

Development Consent

Section 89E of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, the Planning Assessment Commission of NSW approves the development 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 development.



Robyn Kruk AM
Member of the Commission



Gordon Kirkby
Member of the Commission



Andrew Stoeckel
Member of the Commission

Sydney

29 May 2015

SCHEDULE 1

Application Number:	SSD-4966
Applicant:	Stratford Coal Pty Ltd
Consent Authority:	Minister for Planning
Land:	See Appendix 1
Development:	Stratford Extension Project

TABLE OF CONTENTS

DEFINITIONS	3
ADMINISTRATIVE CONDITIONS	5
Obligation to Minimise Harm to the Environment	5
Terms of Consent	5
Limits on Consent	5
Surrender of Existing Development Consents	5
Structural Adequacy	6
Demolition	6
Protection of Public Infrastructure	6
Operation of Plant and Equipment	6
Staged Submission of Strategies, Plans or Programs	6
Community Enhancement	6
Gloucester Gas Project	7
ENVIRONMENTAL PERFORMANCE CONDITIONS	8
Acquisition Upon Request	8
Additional Mitigation Upon Request	8
Noise	8
Blasting	11
Air Quality	13
Meteorological Monitoring	15
Soil & Water	15
Biodiversity	18
Heritage	20
Transport	21
Visual	22
Bushfire Management	22
Waste	22
Rehabilitation	22
ADDITIONAL PROCEDURES	25
Notification of Landowners/Tenants	25
Independent Review	25
Land Acquisition	26
ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING	27
Environmental Management	27
Reporting	28
Independent Environmental Audit	29
Access to Information	29
APPENDIX 1: SCHEDULE OF LAND	30
APPENDIX 2: DEVELOPMENT SITE	31
APPENDIX 3: DEVELOPMENT LAYOUT	32
APPENDIX 4: MAINTENANCE AND RESEALING CONTRIBUTIONS FOR THE BUCKETTS WAY	34
APPENDIX 5: LAND OWNERSHIP	35
APPENDIX 6: NOISE COMPLIANCE ASSESSMENT	38
APPENDIX 7: ABORIGINAL CULTURAL HERITAGE SITES	39
APPENDIX 8: BIODIVERSITY OFFSET AREAS	40
APPENDIX 9: STATEMENT OF COMMITMENTS	42

DEFINITIONS

Annual review	The review required by condition 4 of Schedule 5
Applicant	Stratford Coal Pty Ltd, or any other person entitled to benefit from this consent
BCA	Building Code of Australia
Blast misfire	The failure of one or more holes in a blast pattern to initiate
BOS	Biodiversity offset strategy described in the EIS, required by condition 34 of Schedule 3 of this consent and depicted conceptually in Figure 1 in Appendix 8
Bowens Road North Offset	The offset strategy described in Section 3.1 of the environmental assessment titled Bowens Road North Open Cut June 2010 Modification, and depicted generally in Figure 2 of Appendix 8
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
Conditions of this consent	Conditions contained in Schedules 2 to 5 inclusive
CPI	Australian Bureau of Statistics Consumer Price Index
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 Environment
Deputy Secretary, Resources and Energy	Deputy Secretary, Resources and Energy within the Department of Trade & Investment, Regional Infrastructure & Services, or the equivalent role
Development	The development described in the EIS
DPI	Department of Primary Industries
DRE	Division of Resources and Energy, within the Department of Trade & Investment, Regional Infrastructure & Services
EEC	Endangered ecological community, as defined under the TSC Act
EIS	Environmental Impact Statement titled <i>Stratford Extension Project Environmental Impact Statement</i> , dated November 2012, and associated response to submissions titled <i>Stratford Extension Project Environmental Impact Statement Responses to Submissions</i> , dated May 2013
EPA	Environment Protection Authority, or its successor
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
GLC	Great Lakes Council
GSC	Gloucester Shire Council
Heritage item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i>
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 consent
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 consent 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 consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine water	Water that accumulates within, or drains from, active mining areas, emplacements, stockpiles, tailings dams and infrastructure areas (synonymous with 'dirty water')
Mining operations	Includes the removal, transportation and emplacement of overburden and extraction, processing, handling and storage and transportation of coal carried out on the site
Minister	Minister for Planning and Environment, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development

Negligible	Small and unimportant, such as to be not worth considering
Negotiated agreement	An agreement involving the negotiation of a package of mitigation and/or compensatory benefits for landowners of affected land. The agreement is negotiated between the applicant and the landowner.
New mining areas	The areas shown on Figure 1 of Appendix 3 as Roseville West Pit Extension, Northern Waste Emplacement Extension, Avon North Open Cut, Stratford East Open Cut and Waste Emplacement Extension
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
OEH	Office of Environment and Heritage
PAC	Planning Assessment Commission
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or a mining or petroleum company (or its subsidiary)
Public infrastructure	Linear and related infrastructure and the like that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, costs versus benefits provided, and the nature and extent of potential improvements
Rehabilitation	The treatment or management of land disturbed by the development 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 development or controlling the environmental consequences of this impact
ROM coal	Run-of-mine coal, including coal recovered from the Western Co-disposal Area
Secretary	Secretary of the Department, or any person authorised to act on their behalf
Site	All land to which the development application applies as listed in Appendix 1 and shown in Appendix 2
TSC Act	<i>Threatened Species Conservation Act 1995</i>

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant 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 development.

TERMS OF CONSENT

2. The Applicant shall carry out the development generally in accordance with the:
 - (a) EIS;
 - (b) statement of commitments; and
 - (c) conditions of this consent.

Notes:

- The general layout of the development is shown in Appendix 3.
- The Applicant's statement of commitments is shown in Appendix 9.

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

LIMITS ON CONSENT

Mining Operations

5. The Applicant may carry out mining operations on the site until 31 December 2025.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of both the Secretary and the Deputy Secretary, Resources and Energy. Consequently, this consent 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

6. The Applicant shall not extract more than 2.6 million tonnes of ROM coal from the site in any calendar year.

Coal Processing

7. The Applicant shall not process on site more than 5.6 million tonnes of ROM coal in any calendar year.

Coal Transport

8. The Applicant shall ensure that:
 - (a) all product coal is transported from the site by rail;
 - (b) no more than an average of 2.5 laden trains leave the site each day over any calendar year;
 - (c) no more than 6 laden trains leave the site in any 24-hour period; and
 - (d) no more than 2 laden trains leave the site during any night.

Note: This condition does not apply to movements of the Duralie shuttle train.

SURRENDER OF EXISTING DEVELOPMENT CONSENTS

9. Prior to the end of December 2015, or as otherwise agreed by the Secretary, the Applicant shall surrender all existing development consents for the site in accordance with section 104A of the EP&A Act.

Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent should not be understood as implying that works legally constructed under a valid consent can no longer be legally maintained or used.

10. Prior to the surrender of existing development consents, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of these consents.

STRUCTURAL ADEQUACY

11. The Applicant 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 Applicant 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 development.

DEMOLITION

12. The Applicant 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.

PROTECTION OF PUBLIC INFRASTRUCTURE

13. Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: This condition does not apply to damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

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

STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

15. With the approval of the Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

16. Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant shall implement the existing strategies, plans or programs for the site that have been approved under existing development consents.

COMMUNITY ENHANCEMENT

17. From 31 March 2015 until mining operations under this consent cease on the site, unless the Secretary agrees otherwise, the Applicant shall pay to GSC a total of \$550 a year for each full-time equivalent employee/contractor on the site. This payment is for the provision of infrastructure and services generated by the development. It is also to be indexed in accordance with the CPI for the December quarter of the previous year (except for the initial payment).

Note: The number of full-time equivalent employees/contractors is to be calculated for the first time in March 2015, and then recalculated in March each year prior to the next payment.

18. The Applicant's obligations to make payments to GSC under condition 15 of Schedule 2 of DA 23-98/99 shall cease on 31 March 2015, unless the Secretary agrees otherwise.

GLOUCESTER GAS PROJECT

19. The Applicant shall use its best endeavours to co-operate with the proponent of the Gloucester Gas Project, with the aim of maximising the outcomes of both developments with respect to:
- resource recovery;
 - operational efficiencies;
 - biodiversity conservation; and
 - rehabilitation,
- to the satisfaction of the Secretary.

Note: See also the Applicant's Statement of Commitments (Appendix 9).

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of Schedule 4.

Table 1: Land subject to acquisition upon request

Property ID	
40/51/Cr1 – L. Blanch	42 – D. Blanch
Cr7 – Pryce-Jones	Cr 2 – Boorer

Note: To interpret the location referred to in Table 1 see the applicable figure in Appendix 5.

However, the obligation to acquire a property does not apply if the Applicant has a negotiated agreement with the owner/s of the relevant land that sets aside acquisition under the terms of this consent, and the Applicant has advised the Department in writing of the terms of this agreement.

ADDITIONAL MITIGATION UPON REQUEST

2. Upon receiving a written request from the owner of any residence on the land listed in Tables 1 and 2, the Applicant shall implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible and directed towards reducing the noise impacts of the development on the residence.

If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Table 2: Land subject to additional noise mitigation upon request

Property ID	Property ID
31(1) – Isaac	60 – Healy / Greenwood
44 – Cross / Jane	36 – Wallace
37 – Worth	29 – Ward
15(3) – Falla	

Note: To interpret the locations referred to in Table 2 see the applicable figure in Appendix 5.

However, the obligation to implement noise mitigation measures does not apply if the Applicant has a negotiated agreement with the owner/s of the relevant residence or land that sets aside noise mitigation measures under the terms of this consent, and the Applicant has advised the Department in writing of the terms of this agreement.

NOISE

Hours of Operation

3. The Applicant shall comply with the operating hours in Table 3.

Table 3: Operating hours

Activity	Operating Hours
- Open cut mining operations in the Bowens Road North and Roseville West Extension pits - Recovery and transport of CHPP rejects for re-processing - Construction of the noise mitigation bunds on the western side of the Avon North, Roseville West Extension and Stratford East pits	7 am to 6 pm, 7 days per week
- Open cut mining operations in the Avon North and Stratford East pits - Coal processing, loading and dispatch of product coal trains	24 hours a day, 7 days per

• Maintenance activities	week
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Noise Criteria

4. The Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 4 at any residence on privately-owned land.

Table 4: Noise criteria dB(A)

Land	Day <i>L_{Aeq}(15 min)</i>	Evening <i>L_{Aeq}(15 min)</i>	Night <i>L_{Aeq}(15 min)</i>	Night <i>L_{A1} (1 min)</i>
40/51/Cr1 – L. Blanch	43	43	43	50
Cr7 – Pryce-Jones	43	43	43	49
42 – D. Blanch	42	42	42	50
Cr 2 – Boorer	41	41	41	49
31(1) – Isaac	40	40	40	48
36 – Wallace	39	39	39	47
44 – Cross / Jane				
60 – Healy / Greenwood	39	39	39	45
37 – Worth	38	38	38	46
29 – Ward	38	38	37	45
23 – Bagnall	37	37	37	45
31(2) – Isaac				
296 – Watson				
297 – Bosma				
298 – Yates	36	36	36	45
15(3) – Falla	39	35	35	45
15(2) – Falla	36	35	35	45
Stratford Village	37	36	35	45
All other privately-owned residences	35	35	35	45

- To interpret the locations referred to in Table 4 see the applicable figure(s) in Appendix 5.
- Stratford village is shown on the figure(s) in Appendix 5.

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a negotiated agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Operating Conditions

5. The Applicant shall:
 - (a) implement best management practice to minimise the construction, operational, road and rail noise of the development;
 - (b) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of

- mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
 - (c) minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 6);
 - (d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142);
 - (e) co-ordinate noise management on site with the noise management of the Gloucester Gas Project to minimise cumulative noise impacts; and
 - (f) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent,
- to the satisfaction of the Secretary.

Noise Management Plan

6. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to 31 December 2015, unless otherwise agreed by the Secretary;
 - (b) describe the measures that would be implemented to ensure:
 - compliance with the noise criteria and operating conditions of this consent; and
 - the noise impacts of the project are minimised during meteorological conditions when the noise limits of this consent do not apply;
 - (c) describe the proposed noise management system in detail;
 - (d) include a monitoring program that:
 - includes monitoring of inversion strength at an appropriate sampling rate to determine compliance with noise limits;
 - provides for the biennial validation of the noise model for the project.
 - evaluates and reports on:
 - the effectiveness of the on-site noise management system;
 - compliance against the noise criteria in this consent; and
 - compliance with the noise operating conditions;
 - includes a program to calibrate and validate real-time noise monitoring results with attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria and as a trigger for further attended monitoring); and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

Night-time Noise

7. Within 2 years of the commencement of night-time mining operations, and every 2 years thereafter, the Applicant shall engage an independent acoustic expert to undertake a review of compliance with the relevant conditions of consent for night-time operations, to the satisfaction of the Secretary.

Should any review report show that night-time mining operations have been/are non-compliant, the Applicant must modify its operations and conduct another independent review within 30 days.

If this second review demonstrates compliance, the Applicant may continue its modified night-time mining operations. If not, the Applicant must immediately cease night-time mining operations.

Night-time mining operations may only restart if the Secretary is satisfied that the proposed operations would be compliant with the relevant conditions of consent.

Record of Noise Limit Exemptions

8. The Applicant shall record and make available on its website:
 - (a) when the real-time monitoring and management system detects any potential exceedance of the noise limits;
 - (b) when exemptions from noise limits due to meteorological conditions apply;
 - (c) the specific reasonable and feasible measures that were taken when either (a) or (b) apply; and
 - (d) facilitate the regular review of this information by the CCC,
 to the satisfaction of the Secretary.

BLASTING

Blasting Criteria

9. The Applicant shall ensure that blasting on site does not cause any exceedence of the criteria in Table 5.

Table 5: Blasting criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedence
Residence on privately-owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months
All public infrastructure	-	50 (or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)	0%

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

Blasting Hours

10. The Applicant shall only carry out blasting on site between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.

Blasting Frequency

11. The Applicant may carry out a maximum of:
- 1 blast per day on site; and
 - 3 blasts per week, averaged over a calendar year.

This condition does not apply to blasts required to ensure the safety of the mine or its workers.

Note: For the purposes of this condition a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.

Property Inspections

12. If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Applicant shall:
- commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to:
 - establish the baseline condition of any buildings and/or structures on the land, or update the previous property inspection report; and
 - identify any measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and
 - give the landowner a copy of the new or updated property inspection report.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.

Property Investigations

13. If any owner of privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner, the Applicant shall:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
 - (b) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damages to the satisfaction of the Secretary.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.

Operating Conditions

14. The Applicant shall:
- (a) implement best management practice to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public infrastructure and private property in the surrounding area from any damage; and
 - minimise the dust and fume emissions of any blasting;
 - (b) ensure that blasting on the site does not damage Aboriginal cultural heritage site CTS-1;
 - (c) minimise the frequency and duration of any required road closures; and
 - (d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schedule on site,
- to the satisfaction of the Secretary.
15. The Applicant shall not undertake blasting within 500 metres of:
- (a) any public road; or
 - (b) any land outside of the site not owned by the Applicant,
- unless the Applicant has:
- demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the road or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and
 - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land or road; or
 - a written agreement with the landowner or GSC (in the case of any public road) to allow blasting to be carried out closer to the land or road, and the Applicant has advised the Department in writing of the terms of this agreement.

Blast Management Plan

16. The Applicant shall prepare and implement a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA and submitted to the Secretary for approval at least 3 months prior to the commencement of mining operations in the new mining areas, unless otherwise agreed by the Secretary;
 - (b) describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;
 - (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant);
 - (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions; and
 - (e) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated

AIR QUALITY

Odour

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

Air Quality Criteria

18. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 6 at any residence on privately-owned land.

Table 6: Air quality criteria

Pollutant	Averaging Period	Criterion	
Particulate matter < 10 µm (PM ₁₀)	Annual	a,d 30 µg/m ³	
Particulate matter < 10 µm (PM ₁₀)	24 hour	b 50 µg/m ³	
Total suspended particulates (TSP)	Annual	a,d 90 µg/m ³	
^c Deposited dust	Annual	b 2 g/m ² /month	a,d 4 g/m ² /month

Notes to Table 6:

a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).

b Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).

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 or any other activity agreed by the Secretary.

e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 23 and 24 to develop and implement a real-time air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Mitigation Measures

19. If the development causes an exceedance of the air quality criteria in Table 6, the Applicant shall, upon receiving a written request for air quality mitigation measures from the landowner, undertake air quality mitigation measures directed towards reducing the potential human health and amenity impacts of the development at a residence. These measures may include (for example):
- air conditioning, including heating;
 - insulation;
 - first flush water systems;
 - installation and regular replacement of water filters;
 - cleaning of rainwater tanks;
 - clothes dryers; and
 - regular cleaning or any residence and its related amenities, such as barbeque areas and swimming pools.

If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Mine-owned Land

20. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 6 at any occupied residence on mine-owned land unless:
- the tenant and landowner (if the residence is owned by another mining or petroleum company) has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this consent;
 - the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;
 - air mitigation measures such as those listed in condition 20 are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining or petroleum company);
 - air quality monitoring is regularly undertaken to inform the tenant or landowner (where owned by another mining or petroleum company) of the actual particulate emissions at the residence; and
 - data from this monitoring is presented to the tenant or landowner in an appropriate format for a medical practitioner to assist the tenant and/or landowner (where owned by another mining or petroleum company).

petroleum company) in making informed decisions on health risks associated with occupying the property,
to the satisfaction of the Secretary.

Air Quality Acquisition Criteria

21. If particulate matter emissions generated by the development exceed the criteria, or contribute to an exceedance of the cumulative criteria, in Table 7 at any residence on privately-owned land, or on more than 25% of any privately owned land where there is an existing dwelling or where a dwelling could be built under existing planning controls, then upon receiving a written request for acquisition from the landowner the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of Schedule 4.

Table 7: Air quality land acquisition criteria

Pollutant	Averaging Period	Criterion	
Particulate matter < 10 µm (PM ₁₀)	Annual	a,d 30 µg/m ³	
Particulate matter < 10 µm (PM ₁₀)	24 hour	b 50 µg/m ³	
Total suspended particulates (TSP)	Annual	a,d 90 µg/m ³	
^c Deposited dust	Annual	b 2 g/m ² /month	a,d 4 g/m ² /month

Notes to Table 7:

a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).

b Incremental impact (ie increase in concentrations due to the development alone, with up to 5 allowable exceedances of the criteria over the life of the development).

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 or any other activity agreed by the Secretary.

Operating Conditions

22. The Applicant shall:
- implement best practice management to minimise the off-site odour, fume and dust emissions of the development;
 - implement all reasonable and feasible measure to minimise the release of greenhouse gas emissions from the site;
 - minimise the surface disturbance of the site;
 - minimise any visible off-site air pollution generated by the development;
 - operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting, predictive and real-time air dispersion modelling and real-time air quality monitoring data to guide the day-to-day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures (such as relocate, modify and/or suspend) to ensure compliance with the relevant conditions of this consent; and
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 6 and 7 above),
to the satisfaction of the Secretary.

Air Quality Management Plan

23. The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to 31 December 2015, unless otherwise agreed by the Secretary;
 - describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
 - describe the proposed air quality management system; and
 - include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development against the air quality criteria in this consent;
 - adequately supports the proactive and reactive air quality management system;
 - evaluates and reports on:

- the effectiveness of the air quality management system; and
- compliance with the air quality operating conditions; and
- defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

METEOROLOGICAL MONITORING

24. For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline and the *NSW Industrial Noise Policy*; and
 - (b) is capable of continuous real-time measurement of temperature lapse rate data that are able to be transformed accurately and repeatably, and no more favourably, to those that would be obtained by the use of a 60 m tower, to the satisfaction of the EPA.

SOIL AND WATER

Water Supply

25. The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations on site to match its available water supply.

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

Compensatory Water Supply

26. The Applicant shall provide a compensatory water supply to the owner of any privately-owned land whose water supply is adversely and directly impacted (other than a negligible impact) as a result of the development, in consultation with NOW, and to the satisfaction of the Secretary.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent, in quality and volume, to the loss attributed to the development. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.

If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant shall provide alternative compensation to the satisfaction of the Secretary.

Water Pollution

27. Unless an EPL authorises otherwise, the Applicant shall comply with Section 120 of the POEO Act.

Irrigation

28. The Applicant shall only carry out irrigation on parts of the site that drain directly to mine water storages, and in accordance with the relevant requirements of an approved Water Management Plan.

Avondale and Dog Trap Creeks

29. The Applicant shall not carry out any mining operations within 40 metres of Avondale or Dog Trap Creeks, with the exception of the construction and/or use of the proposed and existing haul road crossings of Avondale Creek shown in the figure(s) in Appendix 3.
30. The Applicant shall improve the riparian habitat along Avondale Creek to the satisfaction of the Secretary. These improvements must be made within the area of the proposed Biodiversity Enhancement Area (see Appendix 8) and include the re-establishment of flora species characteristic of the Cabbage Gum open forest vegetation community.

Water Management Performance Measures

31. The Applicant shall comply with the performance measures in Table 8 to the satisfaction of the Secretary.

Table 8: Water Management Performance Measures

Feature	Performance Measure
Water Management – General	- Minimise the use of clean water on site - Maximise as far as reasonable and feasible the separation of clean and dirty water within the site
Construction and operation of linear infrastructure	- Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</i> - Design, install and maintain infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (July 2012)</i>, or its latest version - Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries 2003)</i> and <i>Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions
Mine Sediment Dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E – Mines and Quarries</i>
Clean Water Diversion and Storage Infrastructure	- Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site - Design, install and maintain the clean water system to capture and convey the 1 in 100 year ARI flood
Stream diversion of tributary of Avondale Creek	- Design, install and maintain the tributary diversion to convey the modelled peak water flows for its altered catchment - Establish and maintain geomorphic stability of the diversion channel using appropriate revegetation and stabilisation techniques - Demonstrate that the channel is appropriately vegetated and stabilised prior to the release of flows into the diversion channel - Control water flows entering the diversion channel by the construction of a stormwater detention basin
Mine Water Storages and out-of-pit emplacement of potentially acid-forming materials	- No discharges to surface waters - Adequate freeboard to minimise the risk of discharge to surface waters
In-pit emplacement of CHPP rejects and potentially acid forming materials	- Emplacement, and/or encapsulation and/or capping to prevent or minimise the migration of pollutants beyond the pit shell or seepage from out-of-pit emplacement areas - Emplacement of CHPP rejects below the predicted post-mining groundwater level - Adequate freeboard within the pit to minimise the risk of discharge to surface waters
Chemical and petroleum storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with relevant Australian Standards
Aquatic and riparian ecosystem, in the Avon River and its tributaries, particularly Avondale and Dog Trap Creeks	Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW (DECC 2006)</i>, or their latest versions

Water Management Plan

32. The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA and NOW, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary;
 - be submitted to the Secretary for approval prior to 31 December 2015, unless otherwise agreed by the Secretary; and

- (c) in addition to the standard requirements for management plans (see condition 3 of Schedule 5), include a:
- (i) Site Water Balance, that:
 - includes details of:
 - o sources and security of water supply, including details of Water Access Licences held, and contingency supply for future reporting periods;
 - o water use and management on site;
 - o any off-site water discharges; and
 - o reporting procedures, including the preparation of a site water balance for each calendar year; and
 - investigates and implements all reasonable and feasible measures to minimise water use on site;
 - (ii) Surface Water Management Plan, that includes:
 - detailed baseline data on water flows and quality in the watercourses that could potentially be affected by the development;
 - a detailed description of the water management system, including the:
 - o clean water diversion systems;
 - o erosion and sediment controls (mine water system); and
 - o mine water management systems, including irrigation areas;
 - detailed plans, including design objectives and performance criteria for:
 - o design and management of final voids;
 - o design and management for the emplacement of coal reject materials and potential acid-forming or sulfate-generating materials;
 - o management of sodic and dispersible soils;
 - o diversion of the key tributary of Avondale Creek;
 - o reinstatement of drainage lines on the rehabilitated areas of the site; and
 - o control of any potential water pollution from the rehabilitated areas of the site;
 - performance criteria for the following, including trigger levels for investigating any associated potentially adverse impacts:
 - o mine water management system;
 - o downstream surface water quality;
 - o downstream flooding impacts, and
 - o stream and riparian vegetation health for the Avon River and its tributaries, including Avondale and Dog Trap Creeks;
 - a program to monitor and report on:
 - o effectiveness of the mine water management system;
 - o effectiveness of the stream diversion for the key tributary of Avondale Creek;
 - o surface water flows (with a focus on base flow and low flows) and quality in the watercourses potentially affected by the development; and
 - o downstream flooding impacts;
 - reporting procedures for the results of the monitoring program; and
 - a plan to respond to any exceedences of the performance criteria, and repair, mitigate and/or offset any adverse surface water impacts of the development;
 - (iii) Groundwater Management Plan that includes:
 - detailed baseline data of groundwater levels, yield and quality in the region that could be affected by the development, including licensed privately-owned groundwater bores and a detailed survey/Schedule of groundwater dependent ecosystems;
 - groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor and report on:
 - o groundwater inflows to the open cut pits;
 - o the seepage/leachate from water storages, emplacements and final voids;
 - o background changes in groundwater yield/quality against mine-induced changes; and
 - o impacts of the development on:
 - regional and local (including alluvial) aquifers;
 - groundwater supply of potentially affected landowners; and
 - groundwater dependent ecosystems and riparian vegetation;
 - a program to validate the groundwater model for the development, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and
 - a plan to respond to any exceedences of the performance criteria; and
 - (iv) protocol that has been prepared in consultation with the owners of nearby resource developments, including the Gloucester Gas Project, to:
 - minimise and manage the cumulative water quality and quantity impacts of these developments;
 - review opportunities for water sharing/water transfers between these developments;
 - co-ordinate water quality monitoring programs as far as practicable;

- undertake joint investigations/studies in relation to complaints/exceedences of trigger levels where cumulative impacts are considered likely; and
- co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine and gas production operation plans.

Note: The protocol can be developed in stages and will need to be subject to ongoing review, dependent upon the determination of, and commencement of, other mining developments in the area.

BIODIVERSITY

Biodiversity Offset Strategy

33. The Applicant shall implement the biodiversity offset strategy described in the EIS, summarised in Table 9 and shown conceptually in Figure 1 in Appendix 8, to the satisfaction of the Secretary.

Table 9: Summary of the biodiversity offset strategy

Area	Offset Type	Minimum Size (ha)
Biodiversity Offset Area, including Offset Areas 1, 2, 3 and 4	Existing vegetation to be enhanced and additional vegetation to be established.	935 Includes 490 ha of existing native vegetation.
Biodiversity Enhancement Area	Existing vegetation to be enhanced and additional vegetation to be established, including Cabbage Gum open forest within the Avondale Creek riparian area.	240
Rehabilitation Area	Native woodland vegetation communities to be re-established.	350

Note: For the purposes of this consent the vegetation community referred to in the EIS as Cabbage Gum open forest on flats of the North Coast or New England Tablelands is considered equivalent to Subtropical Coastal Rainforest of the NSW North Coast Bioregion EEC under the TSC Act.

Enhancement of Biodiversity Offset Strategy

34. At least 3 months prior to the commencement of mining operations in the new mining areas, the Applicant shall notify the owner of Property 44 (Cross / Jane) that they may request the Applicant to acquire their property. Upon receiving a written request from the owner to acquire their property, the Applicant shall acquire this property in accordance with conditions 5 and 6 of Schedule 4.

Should the Applicant acquire Property 44, then the property, exclusive of the residence and its immediate surrounds, shall be added to the Biodiversity Offset Strategy for the development described in condition 34 above, and managed in accordance with the requirements applicable to this Strategy.

Should the Applicant not acquire Property 44 in accordance with this condition, then the Applicant shall use its best endeavours to enter into an agreement with the owner that conserves, enhances and provides long-term security for the native vegetation on the property. This agreement must require that the vegetation on this property is managed in accordance with the Biodiversity Management Plan in condition 40.

Cabbage Gum Open Forest

35. The Applicant shall ensure the establishment of vegetation in the Biodiversity Offset Area and Biodiversity Enhancement Area includes the establishment of flora species characteristic of the Cabbage Gum Open Forest community as described in the note below Table 9. The NSW Scientific Committee's Final Determination for 'Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion' (NSW Scientific Committee 2011) endangered ecological community should be consulted in determining the species suite for re-establishment of this community.

Long Term Security of Offset

36. Prior to 30 June 2016, unless the Secretary agrees otherwise, the Applicant shall make suitable arrangements to protect the Biodiversity Offset Area in perpetuity to the satisfaction of the Secretary.

Note: For the purposes of this consent suitable arrangements may include a biobanking agreement or the use of Public Positive Covenants in combination with Restrictions In Use of Land on the land titles of the Offset lands. Other arrangements such as dedication of land under the National Parks and Wildlife Act 1974, Trust Agreements under the Nature Conservation Trust Act 2001 or a Property Vegetation Plan registered on title under the Native Vegetation Act 2003 would be considered for their suitability by the Secretary.

Habitat for Threatened Fauna Species

37. The Applicant shall ensure that the Biodiversity Offset Area and Biodiversity Enhancement Area provides suitable habitat for all the threatened fauna species recorded in the surface development area, namely the:
- Glossy-black Cockatoo;
 - Speckled Warbler;
 - Grey-crowned Babbler (eastern subspecies);
 - Varied Sittella;
 - Brush-tailed Phascogale;
 - Squirrel Glider;
 - Long-nosed Potoroo; and
 - New Holland Mouse.

Squirrel Glider Management Plan

38. The Applicant shall prepare and implement a Squirrel Glider Management Plan to the satisfaction of the Secretary. This Plan must be prepared in consultation with OEH and approved by the Secretary prior to any clearing within 500 metres of a Squirrel Glider colony and shall include:
- (a) measures to establish the home range of each colony;
 - (b) a census of suitable tree hollows in home ranges and offset areas suitable for Squirrel Gliders;
 - (c) establishing the food resources utilised by each colony;
 - (d) measures to enhance food resources utilised by Squirrel Gliders, particularly for Offset Area 1;
 - (e) a vegetation clearing protocol to protect individual Squirrel Gliders;
 - (f) relocation of trees containing suitable tree hollows;
 - (g) installation of suitable nest boxes at a ratio of least 3:1 for each suitable hollow destroyed by the development and their long term management;
 - (h) measures to assess the rate of tree hollow development within the Offset Areas;
 - (i) implementation of Yancoal's proposed Glider crossings of haul roads with the establishment of suitable vegetation adjacent to each crossing;
 - (j) implementation of Yancoal's proposals to enhance vegetation, particularly in Offset Area 3, to create recruitment and dispersal pathways for Squirrel Gliders; and
 - (k) installation of Gliders crossings of The Bucketts Way and Main Northern Railway, should Yancoal acquire Property 44, unless their installation is prevented by the relevant transport authority.

Biodiversity Management Plan

39. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, and be submitted to the Secretary for approval prior to 31 December 2015;
 - (b) describe the short, medium, and long-term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site; and
 - implement the biodiversity offset strategy;
 - (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (d) include a detailed description of the measures that would be implemented over the next 3 years for:
 - enhancing the quality of existing vegetation and fauna habitat;
 - establishing native vegetation and fauna habitat in the Biodiversity Offset Area, Biodiversity Enhancement Area and Rehabilitation Area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);
 - enhancing the landscaping of the site and along public roads to minimise visual and lighting impacts, particularly along Glen Road;
 - protecting vegetation and soil outside approved disturbance area;
 - maximising the salvage of resources within the approved disturbance area – including vegetative and soil – for beneficial reuse in the biodiversity offset strategy;
 - collecting and propagating seed;
 - minimising the impacts to fauna on site, including undertaking pre-clearance surveys;
 - managing any potential conflicts between the proposed restoration works in the Biodiversity Offset Area and any Aboriginal heritage values (both cultural and archaeological);
 - managing salinity;
 - controlling weeds and feral pests;
 - controlling erosion;
 - managing grazing and agriculture;
 - controlling access; and
 - managing bushfire risk;

- (e) include a program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (f) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.

Conservation Bond

40. By the end of June 2016, unless the Secretary agrees otherwise, the Applicant shall lodge a Conservation Bond with the Department to ensure that the Biodiversity Offset Strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the Biodiversity Offset Strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs.

If the Offset Strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long-term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.*

Bowens Road North Open Cut Offset Strategy

41. The Applicant shall implement the Bowens Road North Offset Strategy, as described in the modification application Bowens Road North Mod 4 and accompanying Environmental Assessment titled *Bowens Road North Open Cut June 2010 Modification*, in conjunction with the biodiversity offset strategy for the Duralie Extension Project, and comply with the relevant requirements for the implementation of this strategy in the Duralie Extension project approval (see MP 08_0203).

Note: The lands to which the Bowens Road North Offset Strategy applies are shown conceptually in Figure 2 of Appendix 8 and are located about 20 km south of the Stratford Mine and contiguous with more extensive lands of the Duralie Mine Offset Strategy.

HERITAGE

Protection of Aboriginal Sites

42. The Applicant shall ensure that the development does not cause any direct or indirect impact on identified Aboriginal sites located outside the approved disturbance area of the development on the site.

Heritage Management Plan

43. The Applicant shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;
 - (b) be prepared in consultation with OEH and local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
 - (c) be submitted to the Secretary for approval prior to 31 December 2015, unless the Secretary agrees otherwise;
 - (d) include the following:
 - a detailed archaeological salvage program for Aboriginal sites/objects within the approved disturbance area, including methodology and procedures/protocols for:
 - o staged salvage, based on anticipated mine planning (sites OS-3, OS-4, OS-5, IF-1, IF-2, IF-3, IF-4 shown on the figure in Appendix 7);
 - o salvage of scarred trees (sites ST-2; ST-4 shown on the figure in Appendix 7);

- o monitoring of topsoil stripping during construction associated with the Wenham Cox / Bowens Road realignment in the vicinity of Dog Trap Creek;
- o site assessment and reporting;
- o protection, storage, management and long-term protection of salvaged Aboriginal objects; and
- o addressing relevant statutory requirements under the *National Parks and Wildlife Act 1974*; and
- a description of the measures that would be implemented for:
 - o protecting, monitoring and managing Aboriginal sites outside the approved disturbance area (including sites OS-1, OS-2, ST-1, ST-3, IF-5, PAD-1, PAD-2, CTS-1 shown on the figure in Appendix 7);
 - o maintaining and managing reasonable access for Aboriginal stakeholders to cultural heritage items on site and in the Biodiversity Offset Area;
 - o managing the discovery of any human remains or previously unidentified Aboriginal objects on site, including (in the case of human remains) stop work provisions and notification protocols;
 - o ongoing consultation with local Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on-site and in the Biodiversity Offset Area; and
 - o ensuring any workers on site receive suitable heritage inductions prior to carrying out any activities which may disturb Aboriginal sites, and that suitable records are kept of these inductions.

TRANSPORT

Road Realignments

44. The Applicant shall construct the proposed realignment of:
- (a) Bowens Road to Wenham Cox Road to the east of the Avon North pit; and
 - (b) Wheatleys Lane and Bowens Road to the west of the Roseville West pit extension, to the satisfaction of GSC.

Intersection Upgrades

45. Prior to 31 December 2015, unless the Secretary agrees otherwise, the Applicant shall:
- (a) improve the warning signage, re-paint line markings and install raised reflective markers at the intersection of the Stratford Mine Access Road and The Bucketts Way; and
 - (b) upgrade/repair road drainage on the southwestern corner of the intersection of Wenham Cox Road and Wheatleys Lane to ensure it does not pose an unacceptable safety risk to traffic, to the satisfaction of GSC.

Road Maintenance – The Bucketts Way

46. From the commencement of mining operations in the new mining areas until their cessation, unless otherwise agreed by the Secretary, the Applicant shall pay GSC and GLC annual contributions for the maintenance and resealing of The Bucketts Way in accordance with the terms in Appendix 4.

Road Maintenance – Wenham Cox Road

47. From the commencement of mining operations in the new mining areas until their cessation, unless otherwise agreed by the Secretary, the Applicant shall pay GSC annual contributions for the maintenance of Wenham Cox Road. The contribution shall be based on the proportion of all heavy vehicles using this road due to the Applicant's mining operations and exploration activities, or a figure of \$5000 per annum (2014 dollars, subject to annual indexation in accordance with the CPI), as the Applicant decides. Any dispute about this condition shall be referred to the Secretary for resolution.

Transport Monitoring

48. The Applicant shall monitor and report on:
- (a) the amount of coal transported from the site; and
 - (b) the date and time of each train movement to and from the site; to the satisfaction of the Secretary.
49. Prior to 31 December 2015, the Applicant shall submit a detailed Transport Monitoring Program for the development, which has been prepared in consultation with GSC and GLC, to the Secretary for approval. This Program shall monitor heavy vehicle movements to and from the mine and on The Bucketts Way to the north and south of the mine and require these data to be reported directly to the Applicant, GSC and GLC.

VISUAL

Operating Conditions

50. The Applicant shall:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
 - (b) ensure no fixed outdoor lights shine above the horizontal;
 - (c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal;
 - (d) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version;
 - (e) provide for the establishment and monitoring of trees and shrubs:
 - along the Glen Road; and
 - at other areas identified as necessary for the maintenance of satisfactory visual amenity; and
 - (f) ensure that the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications) is aimed at blending as far as possible with the surrounding landscape, to the satisfaction of the Secretary.

BUSHFIRE MANAGEMENT

51. The Applicant shall:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
 - (b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as possible if there is a fire in the surrounding area.

WASTE

52. The Applicant shall:
- (a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;
 - (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
 - (c) monitor and report on the effectiveness of waste minimisation and management measures in the Annual Review.

REHABILITATION

Rehabilitation Objectives

53. The Applicant shall rehabilitate the site to the satisfaction of the Deputy Secretary, Resources and Energy. This rehabilitation must be generally consistent with the proposed Rehabilitation Strategy described in the EIS (and depicted conceptually in Appendix 8) and comply with the objectives in Table 10.

Table 10: Rehabilitation objectives

Feature	Objective
Mine site (as a whole)	Safe, stable and non-polluting
	Constructed landforms drain to the natural environment
	Minimise visual impact of final landforms as far as is reasonable and feasible and be sympathetic to the original Gloucester valley landform
Final voids	Minimise the size and depth of final voids so far as is reasonable and feasible
	Minimise the drainage catchment of final voids so far as is reasonable and feasible
	Minimise high wall instability risk so far as is reasonable and feasible
	The size and depth of final voids must be designed having regard to their function as long-term groundwater sinks, to maximise groundwater flows across back-filled pits to the void and to not be a source of saline groundwater for aquifers and streams
	Designed and constructed to ensure adequate freeboard

Feature	Objective
	to ensure no spillage under any foreseeable conditions
	Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood
Surface infrastructure	To be decommissioned and removed, unless the Deputy Secretary, Resources and Energy agrees otherwise
Agricultural land	Establish a minimum of 300 hectares of land with Class 4 agricultural suitability
Other land	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising: • a wildlife corridor (shown as Biodiversity Enhancement Area in the figure in Appendix 8); • local native plant species; and • a landform consistent with the surrounding environment
Stratford and Glen heritage railway corridors	Road and transmission alignments to avoid heritage railway corridors
	Rehabilitation activities to avoid or minimise impacts
Community	Ensure public safety, with an emphasis on final voids
	Minimise the adverse socio-economic effects associated with mine closure

Progressive Rehabilitation

54. The Applicant shall progressively rehabilitate the site, including the Western Co-disposal Area, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed where areas prone to dust generation are not subject to active mining operations but cannot yet be permanently rehabilitated.

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.

Rehabilitation Management Plan

55. The Applicant shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Deputy Secretary, Resources and Energy. This plan must:
- be prepared in consultation with the Department, NOW, OEH, and GSC;
 - be submitted to the Deputy Secretary, Resources and Energy for approval at least 3 months prior to the commencement of mining operations in the new mining areas; unless the Deputy Secretary, Resources and Energy agrees otherwise;
 - be prepared in accordance with any relevant DRE guideline;
 - describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
 - describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;
 - include interim rehabilitation where necessary to minimise the area exposed for dust generation;
 - include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and
 - build to the maximum extent practicable on the other management plans required under this consent.

Note: The Biodiversity Management Plan and Rehabilitation Management Plan require substantial integration to achieve biodiversity objectives for the rehabilitated mine site.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Within 1 month of the date of this consent, unless the Secretary agrees otherwise, the Applicant shall:
 - (a) notify in writing the owners of:
 - the land listed in Table 1 of Schedule 3 that they have the right to require the Applicant to acquire their land at any stage during the development;
 - any residence listed in condition 2 of Schedule 3, including those on the land listed in Table 1 of Schedule 3, that they have the right to request the Applicant for additional noise mitigation measures to be installed at their residence at any stage during the development; and
 - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;
 - (b) notify the tenants of any mine-owned land of their rights under this consent; and
 - (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in Schedule 3 at any time during the life of the development.
2. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Applicant, the Applicant shall:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - (b) advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary.
3. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in Schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and
 - (b) an exceedance of the relevant air quality criteria in Schedule 3, the Applicant 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

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

If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Applicant shall:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in Schedule 3; and
 - if the development is not complying with these criteria then:
 - o determine if more than one mine or development is responsible for the exceedance, and if so the relative share of each mine or development regarding the impact on the land; and
 - o identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

Should noise monitoring undertaken under this condition, and/or regular noise compliance monitoring at a residence, indicate that the development is responsible for sustained exceedances of the noise criteria in Table 4 of Schedule 3 (defined as 3 or more exceedances within a 2 year period) then the Applicant must offer the landowner additional noise mitigation measures in accordance with, condition 2 of Schedule 3.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of additional noise and/or air quality mitigation measures under Schedule 3;
 - (b) the reasonable costs associated with:
 - relocating within the Gloucester or Great Lakes local government area, or to any other local government area determined by the Secretary; and
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
 - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

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

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

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

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

6. The Applicant shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.
-

SCHEDULE 5

ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
 - (a) be submitted to the Secretary for approval at least 3 months prior to the commencement of mining operations in the new mining areas, unless the Secretary agrees otherwise;
 - (b) provide the strategic framework for environmental management of the development;
 - (c) identify the statutory approvals that apply to the development;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (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 mining complex;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out in relation to the development.

Adaptive Management

2. The Applicant must assess and manage development-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 consent 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 Applicant 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 Secretary, to the satisfaction of the Secretary.

Management Plan Requirements

3. The Applicant shall ensure that the management plans required under this consent 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 development 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 development;
 - effectiveness of any management measures (see c above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

Annual Review

4. By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:
 - (a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EIS;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the development;
 - (e) identify any discrepancies between the predicted and actual impacts of the development, 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 development.

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 report under Condition 9 below; or
 - (d) any modification to the conditions of this consent, (unless the conditions require otherwise),the Applicant shall review the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.

Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.

Community Consultative Committee

6. The Applicant shall operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent; and*
- *The CCC should be comprised of an independent chair and appropriate representation from the Applicant, GSC, recognised environmental groups and the local community to the satisfaction of the Secretary.*

REPORTING

Incident Reporting

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

Regular Reporting

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

INDEPENDENT ENVIRONMENTAL AUDIT

Independent Environmental Audit

9. Prior to 31 December 2015, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent, and any other relevant approvals, relevant EPL/s and/or Mining Lease/s (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
 - (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor, and include experts in noise, blasting, air quality, ecology, and any other fields specified by the Secretary.

10. Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

11. The Applicant shall:
- (a) make the following information publicly available on its website:
 - the EIS;
 - all current statutory approvals for the development;
 - approved strategies, plans or programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the last five annual reviews;
 - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and
 - (b) keep this information up to date, to the satisfaction of the Secretary.
-

**APPENDIX 1
SCHEDULE OF LAND**

Tenure Type	Lot Number	Deposited Plan Number
Freehold	59	979859
Freehold	1	241780
Freehold	74	979859
Freehold	2	241780
Freehold	1	997092
Freehold	1	531023
Freehold	20	1164626
Freehold	71	979859
Freehold	58	979859
Freehold	56A	979859
Freehold	56B	979859
Freehold	56C	979859
Freehold	56D	979859
Freehold	56E	979859
Freehold	1	861278
Freehold	57	979859
Freehold	72	979859
Freehold	54	979859
Freehold	B	116316
Freehold	75	979859
Freehold	3	1062249
Freehold	73	979859
Freehold	1	194827
Freehold	52	979859
Freehold	70	979859
Freehold	293	137520
Freehold	69	979859
Freehold	11	1139127
Freehold	12	1139127
Freehold	1	194827
Freehold	4	1062249
Freehold	A	116326
Freehold	66	1008585
Freehold	1	116325
Freehold	79	979859
Freehold	772	826955
Freehold	1	778861
Freehold	2	778861
Freehold	64	979859
Freehold	Part of 45	979859
Freehold	Part of 8	1139127
Freehold	Part of 9	1139127
Freehold	Part of 10	1139127
Freehold	Part of 63	1093998
Freehold	Part of 62	1093998
Freehold (Private subdivision road reserves or owned by Gloucester Shire Council)	Road located within and between the above parcels of land	N/A

LEGEND

- Mining Lease Boundary
- - - Mining Lease Application Boundary
- Development Application Area

0 200 1000
Metres
GRID DATUM: MGA 94 ZONE 56

Source: SCPL (2013); DFS-LPI (2012) and DPAC&L(CLD) (2012)

STRATFORD EXTENSION PROJECT
Development Application Area

STRATFORD COAL
Part of the Regional Gasfields Project

30

LEGEND

- Mining Lease Boundary
- Mining Lease Application Boundary
- Electricity Transmission Line
- Approximate Extent of Existing/Approved Surface Development
- Approximate Extent of Additional Project Surface Development
- Conceptual Up-Catchment Diversion

0 200 1000
Metres
GRID DATUM MGA 94 ZONE 56

Source: SCPL (2012), DFS-LPI (2012) and DPI C&I (CID) (2012)
Orthophoto - SCPL (flown July 2011)

STRATFORD EXTENSION PROJECT

Project General Arrangement

STRATFORD COAL
Part of the New South Wales Coal

Figure 1: General layout of the Stratford Extension Project



Figure 2: General layout of infrastructure areas

APPENDIX 4
MAINTENANCE AND RESEALING CONTRIBUTIONS FOR THE BUCKETTS WAY

The Applicant shall pay GSC and GLC annual contributions towards the maintenance and resealing of The Bucketts Way in accordance with the formulae in this appendix, with the first annual payment payable within 12 months of the date of commencement of mining operations under this consent, and additional payments on each following anniversary of the first payment, until the cessation of mining operations on the site under this consent. Each payment is to be calculated as follows:

Gloucester Shire Council:

The payment for the 19.25 km section of The Bucketts Way from the shire boundary with GLC to the town of Gloucester is based on total road maintenance contributions to GLC in the Duralie Coal Mine project approval converted to a per kilometre rate for this 19.25 km section.

The Duralie approval provides for a payment of \$64,626.74 (in 2014) for the impacts of mine-generated heavy vehicle traffic over the 55 km length of The Bucketts Way within Great Lakes Shire. For 2014, this equates to a contribution of \$1,175.03 / km.

Applying this rate within Gloucester Shire, the contribution base (2014 dollars) is:

$$19.25 \text{ km} \times \$1,175.03 = \$22,619.32.$$

The dollar values in this formula are subject to annual indexation in accordance with the CPI.

Great Lakes Council:

As GLC receives contributions to the upkeep of The Bucketts Way that is based on existing heavy vehicle traffic related to the Duralie Coal mine, GLC sought a contribution for road impacts based on the increase in heavy vehicle traffic caused by the Stratford Extension Project (6 additional truck movements within a total of 36 predicted truck movements generated from both Stratford and Duralie mines).

The contribution base (2014 dollars) is $\$64,626.74 \times 6 / 36 = \$10,771.12$

The dollar values in this formula are subject to annual indexation in accordance with the CPI.

APPENDIX 5 LAND OWNERSHIP

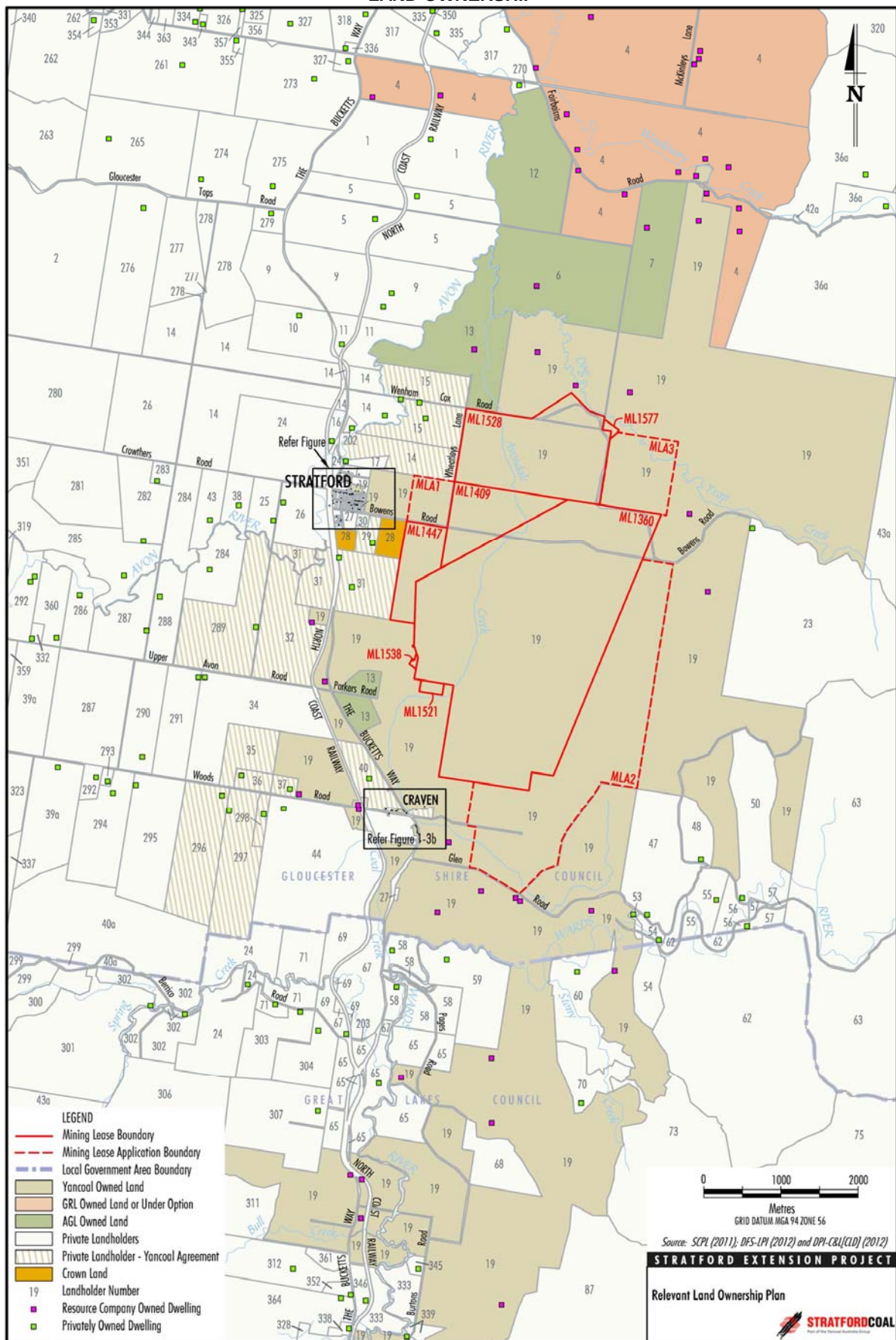


Figure 1a: Land ownership for Stratford Extension Project and surrounds

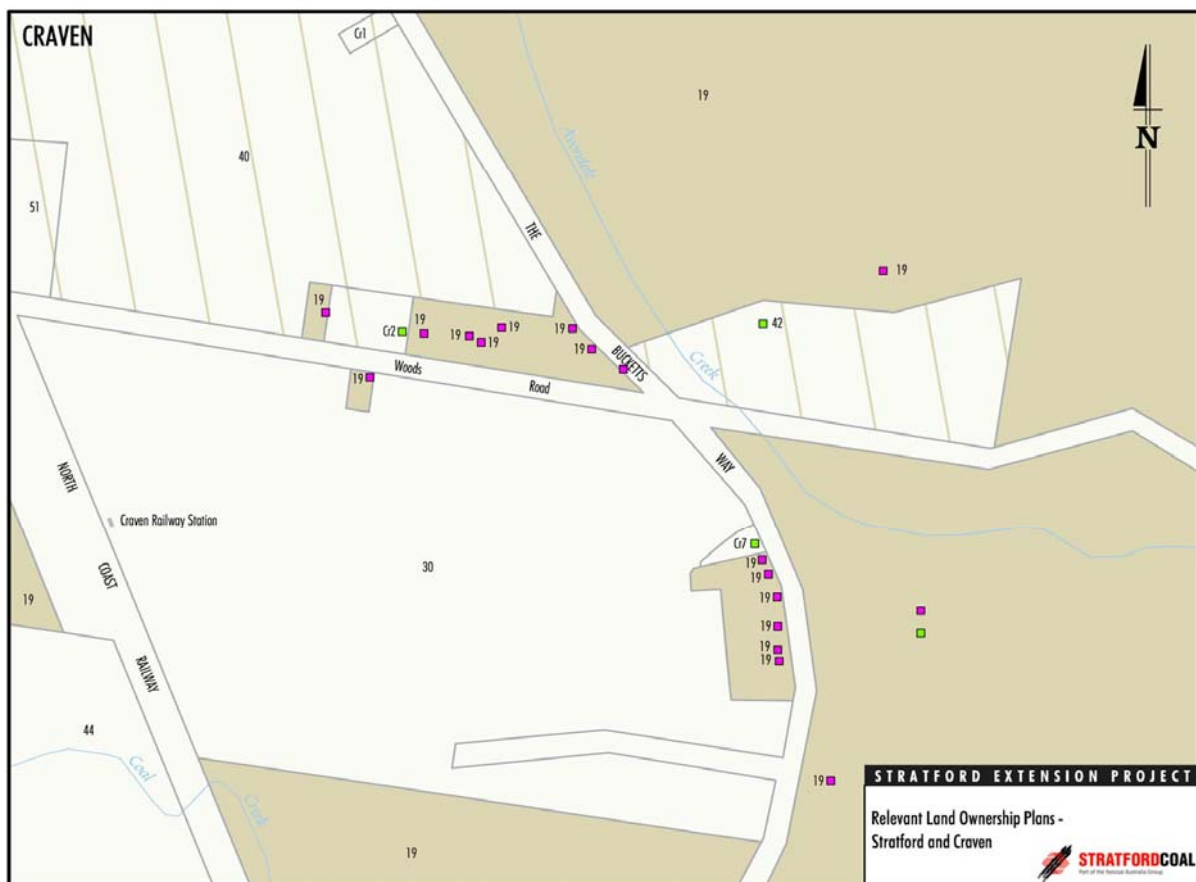


Figure 1b: Land ownership for Stratford and Craven village areas

1	Wendy Jane Fraser	263	Patrick Michael Ryan	356	Thelma Elaine Mott
2	Farley (Gloucester) Pty. Limited	265	Hans Joran Stenstrom & Janete Stenhouse Stenstrom	357	Victor Steven Pham/ Katherine Dawn Pham
4	Gloucester Resources Limited	270	Jason David Collins & Michelle Isobel Barrett	359	William Kilpatrick Hunter/ Kay Edith Hunter
5	Norman Edward Bignell	273	Baker Place Investments Pty Limited & Dr FW Brady Pty Limited as Tenants in Common in Equal Shares	360	Ter Geoffrey Mason/ Sandra Jay Mason/ Valda Doreen
6	AGL Gloucester Le Pty Ltd in 70/100 Share & AGL Gloucester NG Pty Ltd in 30/100 Share as Tenants in Common	274	Warren Neil Wilson & Colleen Therese Wilson	361	Helen Teresa Whelan
7	Mary Blanche Burrell	275	Pace Farm Pty Limited	363	Linda Trudgeon
9	Norman John Williams	276	Alan Luscombe & Carol Luscombe	364	Heatscope Pty Limited
10	Kenneth James Whatmore & Anne Grace Whatmore	277	John William Farley	G.1	William Deane Wood
11	Brian Keith Walker, Lesley Jane Walker, Tyson Brian Walker & Lacey Maree Walker	278	Mark Anthony Campbell & Roseleen Linette Campbell	G.2	Rodger Malcolm Boorer
12	AGL Upstream Investments Pty Limited	279	John Donald Cullum & Rachel Anne Cullum	G.7	David Robert Pryce-Jones
13	AGL Energy Limited	280	Clifford John Bramley & Terri Louise Bramley	S1	Gary Owen Rees
14	Allen James Wenham & Pamela Diane Wenham	281	Colin William Lewis & Lesley Ann Lewis	S3	Irene Myrtle Yeatman
15	GS & GL Fallo Superannuation Pty Limited	282	Peter Stephen Ross	S4	Belinda Maree Grady & Terry Raymond Grady
16	Judith Helen Pickett	283	Janet Nolan	S5	Christopher James Brinell
17	Darren James Fisher & Claire Louise Smith	284	Alec Gregory Perrin & Noreen Nita Jean Perrin	S6	Gary Wayne Threadgate & Julie Frances Threadgate
19	Yancoal Australia Limited	285	Marshall Leon Carter & Theresa Kathleen Carter	S7	Raymond James Cawley & Lucinda Cawley
23	Ross Lewis Bognall	286	Gerard Roland Burley	S8	Neville Charles Forbes
24	Geoffrey Lawrence Harris	287	Dorothy Kay Sinderberry & Carole Martha Rinkin	S9	Peter John Greenham & Beverley May Greenham
25	Marisa Thompson	288	Alec Gregory Perrin	S10	Louise Frances German
26	Kevin John Lowrey & Robyn Lowrey	289	Eliza Ann Ruth McIntosh	S11	Adam John Glew
27	The Council of the Shire of Gloucester	290	Anne Frances Ryan & Darcy Tordoff	S12	Grant James Mitchell & Cecily Maree Mitchell
28	Crown Land	291	Trevor Allan Crawley & Coleen Dawn Crawley	S13	Ian Mark Wells & Jody Ann Wells
29	Edwin Dennis Ward & Rhonda Fay Ward	292	James Reginald Fisher & Rhonda Patricia Fisher	S14	Kathleen Edith Bignell
30	The State of New South Wales	293	Kerry Elizabeth Brauntton	S15	Minister for Education
31	Allan Stanley Isaac	294	Gregory Vincent Morcom & Karen Morcom	S18	Keith Matthew John Whittall & Janelle Fiona Whittall
32	Eliza Ann Ruth McIntosh & Ronald Keith McIntosh	295	William John Bush & Danielle Elizabeth Bush	S19	Rodney Lawrence Carroll
34	Graham Wesley Hall & Kim Lorraine Hall	296	Peter Geoffrey Watson & Heather Irene Watson	S20	Sandra Ellen McGrath
35	Leo John Dillon & Isobel Robyn Dillon	297	William Marten Bosma	S21	Marie Anne Adams
36	Graham Lindsay Wallace & Marion Frances Wallace	298	Eric Allan Yates	S22	Telstra Corporation Limited
36a	Anthony Stanford Beerey	299	Malcolm Ronald Lee	S23	Marie Fay Bartlett
37	Timothy James Worth	300	Revan Douglas Hokin & Di Hokin	S24	David Carl John Mayay
38	Paul Michael Johnson & Judith Anne Johnson	301	Folio Identifier Pty Limited	S25	The Trustees of Church Property for the Diocese of Newcastle
39a	Woods Road Pty Ltd	302	Edwin John Walton & Wendy Walton	S26	Margaret Elaine Young
40	Leslie Allenby Blanch	303	JSTC Newcastle Pty Limited	S27	Terry Leonard Brown & Elizabeth Florence Brown
40a	Howard Kerr Williams & Margaret Russell Williams	304	Ernie Danzil Abeysekera & Sharee Ann Abeysekera	S28	David Charles Morris & Yvette Marie Morris
42	Douglas John Blanch	306	Gregory Hunt & Catherine Hunt	S29	Robert Charles Bagnall & Lyndell Jay Bagnall
42a	William Rainsford Ribbons	307	Graham John Wolfenden & Rosalind Mary Wolfenden	S30	Kam Daryl Baker
43	Vicki Colleen Moseley	311	Paul Berthold & Carolyn Berthold	S31	Tracey Louise Richards
43a	Lymann Holdings Pty Limited	312	Allen James Harrison & Darlene Marie Harrison	S32	Peter Kelly
44	Peter Michael Cross & Kylie Jane	316	Country Rail Infrastructure Authority	S33	Greta Alexandra Langtry, Jennifer Gilbert & Neville Bertram Gilbert
47	David Charles Digges, Carolyn Denise Digges, Timothy Charles Hart & Elizabeth Mary Hart	317	Adrian Kenneth Boorer/ Beverley Ruth Boorer	S34	Edward George Ashby
48	Marion Iris Rounsley	318	Albert Malcolm Timothy Sopher/ Gloria June Sopher	S35	Mark Rodgers & Korinna Yvette Bekker
50	Neil James Porter	319	Allan John Maslen	S36	Kenneth George Platt & Ruth Lynne Platt
51	Gloucester Printing Services Pty Ltd	320	Andrew Charles Vintner/ Kevin Thomas Vintner	S37	Malcolm Neville Pryor & Helen Leone Pryor
53	William Charles Barnes & Cheryl Freda Barnes	323	Burmah Pastoral Co Pty Limited	S38	Stephen Russell Kirkman
54	Kenneth John Hughes & Carrysong Pty Limited	325	Charles Robert Norman	S39	Lizabeth Joye Nicholls & Raymond John Husband
55	Allan James Hancock & Lynda Margaret Hancock	326	Charnich Pty Limited	S40	Peter John Curtis
56	Gerald McCalden & Patricia Brawley McCalden	327	Dallas Reginald Andrews	S41	Desmond Brice McClure & Coral Ann Aplin
57	Pamela Brawley Harrison	328	Daphne May Chapman	S42	Stephen Ronald Murray & Wilma Jay Murray
58	Douglas William Blanch & Evelyn Fay Blanch	331	Delese Ellen May Buckton	S43	Deanne Donna Squire
59	Guy William Cassar & Cecile Elizabeth Cassar	332	Erol William Hastings/ Lorraine Hastings	S44	Ann Elizabeth Flack
60	Graeme Healy & Philip Weston Greenwood	333	Gary Bruce Grant	S45	Daniel John Keywood, Dale Martin Keywood, Kelly Hazel Keywood & Amanda Margaret Hawkins
62	Dorothy May Beeston	334	Gary Douglas Randall/ Gai Lorraine Randall	S46	Stephen Thomas Parker & Jean Maree Parker
63	National Parks and Wildlife Service	335	Graeme Harold Harris	S47	John Victor Potts
65	Noeline Elizabeth Weismantle	336	Gregory James Channon/ Tonia Alice Edwards	S48	James Bryson Farley & Glenda Laurel Farley
67	Ian Robert Bowen	337	Gregory Thomas Price/ Dianne Elizabeth Price	S49	Lindy Jayne Blanch
68	Julie Dawn Lyford	338	Jason Bruce Steward/ Maria Eliana Steward	S50	Sheryl Fay Vanderdrift & Lindy Jane Blanch
69	Ralph Hooper & Bronwyn Ann Bartholmew	339	John Andersen	S51	Gregory John Trenholme
70	Robert George Knight	340	John Robert Higgins	S52	Ronald John Farley & Theresa Jane Barry
71	Anthony Douglas Burnet & Robyn Annette Burnet	343	Kerrie Banks	S53	Trevor Arthur
73	Rodney John Pearce & Anne Jeanette Pearce	344	Kerry Anne Hartigan/ Antonino Virzi	S54	Scott Anthony Adams
75	Geoffrey Ashton Wilson	345	Liam Woolfrey	S55	Beryl Veronica Mastyn & Tony James Mastyn
87	Pacific Property Investments Ltd	346	Lorraine Bruce	S56	Graham John Collins & Elizabeth Collins
202	Paul Phillip Wenham	350	Raymond Keith Saunders/ Barbara Jayne Saunders	S57	Mavis Jean Gam
203	Samuel Taylor	351	Roger Speaight/ Elisabeth Aili Maria Speaight	S58	Marilyn Dorothy Harrigan
261	Frank Murray Hooke & Susan Elizabeth Hooke	352	Ross Sidney Edwards	S59	Terry Raymond Grady & Belinda Maree Grady
262	Noel Albert Davis & Elizabeth Therese O'Sullivan	353	Ryan Garth Harris	S60	Deanne Donna Squires
		354	Scott Ernest Hoy/ Leanne Margaret Barrett		
		355	Sue-Ellen Margaret Kingston/ Anthony Gerard Kingston		

Source: SCPL (2012); DFS-LPI (2012) and DPI-C&L [CLO] (2012)

STRATFORD EXTENSION PROJECT

Relevant Land Ownership List



Figure 1c: Property owners for Figures 1a and 1b

APPENDIX 6 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 4 in Schedule 3 are to apply to a receiver under all meteorological conditions except under:
 - (a) wind speeds greater than 3 m/s at 10 m above ground level; or
 - (b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
 - (c) temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station required under condition 25 of Schedule 3.

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.
4. This monitoring must be carried out at least 12 times in each calendar year (ie at least once in every calendar month), unless the Secretary directs otherwise.
5. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
 - (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
 - (d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the consent.

APPENDIX 7 ABORIGINAL CULTURAL HERITAGE SITES

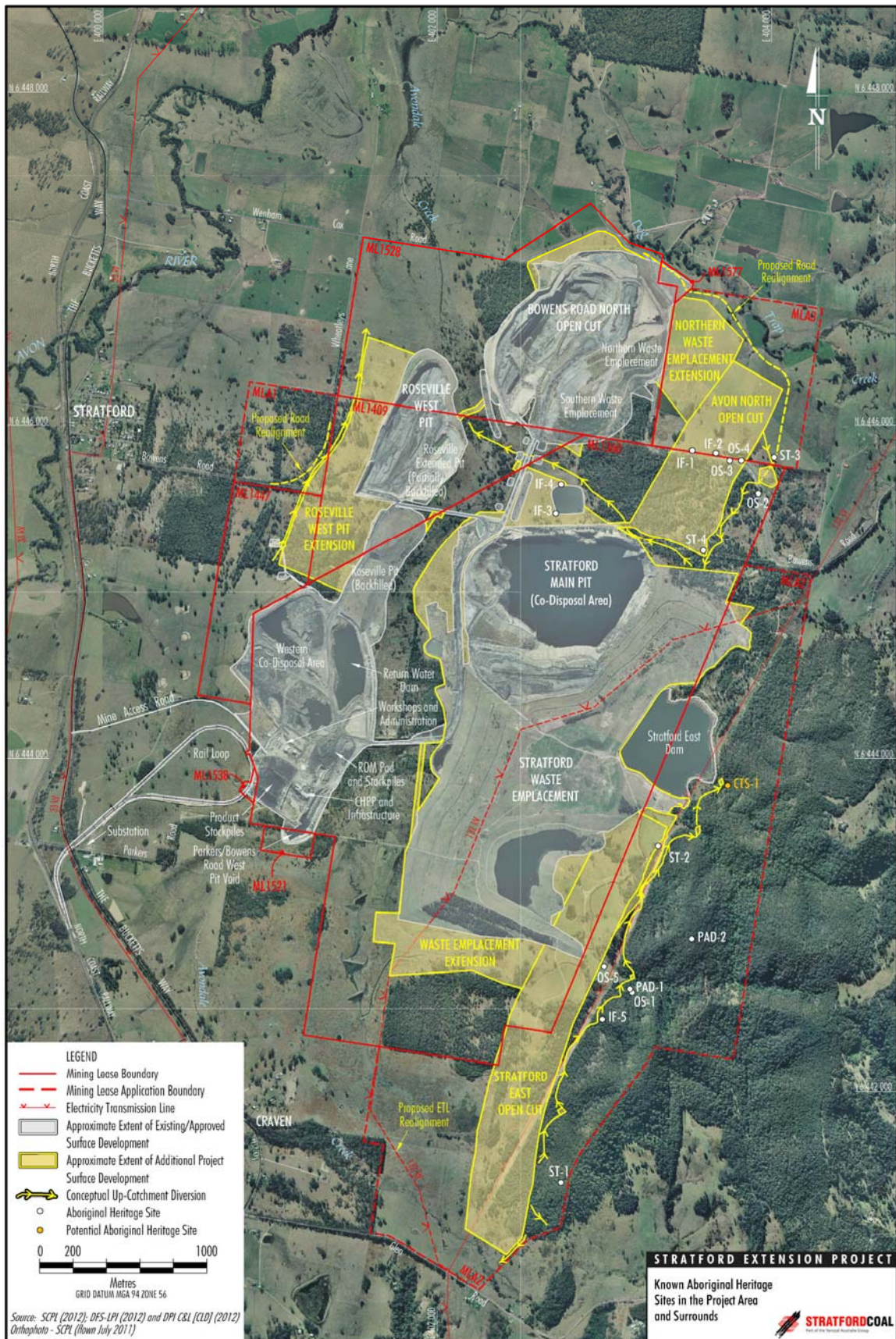


Figure 1: Location of Aboriginal cultural heritage sites

APPENDIX 8 STRATFORD BIODIVERSITY OFFSET AREAS

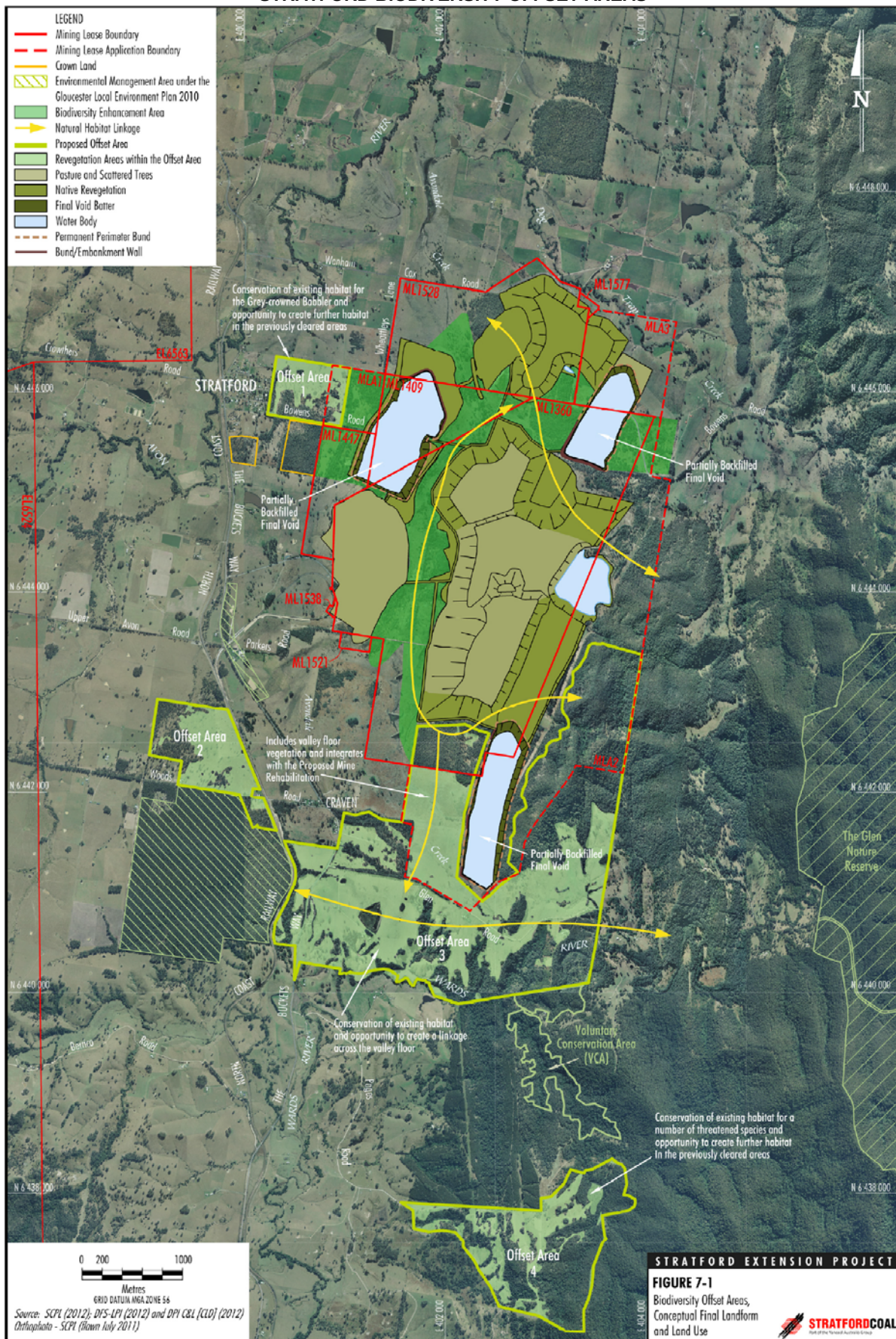


Figure 1: Location of Stratford Biodiversity Offset Areas

BOWENS ROAD NORTH OFFSET AREA

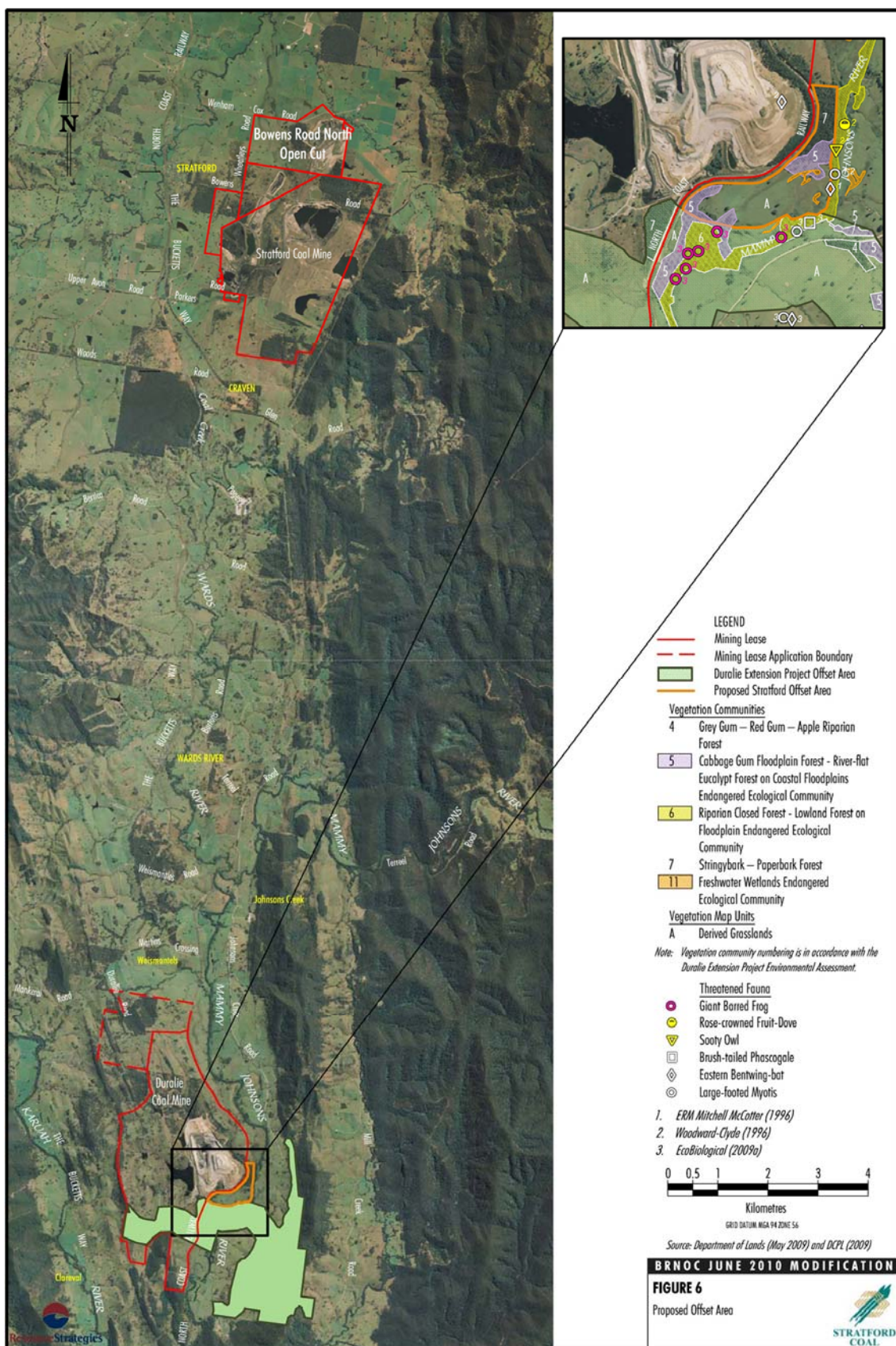


Figure 2: Location of Bowens Road North Open Cut Offset Area (near Duralie mine)

APPENDIX 9 STATEMENT OF COMMITMENTS

AGL Energy Limited (AGL)'s approved Gloucester Gas Project overlays and is adjacent to Stratford Coal Pty Ltd (SCPL)'s existing Stratford Mining Complex and proposed Stratford Extension Project. SCPL and AGL are in the process of negotiating terms of a cooperation agreement which would describe the manner in which these projects interact. SCPL's statement of commitments (SOC) in relation to the interaction of the Stratford Extension Project and Gloucester Gas Project are described hereunder.

SOC1:

SCPL will make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping petroleum title(s) within the Stratford Extension Project area prior to the grant of **MLA 1** and **MLA 2** as shown on Figure 1. The cooperation agreement will address but not be limited to issues such as:

- access arrangements;
- operation interaction procedures;
- dispute resolution;
- information exchange;
- well location;
- timing of drilling;
- potential resource interaction conflicts; and
- rehabilitation issues.

SOC2:

SCPL will make every reasonable attempt to ensure that the conservation agreements (or other mechanism under which the Stratford Extension Project Biodiversity Offsets are secured) authorise the location and operation of AGL's proposed wells CR24, CR26, CR27 and ST55 within the Stratford Extension Project Biodiversity Offsets properties as shown on Figure 1 (following).

SOC3a:

Upon receiving a written request from the owner of property 44 (Cross/Jane), SCPL will acquire property 44 or enter into a compensation agreement to the satisfaction of the owner, unless the owner of property 44 agrees otherwise. Within 1 month of the date of Development Consent, SCPL will notify the owner of property 44 that they may request SCPL acquire their property.

Should the owner elect to sell property 44, land acquisition will be based on the requirements of Schedule 4, condition 5 of the Development Consent.

Should the owner elect to sell property 44, it will be included in the biodiversity offset for the Project (i.e. it will be secured in perpetuity for conservation purposes).

SOC3b:

At the commencement of evening or night-time mining operations in the Stratford East Open Cut, upon receiving a written request from the owner of property 60 (Greenwood /Healy), SCPL will acquire property 60 or enter into a compensation agreement to the satisfaction of the owner, unless the owner of property 60 agrees otherwise.

At least 1 month prior to the commencement of evening or night-time mining operations in the Stratford East Open Cut, SCPL will notify the owner of property 60 that they may request SCPL acquire their property.

Should the owner elect to sell property 60, land acquisition will be based on the requirements of Schedule 4, Condition 5 of the Development Consent.

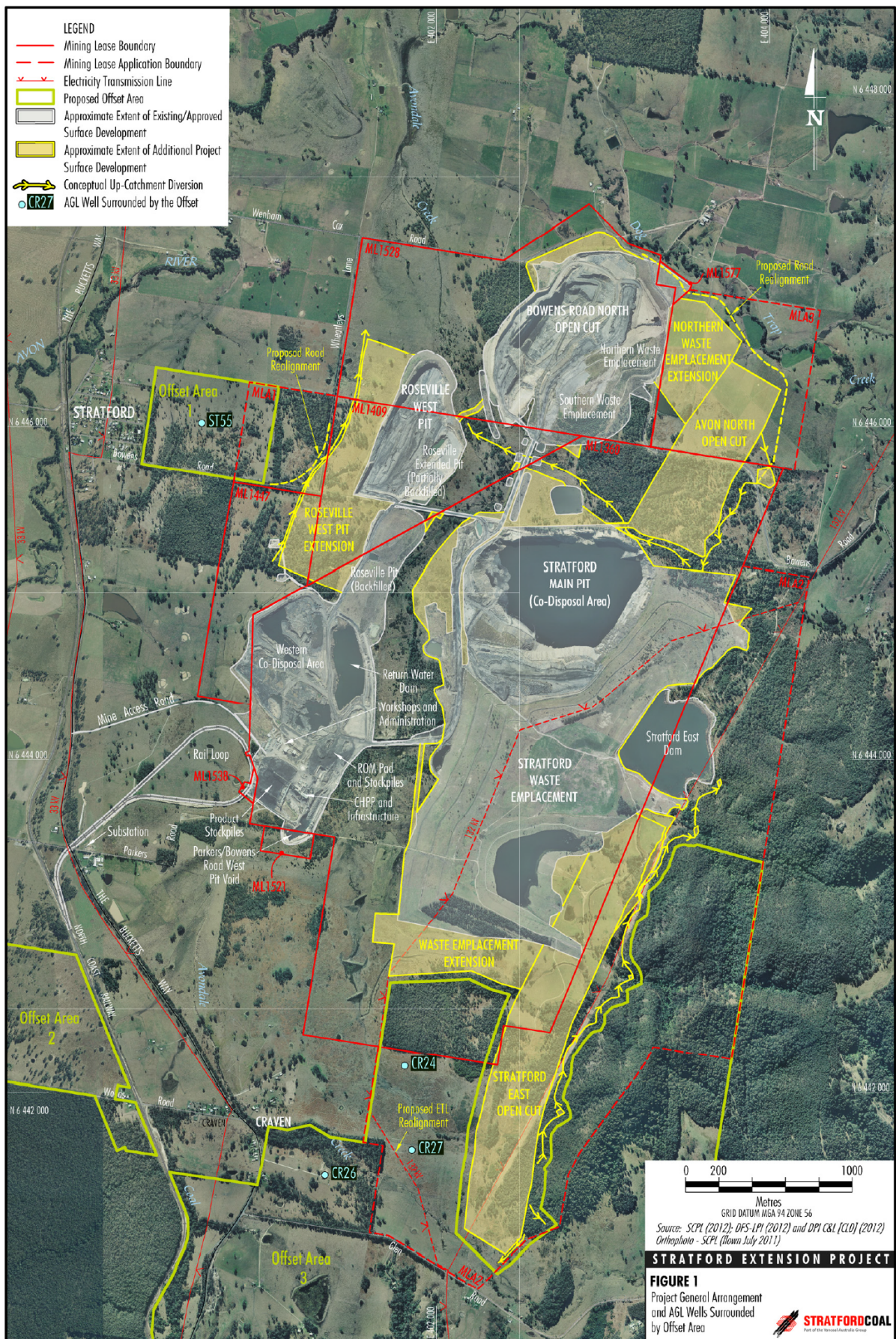


Figure 1: Project General Arrangement and AGL Wells Surrounded by Offset Area