

Development Consent

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

As delegate of the Minister for Planning and Infrastructure, I approve the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 6.

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.

Chris Wilson
Executive Director
Development Assessment Systems and Approvals

Sydney

2013

SCHEDULE 1

Application Number:

SSD-5465

Applicant:

Great Southern Energy Pty Limited

Consent Authority:

Minister for Planning and Infrastructure

Land:

See Appendix 1

Development:

Chain Valley Extension Project

Red type represents November 2014 Modification (SSD_5465 MOD 1)

Blue type represents December 2015 Modification (SSD_5465 MOD 2)

Green type represents June 2020 Modification (SSD-5465 MOD 3)

TABLE OF CONTENTS

DEFINITIONS	3
ADMINISTRATIVE CONDITIONS	6
Obligation to Minimise Harm to the Environment	6
Terms of Consent	6
Limits on Consent	6
Planning Agreement	7
Community Enhancement	7
Structural Adequacy	7
Demolition	7
Operation of Plant and Equipment	7
Road Maintenance Contribution	7
Community Consultative Committee	8
Evidence of Consultation	8
Staging, Combining and Updating Strategies, Plans or Programs	8
Application of Existing Strategies, Plans or Programs	8
Protection of Public Infrastructure	8
Compliance	9
Applicability of Guidelines	9
ENVIRONMENTAL CONDITIONS – GENERAL	10
Transport	10
Noise	11
Air Quality	12
Meteorological Monitoring	14
Soil & Water	14
Biodiversity	15
Heritage	16
Visual	16
Waste	17
Bushfire Management	17
Rehabilitation	17
Exploration Activities and Surface Infrastructure	18
ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING	19
Subsidence	19
ADDITIONAL PROCEDURES	23
Notification of Landowners	23
Independent Review	23
ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING	24
Environmental Management	24
Revision of Strategies, Plans and Programs	25
Reporting and Auditing	25
Access to information	26
APPENDIX 1: SCHEDULE OF LAND	28
APPENDIX 2: DEVELOPMENT AREA	29
APPENDIX 3: DEVELOPMENT LAYOUT	31
APPENDIX 4: KEY SURFACE FACILITIES	35
APPENDIX 5: COAL HAULAGE ROUTE – PUBLIC ROADS	36
APPENDIX 6: NOISE RECEIVER LOCATIONS	37
APPENDIX 7: BIODIVERSITY ENHANCEMENT AREA	38
APPENDIX 7A: BIODIVERSITY ENHANCEMENT AREA	39
APPENDIX 8: NOISE COMPLIANCE ASSESSMENT	40
APPENDIX 9: STATEMENT OF COMMITMENTS	41

DEFINITIONS

Aboriginal Object / Place	Has the same meaning as the definition of the term in section 5 of the NP&W Act
Adaptive management	Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and designated ranges and in compliance with the conditions of this consent
Affected Councils	LMCC and/or CC Council
Annual Review	The review required by Condition 4 of Schedule 6
Applicant	Great Southern Energy Pty Limited, or any person carrying out development under this consent
Approved mine plan	The mine plan shown in Appendix 3, as varied by any Extraction Plan approved under this consent
APZs	The asset protection zones shown in Appendix 7A
BCA	Building Code of Australia
BCD	Biodiversity and Conservation Division within the Department
BMP	Biodiversity Management Plan
Built features	Any building or work erected or constructed on land or water, and includes dwellings and infrastructure such as any formed road, street, path, walk, marina or driveway; 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
Coal haulage route	The route proposed in the EIS for haulage of coal by trucks between the site and the Port of Newcastle (as shown in Appendix 5)
Conditions of this consent	Conditions contained in Schedules 2 to 6 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Delta Electricity	Delta Electricity, or subsequent owners of the Vales Point Power Station
Department	Department of Planning, Industry and Environment
Development	The development described in the EIS, as amended by the SEE (Mod 1), SEE (Mod 2) and SEE (Mod 3)
DPIE Crown Lands	Crown Lands Group within the Department
DPIE Water	Water Group within the Department
EIS	Environmental Impact Statement titled 'Chain Valley Colliery Mining Extension 1 Project' dated 28 May 2013, as modified by the response to submissions, titled 'Chain Valley Colliery Mining Extension 1 Project Response to Submissions', dated August 2013, and the letter by EMM to the Applicant, dated 29 October 2013
Endangered population	As defined under the <i>Fisheries Management Act 1994</i>
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; slope changes to streams; adverse water quality impacts; development of iron bacterial mats; landslides; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding.
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 POEO Act
Evening	The period from 6pm to 10pm
Feasible	Means what is possible and practicable in the circumstances
First Workings	The extraction of coal from underground workings 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
Fisheries NSW	Fisheries Branch of the Primary Industries Group within the Department
Ha	Hectare
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>;

	<ul style="list-style-type: none"> 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 anything identified as a heritage item under the conditions of this consent.
High Water Mark Subsidence Barrier	<p>The area of land defined:</p> <p>a) on the surface by the highwater level of Lake Macquarie and a point 2.44 metres in elevation above that highwater level; and</p> <p>b) in the seam, where it is intersected by lines:</p> <ul style="list-style-type: none"> drawn landwards from all points 2.44 metres elevation above the highwater level of Lake Macquarie; and drawn lakewards from the highwater level of Lake Macquarie, at an angle of 35 degrees from the vertical.
Incident	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 5 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
LMCC	Lake Macquarie City Council
Material harm	<p>Is harm to the environment that:</p> <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)
MEG	Regional NSW – Mining, Exploration and Geoscience
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	Minister for Planning and Public Spaces, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development
Modification 1	The modification to the development as described in SEE (Mod 1)
Modification 2	The modification to the development as described in SEE (Mod 2)
Modification 3	The modification to the development as described in SEE (Mod 3)
NCC	Newcastle City Council
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is in breach of this consent
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
Peak hour periods	7 am to 9 am and 4:30 pm to 6 pm weekdays
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency, Delta Electricity (or its subsidiary) or a mining company (or its subsidiary)
Public infrastructure	Linear and related infrastructure 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, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable costs	The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of the Extraction Plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process
Registered Aboriginal Parties	As described in the <i>National Parks and Wildlife Regulation 2009</i>
Rehabilitation	The restoration of land disturbed by a development to a good condition, to ensure it is safe, stable and non-polluting
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact

RFS	NSW Rural Fire Service
Road Maintenance Agreement	The document prepared by McCullough Robertson Lawyers and titled 'Road Maintenance Agreement', signed by CC Council on 1 July 2013 and by LakeCoal on 5 July 2013
ROM	Run-of-mine
RR	Regional NSW - Resources Regulator
SA NSW	Subsidence Advisory NSW
Safe, serviceable & repairable	Safe means no danger to users who are present; serviceable means available for its intended use; and repairable means damaged components can be repaired economically
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 1	Statement of Environmental Effects titled 'Chain Valley Colliery – Modification 1, Statement of Environmental Effects, Section 96 Modification to SSD-5465' dated April 2014, as modified by the associated Response to Submissions dated 15 September 2014.
SEE Mod 2	Statement of Environmental Effects titled 'Chain Valley Colliery – Modification 2, Statement of Environmental Effects, Section 96 Modification to SSD-5465' dated 29 June 2015, including the associated Response to Submissions dated 16 September 2015.
SEE (Mod 3)	Statement of Environmental Effects titled 'Statement of Environmental Effects, Chain Valley Colliery – Modification 3', dated May 2019, prepared by EMM Consulting, including the associated Response to Submissions dated August 2019 and prepared by EMM Consulting
Site	All land within the Development Area (see Appendices 1 and 2)
SPB	Seagrass Protection Barrier is the area of land defined by: (a) on the surface by the extent of the seagrass beds; and (b) in the seam, where the seam is intersected by the lines drawn: <ul style="list-style-type: none"> • landwards from the landwards boundary of the seagrass beds; and • lakewards from the lakewards boundary of the seagrass beds, at an angle of 26.5 degrees from the vertical as illustrated in Figure 1A in Appendix 3
Statement of commitments	The Applicant's commitments in Appendix 9
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
Subsidence Zone A	The area shown as Zone A in Figure 1 in Appendix 3 in which long-term stable mining systems generating no more than 20 mm of surface subsidence may be utilised
Subsidence Zone B	The area shown as Zone B in Figure 1 in Appendix 3 in which mining systems generating no more than 780 mm of surface subsidence may be utilised
Surface facilities sites	The Chain Valley Colliery surface facilities site; the Summerland Point ventilation shaft site; and any other site subject to existing or proposed surface disturbance associated with the development
TfNSW	Transport for NSW
Threatened Species	As defined under the <i>Threatened Species Conservation Act 1995</i> and the <i>Environment Protection and Biodiversity Conservation Act 1999</i>

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 consent, 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 CONSENT

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 9;
 - (c) in accordance with the Subsidence Zones in Appendix 3;
 - (d) in accordance with all written directions of the Planning Secretary; and
 - (e) generally in accordance with the EIS, SEE (Mod 1), SEE (Mod 2) and SEE (Mod 3).
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

Mining Operations

5. The Applicant may carry out mining operations on the site until 31 December 2027.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the [Planning Secretary](#) or the [RR](#). 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 **must** not extract more than 2.1 million tonnes of ROM coal from the site in any calendar year.

Coal Transport – Public Roads

7. The Applicant **must** ensure that no laden coal trucks are dispatched from the site to public roads outside of the hours of 5:30 am to 5:30 pm, Monday to Friday, and not at all on Saturdays, Sundays or public holidays.
8. The Applicant **must** not dispatch from the site more than:
 - (a) 660,000 tonnes of product coal in any calendar year to [the Port of Newcastle](#) for export;
 - (b) 180,000 tonnes of product coal in any calendar year to domestic customers other than Vales Point Power Station;
 - (c) a total of 270 laden coal trucks per day by public roads;
 - (d) a total of 32 laden coal trucks per hour; and
 - (e) an average of 16 laden coal trucks per hour by public roads during peak hour periods, calculated monthly, until the intersection of M1 Motorway and Sparks Road Interchange (East Side - unsignalised with stop sign) is upgraded to a signalised intersection.

Coal Transport – Vales Point Power Station

9. The Applicant **must** ensure that only private roads are used for the transport of coal by truck to Vales Point Power Station, except in an emergency. In an emergency, product coal may be transported by public roads,

with the prior written approval of the **Planning Secretary**, and subject to any restrictions that the **Planning Secretary** may impose.

10. The Applicant **must** restrict the transport of coal by truck to the Vales Point Power Station between 10 pm and 5:30 am to:
 - (a) 16 laden trucks per hour for the Spring and Autumn months; and
 - (b) zero during Winter months.

PLANNING AGREEMENT

11. Within 12 months of the date of this consent, unless otherwise agreed by the **Planning Secretary**, the Applicant **must** enter into a planning agreement with the **CC Council** in accordance with Division 6 of Part 4 of the EP&A Act that provides for payment to the **CC Council** for community enhancement purposes.

The agreement must include provision for those matters set out in condition 12 below.

If there is any dispute between the Applicant and **CC Council** relating to the preparation or implementation of the planning agreement, then either party may refer the matter to the **Planning Secretary** for resolution.

COMMUNITY ENHANCEMENT

12. The Applicant **must** pay **CC Council** \$0.035 for each tonne of product coal produced by the development for the purposes of improving public infrastructure and providing community projects for the communities of Summerland Point, Gwandalan, Chain Valley Bay and Mannering Park. Payments from the approval date of project approval 10_0161 must be:
 - (a) made by the end of March, for coal produced in the previous calendar year;
 - (b) made for each year that coal is produced by the colliery; and
 - (c) subject to indexation in accordance with the Australian Bureau of Statistics Consumer Price Index.

13. Deleted.

14. Deleted.

STRUCTURAL ADEQUACY

15. The Applicant **must** ensure that all new buildings and structures, and any alterations or additions to existing buildings and structure, that are part of the development are constructed in accordance with:
 - (a) the relevant requirements of the BCA; and
 - (b) any additional requirements of the **SA NSW** where the building or structure is located on land within declared Mine Subsidence Districts.

Notes:

- Under **Part 8 of the EP&A Act**, the Applicant is required to obtain construction and occupation certificates for the proposed building works;
- **Part 8 of the EP&A Regulation** sets out the requirements for the certification of the development; and
- Under **section 21 of the Coal Mine Subsidence Compensation Act 2017**, the Applicant is required to obtain the **SA NSW's** approval before constructing any improvements in a Mine Subsidence District.

DEMOLITION

16. 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

17. 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.

18. Deleted

ROAD MAINTENANCE CONTRIBUTION

19. The Applicant must pay Road Maintenance Fees to **CC Council** in accordance with its Road Maintenance Agreement with **CC Council**.

COMMUNITY CONSULTATIVE COMMITTEE

20. A Community Consultative Committee (CCC) must continue to operate for the development in accordance with the Department's *Community Consultative Committee Guidelines: State Significant Projects (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.*

21. With the approval of the Planning Secretary, the Applicant may combine the CCC required by this consent 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

22. 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

23. 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.
24. 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.
25. 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

26. The Applicant must continue to apply existing management strategies, plans or monitoring programs approved prior to the approval of Modification 3, until the approval of a similar plan, strategy or program following the approval of Modification 3.

PROTECTION OF PUBLIC INFRASTRUCTURE

27. 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

28. 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

29. 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.
 30. 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 ENVIRONMENTAL CONDITIONS – GENERAL

TRANSPORT

Monitoring of Coal Transport

1. The Applicant **must**:
 - (a) keep accurate records of the amount of coal transported from the site (on a weekly basis); and
 - (b) make these records publicly available on its website at the end of each calendar quarter.

Road Works

2. The Applicant **must** upgrade the Ruttleys Road and Construction Road intersection within 6 months of the date of this consent, unless the **Planning Secretary** directs otherwise, by:
 - (a) installing additional signage on and adjacent to Construction Road prior to the intersection;
 - (b) repairing the surface of Construction Road as required and ensuring the edge seal of the left turn lane is of sufficient width to accommodate coal trucks;
 - (c) installing or replacing “Stop” signs in accordance with Austroads guidelines;
 - (d) repainting road line markings and raised pavements associated with this intersection; and
 - (e) installing barriers to prevent trucks parking on the gravel area adjacent to the intersection and the electricity substation located in the vicinity of this intersection.

The design and construction of these works must be undertaken in consultation with, and to the relevant satisfaction of, **CC Council**, **TfNSW** and Delta Electricity and to the satisfaction of the **Planning Secretary**.

Road Transport Protocol

3. The Applicant **must** prepare a Road Transport Protocol to the satisfaction of the **Planning Secretary**. This protocol **must**:
 - (a) be prepared in consultation with **TfNSW**, **NCC**, **CC Council** and **CCC** and submitted to the **Planning Secretary** for approval within 6 months of the date of this consent;
 - (b) describe the designated haulage routes to be used (as shown in Appendix 5); the maximum number of road movements proposed and the haulage hours permitted under this consent;
 - (c) include a Traffic Management Plan, which includes:
 - procedures to ensure that drivers adhere to the designated haulage routes;
 - measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule, especially during the morning peak hour;
 - contingency plans to apply when (for example) the designated haulage route is disrupted, including procedures for notifying relevant agencies and affected communities of the need to implement such contingency plans;
 - procedures to ensure that all haulage vehicles associated with the development are clearly distinguishable as Chain Valley Colliery coal haulage trucks;
 - details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site;
 - measures to ensure that the provisions of the Traffic Management Plan are implemented, eg driver training in the heavy vehicle driver’s Code of Conduct and contractual agreements with heavy vehicle operators; and
 - procedures for ensuring compliance with and enforcement of the heavy vehicle driver’s Code of Conduct;
 - (d) include a Code of Conduct for heavy vehicle drivers that addresses:
 - travelling speeds;
 - instructions to avoid grouping or convoying of trucks;
 - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles;
 - instruction to drivers to adhere to the designated haulage routes;
 - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations; and
 - appropriate penalties for infringements of the Code.

The Applicant **must** implement the approved Road Transport Protocol as approved from time to time by the **Planning Secretary**.

Independent Traffic Audit

4. Prior to 31 March 2014, and every 12 months thereafter **for each calendar year in which coal haulage from the site is undertaken utilising public roads**, unless the **Planning Secretary** directs otherwise, the Applicant

must commission a suitably qualified person, whose appointment has been approved by the **Planning Secretary at least one month prior to undertaking the audit**, to conduct an Independent Traffic Audit of the development. This audit must:

- (a) be undertaken without prior notice to the Applicant, and in consultation with **TfNSW**, **NCC**, **CC Council** and the **CCC**;
- (b) assess the impact of the development on the performance and safety of the road network, including a review of:
 - haulage records;
 - accident records on the haulage route, infringements relating to the code of conduct and any incidents involving haulage vehicles;
 - community complaints register; and
- (c) assess the effectiveness of the Road Transport Protocol; and, if necessary, recommend measures to reduce or mitigate any adverse (or potentially adverse) impacts.

5. Within 1 month of receiving the audit report, or as otherwise agreed by the **Planning Secretary**, the Applicant **must** submit a copy of the report to the **Planning Secretary**, with a detailed response to any of the recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report.

A summary of the audit report must be included in the Annual Review.

Alternative Coal Transport Options

6. Prior to 31 December 2014, and every three years thereafter, the **Applicant must** prepare and submit to the **Planning Secretary** for approval, a study of the reasonable and feasible options to reduce or eliminate the use of public roads to transport coal from the development, **unless otherwise agreed by the Planning Secretary**. The assessment must include:
 - (a) an analysis of the capital, construction and operating costs of the alternative transport options; and
 - (b) quantified social and environmental impacts associated with road and rail transport.

NOISE

Noise Impact Assessment Criteria

7. The Applicant **must** ensure that the noise generated by the development at any residence on privately-owned land does not exceed the criteria for the location in Table 1 nearest to that residence.

Table 1: Noise Criteria dB(A)

Location	Day	Evening	Night	
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
R8	38	38	38	45
R11	49	49	49	54
R12	49	49	49	53
R13	43	43	43	49
R15	36	36	36	45
R19	37	37	37	45
R22	46	46	46	46
all other privately-owned land	35	35	35	45

Notes:

- To interpret the locations referred to in Table 1, see Appendix 6 and the EIS; and
- Noise generated by the development is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy. Appendix 8 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 written agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Operating Conditions

8. The Applicant **must**:
- implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the construction, operational and transport noise generated by the development;
 - regularly assess the noise monitoring and meteorological data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this consent;
 - minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 8);
 - use its best endeavours to achieve the long-term noise goals in Table 2, where reasonable and feasible, and report on progress towards achieving these goals in each Annual Review;
 - carry out a comprehensive noise audit of the development in conjunction with each independent environmental audit; and
 - prepare an action plan to implement any additional reasonable and feasible onsite noise mitigation measures identified by each audit;
- to the satisfaction of the **Planning Secretary**.

Table 2: Long-term Noise Goals dB(A)

Location	Day	Evening	Night
	<i>L_{Aeq}(15 min)</i>	<i>L_{Aeq}(15 min)</i>	<i>L_{Aeq}(15 min)</i>
R11 – R13	41	41	41
R22	40	40	40

Notes:

- To interpret the locations referred to in Table 2, see Appendix 6 and the EIS; and
- Noise generated by the development is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy. Appendix 8 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

Noise Management Plan

9. The Applicant **must** prepare a Noise Management Plan for the development to the satisfaction of the **Planning Secretary**. This plan must:
- be prepared in consultation with the EPA and submitted to the **Planning Secretary** for approval within 4 months of the date of this consent, unless otherwise agreed by the **Planning Secretary**;
 - describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this consent;
 - describe the proposed noise management system in detail including the mitigation measures that would be implemented to minimise noise during construction and operations, including on and off site road noise generated by vehicles associated with the development; and
 - include a monitoring program that:
 - uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent;
 - evaluates and reports on:
 - the effectiveness of the on-site noise management system; and
 - compliance against the noise operating conditions; and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

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

AIR QUALITY

Odour

10. The Applicant **must** ensure that no offensive odours are emitted from the site, as defined under the POEO Act.

Air Quality Criteria

11. 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.

- 11A. 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.

Operating Conditions

12. The Applicant **must**:
- implement best practice air quality management at the site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the development;
 - implement best practice management to minimise the risk of spontaneous combustion and related emissions;
 - implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
 - operate an air quality management system on site to ensure compliance with the relevant conditions of this consent;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see **note c** to **Table 3** above);
 - regularly assess the air quality monitoring data, and modify operations on site to ensure compliance with the relevant conditions of this consent,
- to the satisfaction of the **Planning Secretary**.

Air Quality Management Plan

13. The Applicant **must** prepare an Air Quality Management Plan for the development to the satisfaction of the **Planning Secretary**. This plan must:

- (a) be prepared in consultation with the EPA, and submitted to the **Planning Secretary** for approval within 6 months of the date of this consent;
- (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
- (c) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site;
- (d) describe the proposed on-site air quality management system; and
- (e) include an air quality monitoring program that:
 - is capable of evaluating the operating conditions of this consent;
 - evaluates and reports on:
 - the effectiveness of the air quality management system; and
 - compliance against the air quality operating conditions;
 - 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.

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

METEOROLOGICAL MONITORING

- 14. During 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 of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the **Planning Secretary** following consultation with the EPA.

SOIL & WATER

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.

Water Supply

- 15. The Applicant **must** ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the **Planning Secretary**.

Water Pollution

- 16. Unless an EPL authorises otherwise, the Applicant **must** comply with Section 120 of the POEO Act.

Sewage Management

- 17. **The Applicant must manage sewage generated by the development in accordance with the requirements of an EPL.**

Water Management Plan

- 18. The Applicant **must** prepare a Water Management Plan for the surface facilities sites to the satisfaction of the **Planning Secretary**. This plan must be prepared in consultation with **DPIE Water** and EPA, by suitably qualified and experienced persons whose appointment has been endorsed by the **Planning Secretary** and submitted to the **Planning Secretary** for approval within 6 months of the date of this consent. This plan must include:
 - (a) a comprehensive water balance for the development that includes details of:
 - sources and security of water supply;
 - water make in the underground workings;
 - water transfers from the underground operations to the surface;
 - water use; and
 - any water discharges;
 - (b) management plans for the surface facilities sites, that include:
 - a detailed description of water management systems for each site, including:
 - clean water diversion systems;
 - erosion and sediment controls; and
 - any water storages;
 - measures to minimise potable water use and to reuse and recycle water;
 - measures to manage acid sulphate soils, if encountered;

- activities that would involve ground disturbance at the site; and
 - monitoring and reporting procedures.
- (c) a Surface Water Management Plan which:
- includes baseline data on surface water flows and quality of Swindles Creek;
 - details surface water impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on surface water resources or surface water quality;
 - provides a program to monitor:
 - surface water discharges;
 - surface water flows and quality; and
 - channel stability;
- (d) a Ground Water Monitoring Program which includes a program to:
- monitor and report groundwater inflows to underground workings;
 - predict, manage and monitor impacts to nearby groundwater bores on privately-owned land that may be impacted by the development; and
- (e) a detailed review of surface water management at the site, with particular reference to the water storages within the dirty water management system, to:
- determine whether the capacity, integrity, retention time and management of the dirty water storages (particularly the final Pollution Control Dam) are sufficient to ensure that water discharged from the site meets the EPL limits and surface water impact assessment criteria within the Surface Water Management Plan; and
 - propose any appropriate changes to the surface water management system.

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

Note: The Planning Secretary may require the Applicant to implement upgrades and other changes identified under paragraph (e), in accordance with condition 3 of Schedule 2.

BIODIVERSITY

Biodiversity Enhancement Strategy

19. The Applicant **must** implement a Biodiversity Enhancement Strategy as described in the EIS and summarised in Table 4, in consultation with BCD, and to the satisfaction of the Planning Secretary.

Table 4: Summary of the Biodiversity Enhancement Strategy

Area	Offset Type	Minimum Size/Amount
Biodiversity Enhancement Area	Enhancement and restoration measures, including weed and rubbish removal, return of natural hydrological regime and regeneration with native endemic species.	3 ha (in total) of Swamp Sclerophyll Floodplain Forest and Swamp Oak Floodplain Forest endangered ecological communities within the surface facilities sites

Note: To identify the Biodiversity Enhancement Area referred to in Table 4 see the applicable figures in Appendix 7.

The Applicant **must** implement its preferred option of the three options set out in new dot point 1 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.

Biodiversity Management Plan

20. The Applicant **must** prepare a Biodiversity Management Plan for the surface facilities sites, for all areas that are not, or will not, be subject to condition 7 of schedule 4, to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared by a suitably qualified person approved by the Planning Secretary; in consultation with BCD, and submitted to the Planning Secretary within 6 months of the date of this consent;
- (b) establish baseline data for the existing habitat in the Biodiversity Enhancement Area and elsewhere on the site;
- (c) describe the short, medium, and long term measures that would be implemented to:
- manage the impacts of clearing vegetation;
 - manage the remnant vegetation and habitat in the Biodiversity Enhancement Area and elsewhere on the site; and
 - implement the Biodiversity Enhancement Strategy, including detailed performance and completion criteria;

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

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

- 20A. Within 3 months of the approval of MOD 2, the Applicant must revise the Biodiversity Management Plan to incorporate the measures required to implement its commitments described in new dot point 2 of the Terrestrial Ecology section of its Statement of Commitments, and submit it to the Planning Secretary for approval.

HERITAGE

Protection of Aboriginal Heritage

21. 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

- 21A. 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 and including the ongoing monitoring of site 45-7-0189 at Summerland Point;
 - 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

Visual Amenity and Lighting

22. The Applicant must:
- (a) minimise visual impacts, and particularly the off-site lighting impacts, of the Surface facilities sites;
 - (b) take all reasonable and feasible measures to further mitigate off-site lighting impacts from the development; and
 - (c) ensure that all external lighting associated on site complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Planning Secretary.

WASTE

23. The Applicant **must**:
- minimise and monitor the waste generated by the development;
 - ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
 - report on waste management and minimisation in the Annual Review, to the satisfaction of the **Planning Secretary**.

BUSHFIRE MANAGEMENT

24. The Applicant **must**:
- ensure that the development is suitably equipped to respond to any fires on site; and
 - assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the Surface facilities sites.

REHABILITATION

Rehabilitation Objectives

25. 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**. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS, and comply with the objectives in **Table 5**.

Table 5: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none">Safe, stable and non-polluting.Final land use compatible with surrounding land uses.
Surface infrastructure	<ul style="list-style-type: none">To be decommissioned and removed, unless the RR agrees otherwise.
Portals and ventilation shafts	<ul style="list-style-type: none">To be decommissioned and made safe and stable.Retain habitat for threatened species (eg bats), where practicable.
Other land affected by the development	<ul style="list-style-type: none">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); anda landform consistent with the surrounding environment.
Built features damaged by mining operations	<ul style="list-style-type: none">Repair to pre-mining condition or equivalent unless:<ul style="list-style-type: none">the owner agrees otherwise; orthe damage is fully restored, repaired or compensated under the Coal Mine Subsidence Compensation Act 2017.
Community	<ul style="list-style-type: none">Ensure public safety.Minimise the adverse socio-economic effects associated with mine closure.

Notes:

- These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by underground mining taking place after the granting of project approval MP 10_0161, and to all development surface infrastructure that is part of the development, whether constructed prior to or following the date of this consent.*
- Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of project approval (MP 10_0161) may be subject to the requirements of other approvals (eg under a mining lease or a Subsidence Management Plan approval).*

Progressive Rehabilitation

26. The Applicant **must** carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.

Rehabilitation Management Plan

27. The Applicant **must** prepare a Rehabilitation Management Plan for the development, **in accordance with the conditions imposed on the mining lease(s) associated with the development under the Mining Act 1992**. This plan must:
- be prepared in consultation with **BCD, DPIE Water, CC Council, LMCC and the CCC**;
 - be submitted to the **RR** within 12 months of the date of approval of this development consent;
 - be prepared in accordance with any relevant **RR** guideline and be consistent with the rehabilitation objectives in the EIS and in **Table 5**;

- (d) describe how the performance of the rehabilitation would be monitored and assessed against the objectives in [Table 5](#);
- (e) describe the process whereby additional measures would be identified and implemented to ensure the rehabilitation objectives are achieved;
- (f) provide for detailed mine closure planning, including measures to minimise socio-economic effects due to mine closure, to be conducted prior to the site being placed on care and maintenance; and
- (g) be integrated with the other management plans required under this consent.

Note: The Rehabilitation Management Plan should address all land impacted by the development whether prior to, or following, the date of this consent.

EXPLORATION ACTIVITIES AND SURFACE INFRASTRUCTURE

Exploration Activities and Minor Surface Infrastructure Management Plan

28. 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:
- (a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;
 - (b) be prepared in consultation with MEG, NSW Maritime Division of TfNSW, NSW Fisheries and BCD;
 - (c) include a description of the measures to be implemented for:
 - i. managing exploration activities;
 - ii. managing construction and operation of minor surface infrastructure and associated access tracks;
 - iii. 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.

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

**SCHEDULE 4
ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING**

SUBSIDENCE

- The Applicant **must** ensure that vertical subsidence within the High Water Mark Subsidence Barrier and within seagrass beds is limited to a maximum of 20 millimetres (mm). **If at any stage predicted subsidence levels are exceeded within these areas, an ecological monitoring program shall be initiated to assess the impacts to ecological communities and threatened species and if appropriate, offsets are to be provided for any impacts detected.**

Performance Measures – Natural Environment

- The Applicant **must** ensure that the development does not cause any exceedance of the performance measures in Table 6 to the satisfaction of the **Planning Secretary**.

Table 6: Subsidence Impact Performance Measures – Natural and Heritage Features

Biodiversity	
Threatened species or endangered populations	Negligible environmental consequences
Seagrass beds	Negligible environmental consequences including: <ul style="list-style-type: none"> • negligible change in the size and distribution of seagrass beds; • negligible change in the functioning of seagrass beds; and • negligible change to the composition or distribution of seagrass species within seagrass beds.
Benthic communities	Minor environmental consequences, including minor changes to species composition and/or distribution.
Mine workings	
First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible environmental consequences	To remain long-term stable and non-subsiding.
Second workings	To be carried out only in accordance with an approved Extraction Plan.

Notes:

- The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this consent (see Condition 7 below).
- Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the **Planning Secretary** will be the final arbiter.
- The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of approval of this consent.

Offsets

- If the Applicant exceeds the performance measures in Table 6 and the **Planning Secretary** determines that:
 - it is not reasonable or feasible to remediate the impact or environmental consequence; or
 - the remediation measures implemented by the Applicant have failed to satisfactorily remediate the impact or environmental consequence;
then the Applicant **must** provide a suitable offset to compensate for the impact or environmental consequence to the satisfaction of the **Planning Secretary**.

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

Performance Measures – Built Features

- The Applicant **must** ensure that the development does not cause any exceedances of the performance measures in Table 7, to the satisfaction of the **Planning Secretary**.

Table 7: Subsidence Impact Performance Measures – Built Features

Built Features	Performance Measure
Trinity Point Marina Development Other built features	<ul style="list-style-type: none"> • Always safe. • Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. • Damage must be fully repaired, replaced or fully compensated.
Public Safety	
Public Safety.	Negligible additional risk.

Notes:

- The Applicant will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or a Public Safety Management Plan (see Condition 7 below).
- Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the **Planning Secretary** will be the final arbiter.
- The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this development consent.
- Requirements regarding safety or serviceability do not preclude preventative actions or mitigation being taken prior to or during mining in order to achieve or maintain these outcomes.
- Requirements under this condition may be met by measures undertaken in accordance with the **Coal Mine Subsidence Compensation Act 2017**.

5. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the subsidence performance measures in **Table 7** is to be settled by the **Planning Secretary**, following consultation with the **SA NSW** and **MEG**. Any decision by the **Planning Secretary** shall be final and not subject to further dispute resolution under this consent.

Multi-Seam Mining Feasibility Investigation

6. Prior to the submission of an Extraction Plan related to the **Chain Valley Bay mining area as shown in Appendix 3**, the Applicant must prepare a detailed Multi-Seam Mining Feasibility Investigation to the satisfaction of the **Planning Secretary**. This plan must:
 - (a) be prepared in consultation with **MEG** by suitably qualified and experienced persons whose appointment has been endorsed by the **Planning Secretary**;
 - (b) assess the extent of the soft claystone floor/roof conditions within former workings in the Great Northern and Wallarah Seams;
 - (c) assess the stability of remnant coal pillars within former workings in the Great Northern and Wallarah Seams;
 - (d) give particular consideration to the risks of irregular subsidence, pillar run and long-term subsidence leading to subsidence outside of the predicted angle of draw;
 - (e) include revised multi-seam subsidence predictions for the proposed second workings; and
 - (f) recommend final design of the second workings and any necessary adaptive management measures.

Extraction Plan

7. The Applicant **must** prepare an Extraction Plan for all second workings on site, to the satisfaction of the **Planning Secretary**. Each Extraction Plan must:
 - (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the **Planning Secretary**;
 - (b) be approved by the **Planning Secretary** before the Applicant carries out any second workings covered by the plan;
 - (c) include detailed plans of existing and proposed first and second workings and any associated surface development, including any applicable adaptive management measures;
 - (d) include detailed performance indicators for each of the performance measures in **Tables 6 and 7**;
 - (e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this consent;
 - (f) describe the measures that would be implemented to ensure compliance with the performance measures in **Tables 6 and 7**, and manage or remediate any impacts and/or environmental consequences;
 - (g) include a Built Features Management Plan, which has been prepared in consultation with **RR** and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which

- addresses in appropriate detail all items of public infrastructure and all classes of other built features;
 - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;
 - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and;
- (h) include a Benthic Communities Management Plan, which has been prepared in consultation with BCD, LMCC, and DPI Fisheries, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on benthic communities, and which includes:
- surveys of the lake bed to enable contours to be produced and changes in depth following subsidence to be accurately measured;
 - benthic species surveys within the area subject to second workings, as well as control sites outside the area subject to second workings (at similar depths) to establish baseline data on species number and composition within the communities;
 - a program of ongoing seasonal monitoring of benthic species in both control and impact sites;
 - development of a model to predict likely impact of increased depth and associated subsidence impacts and effects, including but not limited to light reduction and sediment disturbance, on benthic species number and benthic communities composition, incorporating the monitoring and survey data collected; and
 - updating the model every 2 years using the most recent monitoring and survey data;
- (i) include a Seagrass Management Plan, which has been prepared in consultation with BCD, LMCC, and DPI Fisheries, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on seagrass beds, and which includes:
- a program of ongoing monitoring of seagrasses in both control and impact sites; and
 - a program to predict and manage subsidence impacts and environmental consequences to seagrass beds to ensure the performance measures in Table 6 are met;
- (j) include a Public Safety Management Plan, which has been prepared in consultation with RR, to ensure public safety;
- (k) include a Subsidence Monitoring Program which has been prepared in consultation with RR, to:
- provide data to assist with the management of the risks associated with subsidence;
 - validates the subsidence predictions;
 - analyses the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
 - informs the contingency plan and adaptive management process;
- (l) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 6 and 7, or where any such exceedance appears likely;
- (m) include appropriate revisions to the Rehabilitation Management Plan required under Condition 27 of Schedule 3; and
- (n) include a program to collect sufficient baseline data for future Extraction Plans.

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

8. The Applicant **must** ensure that the management plans required under conditions 7(g)-(j) above include:
- (a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this consent; and
 - (b) a detailed description of the measures that would be implemented to remediate predicted impacts.

First Workings

9. The Applicant may carry out first workings within Subsidence Zones A and B as shown in Appendix 3, other than in accordance with an approved Extraction Plan, provided that the first workings are designed to remain stable and non-subsiding in the long-term and do not generate more than 20 mm of vertical subsidence at the surface, except insofar as they may be impacted by approved second workings.

Note: The intent of this condition is to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long-term stability, with negligible direct subsidence impacts.

- 9A. Within 3 months of the approval of MOD 1, the Applicant **must** produce and subsequently implement a Built Features Management Plan that considers surface infrastructure potentially affected by the first workings of the Underground Linkage between Chain Valley Colliery and Mannering Colliery, including WCS's MP01 sewer rising main, TransGrid's electricity transmission assets and infrastructure associated with the Vales Point Power Station, to the satisfaction of the Planning Secretary.

Payment of Reasonable Costs

10. The Applicant **must** pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.
-

SCHEDULE 5 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in Schedule 3, the Applicant **must** 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 any relevant air quality criteria in Schedule 3, the Applicant **must** send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (*NSW Health, 2017*) (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the development to be exceeding the relevant 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, then within 2 months of the **Planning Secretary's** decision the Applicant **must**:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Planning Secretary**, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and
 - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the **Planning Secretary** and landowner a copy of the independent review.
-

SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

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;
 - 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 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) 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 be 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
SCHEDULE OF LAND**

Notes:	
1.	All proposed secondary extraction for the Project (Mining Extension 1) is to occur under Lake Macquarie.
2.	The surface facilities for the Colliery are limited to "pit top area" adjacent to Vales Point Power Station, and the "ventilation shaft site" at Summerland Point.
3.	Refer to Figure 1 of Appendix 2 for the Site.

Project Related Surface Facilities			
Pit Top Area		Ventilation shaft site	
Lot	Deposited Plan	Lot	Deposited Plan
A	379918	1	226133
B	379918		
C	349733		
A	187570		
1B	339441		

All other areas within the Site			
Lot	Deposited Plan	Lot	Deposited Plan
7339	1167067	20	708344
7330	1148105	19	708344
593	727722	18	708344
594	727722	17	708344
D	349733	34	714879
1	410653	33	714879
23	708344	32	714879
21	708344	31	714879
2	1043151	64	31306
426	755266	65	31306
427	755266	66	31306
136	755266	67	31306
2	515214	68	31306
1	515214	69	31306
1	214300	70	31306
2	214300	71	31306
167	755266	72	31306
1	388154	73	31306
144	661695	74	31306
19	25593	75	31306
20	25593	76	31306
21	25593	77	31306
22	25593	78	31306
23	25593	79	31306
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24	13120
60	13120
30	13123
31	13123
A	368634
100	1065718
102	1065718
20	1113256
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APPENDIX 2
DEVELOPMENT AREA

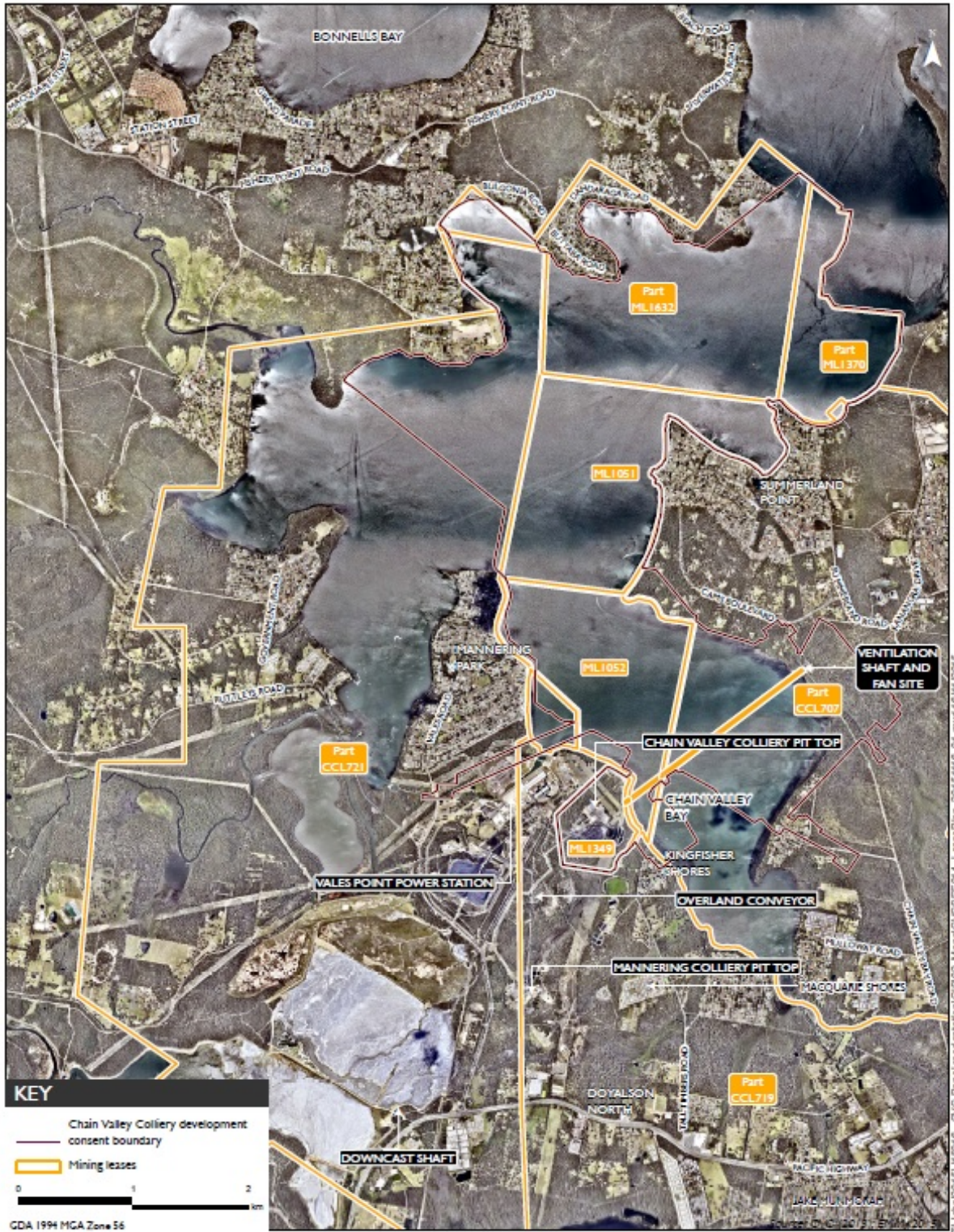
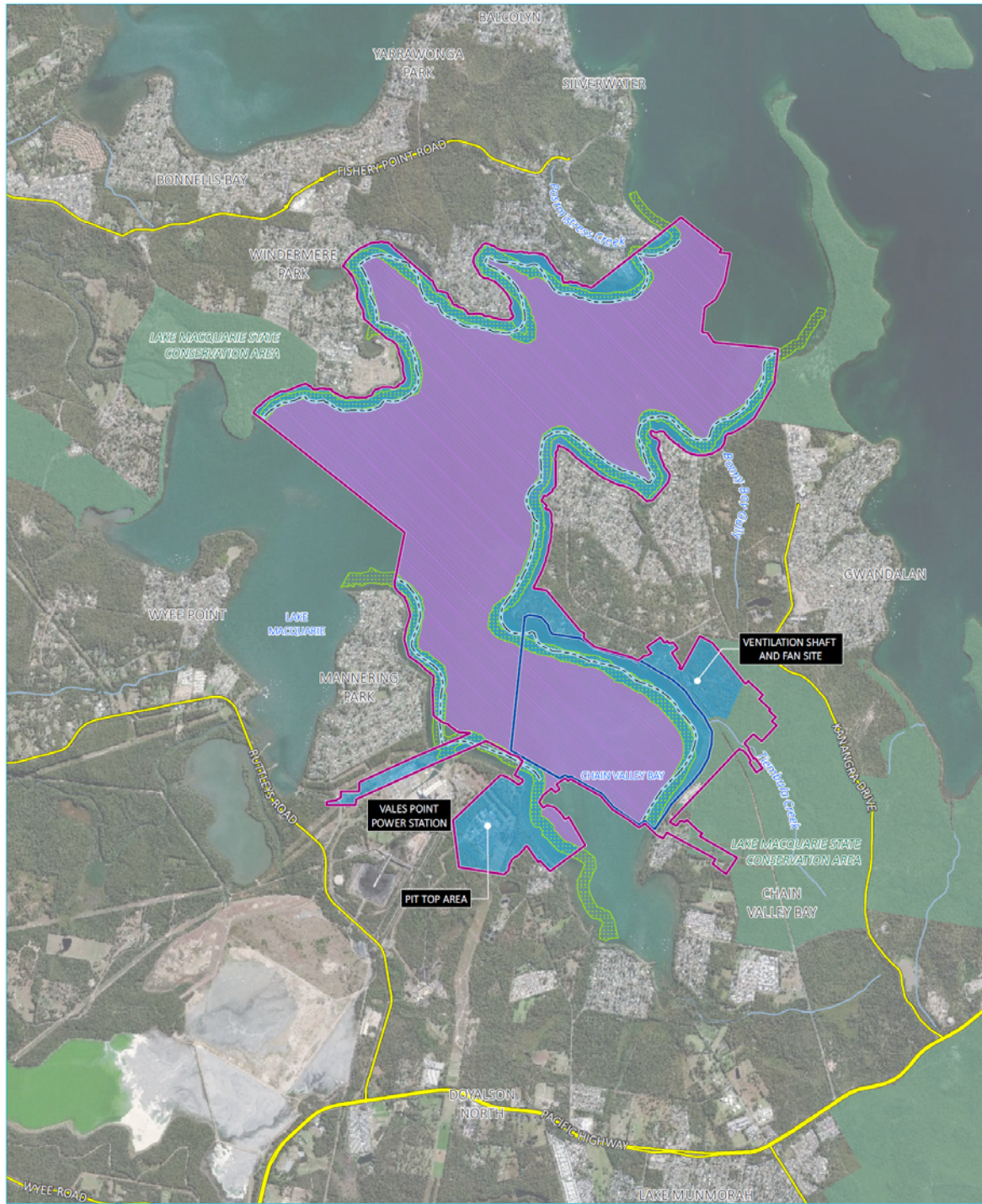
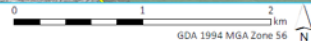


Figure 1: Chain Valley Extension Project – Development Application Area and Lease Plan (The Site)

APPENDIX 3 DEVELOPMENT LAYOUT



Source: EMM (2019); CVC (2019); DFSI (2017); GA (2011)



KEY

- Chain Valley Colliery development consent boundary
- Chain Valley Bay mining area
- High water mark subsidence barrier
- Main road
- Watercourse/drainage line
- NPWS reserve
- Seagrass protection barrier
- Zone A - Long-term stable mining systems generating up to 20 mm surface subsidence
- Zone B - Mining systems generating up to a maximum of 780 mm vertical subsidence

Proposed subsidence zones

Chain Valley Colliery
Modification 3



Figure 1: Mining Areas Subsidence Management Zones

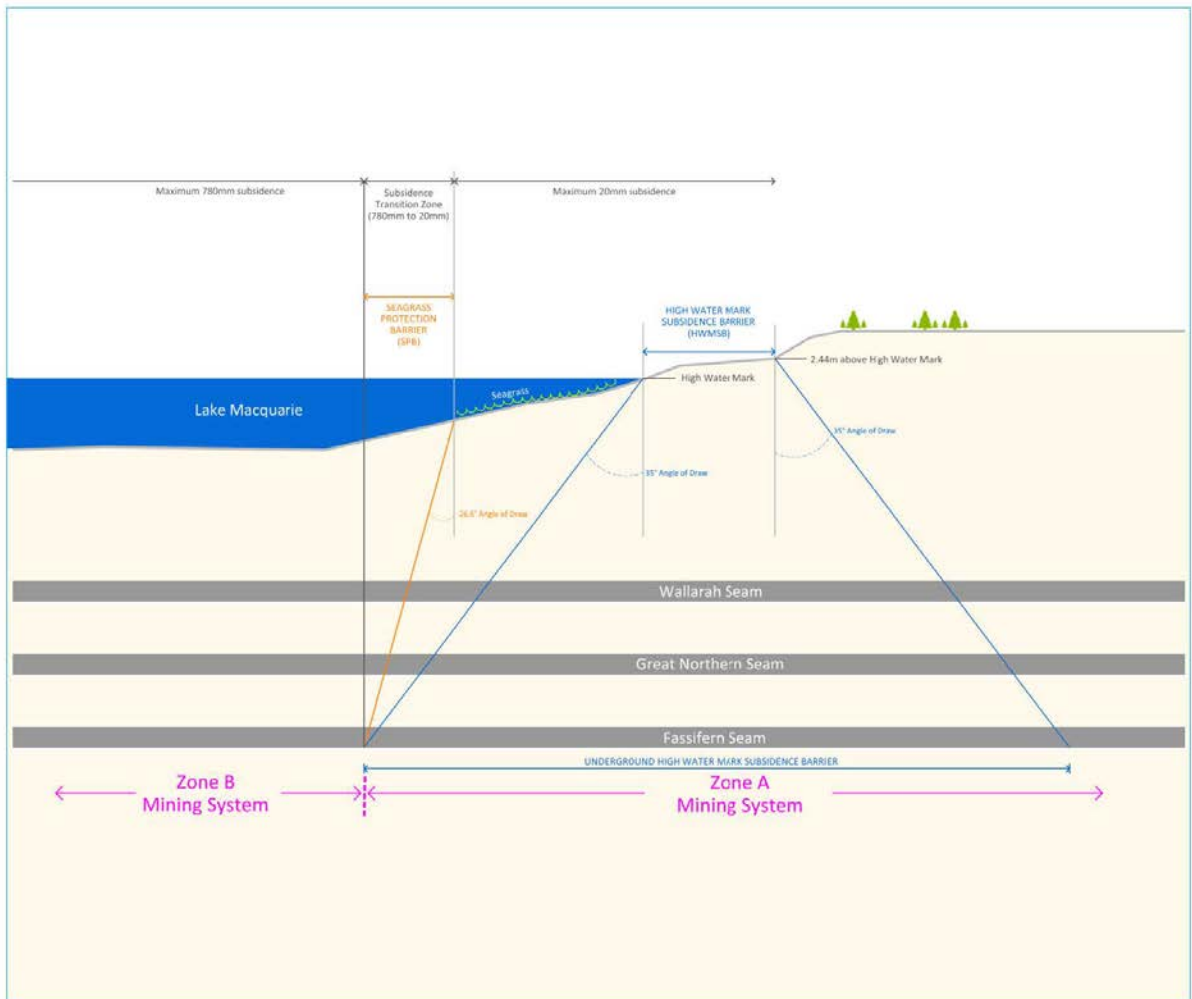


Figure 1A: High Water Mark Subsidence Barrier and Seagrass Protection Barrier

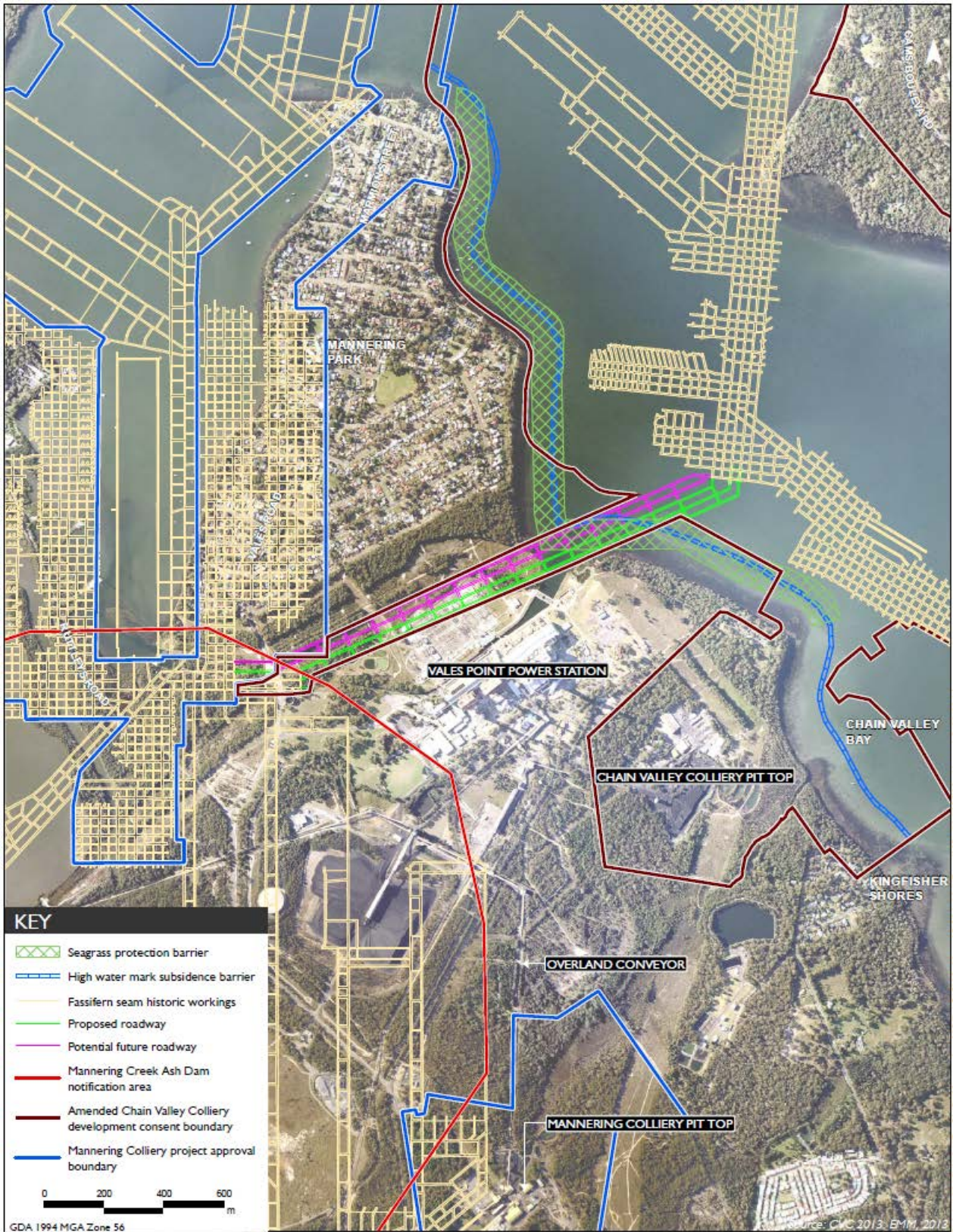


Figure 2: Location of the underground linkage to Mannering Colliery

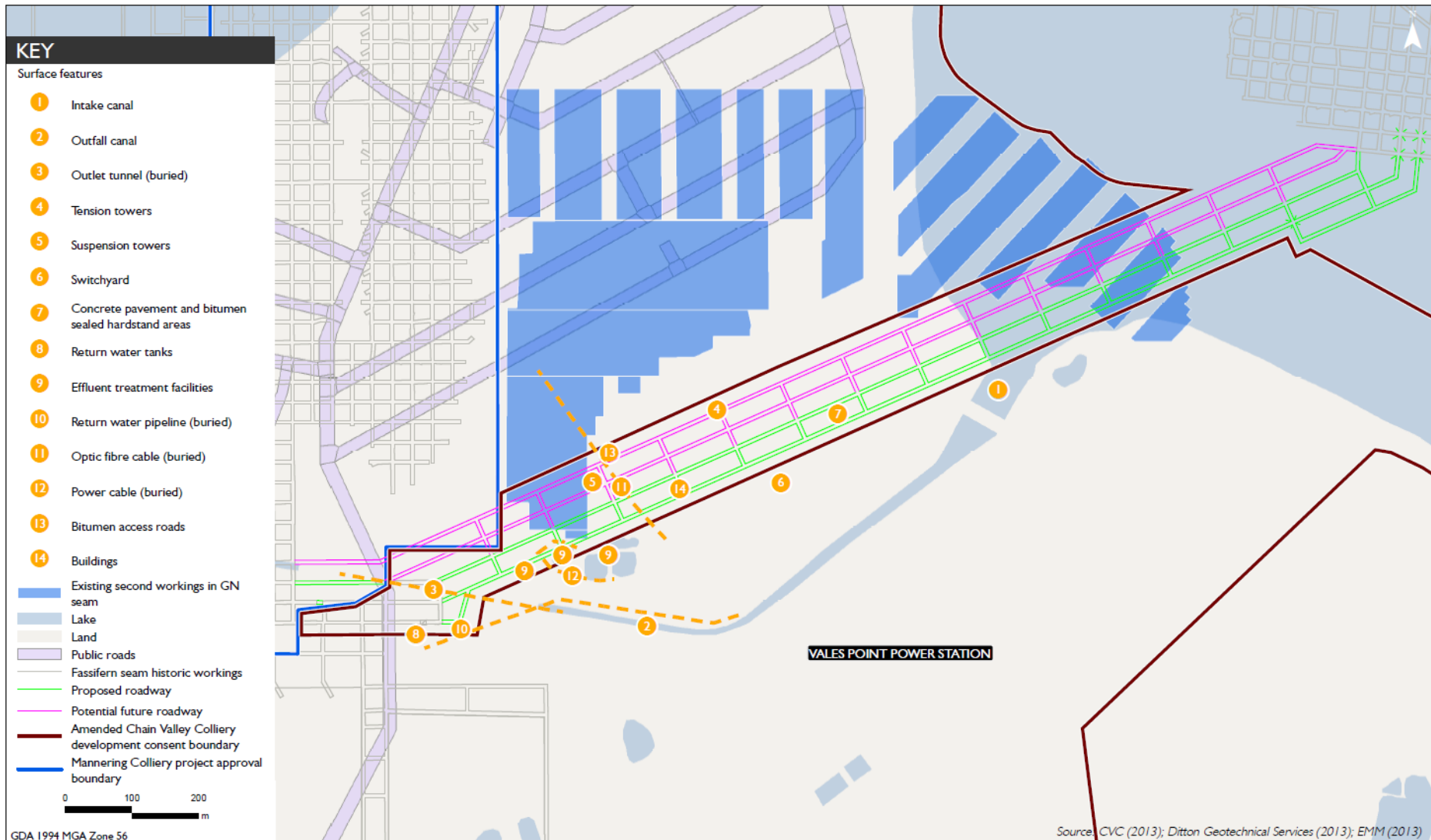
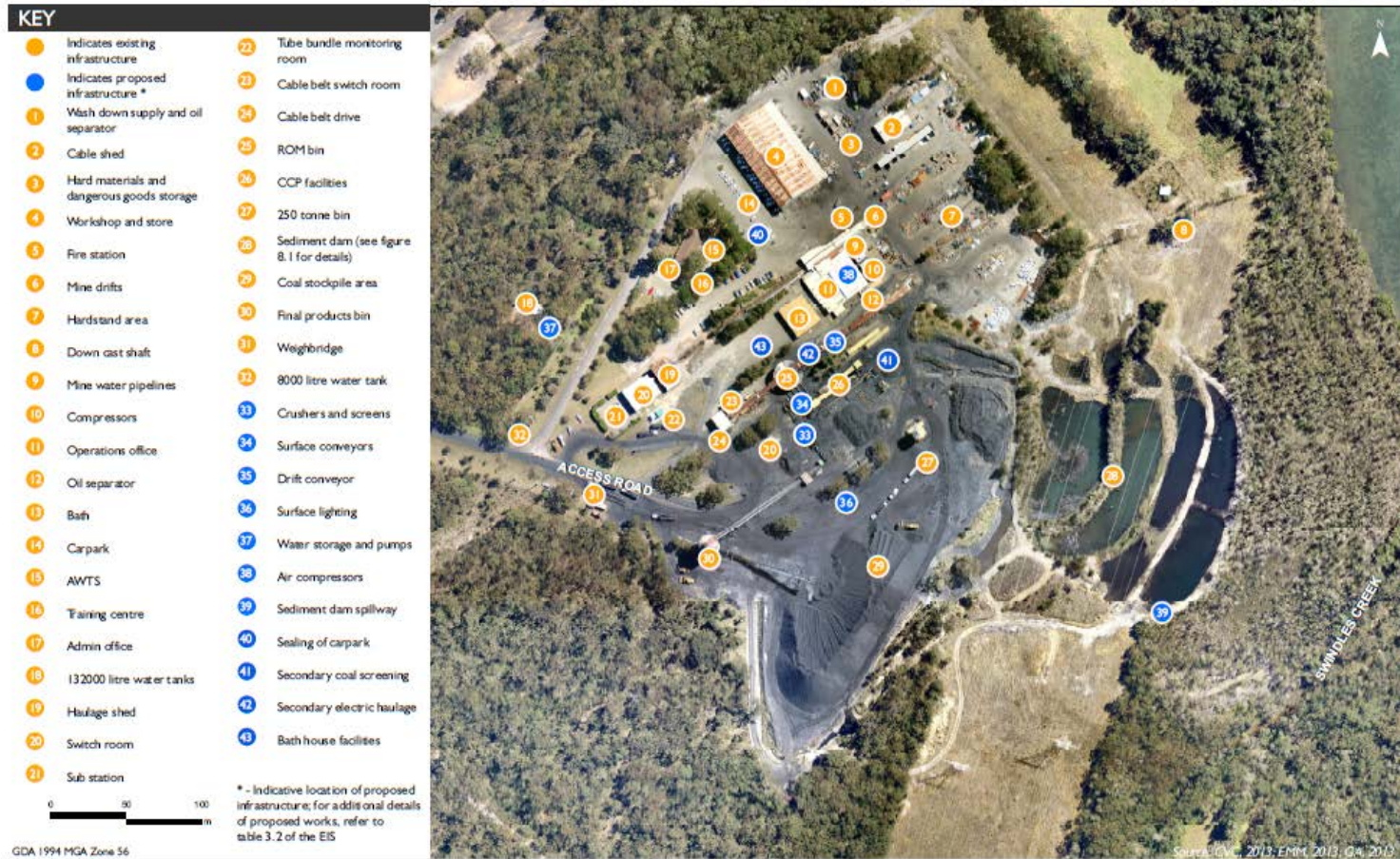


Figure 3: Location of the underground linkage and surface infrastructure

APPENDIX 4 KEY SURFACE FACILITIES

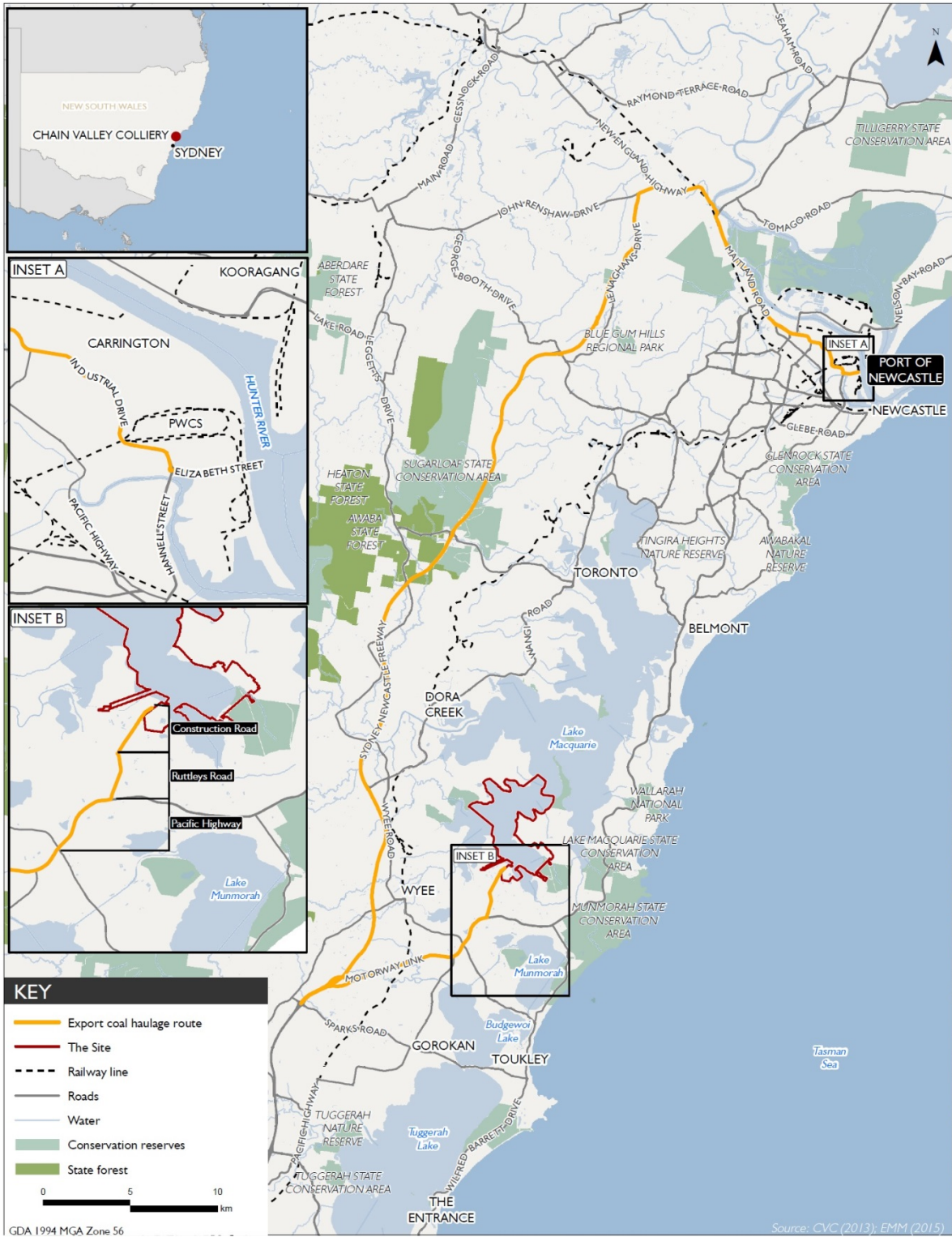


Mine pit top infrastructure elements
Chain Valley Colliery Mining Extension | Project - Environmental Impact Statement

Figure 1 : General Arrangement of the Chain Valley Colliery surface facilities site

Figure 2.4

APPENDIX 5 COAL HAULAGE ROUTE – PUBLIC ROADS

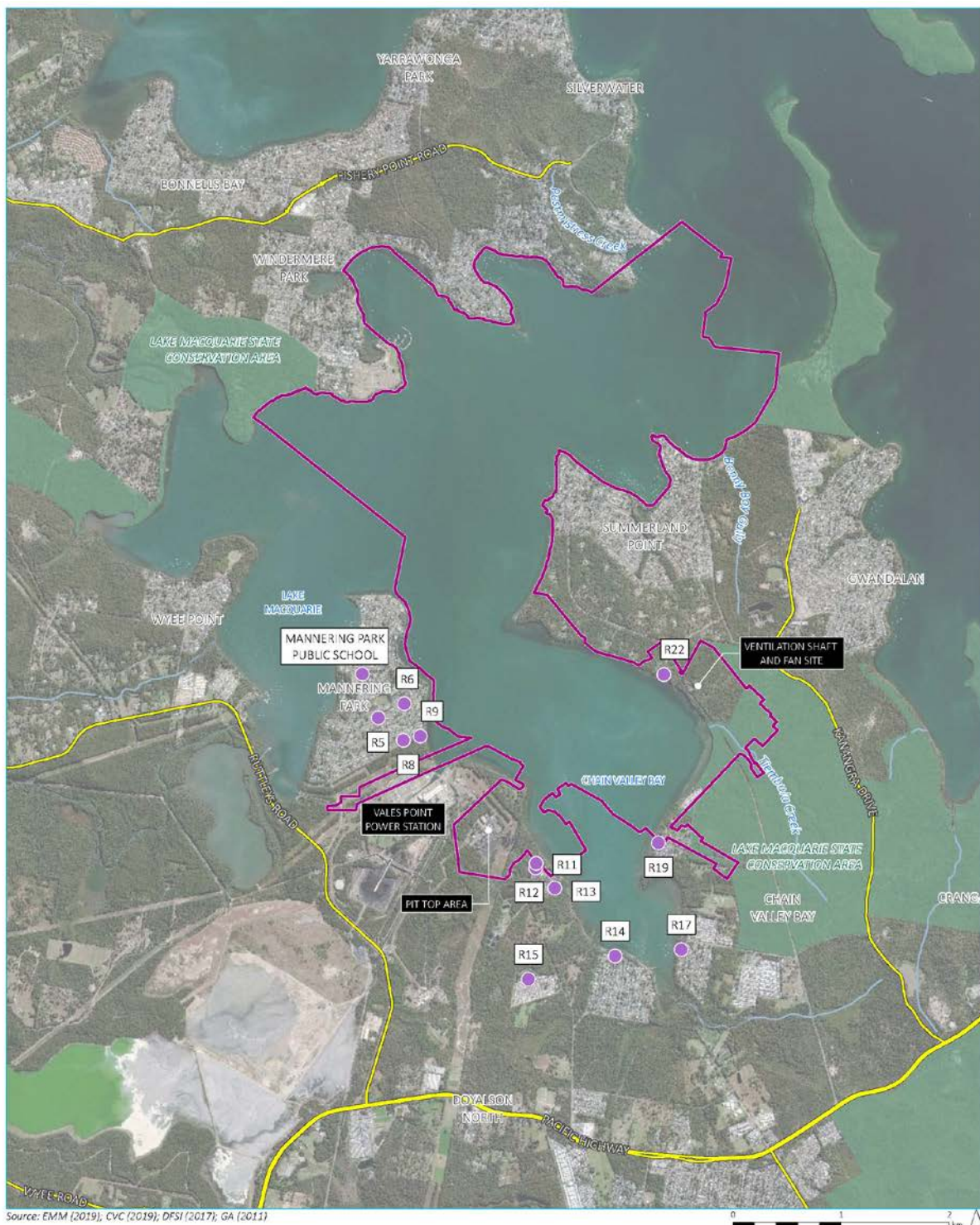


Export coal haulage route



Figure 1: Export Coal Haulage Route

APPENDIX 6 NOISE RECEIVER LOCATIONS



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- KEY**
- Assessment location
 - Chain Valley Colliery development consent boundary
 - Main road
 - Watercourse/crainage line
 - NPWS reserve

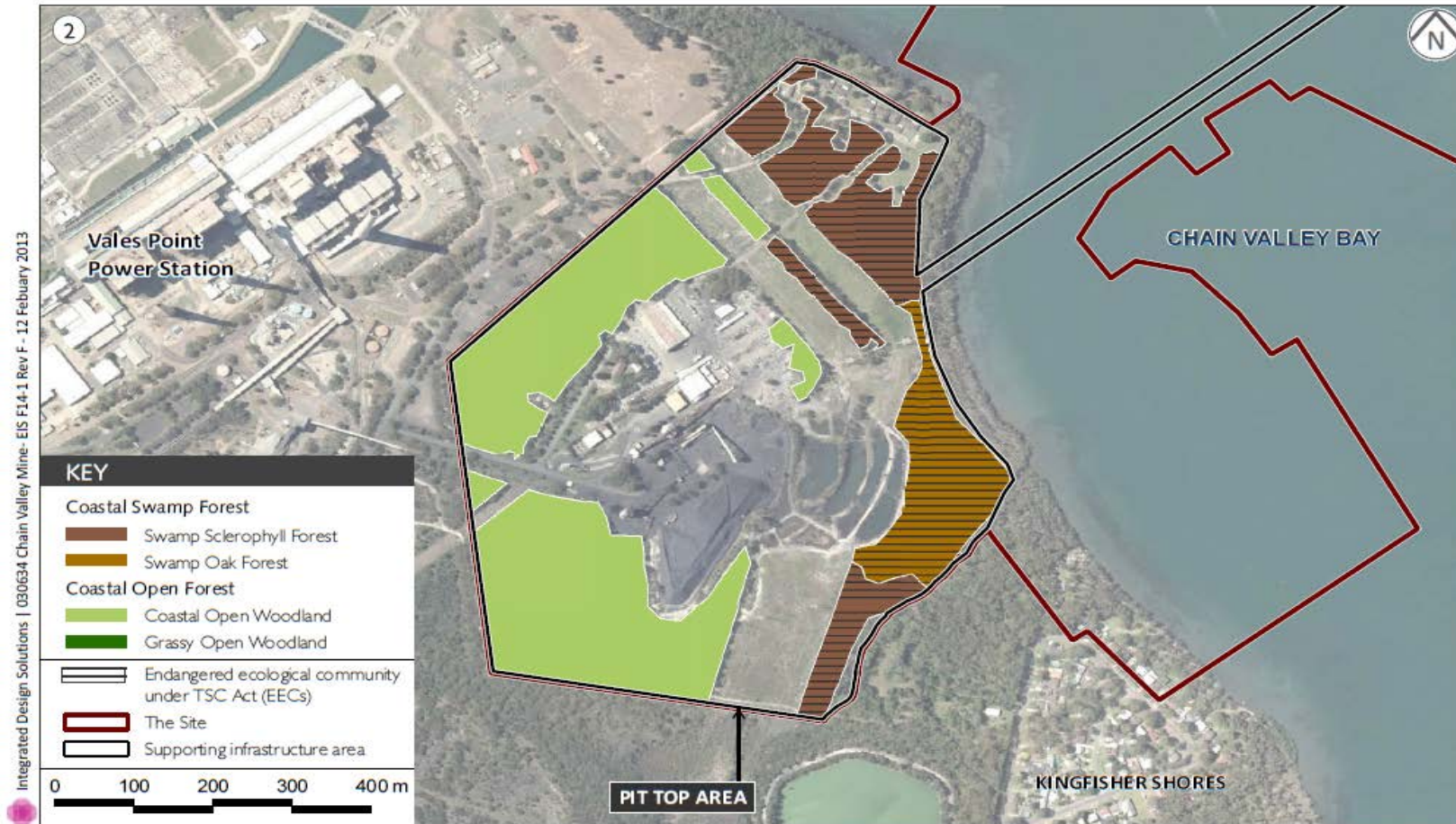
Assessment locations

Chain Valley Colliery
Modification 3



Figure 1: Noise Receiver Locations

APPENDIX 7
BIODIVERSITY ENHANCEMENT AREA



Terrestrial vegetation communities and EECs
within the Colliery's supporting infrastructure areas

Chain Valley Colliery Mining Extension I Project - Environmental Impact Statement

Figure 1: Location of the Biodiversity Enhancement Area, shown in red and orange hatching

APPENDIX 7A ASSET PROTECTION ZONES



Asset protection zones
Chain Valley Colliery - Modification 2

Figure 1. Location of asset protection zones

APPENDIX 8 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 1 of the conditions are to apply under all meteorological conditions except the following:
 - (a) during periods of rain or hail;
 - (b) average wind speed at microphone height exceeds 5 m/s;
 - (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or
 - (d) 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 **must** be that recorded by the meteorological station described in **condition 14** 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 4 times in each calendar year (ie at least once every 3 months), unless the **Planning Secretary** directs otherwise.
5. Unless otherwise agreed with the **Planning Secretary**, 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) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

**APPENDIX 9
STATEMENT OF COMMITMENTS**

Item	Commitment
Groundwater	<p>In addition to the management and mitigation measures undertaken at the Colliery for groundwater as described in the WMP, the following commitments specific to the Proposal will be undertaken. Some commitments are already undertaken under the WMP. Great Southern Energy Pty Limited will:</p> <ul style="list-style-type: none"> • assess whether abnormal or significant groundwater inflow changes occur in the active panels; • maintain the water flow monitoring appliances used to measure pumped water volumes to and from the Colliery in good working order; • maintain and plot records of daily total Colliery water pumping and annually communicate an interpretation of the findings within the Annual Review. A copy of the Annual Review will be supplied to DPIE Water; • measure water levels and quality within private bores, where access is possible, in relevant areas to assess if any adverse effects occur due to subsidence from the Proposal; and • develop groundwater assessment criteria and triggers, response protocols and contingency measures. <p>Although it is not anticipated that private bore yields would be impacted due to subsidence, should such a situation arise, Great Southern Energy Pty Limited would provide an alternative water supply until the impacted bore recovers.</p> <p>Any monitored or reported adverse impacts on the yield, saturated thickness or quality of a private registered bore will be investigated by Great Southern Energy Pty Limited. In the event of a groundwater level drop of over 2 m for a period of two months or more, a notable increase in iron hydroxide, or an adverse change in salinity as a consequence of subsidence, Great Southern Energy Pty Limited will enter into negotiations with the affected landowners and SA NSW with the intent of formulating an agreement which provides for one, or a combination of:</p> <ul style="list-style-type: none"> • re-establishment of saturated thickness in the affected bore(s) through bore deepening; • establishment of additional bores to provide a yield at least equivalent to the affected bore prior to mining; • provision of access to alternative sources of water; and/or • compensation to reflect increased water extraction costs (eg. due to lowering pumps or installation of additional or alternative pumping equipment).
Surface water	<p>Management and monitoring of surface water will continue to be undertaken in accordance with the Colliery's WMP, which will be reviewed and updated as required to include the commitments made below. Great Southern Energy Pty Limited will:</p> <ul style="list-style-type: none"> • update the WMP to include any changes as a result of all modifications; • limit the main underground pumps to a maximum pump out rate of 10.5 ML/day within 12 months of approval; • request an amendment of EPL1770 to include a condition on the daily discharge volume limit stating that "Exceedance of the volume limit for Point 1 is permitted only if the discharge from Point 1 occurs solely as a result of rainfall at the premises exceeding 10 mm during the 24 hours immediately prior to commencement of the discharge"; • undertake daily measurements of discharge volumes and report publicly on a monthly basis via Great Southern Energy Pty Limited's website; • continue collection of baseline water quality data to aid in the development of appropriate discharge water quality trigger values; • engage suitably qualified expert to conduct an assessment of the metals contained within discharge water in accordance with the ANZECC water quality guidelines and provide this assessment to the EPA by 31 December 2013; • investigate water saving measures to minimise the amount of potable water required from CC Council for Colliery operations; • quantify the groundwater storage capacity in the Great Northern and Wallarah Seams; • continue effluent monitoring regime of receiving soils from the AWTS in accordance with the parameters and testing frequencies identified in the Colliery's WMP. The

	<p>results of this monitoring program will be reviewed by a suitably qualified expert and used to determine the appropriateness of the existing irrigation area to receive this effluent;</p> <ul style="list-style-type: none"> develop a program to monitor creek line channel stability and the health of riparian vegetation within Swindles Creek. Monitoring will be undertaken in accordance with Section 8.5.2 of the Surface Water Impact Assessment (EIS Appendix E) and incorporated into the Colliery's WMP or Biodiversity Management Plan; and record monitoring data in accordance with the Colliery's WMP and EPL 1770. Monitoring data will be interpreted as it is received to ensure appropriate operational guidance on monitoring water quality within desired parameters. Results of water quality monitoring will be reported in the Annual Review and made available to the CCC, as well as CC Council and LMCC.
Noise	<p>Management and monitoring of noise will continue to be undertaken in accordance with the Colliery's NMP, which will be reviewed and updated as required to include the commitments made below. Great Southern Energy Pty Limited will:</p> <ul style="list-style-type: none"> continue attended compliance monitoring on site which will be used to identify potential hot spots and primary noise sources; continue real-time noise monitoring alerts to site personnel to enable implementation of any required rapid noise management initiatives; manage potential non-compliance through a noise complaint handling and response system, including the identification of responsible sources to enable targeted remedial action; assess if further noise mitigation options for the ventilation fans are reasonable and feasible following the receipt of attenuation proposals; and discuss potential management measures or agreement options with the landowner at 275 Cams Boulevard, following receipt of proposals from acoustics specialists. <p>In addition to the above, Great Southern Energy Pty Limited is committed to the progressive implementation of feasible measures to target long-term noise goals which are designed to reduce noise emissions from the Colliery. Long-term options for investigation include:</p> <ul style="list-style-type: none"> modification to belt/movement alarms; investigation of surface conveyer and coal preparation equipment, to determine if noise reductions are possible; identifying sound attenuation options for the surface bulldozer and front-end loader; strategic placement of acoustic barriers; attenuation for the surface screener/shaker; installation of quiet rollers for surface conveyer belts; acoustic treatments around compressors; and the use of a conveyor stacker for product coal stockpiling.
Air Quality and greenhouse gases	<p>Management and monitoring of air quality and greenhouse gases will continue to be undertaken in accordance with the Colliery's AQGHGMP, which will be reviewed and updated as required to include the commitments made below Great Southern Energy Pty Limited will:</p> <ul style="list-style-type: none"> investigate the use of a stacker to replace hauling between current conveyer system and stockpiles; undertake GHG monitoring comprising measurement of carbon dioxide and methane at the ventilation shaft and fan sites; and record and report annual diesel, oil, grease, acetylene and electricity use to fulfil National Greenhouse and Energy Reporting Scheme requirements.
Traffic and transport	<p>Management and monitoring of traffic and transport will continue to be undertaken in accordance with the Colliery's RTP. In addition, Great Southern Energy Pty Limited will continue to investigate alternative options for transporting export coal to the Port of Newcastle, specifically the preferred rail transport option, requiring the construction of a private haul road to the VPPS coal unloading facility and associated infrastructure upgrades. In addition, Great Southern Energy Pty Limited will investigate options to reduce peak hour traffic would be investigated including potentially limiting the peak hourly volumes of the Colliery truck traffic which would be permitted to travel via this intersection should the Colliery not be using rail transport for export coal by five years from the granting of development consent. Alternatively, a pro-rata financial contribution to the cost of installing traffic signals at the southbound intersection of the F3 and Sparks Road interchange could be made commensurate with the percentage of Colliery generated traffic using the intersection.</p>
Subsidence	<p>Management and monitoring of subsidence will continue to be undertaken in accordance with the Colliery's SMP or Extraction Plans, which will be reviewed and</p>

updated as required to include the commitments made below. Great Southern Energy Pty Limited will:

- provide raw subsidence survey data to BCD within 7 days of completion;
- undertake six-monthly bathymetric surveys of the lake bed to determine actual subsidence and undertake a comparison with predicted levels. Should measured subsidence significantly exceed predicted levels, Great Southern Energy Pty Limited will review future secondary extraction designs to limit future impacts to acceptable levels;
- install a new foreshore survey line above the first and second workings panels where the underground linkage passes beneath them and possibly extending from the foreshore to the point of connection with the MC workings;
- inspect existing conditions in the Fassifern Seam and undertake geotechnical and geological mapping in the roadways proximate to the proposed linkage in both CVC and MC workings;
- complete representative borehole core drilling and sampling of the Fassifern Seam floor at the start and finishing ends of the underground linkage and where the headings pass beneath the SPB. Development below the foreshore will be limited to two headings only until floor conditions can be confirmed;
- develop infrastructure monitoring and management plans in consultation with infrastructure owners and other relevant stakeholders;
- re-establish and re-survey Survey Line 24;
- install a suitable survey line at the starting end above Great Northern Seam first workings to provide early warning monitoring data for the tension towers and switchyard structures;
- monitor tension and suspension towers and switchyard conductor suspension frames directly above the panels, foreshore and adjacent inlet canal wall;
- ensure that a monitoring and management plan for the MP01 sewer rising main is in place prior to commencement of mining that may impact CC Council's infrastructure; and
- complete an annual subsidence report and make this report publicly available on the Colliery's website.

Marine ecology

Management and monitoring of marine ecology will continue to be undertaken in accordance with the Colliery's BCMP and SGMP, which will be reviewed and updated as required to include the commitments made below. Great Southern Energy Pty Limited will

- revise the BCMP to include the sampling locations in the assessment of the Proposal;
- undertake annual benthic surveys for the Site, or as required under the BCMP;
- commission additional independent sampling and analysis to validate results obtained during monitoring, and review future panel design if impacts due to subsidence are determined to be moderate or greater;
- revise the SGMP to include the transect locations utilised in the assessment of the Proposal;
- continue annual seagrass surveys/monitoring;
- continue six-monthly subsidence surveys (bathymetric surveys) and land-based surveys;
- include results from the BCMP and SGMP within the Colliery's Annual Review; and
- make the Annual Review and annual subsidence surveys available on the Colliery's website.

Terrestrial ecology

In addition to the management and mitigation measures undertaken at the Colliery for terrestrial ecology as described in the BMP, the following commitments specific to the Proposal will be undertaken. Some commitments are already undertaken under the BMP. Great Southern Energy Pty Limited will:

- investigate one of the following options in consultation with BCD to offset the biodiversity impacts arising from the proposed modification:
 - provide \$10,000 of funding, which is equivalent to the biodiversity being lost (i.e. 5 credits x \$2,000 per credit) to existing environmental programs at the site which benefits the Swamp Sclerophyll EEC; or
 - consult with BCD to identify a suitable conservation program and provide \$10,000 of funding; or
 - purchase and retire 5 credits on the Biobanking register.
- update the BMP to include the following:
 - the completion of pre-disturbance surveys in the survey area for Black-eyed Susan, Leafless Tongue Orchid and Variable Midge Orchid during their flowering periods (July to December, November to February and September to October, respectively);

-
- pre-disturbance surveys by an ecologist to determine the important components of vegetation communities and fauna habitats that should be preferentially retained in the APZs;
 - installation of delineation fencing around threatened flora populations (if found) to ensure their protection during development and maintenance of the APZs;
 - condition monitoring for threatened flora populations (if found);
 - retention of hollow-bearing trees in the APZs, where possible, with details to be included in a hollow tree register;
 - installation of nest boxes (or salvaged hollows) within the APZs under the supervision of a suitably qualified ecologist or wildlife carer to replace hollows where hollow-bearing trees cannot be retained;
 - measures for APZ maintenance that include weed control;
 - clearing of hollow-bearing trees (if required) under the supervision of a suitably qualified ecologist;
 - any injured fauna would be taken to the nearest veterinary hospital for treatment before release; and
 - relocation of suitable hollow-bearing felled trees adjacent to the APZs to create additional fauna habitat;
- undertake the design of the dam embankment and spillway works in consultation with an ecologist to minimise potential impacts on the Swamp Oak Floodplain Forest EEC;
 - ensure pre-clearing surveys are undertaken by an ecologist to minimise the potential impact to fauna and significant vegetation prior to clearing works being undertaken within the embankment and spillway area;
 - clearly delineate the clearing footprint and cordon off surrounding vegetation as a 'no go' zone during works to the dam embankment and spillway;
 - minimise disturbance areas where possible by ensuring all stockpiling of materials, parking of machinery etc, is undertaken in previously cleared areas;
 - ensure that, wherever possible, dead standing timber and fallen timber will be avoided by any clearing works, or if required to be removed, be relocated into suitable habitat areas nearby;
 - ensure all equipment used for the earthworks associated with the dam embankment and spillway will be cleaned of excess soil potentially containing pathogens and weed seeds prior to entering the Site;
 - install sediment fencing surrounding the proposed earthwork areas, in accordance with a site-specific erosion and sediment control plan for the works;
 - ensure that in the event that sedimentation dam water is released from Dam 10 prior to the works being undertaken, it will be undertaken in a controlled manner over a number of days to ensure that the release does not result in significant erosion and sedimentation to the Swamp Oak Floodplain Forest;
 - continue the management and monitoring of flora and fauna in accordance with the BMP for the life of the mine, including:
 - the condition and composition of the Swamp Oak Floodplain Forest area;
 - the condition of vegetation adjacent to the ventilation shaft and fans;
 - the location and distribution of weed infestations; and
 - the abundance and distribution of feral animal use.
 - noxious weeds will be removed and continually controlled from the pit top area, allowing for natural regeneration of vegetation;
 - weed invasion will be monitored as part of the Colliery's BMP; and
 - the condition of the EEC areas will be monitored through the Colliery's BMP.
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Heritage

Management and monitoring of heritage will continue to be undertaken in accordance with the Colliery's HMP, which will be reviewed and updated as required to

include the commitments made below. **Great Southern Energy Pty Limited** will:

- review and revise the HMP to remove site #45-7-0154 and incorporate any other changes as a result of the proposed modification;
 - update the HMP following approval of the Proposal to include the extended area to which it relates;
 - ensure that should unanticipated Aboriginal or historic heritage artefacts be found during dam embankment and diversion works, work will cease and the site assessed by an archaeologist; and
 - ensure that in the unlikely event that skeletal remains are found during dam embankment and diversion works, work will cease immediately in the area and the NSW Police Coroner called to determine if the material is of Aboriginal origin. **BCD** and relevant Aboriginal community stakeholders will be notified if the remains are positively identified as being of Aboriginal origin to determine their appropriate
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	management prior to works recommencing.
Wastes	Management and monitoring of waste will continue to be undertaken in accordance with the Colliery's Waste Management Standard. In addition, Great Southern Energy Pty Limited will continue to try and improve its waste volumes and waste management practices in line with its objective for 60% of all wastes generated at the Colliery (excluding wastewater) to be recyclable or reusable.
Hazards	Management and monitoring of hazards will continue in accordance with the Colliery's existing hazard management measures. Periodic review of the effectiveness of existing measures will occur in accordance with the Colliery's safety management system and additional measures implemented as warranted.
Visual	Management and monitoring of visual impacts will continue to be undertaken in accordance with the Colliery's existing commitment. In addition, Great Southern Energy Pty Limited will: ensure additional surface lighting at the Colliery complies with AS4282 (INT) 1995 – <i>Control of Obtrusive Effects of Outdoor Lighting</i> .
Soil	Management and monitoring of soils will continue to be undertaken in accordance with the Colliery's WMP, which will be reviewed and updated as required to include the commitments made below. Great Southern Energy Pty Limited will: <ul style="list-style-type: none"> • prevent disturbance of ASS where practicable during any construction activities; • prepare an ASSMP where there is potential that ASS will be disturbed; • test and handle any ASS disturbed in accordance with the ASSMP and treat or dispose of to an appropriately licensed facility; • limit the area of any disturbance at the surface infrastructure sites and period of exposure; • implement site management procedures such as watering of disturbed areas and unsecured stockpiles; • ensure relevant licences and management plans are in place for the correct storage and handling of hydrocarbons; • maintain suitable bunding around all hazardous liquid storage areas; • maintain oil separation facilities on the wash down sump for the treatment of oily water; and • remove all waste oil from site and dispose via a licensed external waste collection company.
Rehabilitation and mine closure	Rehabilitation will be undertaken in accordance with the Colliery's RMP and the MOP in force at the time. Detailed management and monitoring proposals for final rehabilitation will be included within a Mine Closure Plan to be prepared at least two years prior to cessation of mining activities.
Economic	Great Southern Energy Pty Limited will contribute \$0.035/t of coal from the Colliery into a dedicated community fund to improve public infrastructure and for the provision of community projects in the surrounding communities of Chain Valley Bay, Mannering Park, Summerland Point and Gwandalan.
Social	Great Southern Energy Pty Limited will continue to implement management measures and monitoring programs to prevent or minimise negative impacts and enhance positive impacts in accordance with its Environment and Community Policy. Great Southern Energy Pty Limited will: <ul style="list-style-type: none"> • maintain open and constructive communication with affected individuals and groups; • participate in the CCC; • provide environmental monitoring data and other relevant information in a timely manner via the Great Southern Energy Pty Limited website; • be responsive to community issues and actual and/or perceived impacts from the Colliery's activities; • work in partnership with stakeholders to address community needs; • ensure effective management of Great Southern Energy Pty Limited's social impacts; • liaise regularly with relevant government agencies and councils; • provide regular Colliery updates with landowners and local residents through the CCC; • continue payments, throughout the life of the Proposal, to the community fund established; and • consider individual sponsorship opportunities throughout the life of the Proposal.
Other	Great Southern Energy Pty Limited will commit to only carrying out mining operations consistent with the development consent granted pursuant to this Proposal.

**Modification 3
Commitments**

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 to vary EPL 1770 to reflect the corresponding development consent tonnage limits within EPL 1770's Mining for Coal and Coal Works activities tonnage ranges.

Great Southern Energy Pty Limited will commission and undertake detailed geotechnical assessments by a suitably qualified geotechnical engineer as part of the company's detailed mine plan design process.