

Project Approval

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

I approve the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

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

Project Approval signed by Frank Sartor on 12 March 2008

Frank Sartor MP
Minister for Planning

Sydney

2008

SCHEDULE 1

Application No:	06_0311
Proponent:	Great Southern Energy Pty Limited
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Mannering Colliery – Continuation of Mining Project

Red text represents Modification 1 of October 2012 (06_0311 MOD 1)

Blue text represents Modification 2 of November 2014 (06_0311 MOD 2)

Green text represents Modification 3 of December 2015 (06_0311 MOD 3)

Orange text represents Modification 4 of August 2016 (06_0311 MOD 4)

Purple text represents Modification 5 of June 2020 (06_0311 MOD 5)

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DEFINITIONS

Aboriginal Object / Place	Has the same meaning as the definition of the term in section 5 of the NP&W Act
Annual review	The review required by condition 8 of Schedule 5
Applicant	Great Southern Energy Pty Limited, or any person carrying out development under this consent
Affected councils	Central Coast Council and Lake Macquarie City Council
APZs	The asset protection zones shown in Figure 4 in Appendix 2
BCA	Building Code of Australia
BCD	Biodiversity and Conservation Division within the Department
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; and any pipeline, water, sewer, telephone, gas or other service main
Calendar year	A period of 12 months from 1 January to 31 December
CCC	Community Consultative Committee
CC Council	Central Coast Council
Conditions of this consent	Conditions contained in Schedules 2 to 5 inclusive
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning, Industry and Environment
DPIE Water	Water Group within the Department
EA	Environmental Assessment titled <i>Mannering Colliery Environmental Assessment</i> , dated March 2007, including the response to submissions, dated 27 July 2007
EA (Mod 1)	Environmental Assessment titled <i>Mannering Colliery – Extension of Mine Project Section 75W Modification to Project Approval 06_0311</i> , as modified by the associated response to submissions dated 4 September 2012
EA (Mod 2)	Environmental Assessment titled <i>'Mannering Colliery – Modification 2, Environmental Assessment, Section 75W Modification to MP 06_0311'</i> dated April 2014, as modified by the associated response to submissions dated 15 September 2014
EA (Mod 3)	Environmental Assessment titled <i>'Mannering Colliery – Modification 3 Environmental Assessment, Section 75W Modification to MP 06_0311'</i> dated June 2015, including the associated Response to Submissions dated September 2015
EA (Mod 4)	Environmental Assessment titled <i>'Administrative modification to MP06_0311 – Environmental Assessment'</i> dated 25 July 2016
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act 1997</i>
Evening	The period from 6pm to 10pm
Feasible	Means what is possible and practical in the circumstances
First workings	The extraction of coal by bord and pillar mining methods (including herringbone pattern workings) and from main headings, gateroads and cut-throughs and the like, provided that such workings are long-term stable and do not generate more than 20 mm of vertical subsidence at the surface
Heritage item	An Aboriginal object, an Aboriginal place, or a place, building, work, relic, moveable object, tree, or precinct of heritage significance, that is listed under any of the following: <ul style="list-style-type: none"> • the State Heritage Register under the <i>Heritage Act 1977</i>; • a state agency heritage and conservation register under section 170 of the <i>Heritage Act 1977</i>; • a Local Environmental Plan under the EP&A Act; • the World Heritage List; • the National Heritage List or Commonwealth Heritage List under the EPBC Act; or

	<ul style="list-style-type: none"> anything identified as a heritage item under the conditions of this consent.
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm that may or may not be or cause a non-compliance
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act, except 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 NSW Land Registry Services at the date of this consent
Material harm	Is harm to the environment that: <ul style="list-style-type: none"> involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Mining operations	The carrying out of underground mining, including the extraction, processing, stockpiling and transportation of coal on the site and the emplacement of coarse/fine reject material resulting from underground mining
Minister	The Minister for Planning and Public Spaces, or delegate
Minor	Not very large, important or serious
Modification 1	The modification to the development as described in EA (Mod 1)
Modification 2	The modification to the development as described in EA (Mod 2)
Modification 3	The modification to the development as described in EA (Mod 3)
Modification 4	The modification to the development as described in EA (Mod 4)
Modification 5	The modification to the development as described in SEE (Mod 5)
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
NPfl	Noise Policy for Industry (EPA, 2017)
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
Privately-owned land	Land that is not owned by a public agency, Delta Electricity (or its subsidiary) or a mining company (or its subsidiary)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Registered Aboriginal Parties	As described in the <i>National Parks and Wildlife Regulation 2009</i>
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
RFS	NSW Rural Fire Service
ROM	Run-of-mine
RR	Regional NSW - Resources Regulator
SA NSW	Subsidence Advisory NSW
Second workings	Extraction of coal by longwall, miniwall, pillar extraction, pillar splitting or pillar reduction methods, and inclusive of any first workings methods that would generate more than 20 mm of vertical subsidence at the surface
SEE (Mod 5)	Statement of Environmental Effects titled ' <i>Statement of Environmental Effects, Mannering Colliery – Modification 5</i> ' dated May 2019, prepared by EMM Consulting, and the associated Response to Submissions dated August 2019, prepared by EMM Consulting.
Site	Land referred to in Appendix 1
SMP	Subsidence Management Plan
Statement of Commitments	The Statement of Commitments in Appendix 3
Subsidence	Subsidence of the land surface caused by underground coal mining
TfNSW	Transport for NSW

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. In addition to meeting the specific performance measures and criteria established under this development, the Applicant must implement all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.

Terms of Approval

2. The development may only be carried out:
 - (a) in compliance with the conditions of this consent;
 - (b) in accordance with the statement of commitments in Appendix 3;
 - (c) in accordance with the approved mine plan in Appendix 2;
 - (d) in accordance with all written directions of the Planning Secretary; and
 - (e) generally in accordance with the EA, EA (Mod 1), EA (Mod 2), EA (Mod 3), EA (Mod 4) and SEE (Mod 5).
3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:
 - (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and
 - (b) the implementation of any actions or measures contained in any such document referred to in condition 3(a).
4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document/s listed in condition 2(e). In the event of an inconsistency, ambiguity or conflict between any of the document/s listed in condition 2(e), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

Limits on Consent

5. Mining operations may take place until 31 December 2027.

Note: Under this consent, the Applicant is required to rehabilitate the site to the satisfaction of the Planning Secretary and RR. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the site has been rehabilitated to a satisfactory standard.

6. The Applicant must not extract more than 1.1 million tonnes of ROM coal a year from the site.
- 6A. The Applicant must not transport more than 2.1 million tonnes of ROM coal a year from the site.
7. The Applicant must ensure all coal produced and/or received on the site is transported by overland conveyor to Vales Point Power Station.
8. Deleted.

Structural Adequacy

9. The Applicant must 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 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for any proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.
- Under section 21 of the Coal Mine Subsidence Compensation Act 2017, the Applicant is required to obtain the Chief Executive of SANSW's approval before carrying out certain development in a Mine Subsidence District.

Demolition

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

Operation of Plant and Equipment

11. All plant and equipment used on site, or to monitor the performance of the development must be:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

Community Enhancement Program

12. The Applicant must pay the affected councils \$0.02 for each tonne of ROM coal produced by the development for the purpose of improving water quality in the Lake Macquarie catchment. This payment must be:
 - (a) shared equally by the affected councils;
 - (b) made by the end of March 2009, and at yearly intervals thereafter;
 - (c) calculated on the ROM coal produced in the previous calendar year; and
 - (d) subject to indexation by the Implicit Price Deflator, as published by the Australian Bureau of Statistics.

Community Consultative Committee

13. A Community Consultative Committee (CCC) must be established for the development in accordance with the Department's *Community Consultative Committee Guidelines: State Significant Developments (2019)*. The CCC must continue to operate during the life of the development, or other timeframe agreed by the Planning Secretary.

Notes:

- *The CCC is an advisory committee only.*
- *In accordance with the Guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, affected Councils and the local community.*

14. With the approval of the Planning Secretary, the Applicant may combine the CCC required by this development with any similar CCC required by a consent or approval for any adjoining mine subject to common, shared or related ownership or management.

Evidence of Consultation

15. Where conditions of this consent require consultation with an identified party, the Applicant must:
 - (a) consult with the relevant party prior to submitting the subject document;
 - (b) provide details of the consultation undertaken including:
 - i. the outcome of that consultation, matters resolved and unresolved; and
 - ii. details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

Staging, Combining and Updating Strategies, Plans or Programs

16. With the approval of the Planning Secretary, the Applicant may:
 - (a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);
 - (b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined);
 - (c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development); and

- (d) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required by an adjoining mining consent or approval, in common ownership or management.
17. If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.
18. If the Planning Secretary agrees, a strategy, plan or program may be staged without addressing particular requirements of the relevant condition of this consent if those requirements are not applicable to the particular stage.

Application of Existing Strategies, Plans or Programs

19. The Applicant must continue to apply existing management strategies, plans or monitoring programs approved prior to the approval of Modification 5, until the approval of a similar plan, strategy or program following the approval of Modification 5.

Protection of Public Infrastructure

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

^a This condition does not apply to any damage to roads caused as a result of general road usage or to damage that has been compensated under the Mining Act 1992.

Compliance

21. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

Applicability of Guidelines

22. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of inclusion (or later update) in the condition.
23. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, in respect of ongoing monitoring and management obligations, agree to or require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Construction Noise

1. The Applicant must ensure that the noise generated by any construction work is managed in accordance with the requirements outlined in the *Interim Construction Noise Guideline* (DECC, 2009).

Operational Noise Criteria

2. Except for the carrying out of construction works, the Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 1 at any residence^a on privately-owned land.

Table 1: Operational noise criteria dB(A)

Noise Assessment Location	Day	Evening	Night	Night
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
4 – di Rocco	40	36	36	46
5 - Keighran	40	39	39	49
6 – Swan	40	37	37	47
7 – Druitt	40	35	35	45
8 – Macquarie Shores Home Village	42	42	42	47
9 - Jeans	40	37	37	47
11 - Jeans	40	36	36	46
18 - Jeans	40	36	36	46
20 – Knight and all other privately-owned residences	40	36	36	46

^a The Noise Assessment Locations referred to in Table 1 are shown in Appendix 4.

Noise generated by the development must be monitored and measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the *NSW Noise Policy for Industry* (EPA, 2017).

3. The noise criteria in Table 1 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Noise Operating Conditions

- 3A. The Applicant must:
 - (a) take all reasonable steps to minimise noise from construction and operational activities, including low frequency noise and other audible characteristics, associated with the development;
 - (b) implement reasonable and feasible noise attenuation measures on all plant and equipment that will operate in noise sensitive areas;
 - (c) operate a comprehensive noise management system commensurate with the risk of impact;
 - (d) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions when the noise criteria in this consent do not apply (see NPfI);
 - (e) carry out regular attended noise monitoring (at least once a month, unless otherwise agreed by the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent;

- (f) regularly assess the noise monitoring data and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent; and
- (g) implement reasonable and feasible measures to further enclose the structure housing the coal crusher in order to further mitigate noise from operational activities.

3B. The Applicant must decommission the surface rotary breaker identified in the Statement of Commitments at Appendix 3, within 3 months of approval of Modification 5.

Noise Management Plan

3C. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:

- (a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
- (b) describe the measures to be implemented to ensure:
 - i. compliance with the noise criteria and operating conditions in this consent;
 - ii. best practice management is being employed; and
 - iii. noise impacts of the development are minimised during noise-enhancing meteorological conditions when the noise criteria in this consent do not apply (see NPfl);
- (c) describe the noise management system in detail; and
- (d) include a monitoring program that:
 - i. uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the development;
 - ii. monitors noise at the nearest and/or most affected residences;
 - iii. includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time;
 - iv. adequately supports the noise management system;
 - v. includes a protocol for distinguishing noise emissions of the development from any neighbouring developments; and
 - vi. includes a protocol for identifying any noise-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of any such event.

The Applicant must implement the Noise Management Plan as approved by the Planning Secretary.

SUBSIDENCE

4. The Applicant **must limit its coal extraction methods on the site to first workings only, and must not undertake second workings.**

5. Deleted.

SOIL AND WATER

Discharge

- 6. The Applicant **must** only discharge water from the site as expressly provided for by its EPL.
- 7. The Applicant **must** investigate, assess and report on the ecological interactions of minewater discharged from the site with the aquatic ecology of the unnamed creek and wetlands (and associated vegetation) between the minewater discharge point/s and Lake Macquarie. This report must:
 - (a) be prepared in consultation with EPA by suitably qualified expert/s whose appointment/s have been approved by the Planning Secretary;
 - (b) be submitted to the Planning Secretary by the end of March 2009; and
 - (c) assess the probable alterations in the local ecology attributable to previous and proposed minewater discharges and any future cessation of minewater discharge flows.

Water Management Plan

- 8. The Applicant **must** prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
 - (a) be prepared in consultation with DPIE Water by suitably qualified expert/s whose appointment/s have been approved by the Planning Secretary;
 - (b) be submitted the Planning Secretary by the end of March 2009; and
 - (c) include a:
 - Site Water Balance;

- Erosion and Sediment Control Plan;
- Surface Water Monitoring Plan; and
- Groundwater Monitoring Program.

The Applicant must implement the Water Management Plan approved by the Planning Secretary.

Site Water Balance

9. The Site Water Balance must:
- include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site; and
 - investigate, assess and report on measures to minimise water use by the development, particularly potable water from the Wyong Shire town water supply.

Erosion and Sediment Control

10. The Erosion and Sediment Control Plan must:
- be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction* (Landcom 2004, or its latest version);
 - identify activities that could cause soil erosion and generate sediment;
 - describe measures to minimise soil erosion and the potential for transport of sediment from the site;
 - describe the location, function, and capacity of erosion and sediment control structures; and
 - describe what measures would be implemented to monitor and maintain the structures over time.

Surface Water Monitoring Program

11. The Surface Water Monitoring Plan must include:
- detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the development;
 - surface water impact assessment criteria;
 - a program to monitor the impact of the development on surface water flows and quality; and
 - procedures for reporting the results of this monitoring.

Groundwater Monitoring Program

12. The Groundwater Monitoring Program must include:
- detailed baseline data to benchmark the natural variation in groundwater levels, yield and quality;
 - groundwater impact assessment criteria;
 - a program to monitor the impact of the development on groundwater levels, yield and quality; and
 - procedures for reporting the results of this monitoring.

REHABILITATION

13. The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. Rehabilitation must be generally consistent with the proposed rehabilitation described in the EA and the Statement of Commitments, and comply with the objectives in Table 2.

Table 2: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole of the disturbed land and water)	Safe, stable and non-polluting, fit for the purpose of the intended post-mining land use(s).
Surface Infrastructure	To be decommissioned and removed, unless the RR agrees otherwise.
Portals and ventilation shafts	To be decommissioned and made safe and stable.
Other land affected by the development	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> • local native plant species (unless the RR agrees otherwise); and • a landform consistent with the surrounding environment.
Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> • the owner agrees otherwise; or

	<ul style="list-style-type: none"> the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>.
Community	Ensure public safety.

- 13A. The Applicant **must** carry out all surface disturbing activities in a manner that, as far as practicable, minimises potential for dust emissions and **must** carry out rehabilitation of disturbed areas progressively, that is, as soon as reasonably practicable following disturbance.

Land Management Plan

14. The Applicant **must** prepare a detailed Land Management Plan for the site to the satisfaction of the Planning Secretary. This plan must:
- be submitted to the Planning Secretary by the end of September 2008;
 - be prepared by suitably qualified expert/s whose appointment/s have been endorsed by the Planning Secretary;
 - be prepared in consultation with RR, BCD and affected councils; and
 - include measures to:
 - minimise visual impacts;
 - control weeds, feral pests and access; and
 - manage bushfires; and
 - provide details of who is responsible for monitoring, reviewing and implementing the plan.

Prior to the end of April 2016, the Applicant **must** revise the Land Management Plan to incorporate the measures required to implement its commitments described in new row 2 of the Terrestrial Ecology section of its Statement of Commitments, and submit it to the Planning Secretary for approval.

The Applicant must implement the Land Management Plan approved by the Planning Secretary.

- 14A. The Applicant **must** implement its preferred option of the three options set out in new row 2 of the Terrestrial Ecology section of its Statement of Commitments by 1 December 2016, following consultation with BCD and to the satisfaction of the Planning Secretary.

Rehabilitation Management Plan

15. The Applicant **must** prepare a Rehabilitation Management Plan for the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This plan must:
- be submitted within 3 months of approval of Modification 2 to the RR prior to carrying out any disturbing activities of the development, unless otherwise agreed by the Planning Secretary;
 - be prepared in accordance with RR guidelines and in consultation with the Department, BCD, EPA, DPIE Water, affected councils and the mine's CCC;
 - incorporate and be consistent with the rehabilitation objectives in the EA, Statement of Commitments and Table 2 above;
 - integrate and build on, to the maximum extent practicable, the other management plans required under this consent; and
 - address all aspects of mine closure and rehabilitation, including post-mining land use domains, rehabilitation objectives, completion criteria and rehabilitation monitoring and management.

Note: The approved Mining Operations Plan (which will become the REMP once the Mining Act Amendments have commenced) required as a condition of the Mining Lease(s) issued in relation to this development, will satisfy the requirements of this condition for a Rehabilitation Plan.

AIR QUALITY

Impact Assessment Criteria

16. The Applicant must 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 listed in Table 3 at any residence on privately-owned land.

Table 3: Air quality criteria

Pollutant	Averaging period	Criterion
Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³
	24 hour	^b 25 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³
	24 hour	^b 50 µg/m ³
Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³
^d Deposited dust	Annual	^b 2 g/m ² /month ^a 4 g/m ² /month

Notes:

^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

^c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary.

^d 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.

- 16A. The air quality criteria in Table 3 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the air quality criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Air Quality and Greenhouse Gas Management Plan

17. The Applicant must prepare an Air Quality and Greenhouse Gas Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
 - describe the measures to be implemented to ensure:
 - capture and flaring of methane produced by underground coal mining;
 - compliance with the air quality criteria and operating conditions in this consent;
 - best practice management is being employed (including in respect of minimisation of greenhouse gas emissions from the site and energy efficiency); and
 - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
 - describe the air quality management system in detail; and
 - include an air quality monitoring program, undertaken in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007), that:
 - uses monitors to evaluate the performance of the development against the air quality criteria in this consent and to guide day to day planning of operations;
 - adequately supports the air quality management system; and
 - includes a protocol for identifying an air quality incident and notifying the Department and relevant stakeholders of any such incident.

Note: "Methane produced by underground coal mining" does not include methane within mine ventilation air.

- 17A. The Applicant must implement the Air Quality and Greenhouse Gas Management Plan as approved by the Planning Secretary.

METEOROLOGICAL MONITORING

- 17B. For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007); and
 - (b) is capable of measuring meteorological conditions in accordance with the *NSW Noise Policy for Industry* (EPA, 2017), unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

HERITAGE

Protection of Aboriginal Heritage

18. The Applicant must ensure that the development does not cause any direct or indirect impact on any identified heritage item located outside the approved disturbance area, beyond those predicted in the documents listed in condition 2(e) of Schedule 2.

Heritage Management Plan

- 18A. The Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Planning Secretary. This Plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Planning Secretary;
 - (b) be prepared in consultation with BCD and Registered Aboriginal Parties;
 - (c) include consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site;
 - (d) describe the procedures and management measures to be implemented on the site or within any offset area to:
 - i. ensure all workers receive suitable Aboriginal cultural heritage inductions prior to carrying out any activities which may cause impacts to Aboriginal objects or Aboriginal places, and that suitable records are kept of these inductions;
 - ii. protect, monitor and manage identified non-Aboriginal heritage, Aboriginal objects and Aboriginal places (including any proposed archaeological investigations of potential subsurface objects and salvage of objects within the approved disturbance area) in accordance with the commitments made in the document/s listed in condition 2(e) of Schedule 2;
 - iii. protect non-Aboriginal heritage, Aboriginal objects and Aboriginal places located outside the approved disturbance area from impacts of the development;
 - iv. manage the discovery of suspected human remains and any new Aboriginal objects or Aboriginal places, including provisions for burials, over the life of the development;
 - v. maintain and manage reasonable access for relevant Aboriginal stakeholders to Aboriginal objects and Aboriginal places (outside of the approved disturbance area); and
 - vi. facilitate ongoing consultation and involvement of Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site; and
 - (e) include a strategy for the care, control and storage of Aboriginal objects salvaged on site, both during the life of the development and in the long term.

The Applicant must implement the Heritage Management Plan approved by the Planning Secretary.

VISUAL

19. The Applicant must:
- (a) ensure no outdoor lights shine above the horizontal;
 - (b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*;
 - (c) take all practicable measures to mitigate off-site lighting impacts from the development; and
 - (d) minimise the visual impacts of the development, to the satisfaction of the Planning Secretary.

TRANSPORT

Monitoring of Coal Transport

20. The Applicant must keep records of the amount of coal transported from the site each year, and include these records in the Annual Review.

Ruttleys Road Intersection

21. The Applicant must:
- complete a road safety audit of the intersection of Ruttleys Road and Mannering Colliery Access Road by the end of March 2009;
 - provide copies of this audit to TfNSW, Central Coast Council and the Planning Secretary within one month of its completion; and
 - within 3 months of approval of Modification 2, install additional sections of guardrail (safety barrier) on the eastern side of Ruttleys Road between the Mannering Colliery access road and existing sections of guardrail further to the north;
 - be responsible for the maintenance and upkeep of the pavement of the Ruttleys Road/Mannering Colliery access road intersection whilst the site is used for mining purposes or until the intersection is upgraded to a Type CHR intersection treatment; and
 - prior to the number of workers (direct employees and contractors) at Mannering Colliery exceeding 70, the Applicant must upgrade the Ruttleys Road/Mannering Colliery access road intersection to a Type CHR treatment in accordance with Construction Certificate SCC/69/2011 issued by Central Coast Council, or later updated versions of this Construction Certificate; to the satisfaction of the Planning Secretary.

BUSHFIRE MANAGEMENT

22. The Applicant must:
- ensure that the development:
 - provides for asset protection in accordance with the relevant requirements in the *Planning for Bushfire Protection* (RFS, 2006) guideline; and
 - ensure that there is suitable equipment to respond to any fires on the site; and
 - assist the RFS and emergency services to the extent practicable if there is a fire in the vicinity of the site.

WASTE

23. The Applicant must:
- monitor the amount of waste generated by the development;
 - investigate ways to minimise waste generated by the development;
 - implement reasonable and feasible measures to minimise waste generated by the development; and
 - report on waste management and minimisation in the Annual Review, to the satisfaction of the Planning Secretary.

EXPLORATION ACTIVITIES AND SURFACE INFRASTRUCTURE

Exploration Activities and Minor Surface Infrastructure Management Plan

24. Prior to carrying out exploration activities on the site under this consent that would cause temporary surface disturbance, or exploration activities within the waters or lake bed of Lake Macquarie, or the construction and/or upgrade of minor surface infrastructure on the site, the Applicant must prepare an Exploration Activities and Minor Surface Infrastructure Management Plan for the development to the satisfaction of the Planning Secretary. This Plan must:
- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
 - be prepared in consultation with RR, NSW Maritime Division of TfNSW, NSW Fisheries and BCD;
 - include a description of the measures to be implemented for:
 - managing exploration activities;
 - managing construction and operation of minor surface infrastructure and associated access tracks;
 - consulting with and if necessary compensating affected landowners;

- iv. assessing noise, air quality, traffic, biodiversity, heritage, public safety and other impacts;
- v. beneficial re-use or flaring of drained hydrocarbon gases, wherever practicable;
- vi. avoiding significant impacts and minimisation of impacts generally;
- vii. avoiding or minimising impacts on threatened species, populations or their habitats and EECs;
- viii. minimising clearance and disturbance of native vegetation (including seagrasses);
- ix. minimising and managing erosion and sedimentation; and
- x. rehabilitating disturbed areas.

Note: *Consultation with NSW Maritime Division of TfNSW and NSW Fisheries is not required for land-based exploration activities and minor surface infrastructure.*

The Applicant must implement the Exploration Activities and Minor Surface Infrastructure Management Plan as approved by the Planning Secretary.

SCHEDULE 4 ADDITIONAL PROCEDURES

INDEPENDENT REVIEW

1. If a landowner considers the **development** to be exceeding the impact assessment criteria in schedule 3, then he/she may ask the **Planning Secretary** in writing for an independent review of the impacts of the **development** on his/her land.

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

- (a) consult with the landowner to determine his/her concerns;
 - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Planning Secretary**, to conduct monitoring on the land, to:
 - determine whether the **development** is complying with the relevant impact assessment criteria in schedule 3; and
 - identify the source(s) and scale of any impact on the land, and the **development's** contribution to this impact; and
 - give the **Planning Secretary** and landowner a copy of the independent review.
2. If the independent review determines that the **development** is complying with the relevant impact assessment criteria in schedule 3, then the **Applicant** may discontinue the independent review with the approval of the **Planning Secretary**.
 3. If the independent review determines that the **development** is not complying with the relevant impact assessment criteria in schedule 3, and that the **development** is primarily responsible for this non-compliance, then the **Applicant must**:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the **development** complies with the relevant criteria; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance.

If the additional monitoring referred to above subsequently determines that the **development** is complying with the relevant criteria in schedule 3, or the **Applicant** and landowner enter into a negotiated agreement to allow these exceedances, then the **Applicant** may discontinue the independent review with the approval of the **Planning Secretary**.

4. If the independent review determines that the relevant criteria in schedule 3 are being exceeded, but that more than one **development** is responsible for this non-compliance, then the **Applicant must**, together with the relevant **development/s**:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance; or
 - (c) secure a written agreement with the landowner and other relevant **developments** to allow exceedances of the criteria in schedule 3, to the satisfaction of the **Planning Secretary**.

If the additional monitoring referred to above subsequently determines that the **developments** are complying with the relevant criteria in schedule 3, then the **Applicant** may discontinue the independent review with the approval of the **Planning Secretary**.

5. If the landowner disputes the results of the independent review, either the **Applicant** or the landowner may refer the matter to the **Planning Secretary** for resolution.

If the matter cannot be resolved within 21 days, the **Planning Secretary** shall refer the matter to an Independent Dispute Resolution Process.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:
 - (a) provide the strategic framework for environmental management of the development;
 - (b) identify the statutory approvals that apply to the development;
 - (c) set out the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (d) set out the procedures to be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - receive record, handle and respond to complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance and any incident; and
 - respond to emergencies; and
 - (e) include:
 - references to any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out under the conditions of this consent.

The Applicant must implement the Environmental Management Strategy as approved by the Planning Secretary.

Adaptive Management

2. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Any exceedance of these criteria 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 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 reasonable remediation measures as directed by the Planning Secretary.

Management Plan Requirements

3. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:
 - (a) a summary of relevant background or baseline data;
 - (b) details of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures and criteria; and
 - 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) any relevant commitments or recommendations identified in the document/s listed in condition 2(e) of Schedule 2;
 - (d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;
 - (e) a program to monitor and report on the:
 - impacts and environmental performance of the development; and

- effectiveness of the management measures set out pursuant to condition 2(e) of Schedule 2;
- (f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
- (g) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (h) a protocol for managing and reporting any:
- incident, non-compliance or exceedance of any impact assessment criterion or performance criterion;
 - complaint; or
 - failure to comply with other statutory requirements;
- (i) public sources of information and data to assist stakeholders in understanding environmental impacts of the development; and
- (j) a protocol for periodic review of the plan.

Note: *The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

4. The Applicant must ensure that management plans prepared for the development are consistent with the conditions of this consent and any EPL issued for the site.

REVISION OF STRATEGIES, PLANS AND PROGRAMS

5. Within three months of:
- (a) the submission of an incident report under condition 6;
 - (b) the submission of an Annual Review under condition 8;
 - (c) the submission of an Independent Environmental Audit under condition 9; or
 - (d) the approval of any modification of the conditions of this consent (unless the conditions require otherwise),

the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.

If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

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

REPORTING AND AUDITING

Incident Notification

6. The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident.

Non-Compliance Notification

7. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Note: *A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.*

Annual Review

8. By the end of March in each year after the commencement of the development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary. This review must:

- (a) describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current financial/calendar year;
- (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - requirements of any plan or program required under this consent;
 - monitoring results of previous years; and
 - relevant predictions in the document/s listed in condition 2(e) of Schedule 2;
- (c) identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence;
- (d) evaluate and report on:
 - the effectiveness of the noise and air quality management systems; and
 - compliance with the performance measures, criteria and operating conditions of this consent;
- (e) identify any trends in the monitoring data over the life of the development;
- (f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (g) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.

Copies of the Annual Review must be submitted to the affected Councils and made available to the CCC and any interested person upon request.

Independent Environmental Audit

9. By the end of February 2022, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must:
 - (a) be led by a suitably qualified, experienced and independent auditor whose appointment has been endorsed by the Planning Secretary;
 - (b) be led and conducted by a suitably qualified, experienced and independent team of experts (including any expert in field/s specified by the Planning Secretary) whose appointment has been endorsed by the Planning Secretary;
 - (c) be carried out in consultation with the relevant agencies and the CCC;
 - (d) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals);
 - (e) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent;
 - (f) recommend appropriate measures or actions to improve the environmental performance of the development and any assessment, strategy, plan or program required under the abovementioned approvals and this consent; and
 - (g) be conducted and reported to the satisfaction of the Planning Secretary.
10. Within three months of commencing an Independent Environmental Audit, or other timeframe agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.

Monitoring and Environmental Audits

11. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.

For the purposes of the condition, as set out in the EP&A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the

development to provide information on compliance with the consent or the environmental management or impact of the development.

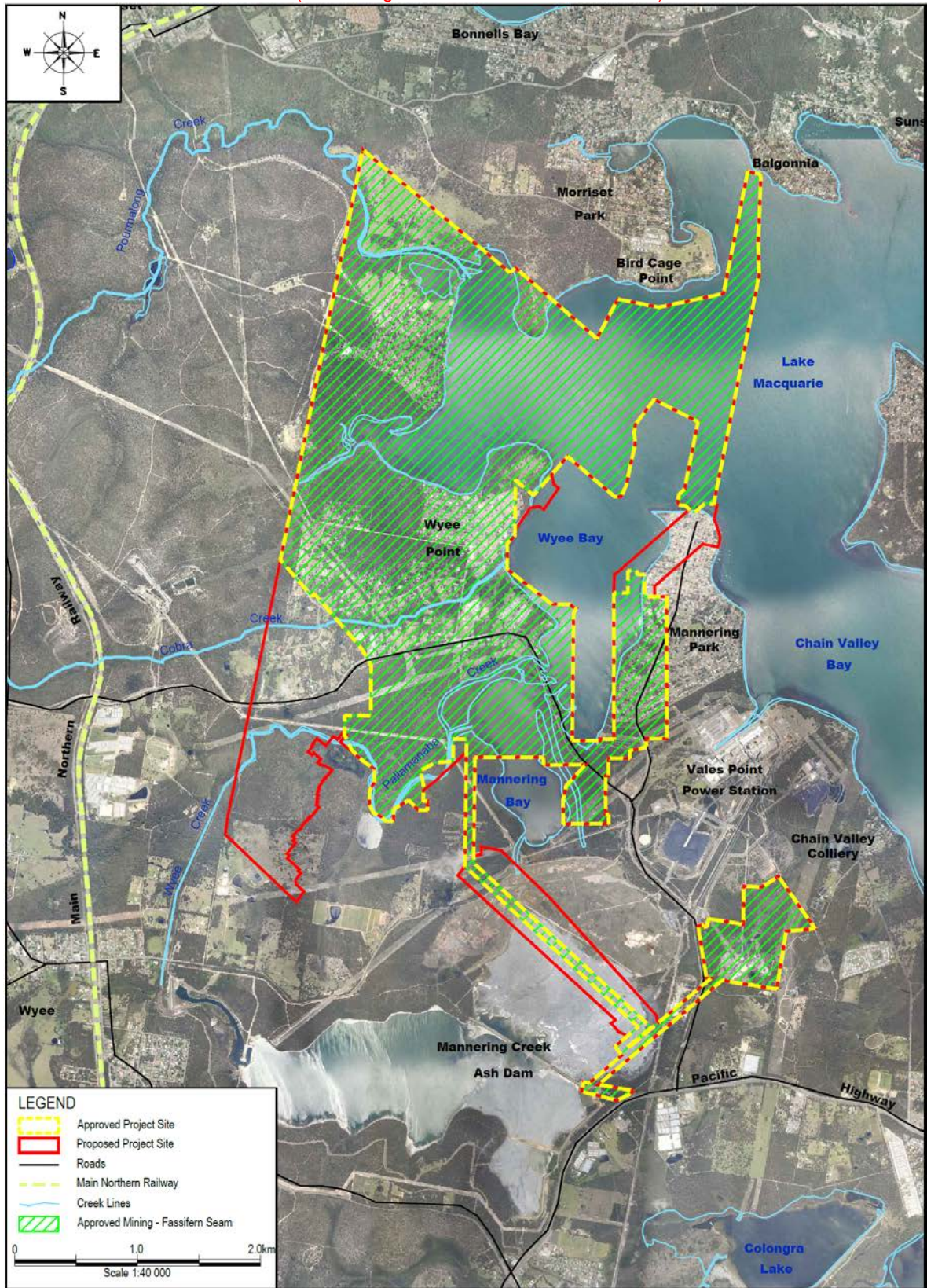
12. Noise and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Schedule 3, providing that these representative monitoring locations are set out in the respective management plan/s.

ACCESS TO INFORMATION

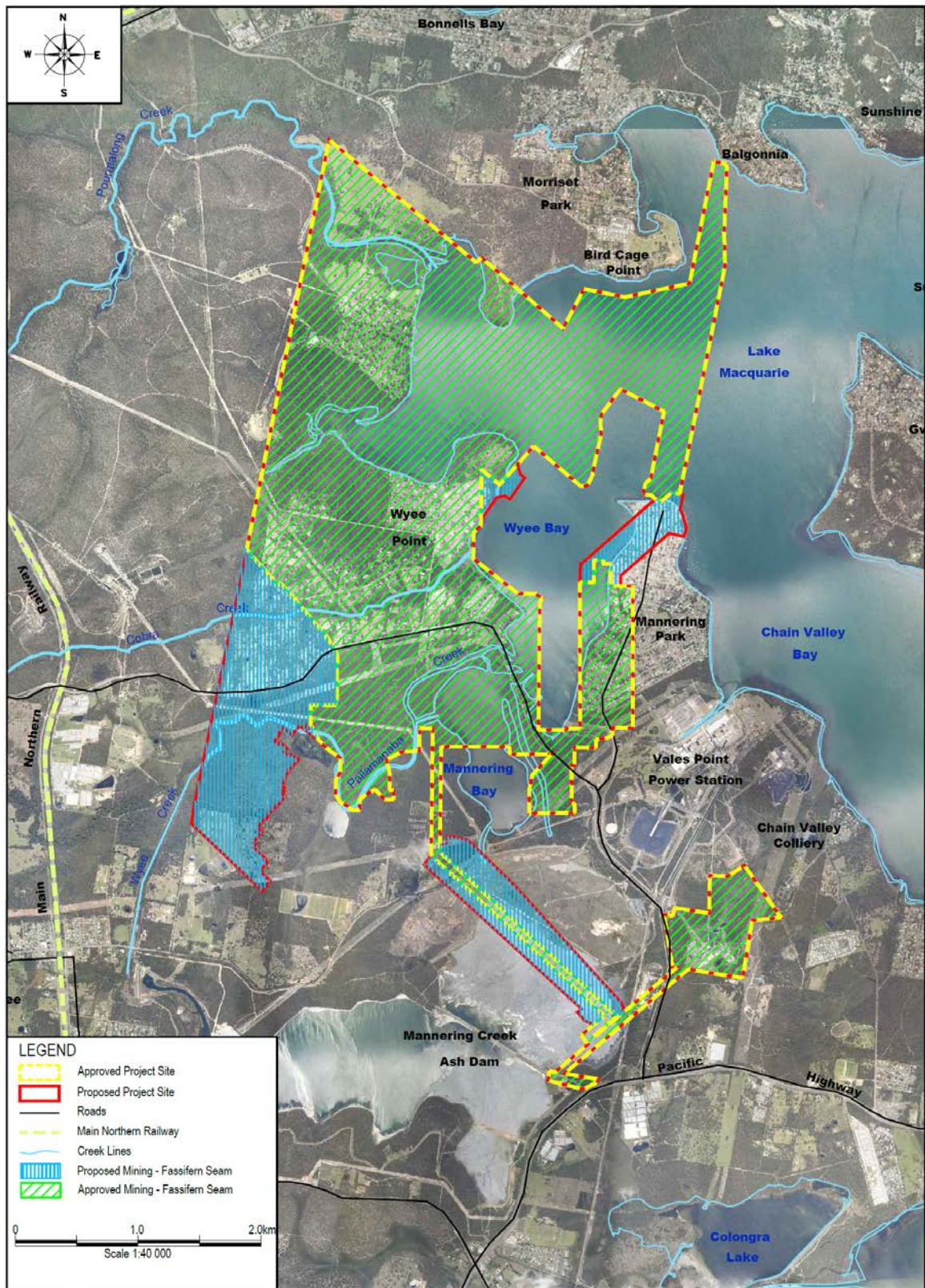
13. Until the completion of all rehabilitation required under this consent, the Applicant must:
- (a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:
- the documents referred to in condition 2(e) of Schedule 2 of this consent;
 - all current statutory approvals for the development;
 - all approved strategies, plans and programs required under the conditions of this consent;
 - the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;
 - minutes of CCC meetings;
 - regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a summary of the current progress of the development;
 - contact details to enquire about the development or to make a complaint;
 - a complaints register, updated monthly;
 - the Annual Reviews of the development;
 - audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; and
 - any other matter required by the Planning Secretary; and
- (b) keep such information up to date, to the satisfaction of the Planning Secretary.

APPENDIX 1: DEVELOPMENT LAND

Manning Colliery – Land to which the Development Consent applies
(shown edged in solid and dashed red lines)



APPENDIX 2: DEVELOPMENT MAPS



To be printed A4



Mannering Colliery - Extension of Mine Project
Proposed Mine Plan (Revised July 2012)

Figure 1: Revised Mine Plan for Fassifern Seam

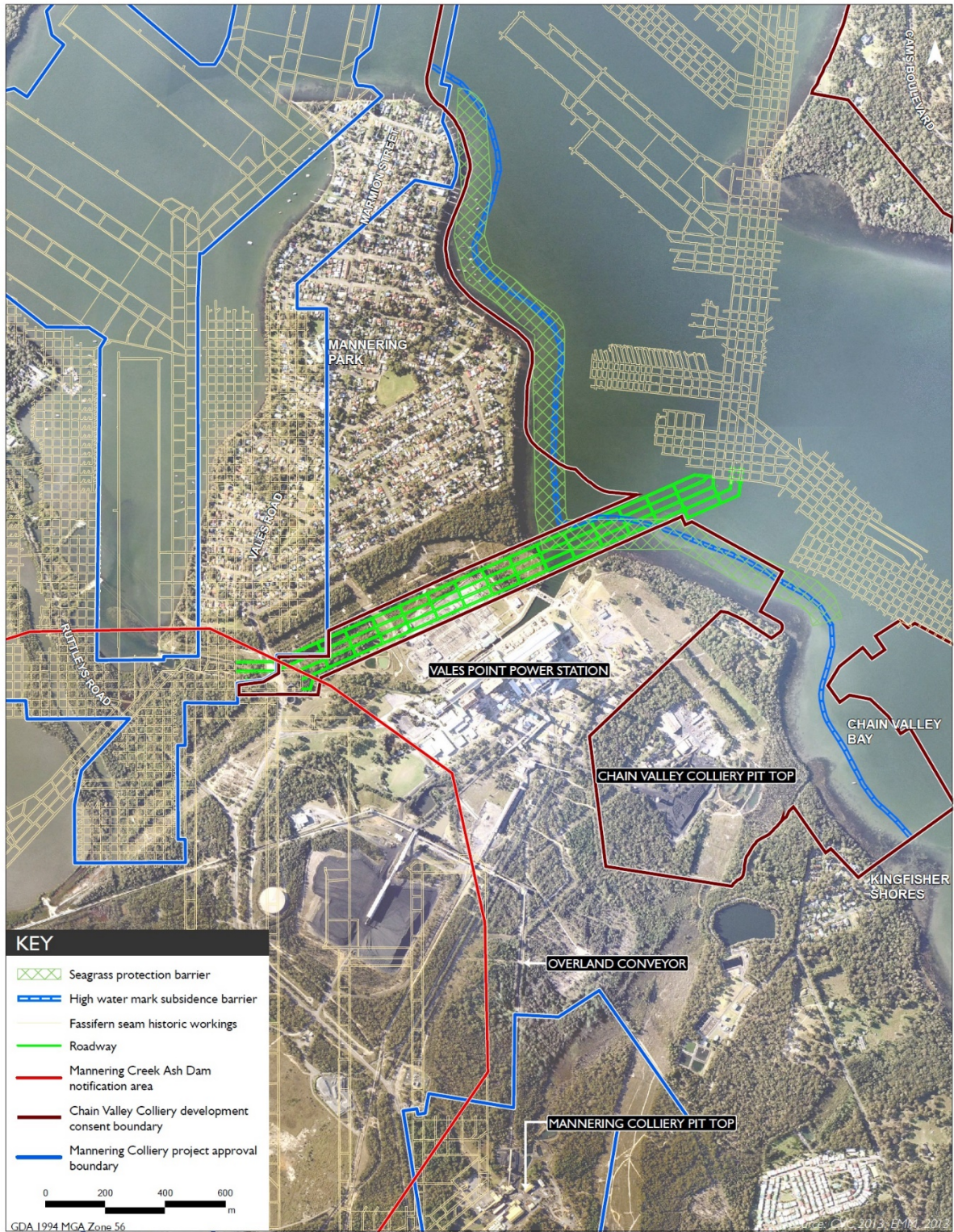


Figure 2: Location of the underground linkage to Chain Valley Colliery

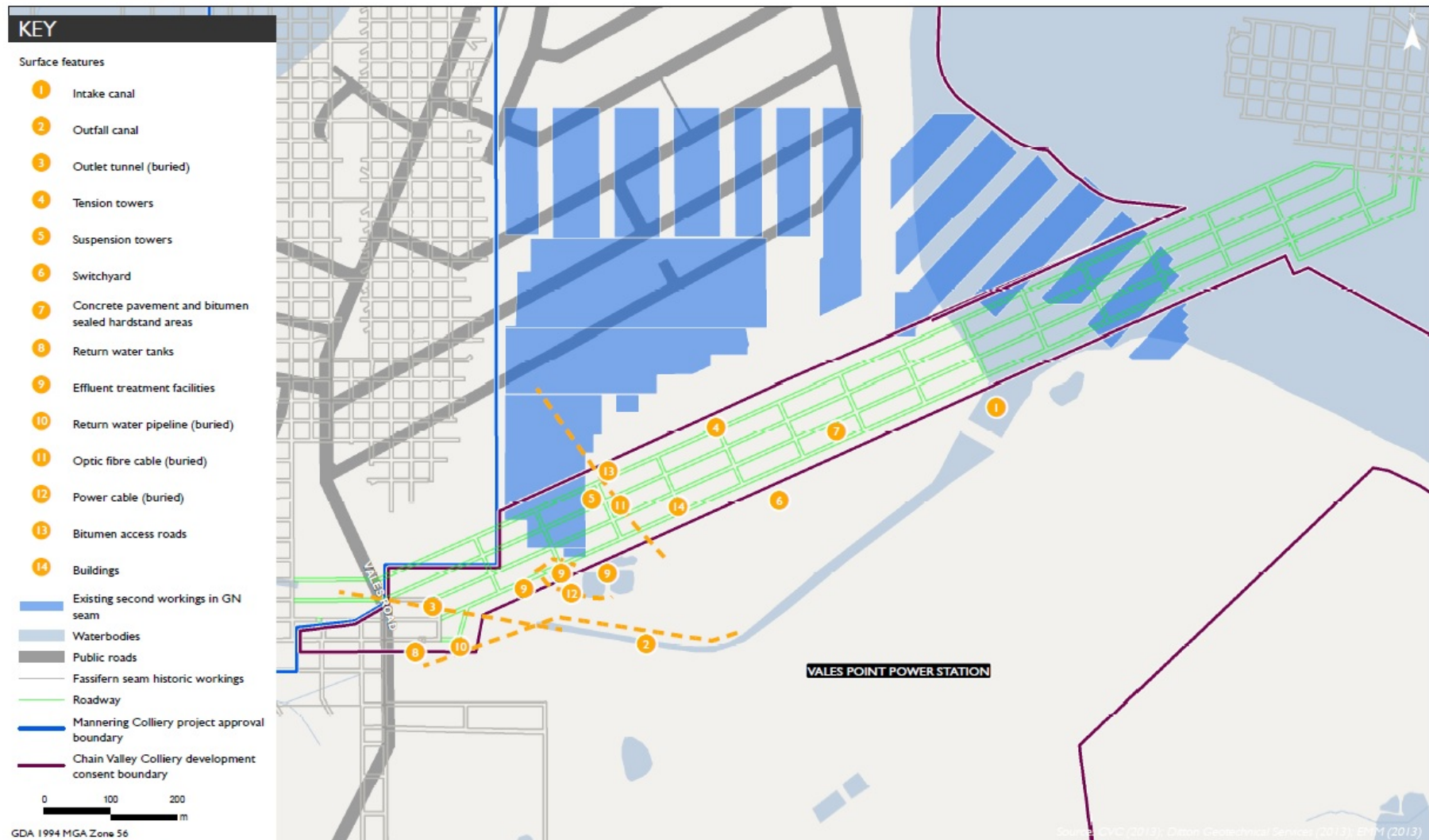


Figure 3: Location of the underground link and surface infrastructure



Figure 4. Location of asset protection zones

APPENDIX 3: STATEMENT OF COMMITMENTS

Revised Statement of Commitments (April 2020)

Revised Statement of Commitments

Subsidence
Mining to be limited to bord-and-pillar methods where coal recovery is limited to first workings only.
Monitoring of the existing subsidence monitoring marks will continue and additional subsidence monitoring marks will be installed above the proposed mining areas to measure the subsidence and verify that subsidence is within the predicted levels.
If it is identified that subsidence levels are greater than the predicted maximum of 20 millimetres, the RR will be consulted to determine appropriate management and mitigation actions.
Water Management
Great Southern Energy Pty Limited will undertake a review of the existing site water management system in consultation with the EPA.
The water level within the sediment pond system will be monitored and kept at a relatively low operating level, such that the ponds can provide a detention function in a significant rainfall event.
A visual assessment of the unnamed creek will be undertaken every 6 months to monitor stability and erosion.
Where practicable, underground water levels will be recorded to monitor changes in the level of water stored in underground depressions and to verify that the rate of extraction is sufficient.
The extraction of underground water from the mine workings will be undertaken in accordance with the Water Access Licence (WAL40461) issued under the Water Management Act 2000.
To enable on-going assessment of the quality of water discharged, the existing monitoring program will be maintained for the life of the Development with the following enhancements: <ul style="list-style-type: none">• An assessment of the surrounding catchments summarising land uses and other background information to characterise an appropriate water quality; and• Annual monitoring of heavy metals at the monitoring location identified as 'Downstream'.
Terrestrial Ecology
The following measures to manage the impacts of vegetation clearing/disturbance associated with the APZ requirements will be ongoing: <ul style="list-style-type: none">• weed management;• large trees will be retained as a priority where possible;• felled trees will be relocated adjacent to the APZs to create additional fauna habitat;• any injured fauna will be taken to the nearest veterinary hospital for treatment before release; and• an ecologist will complete a pre-disturbance survey to determine important components of the Swamp Oak Floodplain Forest EEC for retention in the APZs.
LakeCoal will investigate the following options for biodiversity offsets: <ul style="list-style-type: none">• provide \$10,000 of funding, which is equivalent to the biodiversity being lost (ie 5 credits x \$2,000 per credit) to existing environmental programs at the site which benefits the Swamp Oak Floodplain Forest EEC; or• consult with BCD to identify a suitable conservation program and provide \$10,000 of funding; or

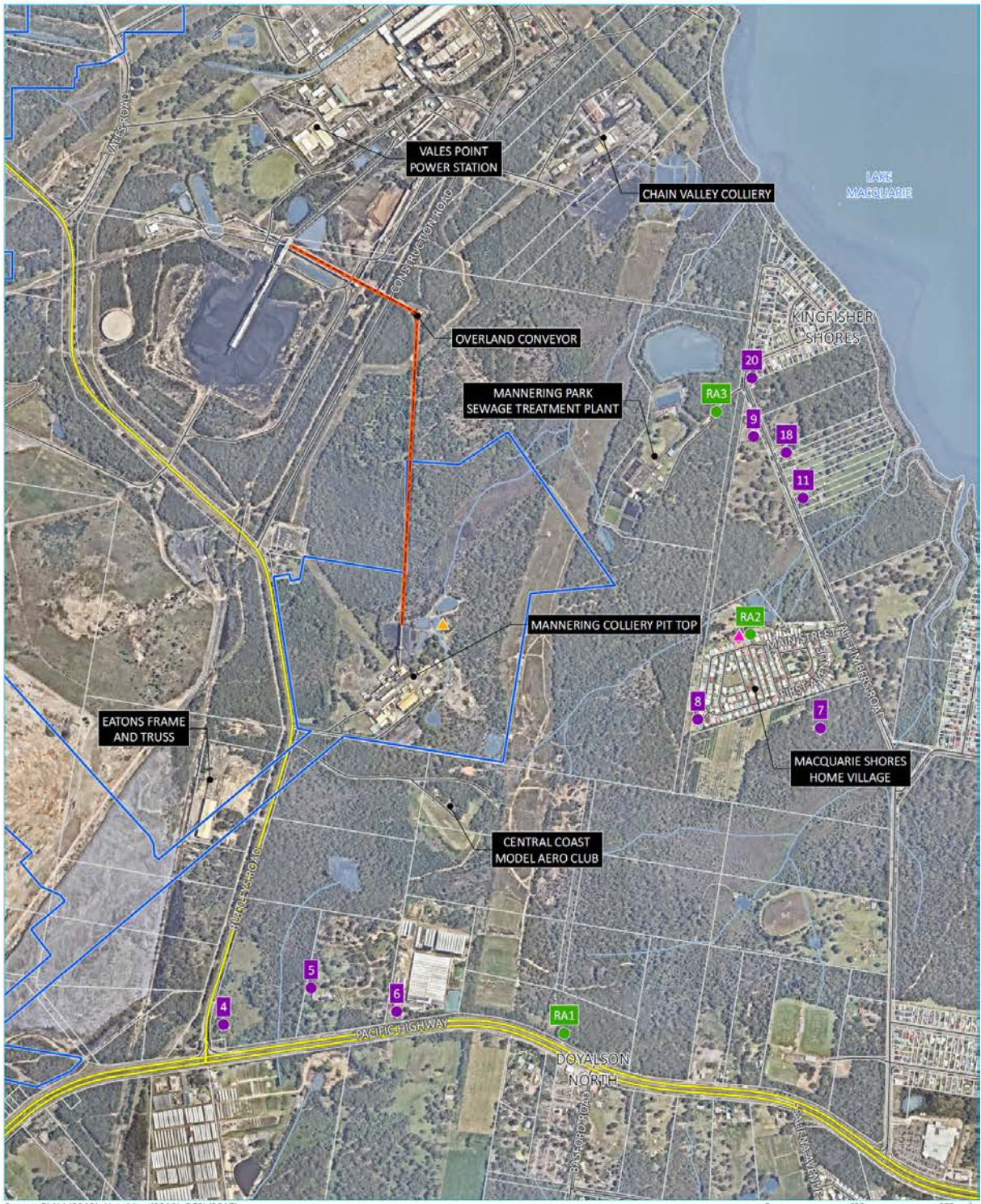
<ul style="list-style-type: none"> purchase and retire 5 credits on the Biobanking register. <p>These options will be considered by the Applicant in consultation with BCD and will reflect BCD's 'Approved BioBanking Assessment Methodology 2014'. The option that achieves the greatest benefit to the biodiversity impacted by the proposed modification will be selected.</p>
<p>If monitoring indicates that mine-induced subsidence levels exceed 20 millimetres, a review will be undertaken to identify any potential impacts to terrestrial ecology.</p>
<p>Aquatic Ecology</p>
<p>If monitoring indicates that mine-induced subsidence levels exceed 20 millimetres, a review will be undertaken to identify any potential impacts to aquatic ecology.</p>
<p>Aboriginal Heritage</p>
<p>Activities will continue to be managed in accordance with the Colliery's Aboriginal Cultural Heritage Management plan (ACHMP).</p>
<p>If monitoring indicates that mine-induced subsidence levels exceed 20 millimetres, a review will be undertaken to identify any potential impacts to cultural heritage in consultation with BCD.</p>
<p>All relevant Mannering staff and contractors will be made aware of their statutory obligations for Aboriginal cultural heritage under the NP&W Act as part of the existing mine induction process.</p>
<p>An Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed and implemented for the identified Aboriginal heritage items within the Development Site in consultation with the relevant Aboriginal stakeholders. If additional sites are identified they will be assessed for cultural significance and be incorporated into the ACHMP.</p>
<p>In the unlikely event that skeletal remains are identified, the NSW Police Coroner will be contacted to determine if the material is of Aboriginal origin. If determined to be Aboriginal, contact will be made with the BCD, a suitably qualified archaeologist and representatives of the relevant Aboriginal stakeholder groups to determine an action plan for the management of the skeletal remains and formulate management recommendations if required.</p>
<p>European Heritage</p>
<p>If monitoring indicates that mine-induced subsidence levels exceed 20 millimetres, a review will be undertaken to identify any potential impacts to non-indigenous heritage.</p>
<p>All relevant Mannering staff and contractors will be made aware of their statutory obligations for European cultural heritage under the Heritage Act 1977 as part of the existing mine induction process.</p>
<p>If, during the course of development works, significant non-indigenous cultural heritage material is uncovered within the Development Site, the Heritage Branch of BCD will be notified and any required monitoring or management strategies instigated.</p>
<p>Air Quality</p>
<p>A review of dust management strategies and mitigation measures will be undertaken against the best practice dust mitigation measures identified in the NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining (Katestone Environmental Pty Ltd 2011), which was prepared for BCD. The review will identify any additional dust management practices that are reasonable and feasible for implementation at Mannering Colliery and will be undertaken generally in accordance with any requirements of a pollution reduction program that may be imposed by the EPA on the Manning Colliery EPL in the future.</p>
<p>Traffic</p>

Great Southern Energy Pty Limited will upgrade the Ruttleys Road - Mannering Colliery Access Road intersection to improve safety and operational efficiency.
Socio-Economic
Great Southern Energy Pty Limited is committed to on-going community consultation and will continue to engage the community for the purposes of providing information relating to on-going operations and the development of the Colliery.
Rehabilitation
Rehabilitation will be undertaken in accordance with the Colliery's Rehabilitation Management Plan, which will be updated to include any changes as a result of any modification.
The Rehabilitation Management Plan will be amended to reflect any modification and will include integrated rehabilitation and environmental management.
Monitoring
The Environmental Monitoring Program will be reviewed and updated, as required, to incorporate the commitments made in the Environmental Assessment and any additional consent conditions.
Commitments for Modification 5
Great Southern Energy Pty Limited will undertake environmental management incorporating the requirements of any modification and in accordance with the existing environmental management processes of the various approvals, licences and management plans that apply to the development.
Great Southern Energy Pty Limited will apply to the EPA for a variation to EPL No. 191 to reflect the increase in the rate of ROM coal throughput from 1.3 to 2.1 Mtpa.
Great Southern Energy Pty Limited will commission a suitably qualified geotechnical engineer to undertake detailed geotechnical assessments as part of the Colliery's detailed mine plan design process.
Great Southern Energy Pty Limited will decommission the surface rotary breaker to reduce noise emissions.

APPENDIX 4: NOISE ASSESSMENT LOCATIONS

**Private Property Surrounding Mannering
(Location of ID numbers are shown on following figure)**

ID	Owner	ID	Owner	ID	Owner
1	Energy Australia	27	H Gleeson	53	H & J Beukers
2	Alcevski Investments	28	C Stead & M Garner	54	A Taylor-Stewart
3	Eaton & Sons Pty Ltd	29	A O'Keefe	55	G Kettles
4	O & J di Rocco	30	P Groen	56	R & E Brokenshire
5	A & M Keighran	31	M Parkin	57	B & S Fowler
6	Swan HydroPonics Pty Ltd	32	I Maclaren	58	B Sneddon
7	R Druitt	33	P Kranz	59	J & P Hanson
8	Macquarie Shores Home Village	34	T & V Wilding	60	L Crook & L Kelly
9	L F Jeans	35	G Williams	61	P & G Becker
10	L & J Jeans	36	P & C Byrnes	62	B Clover & R Alaban
11	L & J Jeans	37	G Holmes	63	T & O Becker
12	L & J Jeans	38	R & B Croucher	64	R Harris & D Kingsford
13	L & J Jeans	39	R & C Calvert	65	N Singleton
14	L & J Jeans	40	T & D Stolz	66	M Smith
15	L & J Jeans	41	A & S Whitbread	67	D & B Johnston
16	L & J Jeans	42	B Kelly	68	R & B Amos
17	L & J Jeans	43	L Preston	69	H & C Strand
18	L & J Jeans	44	G Bain	70	PhystonPty Ltd
19	L & J Jeans	45	C Clarke	71	R Howland
20	E & K Knight	46	W Carpenter	72	R & D Shannon
21	Jonita Homes Pty Ltd	47	S Mackay	73	P & B Williams
22	W & D Buchmasser	48	R Allen	74	P Batten
23	P McKee	49	S Jopp	75	G & A Dyer
24	J Farrell	50	P & M Davie	76	S Harrison & N Robertson
25	P Kretchmer & E Castle	51	D Olsen		
26	A Mearns	52	D Poulson & K Toope		



Source: EMM (2019); NearMap (2019); DFSI (2017)

KEY

- Manning Colliery project approval boundary
- Alignment of overland conveyor to VPPS
- Main road
- Local road
- Watercourse/drainage line
- Waterbody
- Cadastral boundary
- Assessment location
- Attended monitoring location
- ▲ Continuous monitoring location
- ▲ Meteorological station

Noise monitoring and assessment locations

Manning Colliery
Noise monitoring program
Figure 2



Figure 5: Noise monitoring locations

APPENDIX 5: INDEPENDENT DISPUTE RESOLUTION

**Independent Dispute Resolution Process
(Indicative only)**

