31306
147	31306	242	31306
148	31306	243	31306
149	31306	244	31306
150	31306	245	31306
151	31306	246	31306
152	31306	247	31306
153	31306	248	31306
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155	31306	250	31306
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157	31306	252	31306
158	31306	253	31306
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160	31306	255	31306
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162	31306	257	31306
163	31306	258	31306
169	31306	259	31306
170	31306	37	31322
171	31306	38	31322
172	31306	39	31322
173	31306	40	31322
174	31306	41	31322
175	31306	42	31322
176	31306	43	31322
177	31306	44	31322
178	31306	45	31322
179	31306	46	31322
180	31306	47	31322
181	31306	48	31322
182	31306	78	31322
183	31306		
184	31306		
185	31306		
186	31306		
187	31306		

APPENDIX 2
PROJECT LAYOUT PLANS

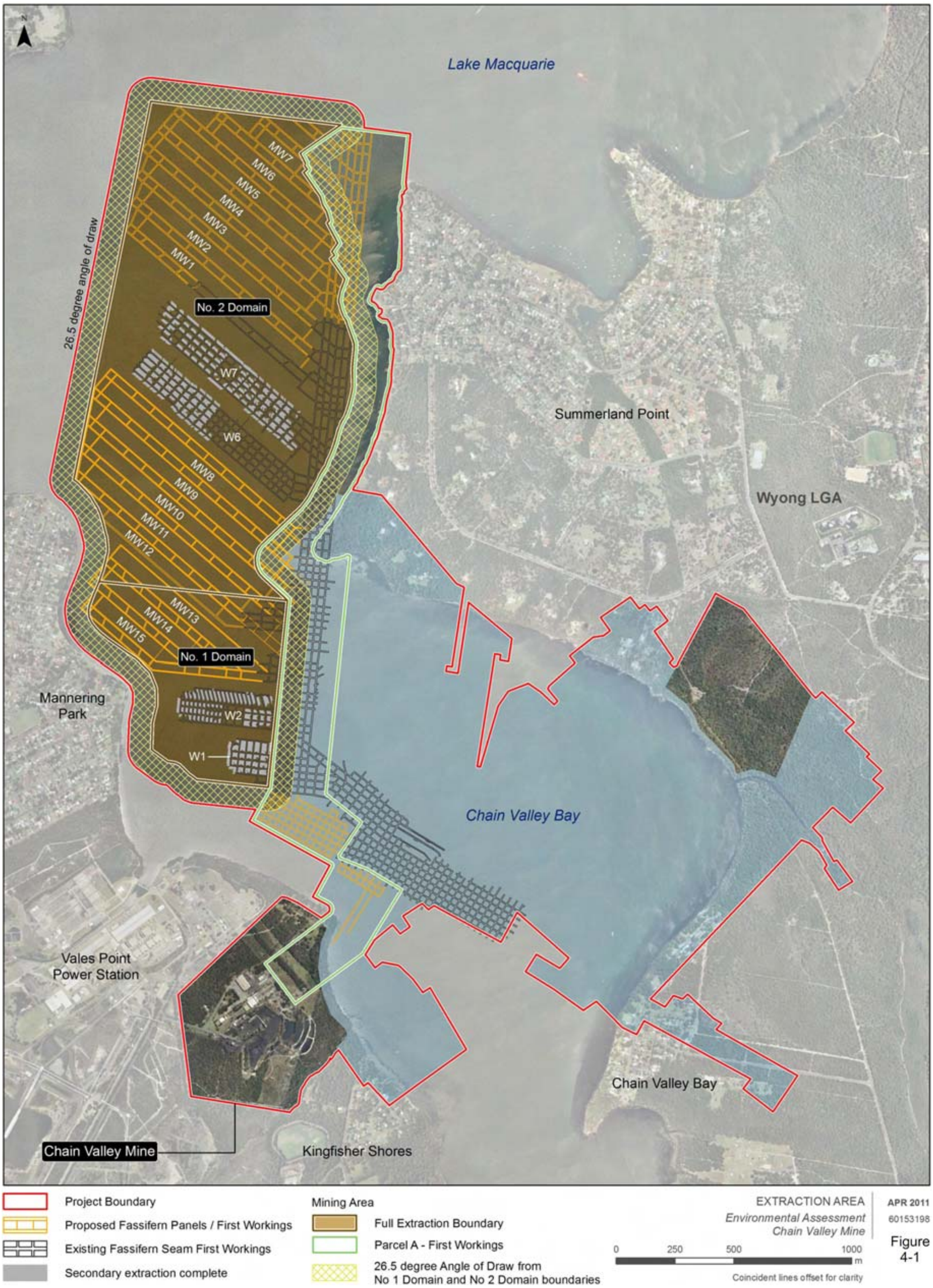
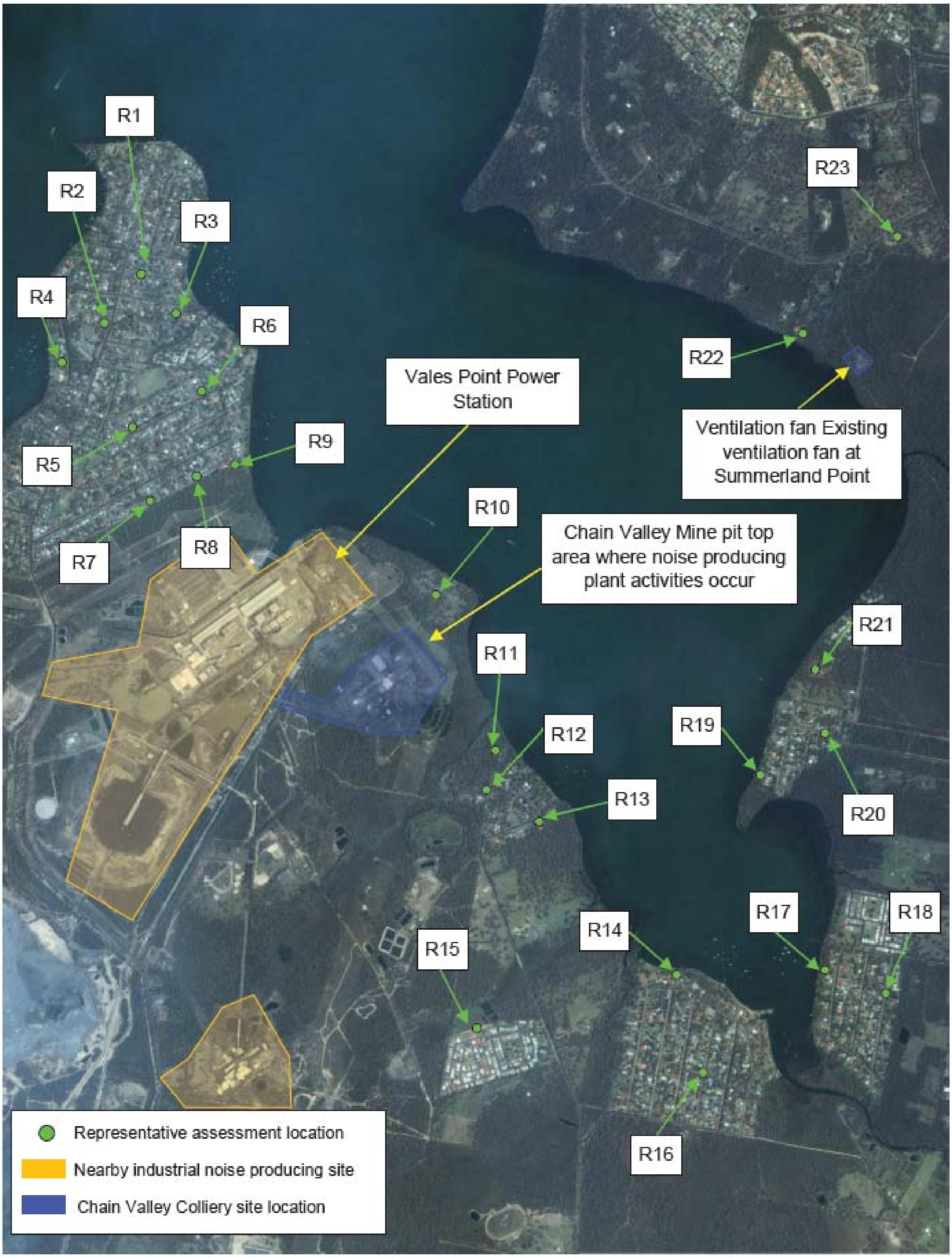


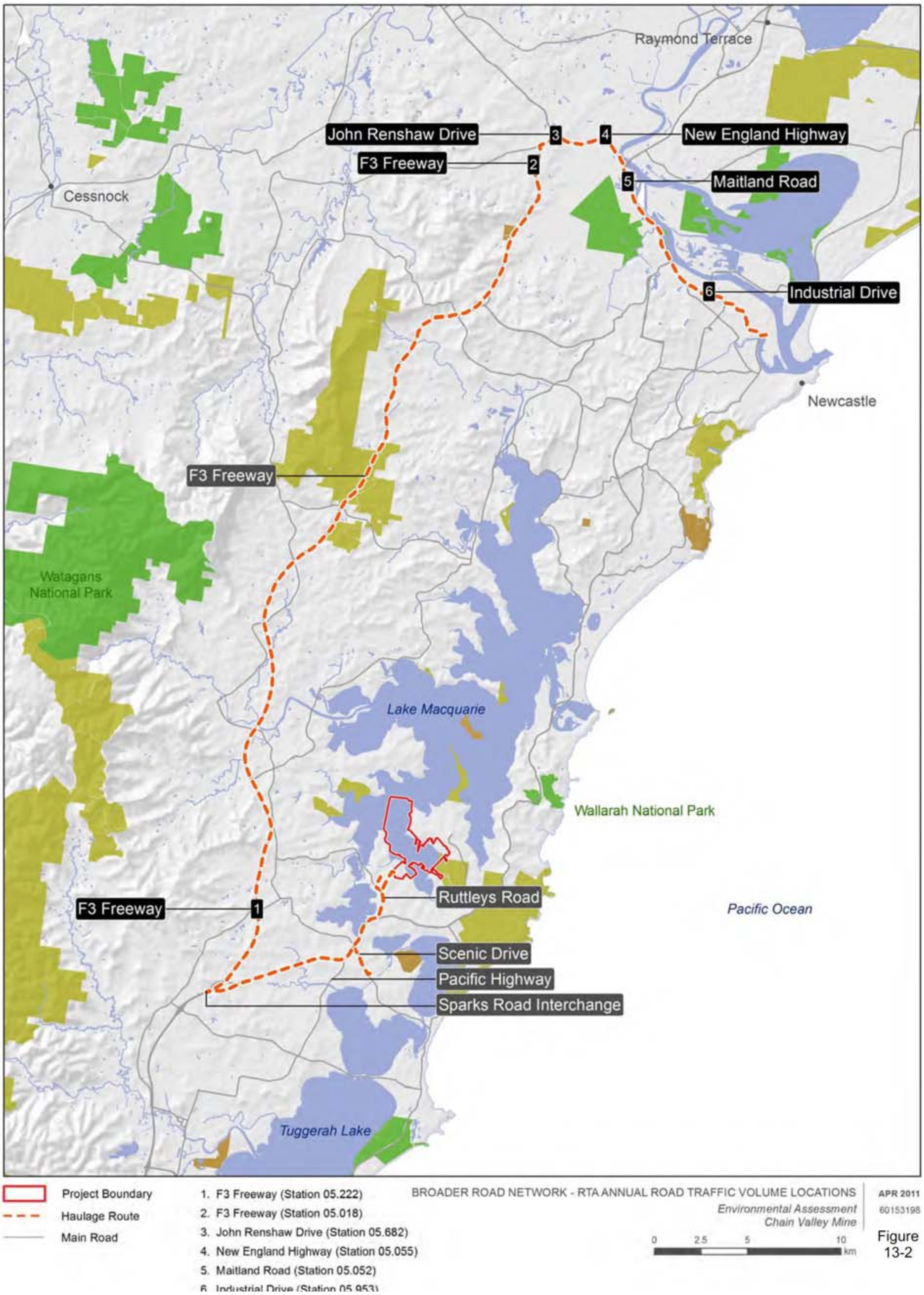
Figure 1: Project Application Boundary and Proposed Mining Layout

Figure 2: Pit Top Area and Infrastructure

APPENDIX 3
NOISE RECEIVER LOCATIONS



APPENDIX 4
COAL ROAD HAULAGE ROUTES



APPENDIX 5
STATEMENT OF COMMITMENTS

Timing	Commitment
Subsidence	
Project design	The Project would be designed to take into account areas which may be sensitive to subsidence, including the lake foreshore, low lying land to the 2.44 metre contour and seagrass communities.
Project design	The Project would be designed such that no secondary extraction would be undertaken within a 26.5 degree angle of draw to the seaward extent of the Seagrass communities and the 35 degree angle of draw to the high water mark of the lake.
During mining operations	Only first workings would be undertaken within Parcel A.
During mining operations	LakeCoal acknowledges that the Chain Valley Colliery site is located within the Swansea / North Entrance Mine Subsidence District and as such, any new surface improvements or alterations to existing improvements would require the approval of the Mine Subsidence Board.
During mining operations	Subsidence issues associated with the changes to the mine layout from the current Subsidence Management Plan (SMP) approvals would be addressed via an SMP variation application to the Division of Resources & Energy. Following receipt of Project approval, a detailed Extraction Plan and/or Subsidence Management Plan (as required by the relevant Authorities at the time, would be prepared which would build on the approved Subsidence Management Plans for No 1 Domain and No 2 Domain. The Plan(s) would address the matters specified in the approval and any relevant guidelines including: - Further outlining and clarifying the subsidence barriers and environmental safeguards developed to prevent subsidence adversely impacting on the environment. - Nomination of a conservative proven mine design specifically focussed on controlling the levels of subsidence in nominated areas of the surface above mining. - Programs to monitor subsidence impacts.
Ecology	
Within 6 months of Project Approval	The existing Seagrass Management Plan would be reviewed in consultation with DTIRIS (Fisheries) and Lake Macquarie City Council and updated as warranted. The review shall: - address the need for additional baseline data analysis and conduct Tests of statistical significance; - address the continuation of data collection in order to determine natural variation in seagrass distribution and abundance; and - provide clear definitions of seagrass impact threshold criteria. - *If identified through the monitoring program, subsidence is found to occur in areas known to contain seagrass beds (as identified in Figure 10) and loss of seagrass habitat has been determined to have occurred as a result of this subsidence, then LakeCoal would commit to undertaking remediation strategies to replace an equal area of any loss of seagrass habitat that has occurred.* - *Remediation and or mitigation strategies would be included in the updated Seagrass Management Plan (SGMP), in consultation with and requiring the approval of DTIRIS. Where remediation on-site is not viable, mitigation would be undertaken at other sites within Lake Macquarie in consultation with DTIRIS (Fisheries) and LMCC.*
Within 6 months of Project Approval	LakeCoal will commence monitoring of the health of Swamp Sclerophyll Floodplain Forest EEC that receives mine discharge water downstream of the sedimentation and pollution control ponds. Any harm to EEC vegetation due to mine water discharge would be offset in accordance with OEH policy.
During construction of the ventilation fan	Weeds on the site would be managed in the following manner: - Dense infestations of Lantana are to be removed or controlled prior to the

Timing	Commitment
augmentation	commencement of vegetation clearing works. - earthworking equipment and vehicles would be cleaned of excess soil by brushing and/or hosing at the commencement and completion of construction works in order to minimise the likelihood of the spread of weed seeds and plant pathogens; - sediment fences and sediment traps would be put in place for the duration of the construction works until disturbed areas have been stabilised by rehabilitation works, to prevent sediments that contain weed seeds, weed propogules and plant pathogens leaving the site; - disturbed areas would be kept to a minimum and be revegetated as soon as practically possible. This is to reduce the opportunities for weeds to colonise disturbed areas and also to minimise the potential for erosion and sediment transport; - any soil and vegetation removed from the site would be covered during transport and only taken to approved disposal sites, to minimise the risks of spreading weeds and plant pathogens beyond the area of disturbance; and - seasonal monitoring and weed control would be undertaken as necessary following the completion of works to minimise the spread of weeds into nearby remnant vegetation.
During construction of the ventilation fan augmentation	The following measures would be applied to minimise potential impacts to native fauna associated with removal of native vegetation as part of the proposed works: - A qualified and suitably experienced fauna spotter is to be present during tree-felling to check for wildlife and to capture or relocate animals if necessary. - Immediately prior to clearing, canopy trees would be visually inspected for the presence of fauna by a suitably qualified ecologist; - If fauna species are detected in a tree scheduled for clearing, the tree is to be nudged prior to felling to encourage the fauna to vacate the tree prior to felling. - If threatened fauna are located in trees scheduled to be cleared, clearing is be halted until the fauna has been relocated. - Felled trees are to be left in-situ for at least 24 hours to allow the escape of fauna that may be hidden in hollows, under bark, etc. - If any wildlife is inadvertently injured during the proposed works, WIRES or an accredited veterinarian would be contacted.
Surface Water and Soils	
Project design	Rainwater tanks would be installed at the operations block and workshop area for use at the Chain Valley Mine.
Prior to construction of the ventilation fan	A detailed Construction Soil and Water Management Plan would be developed in accordance with *Managing Urban Stormwater – Soils and Construction* (Landcom, 2004).
Prior to construction of the ventilation fan	Sediment traps would be installed downslope of areas of exposed soils external to the catchments identified in Figure 10-2 of the EA during construction works to protect downstream water quality.
During construction of the ventilation fan	Disturbance of acid sulfate soils (ASS) would be avoided wherever practicable. Where ASS has the potential to be disturbed, an ASS Management Plan would be prepared. Any ASS disturbed would be tested and handled in accordance with the ASS Management Plan and would be treated or disposed of to an appropriately-licensed facility.
During mining operations	An internal audit of water management practices would be undertaken with the aim of improving overall water efficiency and to reduce total potable water consumption. The scope of the audit would include: - review of water consumption by individual facilities, equipment and appliances;

Timing	Commitment
	- consideration of measures to improve water efficiency through behavioural change, revised operational procedures or equipment modification/upgrades; - investigation of alternative water supplies; and - consideration of on-site opportunities for water recycling and reuse.
During mining operations	Improvements would be made with regard to the stormwater quality and runoff from the impervious surfaces of the car park and site entry. Any such improvements would be determined as part of the site water audit to be undertaken following Project Approval.
During mining operations	A revised Water Management Plan would be submitted for endorsement to the NSW Office of Water, Lake Macquarie City Council and Wyong Shire Council, and for approval to the Director General. The site Water Management Plan shall include: - Details of site water balance, including source(s) of water from which supply shall be obtained, and entitlements under which any supply of water from a water source governed under the *Water Sharing Plan for the Central Coast Unregulated Water Sources 2009* is obtained. - Demonstration of maximising the beneficial reuse of water intercepted and obtained from the underground mining operation, and any surface capture of water runoff from the internal catchment circuitry. - Demonstration that any harvesting of clean catchment runoff for beneficial use for the Colliery is obtained in compliance with the NSW Harvestable Rights Order, established under S.54 of the *Water Management Act 2000.* - A groundwater monitoring plan, which provides justification to any monitoring arrangement within unconsolidated or porous rock aquifers in consultation with the NSW Office of Water. This shall include locations, target strata and/or aquifers, parameters, frequency and reporting of data and interpretation of results in consultation with the NSW Office of Water. - A surface and ground response strategy, which defines and explains trigger levels, response actions and any mitigation and/or rehabilitation measures which shall be undertaken for the project. - Incorporate principles from the Landcom “Blue Book” for any improvements made to site as a result of recommendation from the site water audit. - Detail the current wastewater treatment train, pollutant removal and disposal, water infiltration, discharge point and rates, existing basin capacity and the ongoing maintenance program. - Minimising the erosion of soil from disturbed areas by: • Limiting the area of disturbance and period of exposure. • Implementation of site management procedures such as watering of disturbed areas and unsecured stockpiles. • Installation of sediment traps around areas of exposed soils to protect downstream water quality. - Relevant licences and management plans are in place for the correct storage and handling of all hydrocarbons at the Chain Valley Mine. - Suitable bunding has been installed around all liquid storage areas and would be maintained for the life of the Project. - Oil separator filtration traps are used for regular servicing of the diesel fleet machinery. - All waste sump oil is removed from site and disposed of by a licensed external waste collection company.
During mining operations	Recommendations of the site water audit would determine the nature of any works which may relate to an upgrade of existing water infrastructure. Where necessary, a comprehensive report would be prepared prior to the commencement of works, by an experienced and qualified person, including water quality modelling (for example MUSIC) and engineering plans. LakeCoal would obtain all appropriate licences and approvals to undertake such works and update the site’s Water Management Plan accordingly.

Timing	Commitment
During mining operations	Sufficient water supply would be ensured for all stages of mine development. Should insufficient water supply be available, the Project shall be scaled back to match its water supply.
Within one year of Project Approval	LakeCoal is committed to securing and complying with all necessary environmental and planning approvals. Within one year of Project Approval, LakeCoal would supply the NSW Office of Water with records to demonstrate compliance with any statutory authority regulated under either the *Water Act 1912* or *Water Management Act 2000*, which would include reference to all licences obtained under either statute, volumes authorised under licence and registration of any dealings undertaken in accordance with the NSW Access Dealings Principles Order 2004 and rules of the *Water Sharing Plan for the Central Coast Unregulated Water Sources 2009.*
Annually, commencing upon Project Approval	Annual reporting of water balance, monitoring results and any response actions defined in the site Water Management Plan, shall be provided to the NSW Office of Water.
During mining operations	Investigations of alternate water supply options to the Wyong Water Supply Authority would be undertaken, to account for, and if necessary reduce existing and increased water supply from the Authority.
During mining operations	Hydrocarbons would continue to be stored on site in accordance with existing licences and management plans.
During mining operations	Existing bunding would be maintained around liquid storage areas.
During mining operations	Oil separator filtration traps would continue to be used during regular servicing of the diesel fleet machinery.
During mining operations	Existing monitoring of ponds would continue, to assist in the identification of the need for erosion-related maintenance.
During mining operations	Water that is likely to be contaminated with suspended solids, oil and grease, such as the oil storage facilities, diesel tank storage, workshop maintenance areas and wash bay, would continue to be directed to, and treated by, an oily water separator.
During mining operations	Water that is potentially contaminated with suspended solids, for example, from unsealed areas, would continue to be directed to the existing ponds.
During mining operations	Further investigation of sedimentation of surface water would be undertaken and appropriate treatment/management implemented, based upon findings of the surface water audit.
During mining operations	Surface water quality would continue to be monitored in accordance with EPL 1770 for the site.
During mining operations	Existing surface water quality monitoring would be supplemented with the following: - incorporation of upstream and downstream sampling points, in addition to those required by EPL 1770, to enable background conditions and the contribution of surface water contaminants from Chain Valley Mine to be assessed; - analysis for a wider range of analytes than those required under EPL 1770, including oil and grease; - the development or maintenance on-site of written protocols for: • collection and analysis of surface water samples; and • review and evaluation of surface water analytical results to confirm that adverse impacts for the discharge of water from the site is identified, addressed and reported in a timely manner; - development of site specific criteria following the collection of two years of surface water quality data with appropriate limits of detection.
During mining operations	A surface water reticulation irrigation line with dust suppression sprinklers would be utilised to suppress dust during coal processing.
During mining operations	The existing sprinklers installed around the access roads to the final product bin and in the product coal stockpile areas would be upgraded to minimise the generation of dust.
During mining operations	Existing dust minimisation measures would continue including use of a road sweeper to water internal roads and education of truck drivers to cover loads.

Timing	Commitment
Groundwater	
Currently in progress	LakeCoal has submitted a Groundwater Licence application to NOW, seeking approval to pump a mix of potable and groundwater from the underground workings sump to the sedimentation and pollution control ponds at the pit top.
Traffic and Transport	
During mining operations	Coal transport to Newcastle Port for export would be along Ruttleys Road, then south along the Pacific Highway and the Doyalson Link Road to the F3 Freeway Interchange at Sparks Road. The route would then follow the F3 Freeway to its northern end, then easterly on John Renshaw Drive and the New England Highway and then south to the Newcastle Port via the Pacific Highway (Maitland Road), Industrial Highway and Elizabeth Street.
During mining operations	Records would be kept of all haulage vehicles leaving and entering the Chain Valley Mine including details of departure and arrival times and haulage routes used.
During mining operations	Haulage would only be undertaken on weekdays. No haulage would occur on public holidays.
Within 6 months of Project Approval	The existing Traffic Management Plan would be revised /updated and implemented, and would include: - procedures to ensure that drivers adhere to the designated haulage routes as required under these safeguards; - measures to achieve a low-frequency, regular trucking schedule rather than a high-frequency, campaign trucking schedule. Consideration would be given to arrangements with the Port of Newcastle to receive long-lead time ship nominations and to store coal at the facility where there is discontinuance in the lease holder's ship nominations; - contingency plans where, for example the designated transport routes are disrupted or arrangements with the Port of Newcastle to maintain even scheduling of truck movements are not available. This would also address procedures for notifying relevant agencies of the required implementation of any such contingency plans; - details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with haulage from the Project; - measures to ensure that the provisions of the Traffic Management Plan are implemented, for example education of drivers and any contractual agreements with operators of heavy vehicles which service the Project.
Within 6 months of Project Approval	The Driver Code of Conduct would be amended /updated and implemented, and would address: - address travelling speeds; - include instructions to drivers not to overtake each other on the haulage routes, as far as practicable, and to maintain appropriate distances between vehicles; - include instruction to drivers to adhere to the designated haulage routes; - include instruction to drivers to be especially safety conscious and to ensure that traffic regulations are obeyed strictly; - address driver training in the Code to ensure that all drivers are made aware and to do; and - include procedures for ensuring compliance with and enforcement of the Code.
During mining operations	An independent traffic consultant would be engaged to conduct a traffic audit of the Project six months after obtaining Project Approval. The audit would include: - haulage contractor records and any available receival records; - provision of estimates of average daily truck movements on these haulage routes, including identification of haulage trucks travelling to and from the

Timing	Commitment
	Chain Valley Mine; - hours of haulage for trucks leaving and returning to the site; and - advice on compliance with the Driver's Code of Conduct.
During mining operations	An annual compliance review would be undertaken with outcomes being presented in the AEMR. The review would address: - annual tonnage of coal hauled from the site; - number of truck movements and routes taken from the site on an average daily, maximum daily, maximum hourly and per annum basis; - a review of compliance with these safeguards; - a record of complaints received and the manner in which complaints were addressed; and - disruptions to services or haulage, or any projected disruption to this scheduling.
During construction of the ventilation fan	A separate Construction Traffic Management Plan would be put in place to manage the traffic generated during the relocation of the ventilation fan to the pit top area should this option be chosen, and would address: - Implementing appropriate signage to warn road users of the presence of construction vehicles, as well as any changes to normal traffic conditions; - Scheduling heavy vehicle movements in off-peak hours when traffic volumes are typically at a minimum; - Restricting heavy vehicle movements to designated haulage routes to minimise any impacts to residents and the local road network; - Ensuring heavy vehicles meet the Australian Road Rules and RTA standards so that road safety is not compromised; and - Transporting oversized equipment and machinery in accordance with the RTA guidelines for oversized movements.
During mining operations	LakeCoal would address each of the key improvement areas identified from the Road Safety Audit in the EA through the updated Chain Valley Coal Road Transport Protocol. This would include consultation with Wyong Shire Council and Delta Electricity or consultation with the RTA and/or Newcastle City Council as appropriate.
During mining operations	LakeCoal commits to continued discussions with Council with a view to formulating an agreement regarding the ongoing maintenance of the section of Ruttleys Road administered by Council travelled by heavy vehicles hauling coal.
During mining operations	Subject to the agreement of the landowner, LakeCoal agree to install barriers to prevent trucks entering the unpaved area from Construction Road into the electricity substation for the purpose of parking or potentially bypassing the formal intersection of Construction and Ruttleys Roads.
Noise and Vibration	
During construction of the ventilation fan	A Construction Noise Management Plan would be prepared prior to commencing construction activities associated with the augmentation of the ventilation fan at Summerland Point. The construction noise management plan would: - link construction methodologies with those assessed in the Noise Impact Assessment presenting a reasonable and a feasible approach to construction noise management; - identify the extent of the residential area affected and assess the impact on residents; and - detail a 24 hour contact phone number for residents to call regarding complaints or queries.
Within 6 months of Project Approval	A noise monitoring program would be prepared to assist in confirming and/or identifying the site specific potential for disturbance at nearby residential receiver locations. The noise monitoring program would identify areas where operational methods or sequences or alternate plant could be used to reduce noise emissions from the site.
Air Quality	

Timing	Commitment
During mining operations	Bulldozer operations would be scheduled to avoid periods of high winds, where reasonable and feasible to do so.
During mining operations	The pit top area would be maintained in such a manner as to minimise areas affected by coal dust, and consideration would be given to providing additional watering to the stockpile and trafficable areas if dust generation is excessive.
During mining operations	Monitoring would be undertaken with both the existing and augmented fan arrays and the results presented to the Director-General.
During mining operations	The mine's continuous gas monitoring system is currently being updated to include new real time and tube bundle monitoring systems which would enable more comprehensive analysis of CO^2e emissions.
Within 6 months of Project Approval	An Air Quality Management Plan would be developed and implemented to detail dust mitigation measures, and to reflect a proactive dust monitoring and mitigation approach for the Project.
Heritage	
During mining operations	Monitoring of site 45-7-0189 should occur following Project approval at the end of year 1, year 3, and year 5. Monitoring should include a visual inspection of the site by an archaeologist and Aboriginal stakeholders. Given that negligible subsidence is expected above Parcel A, in order to measure any changes in land-surface, monitoring should include the following: - establishment of fixed datum point; - stakes with horizontal markings placed on either extent of the site to enable accurate recording of landscape shifts; - a control reference point outside proposed subsidence area such as a building; - photograph records from the fixed datum point to enable photographic comparison. Photos should be large format with clear distinguishable features; and - production of a letter report to be retained by LakeCoal and sighted as requested by Aboriginal stakeholders.
During mining operations	In the event that any unexpected historic heritage or archaeology is uncovered during the works, all works in the vicinity will stop and a heritage consultant will be contacted to assess the finds. Depending on the results of the assessment further mitigation measures may be required to protect or record this heritage before works recommence. If unexpected 'relics' are located, the Heritage Council will be notified in accordance with S146 of the Heritage Act.
Community, Infrastructure and Service Contributions	
During mining operations	Two cents from each tonne of coal produced at the Chain Valley Mine would be contributed to a fund to be administered by Council for the provision of public infrastructure and services for the communities of Summerland Point, Gwandalan, Chain Valley and Mannering Park.
During mining operations	One and half cents from each tonne of coal produced would be contributed towards a dedicated Chain Valley Community Fund
Waste Management	
During mining operations	Waste generated during the life of the Project would continue to be managed in accordance with current DECCW guidelines using the existing waste management practices at the Mine.
Environmental Management	
Within 6 months of Project Approval	An Operational Environmental Management Plan would be prepared and implemented to provide a framework for effective environmental management of the Project and incorporating relevant plans, standards and procedures required. The Operational Environmental Management Plan would guide conformance with environmental management requirements for the Project and would include risk analysis, monitoring programmes, responsibility allocations and inspection

Timing	Commitment
	checklists. The following sub-plans would be incorporated into the framework of the Operational Environmental Management Plan and prepared taking into account the existing environmental controls, the effectiveness of management under the existing MOP and the requirements of the approval: - Soils and Water Management Plan; - Water Efficiency Management Plan; - Seagrass Management Plan; - Air Quality Management Plan; - Traffic Management Plan; - Extraction Plan; - Waste Management Standard; and - Spill Containment Standard.
During mining operations	Additional data requested by the Department of Resources and Energy (DRE) would be included in the required Annual Environmental Management Report (AEMR). The proponent would amend the Mining Operation Plan, to include the proposed project, and throughout the life of the Project, to the satisfaction of the DRE.
During mining operations	Rehabilitation and environmental management reporting would be captured in the existing Mining Operation Plan and Annual Environmental Management Report to the satisfaction of the Division of Resources and Energy's Director of Environmental Sustainability.
Two years prior to the completion of mining (conditional)	Should a further Project Approval not be sought and/or obtained prior to December 2013, that is, in excess of two years prior to the completion of mining sought under this Project Application, LakeCoal would prepare a Mine Closure and Rehabilitation plan for approval by the relevant authorities. The Mine Closure and Rehabilitation Plan would be prepared in accordance with the relevant guidelines at the time and build upon the content and commitments in the approved MOP.