

Project Approval

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

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

These conditions are required to:

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

The Hon Tony Kelly MLC
Minister for Planning MP

Sydney

2010

SCHEDULE 1

Development Number:	08_0101
Applicant:	HV Coking Coal Pty Limited
Consent Authority:	Minister for Planning
Land:	See Appendix 1
Development:	Integra Underground Project

(Schedules 1 – 5 updated in entirety during Modification 5, dated 23 August 2016)

Green type represents December 2016 modification

Blue type represents August 2017 modification

Red type represents March 2018 modification

Purple type represents May 2023 modification

The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.

The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.

CONSOLIDATED CONSENT

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DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts and, based on the results, modifying the mine plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and/or designated ranges
Annual review	The review required by condition 11 of Schedule 5
Applicant	HV Coking Coal Pty Ltd, or any person carrying out any development under this consent
ARTC	Australian Rail Track Corporation
Ashton	Ashton coal mine
BCA	Building Code of Australia
BCD	Biodiversity and Conservation Division within the Department
BCT	NSW Biodiversity Conservation Trust
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk or driveway, any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
Conditions of this consent	Conditions contained in Schedules 2 to 5 (inclusive) of this document
Council	Singleton Shire Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Decommissioned/ Decommissioning Demolition	The deconstruction or demolition and removal of works installed as part of the development The deconstruction and removal of buildings, sheds and other structures on the site
Department	NSW Department of Planning and Environment
Development	The development described within the documents listed in condition 2 of Schedule 2; including the implementation of any development associated with the previous EAs, as modified by the conditions of this consent
Development Area	The areas delineated as "Project Boundary", "Modified Project Boundary", "Integra Underground Project Approval Boundary" and "Project Area" in the figures of Appendix 3 of this consent
Development Layout	As depicted in the figures of Appendix 3 of this consent
DPE Water	Water Group within the Department
EA Mod 1	<i>Integra Mine Complex Modification 1 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan, dated 2 December 2011
EA Mod 2	<i>Integra Mine Complex Modification 2 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan, dated September 2012
EA Mod 4	<i>Integra Mine Complex Modification 4 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan and dated 16 May 2014; and associated response to submissions titled <i>Integra Mine Complex Modification 4 Response to Submissions</i> , dated 9 July 2014
EA Mod 5	<i>Application to Modify Project Approval for Integra Underground Project (MP 08_0101) and Integra Open Cut Project (MP 08_0102)</i> , prepared by HV Coking Coal Pty Limited and Bloomfield Collieries Pty Limited, dated February 2016; and associated additional information provided by the Applicant in a letter titled <i>PA 08_0101 and PA 08_0102 – Modifications to Integra Underground and Integra Open Cut Coal Projects</i> , dated 4 July 2016
EA Mod 6	<i>Integra Coal Project, Section 75W Modification Application</i> , prepared by Glencore, dated 11 November 2016
EA Mod 7	<i>Integra to Mount Owen Complex Water Pipeline Modification Environmental Assessment</i> , prepared by Hansen Bailey, dated June 2017; and associated Response to Submissions titled <i>Integra to Mount Owen Complex Water Pipeline Modification EA Response to Submissions</i> , dated 11 July 2017
EA Mod 8	<i>Integra Underground Mine Longwall Extension Modification Environmental Assessment</i> , prepared by Hanson Bailey, dated December 2017; and associated Response to Submissions titled <i>Integra Underground Mine Longwall Extension Modification Response to Submissions</i> , dated January 2018
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>

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EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Means what is possible and practical in the circumstances. Feasible relates to engineering considerations and what is practical to build or carry out
First workings	Development of main headings, gate roads, related cut throughs and other workings for mine access and ventilation
Greater Ravensworth Water Sharing Scheme	The integrated water management system operated across the Mount Owen Complex, Ravensworth Complex, Liddell Coal Mine and Integra Underground coal mines
Heritage NSW	Heritage NSW within the Department
IEA	Independent environmental audit required by condition 12 of Schedule 5
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
INP	<i>NSW Industrial Noise Policy</i> , or its latest version or replacement
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm	Is harm to the environment that: <ul style="list-style-type: none">• involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or• results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment) This definition excludes "harm" that is authorised under either this consent or any other statutory approval
Mine closure	Decommissioning and final rehabilitation of the site following the cessation of mining operations
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Minister	NSW Minister for Planning and Public Spaces, or delegate
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Modification 8	The modifications to the development, as described in EA Mod 8
Modification Report (Mod 9)	Modification application 08_0101 MOD 9 and accompanying document titled <i>PA 08_0101 Modification 9 – Application to remove the requirement for the Rehabilitation Management Plan to be submitted to the DRG for approval dated 15 December 2022</i>
Mount Owen Complex	Includes Glendell, Mt Owen and Ravensworth East coal mines
NAG	Noise assessment group, see the figures in Appendix 5 for more detail
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, or set of circumstances or development that is a breach of this consent
Open cut mining operations	Includes overburden removal, and extraction and processing of coal, but excludes mine closure activities and post-mining rehabilitation
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Previous EAs	Previous environmental impact assessments or environmental impact statements for the development, as listed in Appendix 2
Privately-owned land	Land that is not owned by a public authority, or a mining, petroleum or extractive industry company (or its subsidiary or related party)
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, gas supply, drainage, sewerage, telephone, electricity, telecommunications etc
Reasonable	Means applying 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
Rehabilitation	The restoration of land disturbed by the development to a condition which is safe, stable and non-polluting having regard to approved post mining land uses and the rehabilitation objectives and outcomes referenced within this consent

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Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact to the development
Resources Regulator	NSW Resources Regulator
Rix's Creek	Rix's Creek coal mine
Rix's Creek North	All land to which development consent 08_0102 applies
ROM coal	Run-of-mine coal
SA NSW	Subsidence Advisory NSW
Safe, serviceable and repairable	Safe means no danger to users, serviceable means available for its intended purpose, and repairable means damaged components can be repaired economically
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Site	The land listed in Appendix 1 Schedule of Land
Statement of Commitments	The Applicant's commitments in Appendix 7
Subsidence	The totality of subsidence effects and impacts and their associated environmental consequences
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, including both 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 subsidence and surface depressions or troughs
TfNSW	Transport for NSW
Underground mining operations	Includes first workings and the extraction, processing, handling, storage, and transportation of coal within the site
Underground project EA	Environmental assessment titled <i>Proposed Integra Underground Coal Project</i> , dated July 2009, and the associated response to submissions, titled <i>Integra Underground Project Collated Response to Submissions</i> , dated March 2010
Water pipeline infrastructure	The water pipeline from Integra Underground to Mount Owen Complex depicted in Figure 3 of Appendix 3

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SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under [this consent](#), the [Applicant](#) must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of [the development](#).

TERMS OF CONSENT

2. The [Applicant](#) must carry out [the development](#) generally in accordance with the:
 - (a) previous EAs;
 - (b) underground project EA;
 - (c) EA Mod 1;
 - (d) EA Mod 2;
 - (e) EA Mod 4;
 - (f) EA Mod 5;
 - (g) EA Mod 6;
 - (h) EA Mod 7;
 - (i) EA Mod 8;
 - (j) Modification Report (Mod 9); and
 - (k) Development layout.
3. The [Applicant](#) must comply with the:
 - (a) Statement of Commitments; and
 - (b) conditions of [this consent](#).

Notes to condition 2 and 3:

- Previous EAs for [the development](#) are listed in Appendix 2;
- [The development](#) layout [plans are](#) shown in Appendix 3;
- The Statement of Commitments is reproduced in Appendix 7; and
- [This consent](#) is intended to regulate all existing and approved development on site.

4. If there is any inconsistency between the above documents then the most recent document shall prevail to the extent of the inconsistency. However, the conditions of [this consent](#) shall prevail to the extent of any inconsistency.
5. The [Applicant](#) must comply with any reasonable requirement/s of the [Planning Secretary](#) arising from the Department's assessment of:
 - (a) any reports, strategies, plans, programs, reviews, audits, or correspondence that are submitted in accordance with the conditions of [this consent](#); and
 - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with the conditions of [this consent](#); and
 - (c) the implementation of any actions or measures contained in these documents.

LIMITS OF CONSENT

Mining Operations

6. The [Applicant](#) may carry out underground mining operations on site until 31 December 2035.

Note: Under [this consent](#), the [Applicant](#) is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the [Planning Secretary](#) and the [Resources Regulator](#). Consequently, [this consent](#) will continue to apply in all 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 Production

7. The [Applicant](#) must not extract more than 4.5 million tonnes of ROM coal from the underground mining operations on site in a calendar year.

Coal Transport

8. The [Applicant](#) must not transport coal from the site by public road, except in an emergency situation and with the prior written approval of the [Planning Secretary](#).

SURRENDER OF CONSENTS AND APPROVALS

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9. By the end of June 2017, or as otherwise agreed by the [Planning Secretary](#), the [Applicant must](#) surrender all existing development consents and project approvals for the site (other than [this consent](#) and the development consent for the Glennies Creek to Ashton Water Pipeline granted by Council on 13 February 2004) in accordance with Sections 75YA and 104A of the EP&A Act.

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

10. Prior to the surrender of these consents and/or approvals, the conditions of [this consent](#) (including any notes) shall prevail to the extent of any inconsistency with the conditions of these consents and/or approvals.

STRUCTURAL ADEQUACY

11. The [Applicant](#) must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA and [SA NSW](#).

Notes:

- Under Part 4A 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
- [The development](#) is located in the Patrick Plains Mine Subsidence District. Under Section 15 of the Mine Subsidence Compensation Act 1961, the [Applicant](#) is required to obtain the [SA NSW](#)'s approval before constructing or relocating any improvements on site.

DEMOLITION

12. 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.

INFRASTRUCTURE

Protection of Public Infrastructure

13. 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 that is damaged by [the development](#); and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of [the development](#),
- except where impacts to such works have otherwise been fully compensated through the compensation provisions of the *Mining Act 1992*.

OPERATION OF PLANT AND EQUIPMENT

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

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SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

ACQUISITION UPON REQUEST

- Upon receiving a written request for acquisition from an owner of the land containing a residential receiver listed in Table 1, the **Applicant** must acquire the land in accordance with the procedures in conditions 7 and 8 of Schedule 4.

Table 1: Land subject to acquisition upon request

Residential Receiver No.	Acquisition Basis
47 – B & R Cherry	Subsidence and Air Quality
80 – G Donnellan	Noise
153 – R & D Hall	Noise

For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise by the owner of a listed residential receiver should be included as part of the land to be acquired. Where the **Applicant** and the owner(s) cannot agree whether non-contiguous parcels of land should be included, either party may refer the matter to the **Planning Secretary** for resolution. The **Planning Secretary's** decision as to the lands to be included for acquisition under the procedures in conditions 7 and 8 of Schedule 4 will be final.

Acquisition rights in Table 1 for receiver 153 only has effect when, in the opinion of the **Planning Secretary**, open cut mining operations at Rix's Creek North have been placed on care and maintenance or have permanently ceased.

Note: To interpret the locations referred to in Table 1, see the applicable figures in Appendix 4.

NOISE

Noise Criteria

- Except for the land referred to in Table 1 for which the acquisition basis is noise, the **Applicant** must ensure that the noise generated by the development (excluding construction works specified in conditions 2A and 2B of Schedule 3) does not exceed the criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 2: Noise criteria dB(A)

Location		Day	Evening	Night	Night
		L _{Aeq} (15min)	L _{Aeq} (15min)	L _{Aeq} (15min)	L _{A1} (1min)
NAG 1	All privately-owned land	38	38	36	46
NAG 2	All privately-owned land	39	39	37	47
NAG 3	87	42	42	42	49
	106	39	39	39	49
	All other privately-owned land	40	40	39	49
NAG 4	88, 91, 95, 99, 100, 105, 161	35	35	35	47
	All other privately-owned land	42	42	37	47
NAG 5	111	37	37	37	52
	112	36	36	36	52
	118	39	39	39	52
	154	36	36	36	52
	103, 104, 121, 139	35	35	35	52
	All other privately-owned land	50	46	42	52
NAG 6	132, 133, 137	35	35	35	48
	All other privately-owned land	41	41	38	48
NAG 7	110	38	38	38	49
	All other privately-owned land	45	42	39	49
NAG 8	142	35	35	35	45

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	All other privately-owned land	42	42	35	45
NAG 9	2, 3, 4, 143, 144, 145, 146, 147, 48, 149, 150, 151, 152	35	35	35	48
	All other privately-owned land	40	40	38	48
NAG 10	10	42	42	42	47
	9	41	41	41	47
	11, 13	40	40	40	47
	8	38	38	38	47
	6	36	36	36	47
	5	35	35	35	47

However, these criteria do not apply if the Applicant, or another mining company, has acquired the land or if the Applicant has a written agreement with the relevant landowner to exceed the criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Noise generated by the development is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

The noise criteria in Table 2 only have effect when, in the opinion of the Planning Secretary, open cut mining operations at Rix's Creek North have been placed on care and maintenance or have permanently ceased.

Note: To interpret the locations referred to in Table 2, see the applicable figures in Appendix 4.

Construction Noise

- 2A. The Applicant must manage noise from construction activities associated with the water pipeline infrastructure and Modification 8, in accordance with the noise management levels defined in Table 2 of the Interim Construction Noise Guideline.

During construction of the water pipeline infrastructure and Modification 8, the Applicant must ensure that combined operational and construction noise from the development does not exceed a level of 5 dB(A) above the daytime operational $L_{Aeq(15min)}$ noise criteria in Table 3 during Standard Construction Hours (7 am to 6 pm, Monday to Friday; and 8 am to 1 pm on Saturdays) and does not exceed the evening or night time operational $L_{Aeq(15min)}$ noise criteria in Table 2, except where an alternative temporary limit has been approved by the Planning Secretary for specific works or where the Applicant has an agreement with the owner/s of the relevant residence/land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

- 2B. In seeking an alternative temporary construction noise limit above the levels identified in condition 2A, the Applicant must submit a Construction Work Noise Protocol to the Planning Secretary for approval, prior to undertaking the nominated construction works. This protocol must:
- (a) be prepared to the satisfaction of the Planning Secretary;
 - (b) be prepared in consultation with the EPA and any landowners who may be affected by the proposed variation; and
 - (c) address the relevant requirements of the Interim Construction Noise Guideline.

The Applicant may only undertake construction activities that require a Construction Work Noise Protocol, in accordance with a Construction Work Noise Protocol as approved from time to time by the Planning Secretary.

Noise Acquisition Criteria

3. If noise generated by the development (excluding construction works specified in conditions 2A and 2B of Schedule 3) exceeds the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner, the Applicant must acquire the land in accordance with the procedures in conditions 7 and 8 of Schedule 4.

Table 3: Noise acquisition criteria dB(A)

Location	Day	Evening	Night
	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$
All privately-owned land in NAG 1	44	44	42

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All privately-owned land in NAG 2	45	45	43
All privately-owned land in NAG 3	46	46	45
All privately-owned land in NAG 4	48	48	43
All privately-owned land in NAG 5	56	52	48
All privately-owned land in NAG 6	47	47	44
All privately-owned land in NAG 7	51	48	45
All privately-owned land in NAG 8	48	48	41
All privately-owned land in NAG 9	46	46	44
All privately-owned land in NAG 10	45	45	43
All privately-owned land in NAG 11	47	47	45
All privately-owned land in NAG 12	44	44	41
All privately-owned land in NAG A	45	45	42
All privately-owned land in NAG B	43	43	41
All privately-owned land in NAG C	43	43	41
All privately-owned land in NAG D	46	46	44
All privately-owned land in NAG F	46	46	46
All privately-owned land in NAG G	47	47	45
All other privately-owned land	41	41	41

Noise generated by [the development](#) is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

The acquisition noise criteria in Table 3 only have effect when, in the opinion of the [Planning Secretary](#), open cut mining operations at Rix's Creek North have been placed on care and maintenance or have permanently ceased.

Notes:

- To interpret the locations referred to in Table 3, see the applicable figures in Appendix 4; and
- For this condition to apply, the exceedances of the criteria must be systemic.

Cumulative Noise Criteria

- The [Applicant](#) must implement all reasonable and feasible measures to ensure that the noise generated by [the development](#) combined with the noise generated by other mines in the vicinity does not exceed the criteria in Table 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land (except for the residential receivers in Table 1 for which the acquisition basis is noise). The [Applicant](#) must share the costs associated with implementing these measures on an equitable basis as possible with the relevant mines.

Table 4: Cumulative noise criteria dB(A) L_{Aeq} (period)

Location	Day	Evening	Night
NAGs 4, 5, 8 and 9	55	45	40
All other privately-owned land	50	45	40

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

For the purposes of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 8 and 9 to develop and implement a real-time noise management system that ensures effective operational response to the risk of exceedance of the criteria.

Note: To interpret the locations referred to in Table 4, see the applicable figures in Appendix 4.

Cumulative Noise Acquisition Criteria

- If the noise generated by [the development](#) combined with the noise generated by other mines in the vicinity exceeds the criteria in Table 5 at any residence on privately-owned land or on more than 25 percent of privately-owned land (except for the residential receivers in Table 1 for which the acquisition basis is noise), then upon receiving a written request for acquisition from the landowner, the [Applicant](#) must acquire the land on an equitable basis as possible with the relevant mines in accordance with the procedures in conditions 7 and 8 of Schedule 4.

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Table 5: Cumulative noise acquisition criteria dB(A) L_{Aeq} (period)

Location	Day	Evening	Night
NAGs 4, 5, 8 and 9	60	50	45
All other privately-owned land	55	50	45

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

Notes:

- To interpret the locations referred to in Table 5, see the applicable figures in Appendix 4; and
- For these conditions to apply, the exceedances of the criteria must be systemic.

Additional Noise Mitigation Measures

6. Upon receiving a written request from the owner of any residence:
- on the land listed in Table 1 for which the acquisition basis is noise; or
 - on the land listed in Table 6; or
 - on privately-owned land where subsequent noise monitoring shows the noise generated by the development is greater than or equal to the criteria in Table 7,
- the Applicant must implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner.

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

Table 6: Land where additional noise mitigation measures are available on request

11 – F Ferraro	64 – W & A Gardner
87 – B & R Richards	

Note: To interpret the locations referred to in Table 6, see the applicable figures in Appendix 4.

Table 7: Additional noise mitigation criteria dB(A)

Location	Day	Evening	Night
	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$
All privately-owned land in NAG 1	41	41	39
All privately-owned land in NAG 2	42	42	40
All privately-owned land in NAG 3	43	43	42
All privately-owned land in NAG 4	45	45	40
All privately-owned land in NAG 5	53	49	45
All privately-owned land in NAG 6	44	44	41
All privately-owned land in NAG 7	48	45	42
All privately-owned land in NAG 8	45	45	38
All privately-owned land in NAG 9	43	43	41
All privately-owned land in NAG 10	42	42	40
All privately-owned land in NAG 11	44	44	42
All privately-owned land in NAG 12	41	41	38
All privately-owned land in NAG A	42	42	39
All privately-owned land in NAG B	40	40	38
All privately-owned land in NAG C	40	40	38
All privately-owned land in NAG D	43	43	41
All privately-owned land in NAG F	43	43	43
All privately-owned land in NAG G	44	44	42
All other privately-owned land	38	38	38

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

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The additional mitigation measures in Tables 6 and 7 only have effect when, in the opinion of the [Planning Secretary](#), open cut mining operations at Rix's Creek North have been placed on care and maintenance or have permanently ceased.

Notes:

- To interpret the locations referred to in Table 7, see the figures in Appendix 4; and
- For these conditions to apply, the exceedances of the criteria must be systemic.

7. If the cumulative noise generated by [the development](#) combined with the noise generated by other mines in the vicinity exceeds the criteria at any residence on the land referred to in Table 8, then upon receiving a written request from the owner, the [Applicant](#) must implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner. The [Applicant](#) must share the costs associated with implementing these measures on as equitable basis as possible with the relevant mines.

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

Table 8: Cumulative noise mitigation criteria dB(A) L_{Aeq} (period)

Location	Day	Evening	Night
NAGs 4, 5, 8 and 9	57	47	42
All other privately owned land	52	47	42

Cumulative noise is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.

Notes:

- To interpret the locations referred to in Table 8, see the figures in Appendix 4; and
- For these conditions to apply, the exceedances of the criteria must be systemic.

Operating Conditions

8. The [Applicant](#) must:
- implement best practice noise management, including all reasonable and feasible noise mitigation measures, to minimise the [construction](#), operational and low frequency noise generated by [the development](#) at all times, including during temperature inversions;
 - operate a comprehensive noise management system that uses a combination of predicted meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with the relevant conditions of [this consent](#);
 - implement all reasonable and feasible measures to minimise the release of noise emissions from noisy plant and equipment on site;
 - minimise the noise impacts of [the development](#) during meteorological conditions under which [the noise limits of this consent do not apply](#) (see Appendix 5); and
 - co-ordinate the noise management on site with noise management at nearby mines (including Ashton, Rix's Creek North, Rix's Creek and the Mount Owen Complex) to minimise cumulative noise impacts, to the satisfaction of the [Planning Secretary](#).

Note: Noisy plant and equipment includes both fixed and mobile sources, either underground or at the surface (such as pumps, conveyors, compressors, workshops, ventilation shafts, gaswell sites and diesel operated vehicles and loaders).

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 then submitted to the [Planning Secretary](#) for approval;
 - describe the measures that would be implemented to ensure:
 - compliance with the noise criteria and operating conditions of [this consent](#); and
 - best management practice is being employed;
 - describe the noise management system in detail;
 - include a noise monitoring program that:
 - uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of [the development](#);
 - includes a protocol for determining exceedances of the relevant conditions in [this consent](#);
 - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and

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- (e) includes a protocol that has been prepared in consultation with the owners of nearby mines (including Ashton, Rix's Creek North, Rix's Creek and the Mount Owen Complex) to minimise the cumulative noise impacts of the mines.

The **Applicant** must implement the approved management plan as approved from time to time by the **Planning Secretary**.

AIR QUALITY & GREENHOUSE GAS

Odour

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

Greenhouse Gas Emissions

11. The **Applicant** must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the **Planning Secretary**.

Air Quality Criteria

12. The **Applicant** must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that **the development** does not **exceed** or contribute to **an** exceedance of the criteria listed in Table 9 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 9: Air quality criteria

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

Notes to Table 9:

- ^a Cumulative impact (i.e. 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 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; and
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity which has been endorsed by the EPA and then agreed to by the **Planning Secretary**.

For the purposes of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 14 and 15 to develop and implement a real-time air quality management system that ensures effective operational response to the risk of exceedance of the criteria.

Mine-owned Land

13. The **Applicant** must ensure that particulate matter emissions generated by **the development** do not exceed the criteria in Table 9 at any occupied residence on any mine-owned land (including land owned by adjacent mines), unless:
- the tenant and/or landowner has been notified of any health risks in accordance with the notification requirements under Schedule 4 of **this consent**;
 - the tenant on land owned by the **Applicant** can terminate the tenancy agreement without penalty, subject to giving reasonable notice, and the **Applicant** uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;
 - air mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the **Applicant**);
 - particulate matter air quality monitoring is undertaken to inform the tenant and landowner (where owned by a mine other than the **Applicant**) of potential health risks; and

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- (e) monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property, to the satisfaction of the [Planning Secretary](#).

Operating Conditions

14. The [Applicant](#) must:
- implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by [the development](#), including those generated by spontaneous combustion;
 - minimise any visible air pollution generated by [the development](#);
 - 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 d in condition 12);
 - minimise surface disturbance of the site; and
 - co-ordinate the air quality management on site with the air quality management of nearby mines (including Ashton, Rix's Creek North, Rix's Creek and the Mount Owen Complex) to minimise cumulative air quality impacts, to the satisfaction of the [Planning Secretary](#).

Air Quality & Greenhouse Gas Management Plan

15. The [Applicant](#) must prepare an Air Quality & Greenhouse Gas Management Plan for [the development](#) to the satisfaction of the [Planning Secretary](#). This plan must:
- be prepared in consultation with EPA, and then submitted to the [Planning Secretary](#) for approval;
 - describe the measures that would be implemented to ensure:
 - compliance with the air quality criteria and operating conditions of [this consent](#); and
 - best practice air quality management is being employed;
 - describe the air quality management system in detail;
 - include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of [the development](#);
 - includes a protocol for determining any exceedances of the relevant conditions of [this consent](#);
 - adequately supports the proactive and reactive air quality management system;
 - includes PM_{2.5} monitoring (although this obligation could be satisfied by the regional air quality monitoring network if sufficient justification is provided);
 - evaluates and reports on the effectiveness of the air quality management system and the best practice air quality management measures; and
 - include a protocol that has been prepared in consultation with the owners of nearby mines (including Ashton, Rix's Creek North, Rix's Creek and the Mount Owen Complex) to minimise the cumulative air quality impacts of the mines.

The [Applicant](#) must implement the approved management plan as approved from time to time by the [Planning Secretary](#).

METEOROLOGICAL MONITORING

16. For the life of [the development](#), the [Applicant](#) must ensure that there is a meteorological station in the vicinity of the site that:
- complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy* or as otherwise approved by the EPA.

SUBSIDENCE

Performance Measures

17. The [Applicant](#) must ensure that [the development](#) does not cause any exceedance of the performance measures in Table 10.

Table 10: Subsidence performance measures

Water	
Glennies Creek alluvial aquifer	Negligible impact
Natural watercourses on site	No greater environmental consequences than predicted in the Underground Project EA

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Mt Owen Bettys Creek Diversions	No greater than the environmental consequences predicted in the Underground Project EA, unless the owner agrees otherwise in writing
Underground Project Creek Diversions	Remain hydraulically and geomorphologically stable
Other water storages and drainage lines	No greater than the environmental consequences predicted in the Underground Project EA
Biodiversity	
Threatened species, populations, habitat or ecological communities	Negligible impact
Built Features	
All built features (except those fully covered by an operative contractual arrangement with another mine owner or other owner of the relevant built feature)	Safe, serviceable and repairable, unless the owner agrees otherwise in writing, including: <ul style="list-style-type: none"> • serviceability should be maintained wherever practicable; • loss of serviceability must be fully compensated; and • damage must be fully repaired or replaced, or else compensated
Public Safety	
Public Safety	No additional risk due to mining

Notes:

- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this consent.
- Requirements regarding “safe” or “serviceable” do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- Compensation required under this condition includes any compensation payable under the Mine Subsidence Compensation Act 1961 and/or the Mining Act 1992.
- These subsidence impact performance measures should be read in conjunction with the conditions relating to rehabilitation at the end of this Schedule.

Additional Offsets

- 17A. If the Applicant exceeds the water or biodiversity performance measures in Table 10 and the Planning Secretary determines that:
- (a) it is not reasonable or feasible to remediate the subsidence impact or environmental consequence; or
 - (b) remediation measures implemented by the Applicant have failed to satisfactorily remediate the subsidence impact or environmental consequence,
- then the Applicant must provide a suitable offset to compensate for the subsidence impact or environmental consequence, to the satisfaction of the Planning Secretary.
- 17B. The offset must give priority to like-for-like land-based environmental offsets, but may also consider payment into any NSW Offset Fund established by BCT, or funding or implementation of supplementary measures such as:
- (a) actions outlined in threatened species recovery programs;
 - (b) actions that contribute to threat abatement programs;
 - (c) biodiversity research and survey programs; and/or
 - (d) rehabilitating degraded habitat.

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

18. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 10 is to be settled by the Planning Secretary, following consultation with the SA NSW and the Resources Regulator. Any decision by the Planning Secretary must be final and not subject to further dispute resolution under this consent.

First Workings

19. The Applicant may carry out first workings on site, other than in accordance with an approved Extraction Plan, provided that the Resources Regulator is satisfied that the first workings are designed to remain stable and non-subsiding, except insofar as they may be impacted by approved second workings.

Extraction Plan

20. The Applicant must prepare an Extraction Plan for all second workings on site. This plan must:
- (a) be prepared by a team of suitably qualified and experienced persons whose appointment has been endorsed by the Planning Secretary;

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- (b) be approved by the [Planning Secretary](#) before the [Applicant](#) undertakes any second workings covered by the plan;
- (c) include detailed plans of the proposed second workings and any associated surface development;
- (d) include detailed performance indicators for each of the performance measures in Table 10;
- (e) provide revised predictions of the conventional and non-conventional subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since [this consent](#), that specifically addresses the incremental and cumulative subsidence effects and impacts of multi-seam mining;
- (f) describe the measures that would be implemented to ensure compliance with the performance measures in Table 10, and remediate any predicted subsidence impacts and/or environmental consequences; including the following, which have been prepared in consultation with [the Resources Regulator](#):
 - a coal resource recovery plan that demonstrates effective recovery of the available resource;
 - a subsidence monitoring program to:
 - provide data to assist in the management of the risks associated with subsidence;
 - validate the subsidence predictions; and
 - analyse the relationship between the subsidence effects and impacts under the Extraction Plan and any ensuing environmental consequences;
 - a Built Features Management Plan, which has been prepared in consultation with the owners of such features, to manage the potential impacts and consequences of subsidence on any built features;
 - a Public Safety Management Plan to ensure public safety at the site; and
 - a revised Rehabilitation Management Plan;
- (g) include a:
 - Water Management Plan, which has been prepared in consultation with EPA and [DPE Water](#), to manage the potential impacts and consequences of subsidence on surface water and groundwater resources, flooding and existing and proposed creek diversions; and which includes:
 - surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
 - a program to monitor and report groundwater inflows to underground workings;
 - a program to manage and monitor impacts on groundwater bores on privately-owned land;
 - Biodiversity Management Plan, which has been prepared in consultation with [BCD](#), to manage the potential impacts and consequences of subsidence on biodiversity and which includes measures to manage potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna;
 - Land Management Plan, which has been prepared in consultation with relevant landowners, to manage the potential impacts and consequences of subsidence on land in general;
 - Heritage Management Plan, which has been prepared in consultation with [Heritage NSW](#) and relevant stakeholders of Aboriginal heritage, to manage the potential impacts and consequences of subsidence on heritage sites or values;
- (h) include Trigger Action Response Plans, or equivalent, to address potential subsidence impacts and environmental consequences that may result from mining subsidence;
- (i) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measures in Table 10, or where any such exceedance appears likely; and
- (j) include a program to collect sufficient baseline data for future Extraction Plans.

The [Applicant](#) must implement the approved plan as approved from time to time by the [Planning Secretary](#).

Payment of Reasonable Costs

21. The [Applicant](#) must pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent persons (if required) to review the adequacy of any aspect of the Extraction Plan.

SOIL & WATER

Water Supply

22. The [Applicant](#) must obtain all necessary water licences for [the development](#) under the *Water Act 1912* or the *Water Management Act 2000*.
23. 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](#).

Baseflow Offsets

24. The **Applicant** must offset the loss of any baseflow to the surrounding watercourses and/or associated creeks caused by **the development** to the satisfaction of the **Planning Secretary**.

Notes:

- *This condition does not apply in the case of losses of baseflow which are negligible.*
- *Offsets should be provided via the retirement of adequate water entitlements to account for the loss attributable to **the development**.*
- *The **Applicant** is not required to provide additional baseflow offsets where such offsets have already been provided under previous consents or approvals for **the development**. These existing offsets are to be described and evaluated in the Surface and Ground Water Response Plan (see below).*

Compensatory Water Supply

25. The **Applicant** must provide compensatory water supply to any landowner of privately-owned land whose water entitlements are impacted (other than an impact that is negligible) as a result of **the development**, in consultation with **DPE Water**, and to the satisfaction of the **Planning Secretary**.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent, **in quality and volume**, to the loss attributed to **the development**, **unless otherwise agreed with the landowner**. Equivalent water supply must be provided (at least on an interim basis) as soon as practicable after the loss being identified, **unless otherwise agreed with the landowner**.

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

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

Surface Water Discharges

26. The **Applicant** must ensure that all surface water discharges from the site comply with the:
- (a) discharge limits (both volume and quality) set for **the development** in any EPL; or
 - (b) relevant provisions of the POEO Act or *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.

Creek Diversions

27. The **Applicant** must carry out the proposed diversions of Bettys Creek and Main Creek in **the development** area to the satisfaction of the **Planning Secretary**.
28. Within 6 months of completing the construction of the diversions, the **Applicant** must submit, to the satisfaction of the **Planning Secretary** and **DPE Water**, an as-executed report, certified by a practising engineer, confirming that the diversions are hydraulically and geomorphologically stable.

Mt Owen Bettys Creek Diversions

29. The **Applicant** must:
- (a) commission a suitably qualified and independent expert, whose appointment has been approved by the **Planning Secretary**, to carry out a detailed survey of geotechnical, geomorphic and ecological baseline condition of the Mt Owen Bettys Creek Diversions:
 - prior to carrying out any second workings under the creek diversions; and
 - within 6 months of completing the second workings under these creek diversions; and
 - (b) provide a copy of these surveys to the Department within a month of the completion of each survey.

Water Management Performance Measures

30. The **Applicant** must comply with the performance measures in Table 11 to the satisfaction of the **Planning Secretary**.

Table 11: Water management performance measures

Feature	Performance Measure
Water Management – General	<ul style="list-style-type: none"> • Maximise water sharing with the other mines in the region (including through the Greater Ravensworth Water Sharing Scheme) • Minimise the use of clean water on site

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	<ul style="list-style-type: none"> Minimise the need for supplementary water from external supplies
Glennies Creek and Station Creek alluvial aquifers	<ul style="list-style-type: none"> Negligible environmental consequences to the alluvial aquifer (as shown in Appendix 6) beyond those predicted in the documents referred to in conditions 2 and 3 of Schedule 2, including: <ul style="list-style-type: none"> negligible change in groundwater levels; negligible change in groundwater quality; and negligible impact to other groundwater users
Construction and operation of infrastructure	<ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1</i>, <i>Volume 2A – Installation of Services</i>, <i>Volume 2C – Unsealed Roads</i>, <i>Volume 2D – Main Road Construction and Volume 2E - Mines and Quarries</i> Design, install and maintain all new infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (NSW Fisheries, 2003) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or their latest versions
Mine sediment dams	<ul style="list-style-type: none"> Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>
Clean water diversion & storage infrastructure	<ul style="list-style-type: none"> Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site
Mine water storages	<ul style="list-style-type: none"> Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site Design, install and maintain on-site storages (including mine infrastructure dams, groundwater storage and treatment dams) to ensure they are suitably lined to comply with a permeability standard of $< 1 \times 10^{-9}$ m/s
Chemical and hydrocarbon storage	<ul style="list-style-type: none"> Chemical and hydrocarbon products to be stored in banded areas in accordance with the relevant Australian Standards
Creek Diversions	<ul style="list-style-type: none"> In accordance with conditions 27 and 28 above
Aquatic and riparian ecosystems	<ul style="list-style-type: none"> Maintain or improve baseline channel stability Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures</i> (DECC 2006), or its latest version

Water Management Plan

31. The **Applicant** must prepare a Water Management Plan for **the development** to the satisfaction of the **Planning Secretary**. This plan must:
- be prepared in consultation with **BCD**, **EPA** **the Resources Regulator** and Council, and be endorsed by **DPE Water** and then submitted to the **Planning Secretary** for approval;
 - include detailed performance criteria and describe measures to ensure that the **Applicant** complies with the Water Management Performance Measures (see Table 11);
 - include a Site Water Balance, which must:
 - include details of:
 - sources and security of water supply, **including contingency planning**;

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- water use on site;
 - water management on site; and
 - any off-site water transfers, and
 - describe what measures would be implemented to minimise clean water use on site;
- (d) include a Creek Diversion Management Plan for the proposed creek diversions in [the development area](#), which must:
- be consistent with any related requirements in future Extraction Plan(s); and
 - include:
 - a vision statement for the creek relocations;
 - an assessment of the water quality, ecological, hydrological and geomorphic baseline conditions within each creek;
 - the detailed design specifications for the creek relocations;
 - a construction program for the creek relocations, describing how the work would be staged, and integrated with mining operations;
 - a revegetation program for the relocated creeks using a range of suitable native species;
 - water quality, ecological, hydrological and geomorphic performance and completion criteria for the creek relocations based on the assessment of baseline conditions; and
 - a program to monitor and maintain the water quality, ecological, hydrological and geomorphic integrity of the creek diversions;
- (e) include an Erosion and Sediment Control Plan, which must:
- identify activities that could cause soil erosion, generate sediment or affect flooding;
 - describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk;
 - describe the location, function and capacity of erosion and sediment control structures and flood management structures; and
 - describe what measures would be implemented to maintain the structures over time;
- (f) include a Surface Water Management Plan, which must include:
- detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by [the development](#);
 - [a detailed description of the water management system on site](#);
 - [a description of measures used to manage, monitor and report on the transfer of water under the Greater Ravensworth Water Sharing Scheme](#);
 - surface water and stream health impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts from [the development](#) (for existing creeks and reinstated/rehabilitated creeks);
 - a program to monitor and assess:
 - surface water flows and quality;
 - impacts on water users;
 - stream health;
 - channel stability; and
 - [the effectiveness of the water management system](#);
- (g) Include a Groundwater Management Plan, which must include:
- detailed baseline data of groundwater levels, yield and quality in the region, particularly for privately-owned groundwater bores that could be affected by [the development](#);
 - groundwater impact assessment criteria including trigger levels for investigating any potentially adverse groundwater water impacts; and
 - a program to monitor and assess:
 - groundwater inflows to the mining operations;
 - impacts on regional aquifers;
 - impacts on the groundwater supply of potentially affected landowners;
 - impacts on the Glennies Creek and Station Creek;
 - impacts on groundwater dependent ecosystems and riparian vegetation; and
 - [the effectiveness of the water management system](#);
- (h) a Surface and Groundwater Response Plan, which must include:
- a response protocol for any exceedances of the surface water and groundwater assessment criteria, including provisions for independent investigation by a suitable qualified hydrogeologist whose appointment has been approved by the [Planning Secretary](#);
 - measures to offset the loss of any baseflow to watercourses caused by [the development](#);
 - measures to compensate landowners of privately-owned land whose water supply is adversely affected by [the development](#); and
 - measures to mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

The [Applicant](#) must implement the approved management plan as approved from time to time by the [Planning Secretary](#).

Water Pipeline Infrastructure

- 31A. Prior to the construction of any bridge crossing for the water pipeline infrastructure, a detailed design of the bridge crossing must be determined following consideration of flood modelling undertaken to the satisfaction of **DPE Water**, that assesses the impacts for flood events up to and including the Probable Maximum Flood.

The design and modelling must demonstrate to the satisfaction of the **Planning Secretary**, that the water pipeline infrastructure will not result in any significant flooding impacts on privately-owned land.

BIODIVERSITY

Biodiversity Management Plan

32. The **Applicant** must prepare a Biodiversity Management Plan for **the development** to the satisfaction of the **Planning Secretary**. This plan must:
- be prepared in consultation with **BCD** and then submitted to the **Planning Secretary** for approval;
 - include:
 - a description of the short, medium, and long term measures that would be implemented to manage the remnant vegetation and habitat on site;
 - a detailed description of the measures and procedures to be implemented for:
 - protecting vegetation and soil outside the areas that are to be impacted;
 - rehabilitating creeks and drainage lines on the site (both inside and outside the disturbance areas), to minimise net loss of stream length and aquatic habitat;
 - managing salinity;
 - managing impacts on fauna;
 - landscaping the site and along public roads to minimise visual and lighting impacts;
 - controlling weeds and feral pests, including terrestrial and aquatic species;
 - controlling access; and
 - bushfire management;
 - a detailed description of the measures and procedures to be implemented to:
 - minimise, to the greatest extent practicable, the disturbance of threatened species and EECs (including undertaking pre-clearance surveys), and rehabilitate any areas of disturbed land associated with the construction of the water pipeline infrastructure;
 - provide for the salvage, transplanting and/or propagation of any threatened flora (including, but not limited to, threatened orchid species) found during pre-clearance surveys, in accordance with the *Guidelines for the Translocation of Threatened Plants in Australia* (Vallee *et al.*, 2004); and
 - satisfy the requirements of conditions 32A to 32C of Schedule 3;
 - a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; and
 - details of who would be responsible for monitoring, reviewing, and implementing the plan.

The **Applicant** must implement the approved management plan as approved from time to time by the **Planning Secretary**.

Water Pipeline Infrastructure

- 32A. The **Applicant** must plant and maintain, until established, 10 like-for-like trees for every established tree removed during construction of the water pipeline infrastructure and **Modification 8** that is associated with the following flora communities:
- Central Hunter Ironbark — Spotted Gum — Grey Box Forest EEC;
 - Central Hunter Swamp Oak Forest;
 - Hunter Valley River Oak Forest; and
 - Central Hunter Bulloak Forest.

Note: An established tree is considered to be two metres or greater in height.

- 32B. The **Applicant** must ensure that the rehabilitation of land disturbed during construction of the water pipeline infrastructure focuses on the regeneration, enhancement and/or re-establishment of:
- significant and/or threatened flora communities, including:
 - Central Hunter Ironbark — Spotted Gum — Grey Box Forest EEC;
 - Central Hunter Swamp Oak Forest;
 - Hunter Valley River Oak Forest;
 - Central Hunter Bulloak Forest; and
 - habitat and/or foraging resources for other significant and/or threatened flora and fauna species that occur in the vicinity of the disturbance area for the water pipeline infrastructure.

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- 32C. The Applicant must implement the mitigation and management measures specified in EA Mod 7 during construction of the water pipeline infrastructure, including avoiding disturbance of stags, hollow bearing trees and the Bettys Creek Habitat Management Area.

HERITAGE

Protection of Aboriginal Heritage Items

- 32D. Unless otherwise authorised under the *National Parks and Wildlife Act 1974*, the Applicant must ensure that the development does not cause any direct or indirect impact on identified Aboriginal heritage items located outside the approved disturbance area of the development.

Heritage Management Plan

33. The Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Planning Secretary;
 - be prepared in consultation with Heritage NSW, the Aboriginal community, Council, local historical organisations and any relevant landowners;
 - be submitted to the Planning Secretary for approval;
 - include the following for the management of Aboriginal cultural heritage on site:
 - details regarding the measures to be implemented to avoid (as far as practicable) and manage Aboriginal cultural heritage on site;
 - an Aboriginal cultural heritage education program, to be developed in consultation with all relevant registered Aboriginal parties, and used for the induction of all personnel and contractors involved in construction or surface disturbance activities;
 - methods for recording, salvaging and/or managing all Aboriginal sites, objects and deposits that are to be destroyed within the development area;
 - methods for conserving, managing and monitoring all Aboriginal sites, objects and deposits that are to be protected within the development area;
 - maintaining and managing access to Aboriginal sites, objects and deposits by the Aboriginal community, including provision of an appropriate Keeping Place;
 - managing the discovery of any new Aboriginal sites, objects or skeletal remains identified during the development; and
 - ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage values on the site.
 - include programs/ procedures for the following, in accordance with the applicable guidelines of Heritage NSW:
 - archival recording of any other heritage items to be destroyed by the development;
 - conserving, managing, monitoring, and where appropriate, relocating any non-Aboriginal sites, objects and deposits on the site;
 - interpreting the findings of the additional heritage or archaeological investigations carried out on the site; and
 - managing the discovery of any new non-Aboriginal objects or skeletal remains identified during the development.

The Applicant must implement the approved management plan as approved from time to time by the Planning Secretary.

VISUAL

Visual Amenity and Lighting

34. The Applicant must:
- implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the development;
 - ensure no unshielded outdoor lights shine above the horizontal; and
 - ensure that all external lighting associated with the development complies with Australian Standard AS4282 (INT) 1995 - *Control of Obtrusive Effects of Outdoor Lighting*, or its latest version, to the satisfaction of the Planning Secretary.

Additional Visual Mitigation Measures

35. Upon receiving a written request from the owner of any residence on privately-owned land which has significant direct views of the underground mining operations on site, the Applicant must implement additional visual mitigation measures (such as landscaping treatments or vegetation screens) on the land in

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consultation with the landowner. These measures must be reasonable and feasible, and directed towards minimising the visibility of the mining operations from the residence.

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

WASTE

36. The Applicant must:
- minimise and monitor the waste generated by the development; and
 - ensure that the waste generated by the development is appropriately stored, handled, and disposed of;
 - manage on-site sewage treatment and disposal in accordance with the requirements of Council; and
 - report on waste management and minimisation in the Annual Review, to the satisfaction of the Planning Secretary.

BUSHFIRE MANAGEMENT

37. The Applicant must:
- ensure that the development is suitably equipped to respond to 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 site.

REHABILITATION

Rehabilitation Objectives

38. 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 rehabilitation strategy described in the documents referred to in conditions 2 or 3 of Schedule 2 and the objectives in Table 12.

Table 12: Rehabilitation objectives

Area/Domain	Rehabilitation Objectives
Site (as a whole)	Safe, stable & non-polluting
Surface infrastructure	To be decommissioned and removed, unless the Resources Regulator agrees otherwise
Other land affected by the development	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> local native plant species (unless the Resources Regulator agrees otherwise); and a landform consistent with the surrounding environment
Glencore Mt Owen Bettys Creek Diversions	Rehabilitate to the same or better geotechnical, geomorphic and ecological condition as prior to mining, unless the owner agrees otherwise
Sections of Bettys Creek and Main Creek to be undermined	Hydraulically and geomorphologically stable, with diverse habitats and ecology
Creek Diversions	Hydraulically and geomorphologically stable, with diverse habitats and ecology
Built features	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> the owner agrees otherwise; or the damage is fully restored, repaired or compensated for under the Mine Subsidence Compensation Act 1961
Community	<ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

Progressive Rehabilitation

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

Rehabilitation Management Plan

40. 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 provisions of the *Mining Act 1992*.

EXPLORATION ACTIVITIES & SURFACE INFRASTRUCTURE

Exploration Activities and Minor Surface Infrastructure Management Plan

41. The Applicant must prepare an Exploration Activities and Minor Surface Infrastructure Management Plan for the development to the satisfaction of the Planning Secretary. This Plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been approved by the Planning Secretary;
 - be prepared in consultation with the Resources Regulator;
 - be submitted to the Planning Secretary for approval prior to carrying out exploration activities causing surface disturbance or constructing surface infrastructure, unless the Planning Secretary agrees otherwise;
 - include a description of the measures that would be implemented for:
 - managing exploration activities;
 - managing construction and operation of minor surface infrastructure (including minewater drainage bores, service boreholes, gaswells and infrastructure corridors) and associated access tracks;
 - consulting with and compensating affected landowners;
 - avoiding threatened species, populations or their habitats and EECs;
 - minimising clearance and disturbance of native vegetation;
 - minimising erosion and sedimentation;
 - achieving applicable standards and goals; and
 - rehabilitating disturbed areas.

The Applicant must implement the approved management plan as approved from time to time by the Planning Secretary.

TRAFFIC

Construction Traffic Management Plan

42. Prior to the commencement of construction activities under Modification 8, the Applicant must prepare a Construction Traffic Management Plan to the satisfaction of the Planning Secretary. This plan must:
- be prepared in consultation with TfNSW and Council;
 - include measures to minimise traffic impacts that may occur during construction of surface infrastructure and new access road;
 - outline measures to ensure construction vehicles utilise the safest route in regards to sight distances and existing road environment (ie speed, alignment and crash history) when entering and exiting the New England Highway from local roads; and
 - include a program to monitor and report on the effectiveness of these measures.

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

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SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. By the end of December 2010, the **Applicant** must:
 - (a) notify in writing the owners of:
 - the land listed in Table 1 of Schedule 3 that they have the right to require the **Applicant** to acquire their land at certain stages during **the development**;
 - any residence on the land listed in Table 1, for which the acquisition basis is noise, or Table 6 of Schedule 3 that they are entitled to ask for additional noise mitigation to be installed at their residence at certain stages during **the development**;
 - any residence on the land listed in Table 1 of Schedule 3, for which the acquisition basis is air quality, that they are entitled to ask for additional air quality mitigation measures to be installed at their residence at certain stages of **the development**; and
 - any privately-owned land within 2 kilometres of any approved open cut mining pit on site that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; and
 - (b) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the underground project EAs identify that the dust emissions from **the development** are likely to be greater than the relevant air quality criteria in Schedule 3 at any time during the life of **the development**.
2. Prior to entering into any tenancy agreement for any land owned by the **Applicant** that is predicted to experience exceedances of the relevant noise criteria or dust criteria in Schedule 3, the **Applicant** must:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - (b) advise the prospective tenants of the rights they would have under **this consent**, to the satisfaction of the **Planning Secretary**.
3. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in Schedule 3, the **Applicant** must notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until **the development** is again complying with the relevant criteria;
 - (b) an exceedance of any relevant criteria in conditions 6(c) or 7 of Schedule 3, the **Applicant** must notify the applicable owner in writing that they are entitled to ask for additional noise mitigation to be installed at their residence; and
 - (c) an exceedance of any relevant criteria in condition 12 of Schedule 3, the **Applicant** must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

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

If the **Planning Secretary** is not satisfied that an independent review is warranted, the **Planning Secretary** will notify the landowner in writing of that decision, and the reasons for that decision, within 60 days of the request for a review.

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:
 - determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine towards the impact on the land;
 - 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.

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5. If the independent review determines that the development is complying with the relevant criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Planning Secretary.

If the independent review determines that the development is not complying with the relevant criteria in Schedule 3, and that the development is primarily responsible for this non-compliance, then the Applicant must:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow the exceedances of the relevant criteria, to the satisfaction of the Planning Secretary.

If the independent review determines that the development is not complying with the relevant acquisition criteria in Schedule 3, and that the development is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Applicant must acquire all or part of the landowner's land in accordance with the procedures in conditions 7 and 8 below.

6. If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Applicant must:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Planning Secretary.

If the independent review determines that relevant acquisition criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for the exceedance, then upon receiving a written request from the landowner, the Applicant must acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s in accordance with the procedures in conditions 7 and 8 below.

LAND ACQUISITION

7. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:

- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced on the land at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of any additional mitigation measures required under conditions 6 or 7 of Schedule 3;
- (b) the reasonable costs associated with:
 - relocating within the Singleton or Muswellbrook local government areas, or to any other local government area determined by the Planning Secretary; and
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

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

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

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

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

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

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

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

8. The **Applicant** must pay all reasonable costs associated with the land acquisition process described above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.
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SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

The **Applicant** must implement the approved strategy as approved from time to time by the **Planning Secretary**.

Adaptive Management

- 1A. The **Applicant** must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the **Applicant** must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the **Planning Secretary**, to the satisfaction of the **Planning Secretary**.

Management Plan Requirements

2. The **Applicant** must ensure that the management plans required under **this consent** are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant **consent**, licence or lease conditions);
 - any relevant limits or performance measures/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) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of **the development**; and
 - effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of **the development** over time;
 - (g) a program to regularly review management practices to align with contemporary best practice industry standards;

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- (h) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with the conditions of [this consent](#) and statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (i) 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.

Preparation of Management Plans

3. Prior to approval of management plans required under Schedule 3, all existing management plans, monitoring programs, strategies, programs, protocols, etc approved as at the date of approval of Modification 5 shall continue to have full force and effect, and may be revised under the requirements of condition 6 below as if subject to the conditions of [this consent](#) that applied prior to the approval of Modification 5, or otherwise with the approval of the [Planning Secretary](#).

Relationships between Management Plans

4. With the agreement of the [Planning Secretary](#), the [Applicant](#) may combine any strategy, plan or program required by [this consent](#) with any similar strategy, plan or program required for the Mount Owen Complex.
5. The Water, Biodiversity and Heritage Management Plans required by conditions 31, 32 and 33 of Schedule 3, respectively, are to be prepared in respect of all parts of [the development](#) that are not covered by an approved Extraction Plan under condition 20 of Schedule 3. In particular, the Water, Biodiversity and Heritage Management Plans should address all areas subject to existing or proposed surface disturbance associated with [the development](#).

Revision of Strategies, Plans & Programs

6. Within 3 months of:
 - (a) the submission of an incident report under condition 9 below
 - (b) the submission of an annual review under condition 11 below;
 - (c) the submission of an audit report under condition 12 below, or
 - (d) [approval of a modification to this consent](#),[The Applicant must review and if necessary revise, the strategies, plans and programs required under this consent, to the satisfaction of the \[Planning Secretary\]\(#\).](#)

[Within 4 weeks of conducting any such review, the Applicant must advise the \[Planning Secretary\]\(#\) of the outcomes of the review, and provide any documents that have been revised to the \[Planning Secretary\]\(#\) for review and approval.](#)

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

Updating & Staging Submissions of Strategies, Plans or Programs

7. To ensure the strategies, plans or programs under [this consent](#) are updated on a regular basis, and that they incorporate any appropriate mitigation measures to improve the environmental performance of [the development](#), the [Applicant](#) may at any time submit revised strategies, plans or programs to the [Planning Secretary](#) for approval. With the agreement of the [Planning Secretary](#), the [Applicant](#) may also submit any strategy, plan or program required by this [this consent](#) on a staged basis.

With the agreement of the [Planning Secretary](#), the [Applicant](#) may revise any strategy, plan or program approved under [this consent](#) without consulting with all the parties nominated under the applicable conditions of [this consent](#).

Notes:

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

Community Consultative Committee

8. The [Applicant](#) must operate a Community Consultative Committee (CCC) for [the development](#) to the satisfaction of the [Planning Secretary](#). This CCC must be operated in general accordance with the

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Department's Community Consultative Committee Guidelines State Significant Projects November 2016, or its latest version.

Notes:

- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent;
- In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community;
- The Applicant may, with the approval of the Planning Secretary, combine the function of this CCC with the function of other CCCs in the area.

REPORTING

Incident Notification

9. 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 via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the locations and nature of the incident.

Non-Compliance Notification

- 9A. 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 via the Department's Major Projects Website 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.

Regular Reporting

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

Annual Review

11. By the end of March each year, or other timing as may be agreed by the Planning Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. This review must:
 - (a) describe the works (including any rehabilitation) that were carried out during the previous calendar year, and the works that are proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - monitoring results of previous years; and
 - relevant predictions in the documents referred to in condition 2 of Schedule 2;
 - (c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the development;
 - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and describe what measure will be implemented over the current calendar year to improve the environmental performance of the development.

INDEPENDENT ENVIRONMENTAL AUDIT

12. By the end of December 2011, and every 3 years thereafter, unless the Planning Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:
 - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);

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- (d) review the adequacy of any approved strategies, plans or programs required under these approvals, with particular reference to management practices to ensure that they align with contemporary best practice industry standards;
- (e) recommend appropriate measures or actions to improve the environmental performance of **the development**, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
- (f) be conducted and reported to the satisfaction of the **Planning Secretary**.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the **Planning Secretary**.*

- 13. Within 12 weeks of **commencing each** audit, or as otherwise agreed by the **Planning Secretary**, the **Applicant** must submit a copy of the audit report to the **Planning Secretary**, together with its response to any recommendations contained in the audit report, **and a timetable for the implementation of any measures proposed to address the recommendations.**

ACCESS TO INFORMATION

- 14. The **Applicant** must:
 - (a) make copies of the following publicly available on its website:
 - the documents referred to in conditions 2 and 3 of Schedule 2;
 - all current statutory approvals for **the development**;
 - all approved strategies, plans and programs required under the conditions of **this consent**;
 - the monitoring results of **the development**, reported in accordance with the specifications in any conditions of this **this consent**, or any approved plans or programs;
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the annual reviews over the life of **the development**;
 - any independent environmental audit, and the **Applicant's** response to the recommendations in any audit; and
 - any other matter required by the **Planning Secretary**;
 - (b) keep this information up-to-date, to the satisfaction of the **Planning Secretary**.
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APPENDIX 1: SCHEDULE OF LAND

<i>Lot Number</i>	<i>Deposited Plan Number</i>	<i>Lot Number</i>	<i>Deposited Plan Number</i>
8	6830	111	850054
10	6830	112	850054
11	6830	1	851867
12	6830	2	851867
13	6830	3	851867
17	6830	4	851867
21	6830	5	851867
5	133183	6	851867
791	580967	7	851867
3	606344	8	851867
710	624852	2	859544
71	625171	3	859544
1	626854	5	859544
1	655758	6	859544
1	701939	7	859544
2	701939	8	859544
3	701939	924	862883
1221	709371	925	862883
1	725524	926	862883
64	752499	1	865784
65	752499	1	940619
66	752499	1	996213
1	770733	1	998045
2	770733	1	1009231
1	772332	2	1072124
2	780607	3	1072124
1	781057	4	1072124
532	788015	1	1083482
1	799154	622	1097524
104	804053	1	1180252
332	832646	2	1180252
12	835203	4	1180252
921	844642	1	1206886
922	844642	2	1206886
923	844642	3	1206886

APPENDIX 2: PREVIOUS EAS

Glennies Creek Colliery (105/90)

- Environmental Impact Statement (EIS) dated 20 August 1990 prepared by Dames & Moore in accordance with Section 77(3) of the Environmental Planning and Assessment Act, and certified by Warren Atkinson and supplementary information supplied by the Applicant to the Singleton Shire Council ("the Council") by letters dated 20 November 1990, 19 February 1999, submissions to Commission of Inquiry;
- The Statement of Environmental Effects in support of a Section 96(2) Application for the Glennies Creek Coal Mine, dated July 1998, prepared by R.W. Corkery and Co Pty Ltd;
- Statement of Environmental Effects in support of a Section 96(2) application for the Glennies Creek Coal Mine, dated June 2001, prepared by R.W. Corkery and Co Pty Ltd;
- The Statement of Environmental Effects in support of an application to Modify the Development Consent for the Glennies Creek Coal Mine, dated December 2001, prepared by Mr Bob Corbett, Manager – Environmental Services with AMCI Australia Pty Ltd; Letter from Bob Corbett to NPWS/PlanningNSW dated the 23 April 2002 regarding flora and fauna issues; Air Quality Impact Assessment: Glennies Creek Ventilation Shaft dated the 19 April 2002, prepared by Holmes Air Science; Letter from Bob Corbett to EPA/PlanningNSW dated the 15 May 2002 regarding additional information requested on air quality; and Archaeological Assessment prepared by John Appleton dated April 2002;
- The information provided in support of a Section 96(1A) application, dated January 2005, prepared by Glennies Creek Coal Management Pty Ltd; and the Statement of Environmental Effects in support of an application to modify the Development Consent for the Glennies Creek Colliery, dated November 2005, prepared by Glennies Creek Coal Management Pty Ltd; and
- The Statement of Environmental Effects prepared by Environmental Resources Management Pty Ltd dated May 2008 to support the Section 96(1A) application by Integra Coal Operations dated May 2008.

Glennies Creek Colliery Surface Facilities (06_0057)

- Environmental Assessment titled Glennies Creek Colliery Environmental Assessment of Surface Facilities and Activities dated July 2006, and the associated response to submissions, titled Responses to Issues Raised in Submissions (Project Application 06_0057) dated 23 October 2006 prepared by Glennies Creek Coal Management Pty Ltd;
- Letter from the Applicant to the Department amending the development application, dated 3 October 2006;
- Modification application and supporting information titled Proposed Modifications to Forest Road Ventilation Shaft Area, dated October 2008; and
- Modification application and supporting information titled Supporting Information for a s75W Application to Modify Condition 16 of Schedule 3, Project Approval (PA) 06_0057 – Integra Coal Operations Pty Ltd, dated June 2009.

Glennies Creek Underground Coal Project (06_0213)

- Environmental Assessment titled Glennies Creek Colliery Longwalls 10 to 17 Part 3A Environmental Assessment for Integra Coal Operations Pty Limited dated 19 September 2007, and the associated response to submissions, titled Glennies Creek Part 3A Application – Longwall Panels 10-17 Middle Liddell Seam Response to Submissions, dated February 2008 prepared by Environmental Resources Management Australia Pty Ltd.

APPENDIX 3: PROJECT LAYOUT PLANS

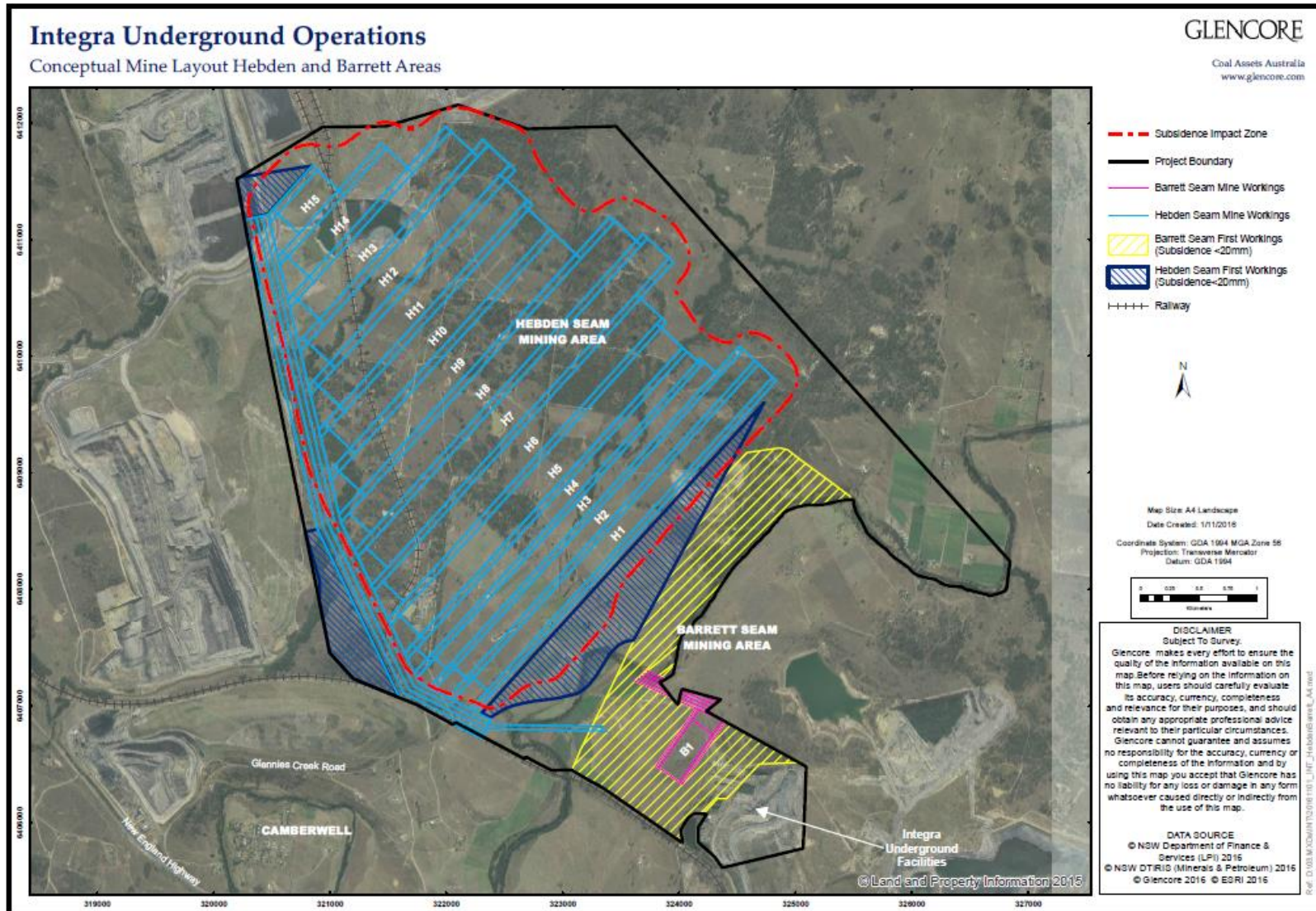
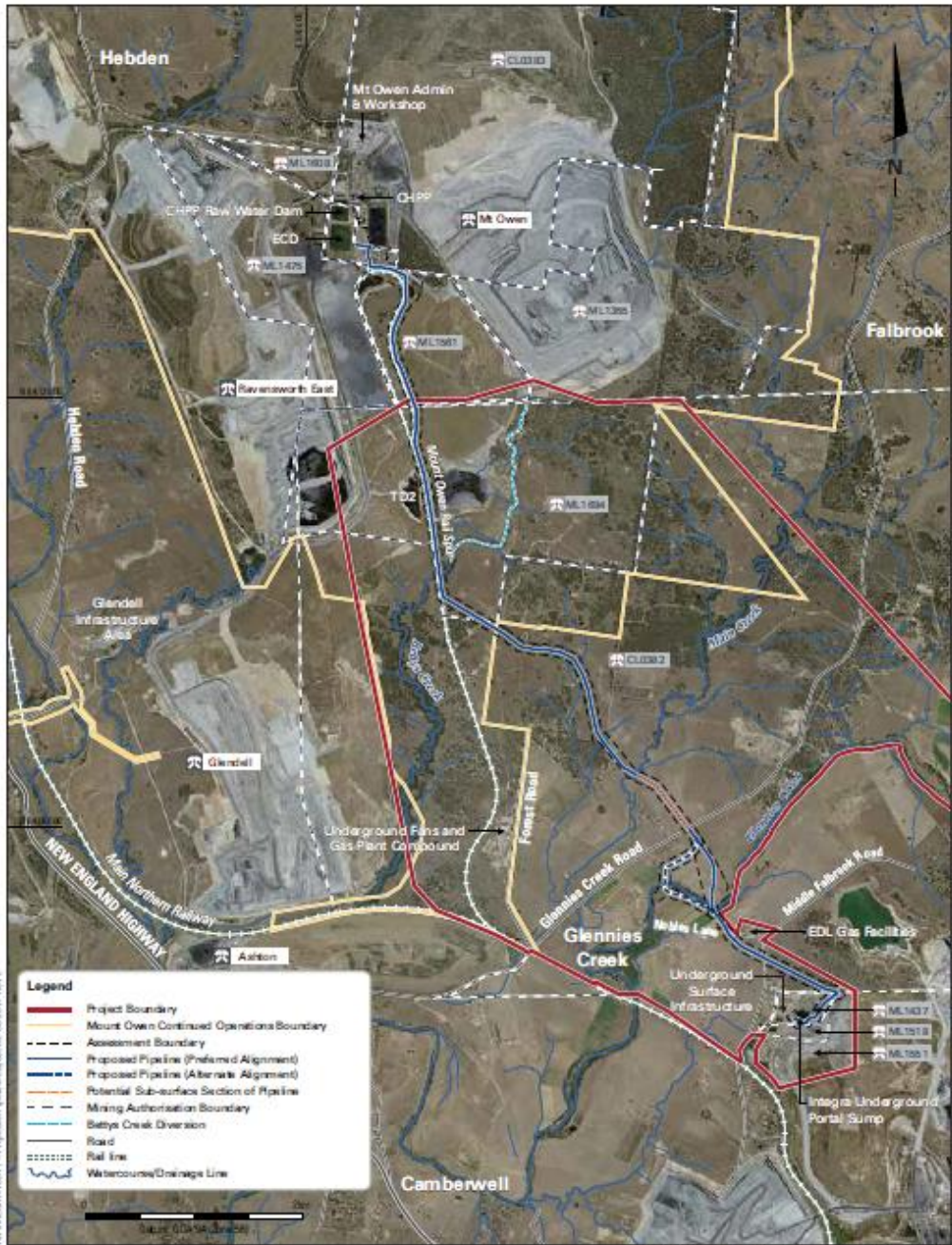


Figure 1: Hebden and Barrett Mine Seam Areas

Figure 2: Deleted

FOR INFORMATION

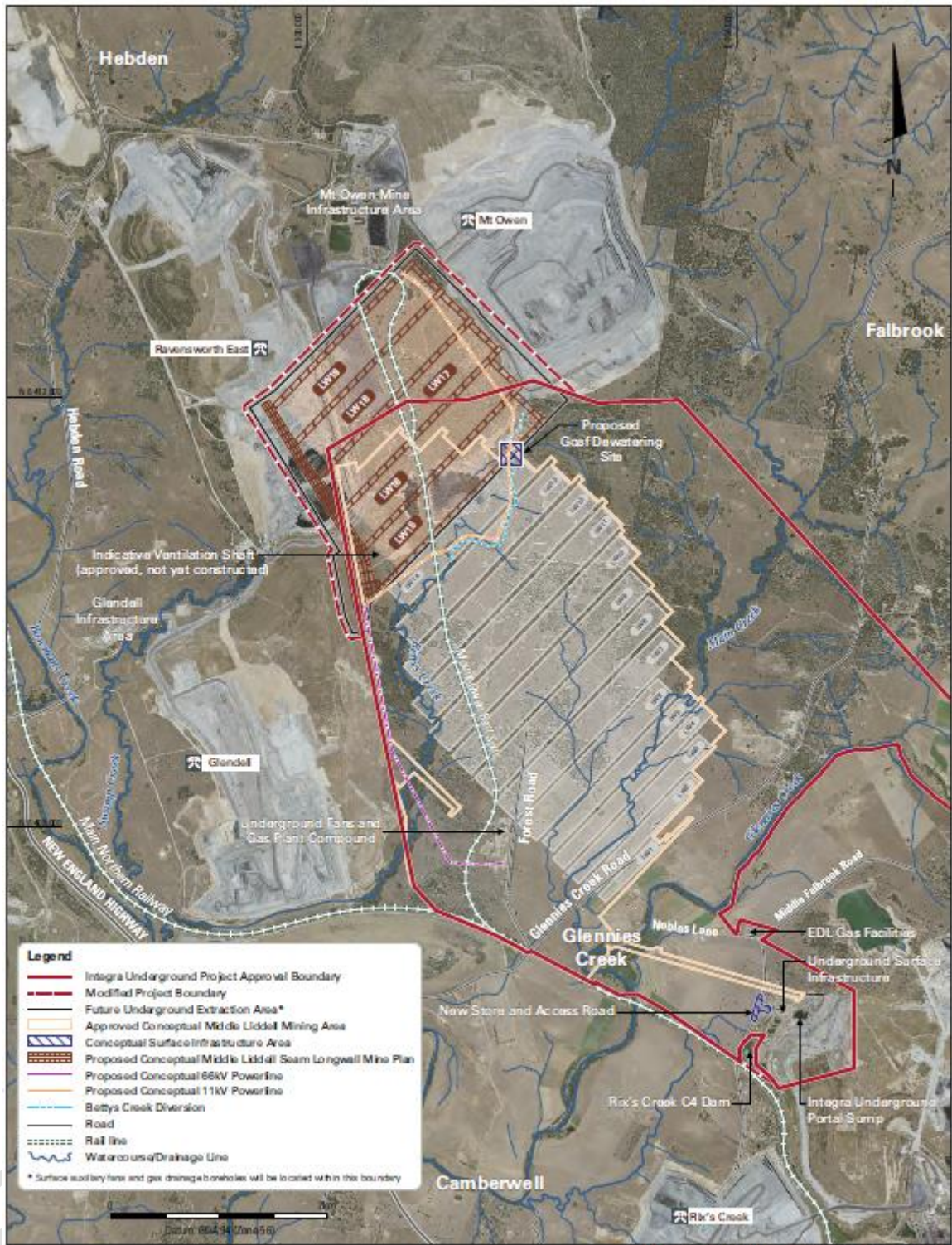


INTEGRA UNDERGROUND MINE

GLENCORE | HansenBailey |

Proposed Pipeline Layout

Figure 3: Water Pipeline Infrastructure

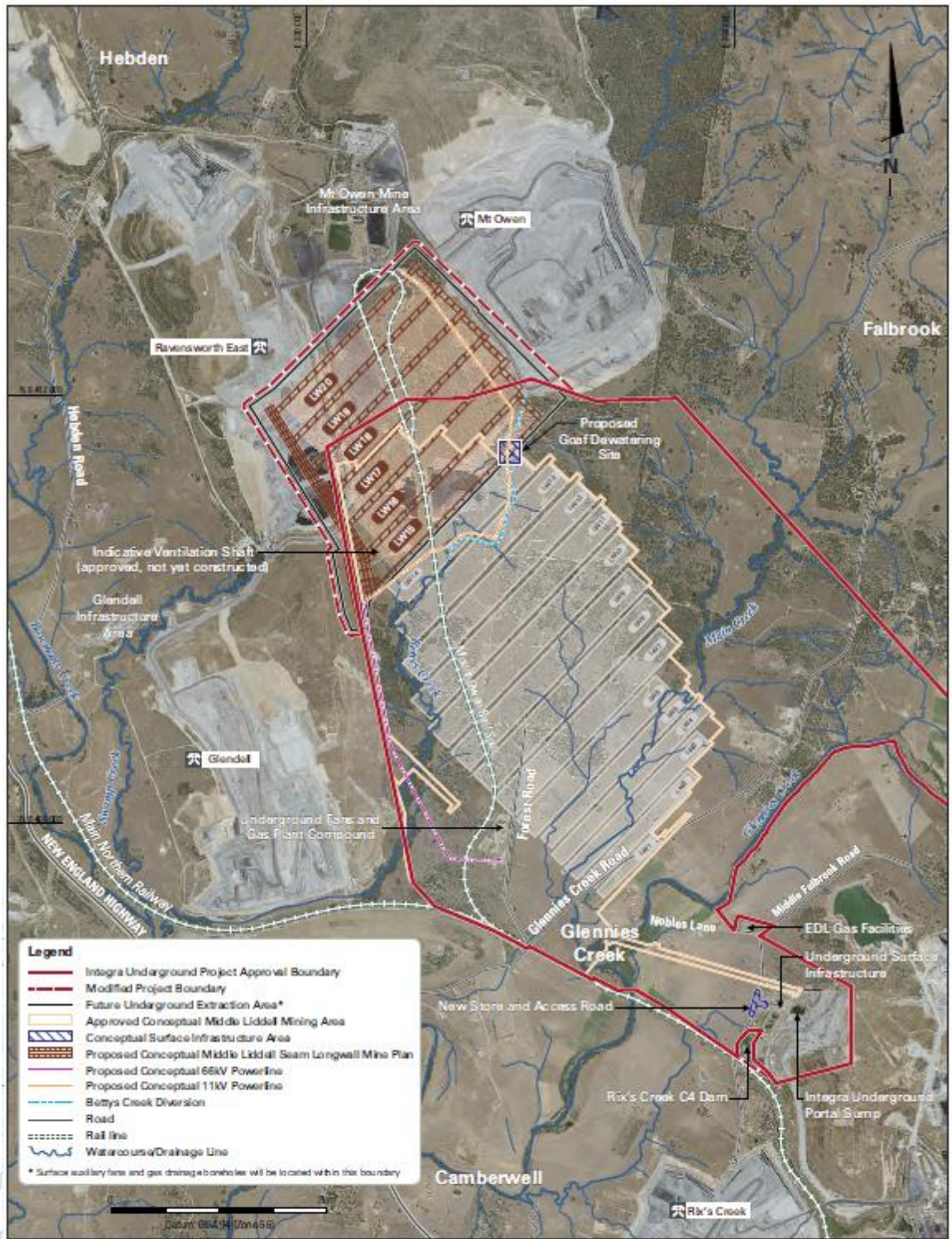


INTEGRA UNDERGROUND MINE

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Conceptual Modification Overview (320m)

Figure 4: Approved Middle Liddell Seam - Longwall Panels (330 m width for Longwalls 15 – 19)



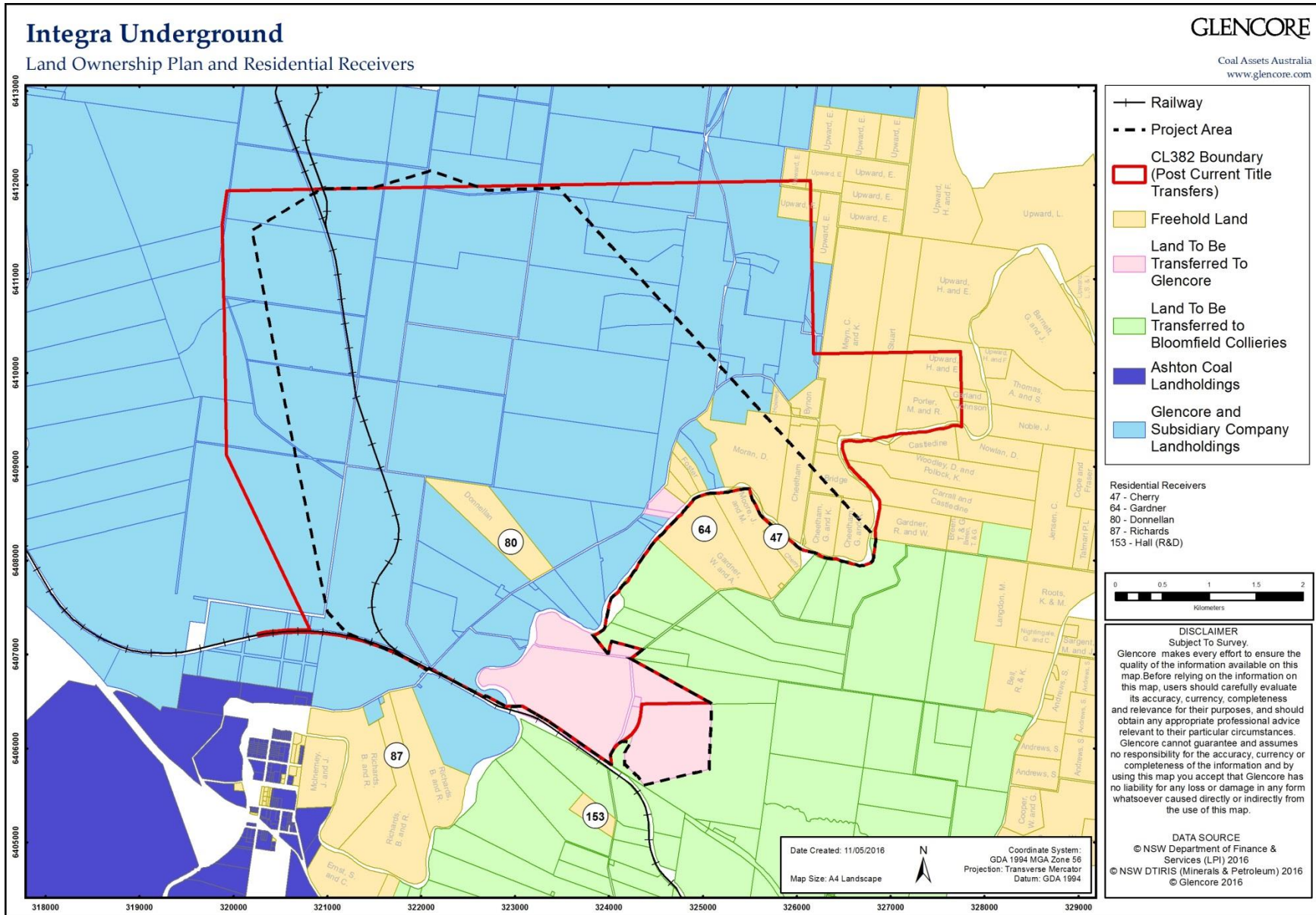
INTEGRA UNDERGROUND MINE

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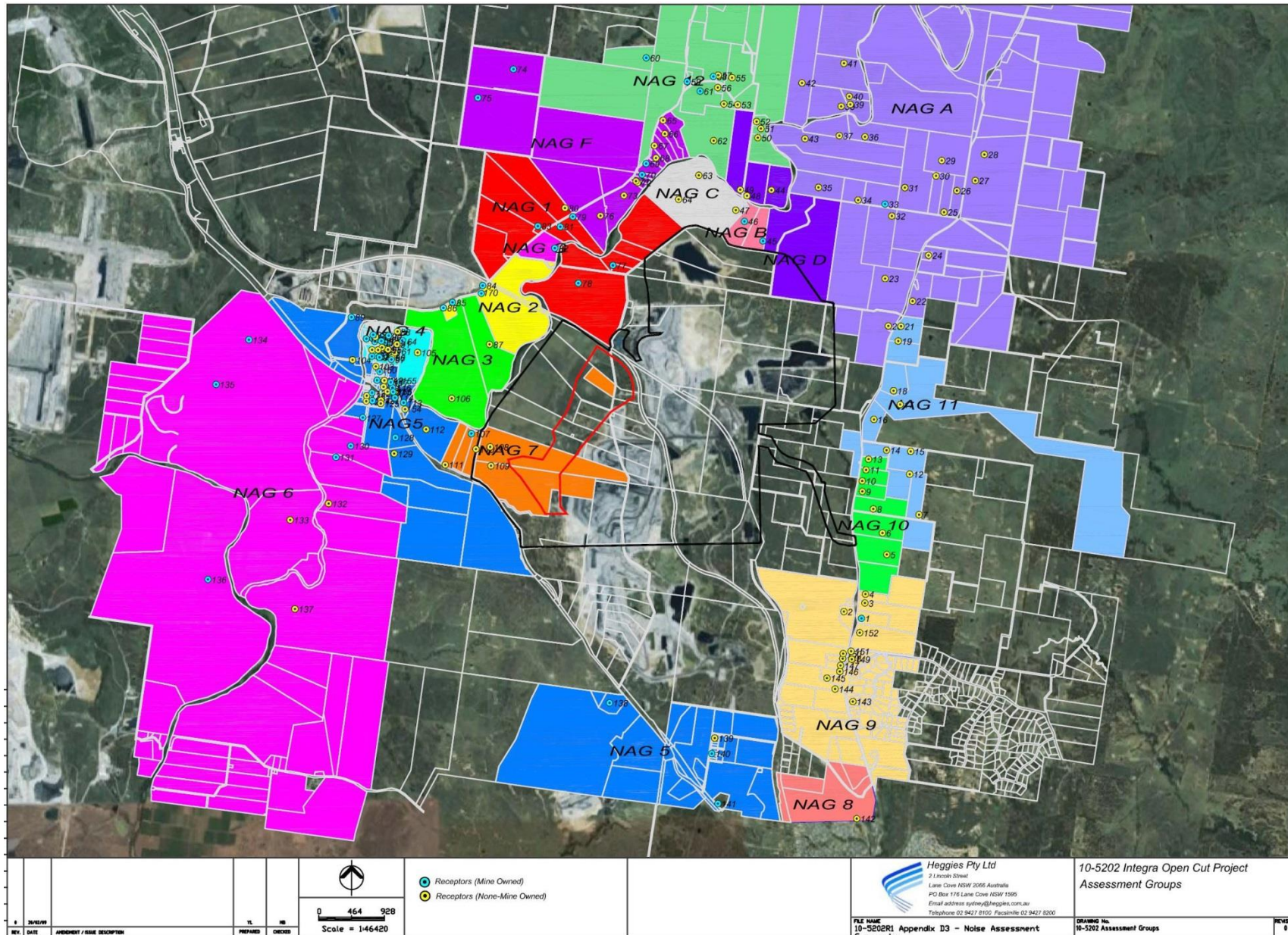
Conceptual Modification Overview (246m)

Figure 5: Alternative Approved Middle Liddell Seam - Longwalls Panels (257 m width for Longwalls 15 – 20)

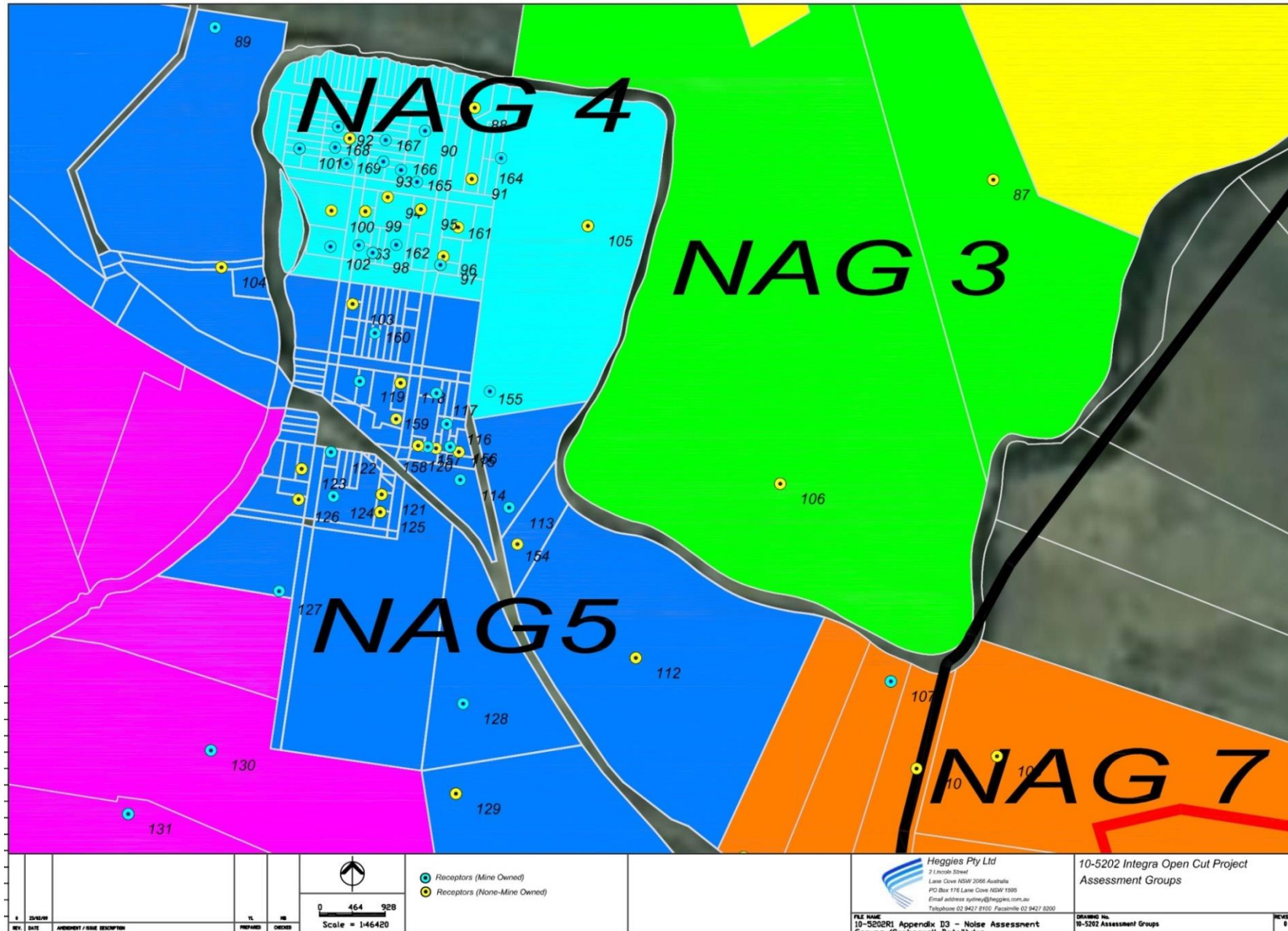
APPENDIX 4: LAND OWNERSHIP & RESIDENTIAL RECEIVERS



Underground Project Land Ownership (at time of EA Mod 5 production)



Residential Receivers



Residential Receivers in Camberwell Village

APPENDIX 5: NOISE COMPLIANCE ASSESSMENT

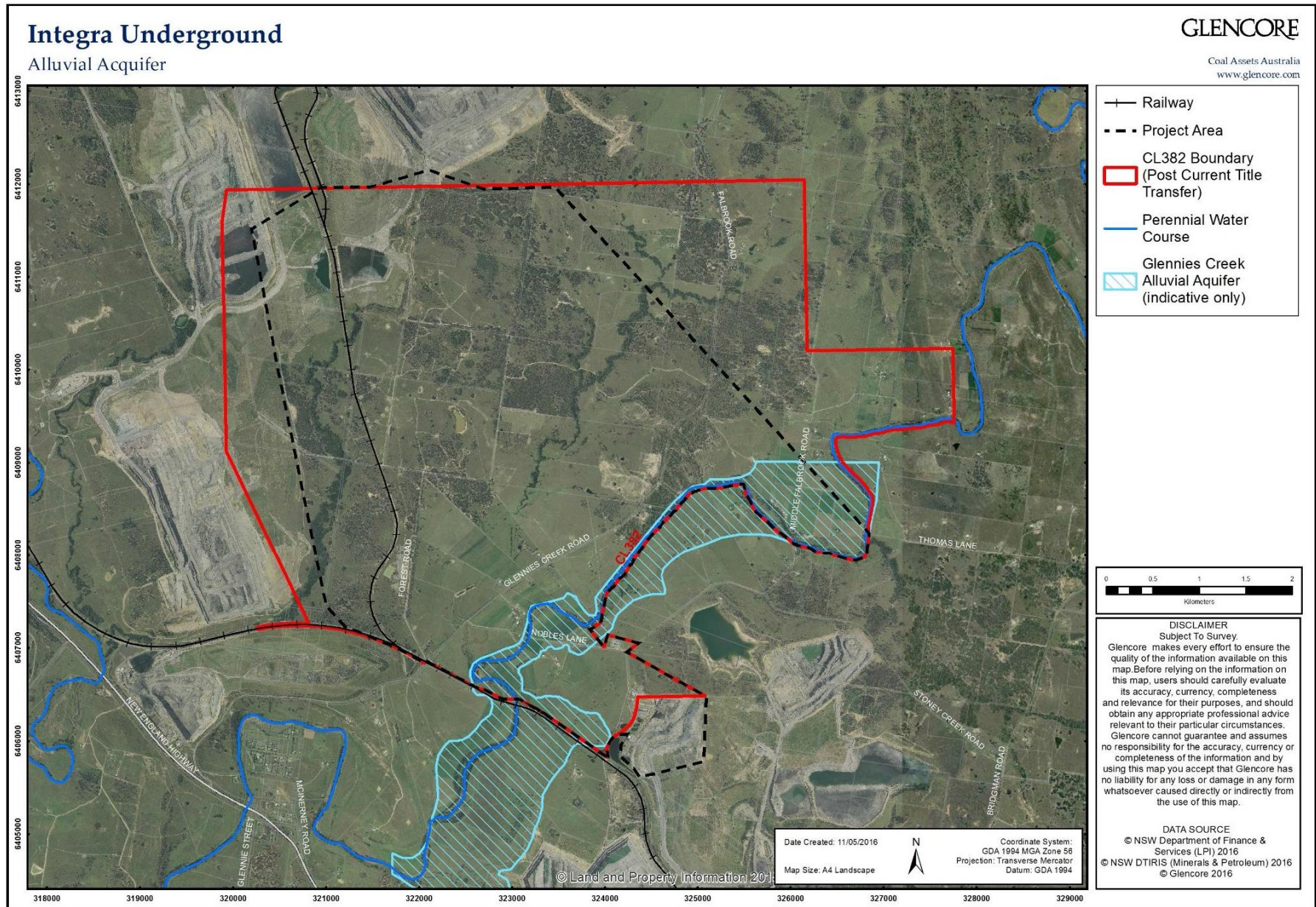
Compliance Monitoring

1. Attended monitoring is to be used to evaluate compliance with the relevant conditions of [this consent](#).
2. Data collected for the purposes of determining compliance with the relevant conditions of [this consent](#) is to be excluded under the following meteorological conditions:
 - 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 measures at 10 m above ground level; and
 - d) temperature inversion conditions greater than 3°C/100m.
3. Unless otherwise agreed with the [Planning Secretary](#), this monitoring is to be carried out in accordance with the relevant requirements relating for reviewing performance set out in the INP, in particular the requirements relating to:
 - a) monitoring locations for the collection of representative noise data;
 - b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.
4. To the extent that there is any inconsistency between the INP and the requirements set out in this Appendix, the Appendix prevails to the extent of the inconsistency.

Determination of Meteorological Conditions

5. Except for wind speed at microphone height, the data to be used for determining meteorological conditions [must](#) be that recorded by the meteorological station located on the site (as required by condition 16 of Schedule 3).

APPENDIX 6: GLENNIES CREEK AND STATION CREEK ALLUVIAL AQUIFERS



APPENDIX 7: STATEMENT OF COMMITMENTS

Underground Project Statement of Commitments

<i>Desired Outcome</i>	<i>Existing or Proposed Actions</i>	<i>Timing</i>
STATUTORY REQUIREMENTS		
Compliance with all conditional requirements in all approvals, licences and leases.	<ul style="list-style-type: none"> The development will be carried out as outlined in the following: <ul style="list-style-type: none"> this Environmental Assessment Report (EA); Project Approval; Environment Protection Licence; Subsidence Management Plans (SMPs); Mining Lease(s); and any other approvals, licences or leases. 	<ul style="list-style-type: none"> Continuous and as required.
All operations conducted in accordance with all relevant documentation.	<ul style="list-style-type: none"> Undertake all activities in accordance with the accepted Mining Operations Plan; environmental procedures; safety management plan and/or site-specific documentation in force at that time. 	<ul style="list-style-type: none"> Continuous and as required.
STAKEHOLDER CONSULTATION		
That effective communication/consultation is undertaken throughout the life of the development .	<ul style="list-style-type: none"> Preparation of a community newsletter following Project Approval. Biannual meetings of the Community Consultative Committee. 	<ul style="list-style-type: none"> Within three months from the date of Project Approval. Continuous and as required.
	<ul style="list-style-type: none"> Ongoing communication with the management of Glencore and provision of subsidence monitoring data. 	<ul style="list-style-type: none"> Continuous and as required.
	<ul style="list-style-type: none"> Conduct a more detailed assessment of the potential impacts of subsidence on items of Glencore infrastructure. 	<ul style="list-style-type: none"> Prior to longwall mining under areas containing Glencore owned infrastructure.
SUBSIDENCE		
Potential adverse impacts from subsidence are managed, monitored and remediated where necessary.		
Subsidence management	<ul style="list-style-type: none"> Subsidence Management Plan applications will be submitted to the Resources Regulator detailing strategies to manage subsidence impacts, inclusive of measures referenced in this EA. The mine plan for the Barrett seam longwall blocks will be developed and operated to provide a minimum 40 metre separation between the boundary to the connected alluvium and the 20mm subsidence line. In addition to the overarching SMPs, specific management plans will be developed which will address potential subsidence impacts on specific items or areas of sensitivity, roads and associated infrastructure, transmission lines, communication infrastructure, Bettys Creek, farm fences, farm buildings and farm dams. Subsidence monitoring involving cross lines, longitudinal lines and three dimensional surveying will be undertaken to confirm the levels of subsidence occurring and enable refinements to subsidence predictions. Temporary remediation works will progress during mining, with permanent remediation works completed following full subsidence impacts in an area. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area. Prior to the commencement of longwall mining in the affected area and ongoing. Prior to the commencement of proposed longwall mining in the affected area. Prior to, during and after mining in the Barrett and Hebden Seams. Continuous and as required.

Desired Outcome	Existing or Proposed Actions	Timing
Management of subsidence impacts on surface infrastructure.	<ul style="list-style-type: none"> The new Forest Road Subsidence Management Plan to be built upon the existing management plan to reflect the expected subsidence and associated impacts. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> As part of Hebden SMP development, a management plan for Glennies Creek Road and associated infrastructure will be prepared. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> As part of Barrett SMP development, a management plan for Middle Falbrook Road and associated infrastructure will be prepared. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> Possum Skin Dam will be decommissioned. 	<ul style="list-style-type: none"> Prior to the commencement of longwall mining which would potentially affect the stability or integrity of the dam wall.
	<ul style="list-style-type: none"> The current Electricity Transmission Lines Subsidence Management Plan will be revised for inclusion in the new SMPs and will detail management of subsidence effects on powerlines. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> The existing management plan for the Forest Road communications/Telstra line will be reviewed and updated in consultation with Telstra to reflect changes resulting from this proposal. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> Stakeholder consultation and monitoring of the existing communication cable adjacent to the Mt Owen Rail Spur will be carried out to ensure the cable remains serviceable during subsidence. 	<ul style="list-style-type: none"> As required.
	<ul style="list-style-type: none"> Should GMO's mine plan change, any potential subsidence effects on its tailings dams or highwalls will be addressed in the relevant SMPs at that time. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> HV Coking Coal will undertake a more detailed assessment of potential impacts on the Ravensworth East / GMO and Glendell Open Cuts. 	<ul style="list-style-type: none"> Following finalisation of the surface mine layout and prior to mining within these areas.
	<ul style="list-style-type: none"> HV Coking Coal will provide stakeholders such as Singleton Shire Council and landowners who border roads with a monthly update of the location of the longwall face relative to the road, and the estimated progress of the longwall during the following month. 	<ul style="list-style-type: none"> Monthly.
	<ul style="list-style-type: none"> Signs will be erected by HV Coking Coal at points on the road at the edge of the longwall subsidence impact zone. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> Approval will be sought from the Resources Regulator and ARTC prior to any mining within the Main Northern Railway protection zone. Any proposed workings in the Main Northern Railway protection zone will be designed to be long term stable – taking site conditions into consideration 	<ul style="list-style-type: none"> Prior to mining within the protection zone.
	<ul style="list-style-type: none"> A subsidence management plan will be devised in consultation with the SA NSW and the owners of houses above Barrett Seam Longwall 7. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
<ul style="list-style-type: none"> Surveys will be conducted prior to, during and after mining, to confirm the levels of subsidence movements and impacts, and identify if triggers for implementation of management measures have been reached. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area. 	
<ul style="list-style-type: none"> HV Coking Coal and the SA NSW will undertake rebuilding, rectification of structural work, re-leveling and remedial work to surface water drainage and sewerage systems at the existing Glennies Creek Community Hall as required to remediate anticipated subsidence damage. 	<ul style="list-style-type: none"> As required. 	

Desired Outcome	Existing or Proposed Actions	Timing
Ensure minimal subsidence impacts on natural features.	<ul style="list-style-type: none"> The Hebden SMPs to be developed will incorporate and build upon the existing Surface Drainage Management Plan. A Bettys Creek Diversion Management Plan will be prepared as part of the Hebden SMPs. <p>HV Coking Coal will prepare:</p> <ul style="list-style-type: none"> a response strategy to address any destabilisation of Main Creek; a works programming for any necessary remedial works in Main Creek should subsidence expression initiate incision and headward erosion; an outline of expansion of piezometric monitoring; and a TARP as part of a surface water and groundwater monitoring and management program. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area. Prior to the commencement of proposed longwall mining in the affected area. <p>Prior to Hebden Seam longwall mining undermining Man Creek.</p>
Ensure minimal subsidence impacts on farm infrastructure.	<ul style="list-style-type: none"> The Hebden SMPs and Barrett SMPs to be developed will incorporate and build upon the existing Farm Fences, Farm Buildings and Farm Dams Subsidence Management Plans, as appropriate. In consultation with the relevant landowner, HV Coking Coal will remediate any dam that is damaged by subsidence (or has its storage capacity reduced by more than 10 percent) to a condition similar to that prior to subsidence. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area. As required.
ECOLOGY		
Operations are managed such that adverse impacts to native flora and fauna are prevented, minimised and/or offset.	<ul style="list-style-type: none"> HV Coking Coal will implement the following flora and fauna management procedures. <ul style="list-style-type: none"> Revegetate the planned Bettys Creek diversion channel and adjacent areas; Undertake surveys along the creek diversion and revegetated areas to record any significant loss of planted seedlings and monitor the use of revegetated areas by native fauna. Revegetation design, weed management, exclusion of cattle and ongoing monitoring in the area of the Bettys Creek diversion will be coordinated in consultation with Glendell. The abandoned Bettys Creek channel will be managed (ie weed control and exclusion of cattle) in conjunction with the ongoing management and monitoring of the proposed diversion. Based on the ephemeral nature of the existing channel, consideration will be given to blocking off the abandoned channel at the downstream end to act as a billabong to retain any surface flows. Undertake pre-clearance inspections of borehole sites. Where possible, the inspections will be undertaken during the summer flowering period to optimise detection of <i>Bothriochloa biloba</i> and to avoid impacting directly on any individual plants. 	<ul style="list-style-type: none"> Continuous, as required.
HERITAGE		

Desired Outcome	Existing or Proposed Actions	Timing
Operations are managed such that adverse impacts to significant Aboriginal and Historical heritage items are avoided, minimised and/or offset.	<ul style="list-style-type: none"> Artefact scatters (sites 37-3-0597, 37-3-0595 and 37-3-0027) that will be destroyed by the proposed Bettys Creek diversion will be salvaged and involve the following. <ul style="list-style-type: none"> During clearing works in the areas where surface earthworks will occur, a qualified archaeologist will undertake field work with assistance from the Aboriginal community. Artefacts will be recorded individually and, once any site is salvaged, all materials and list of details collected for each artefact will be provided to the Local Aboriginal Land Council. 	<ul style="list-style-type: none"> Prior to the diversion of Bettys Creek.
	<ul style="list-style-type: none"> Monitoring of excavation works along the banks of Bettys Creek will be undertaken by a representative of the Aboriginal community. 	<ul style="list-style-type: none"> During excavations works undertaken for the diversion of Bettys Creek.
	<ul style="list-style-type: none"> The area to be impacted by the realignment of Main Creek will be re-surveyed with the assistance of the local Aboriginal community and any sites fully recorded and logged prior to the confirmation of the channels' locations and designs. 	<ul style="list-style-type: none"> Prior to the diversion of Main Creek.
	<ul style="list-style-type: none"> Should the additional survey works in the area to be impacted by the realignment of Main Creek highlight any areas of high cultural or scientific significance, the alignment of the proposed works will be altered and / or subsurface investigations will be undertaken in consultation with Heritage NSW and the Planning Secretary. 	<ul style="list-style-type: none"> Prior to the diversion of Main Creek.
	<ul style="list-style-type: none"> Sites 37-3-0682, 37-3-0683 and any additional sites recorded during the survey will be salvaged prior to construction commencing and all activities requiring soil removal associated with the realignment of Main Creek will be monitored by representatives of the Aboriginal community. The salvage will: <ul style="list-style-type: none"> be undertaken by a qualified archaeologist during clearing works in the areas where surface earthworks will occur with assistance from the Aboriginal community; and include recording of individual artefacts. Once any site is salvaged, all materials and list of details collected for each artefact will be provided to the Local Aboriginal Land Council. 	<ul style="list-style-type: none"> Prior to the diversion of Main Creek
	<ul style="list-style-type: none"> Monitoring of excavation works along the banks of Main Creek will be undertaken by a representative of the Aboriginal community. 	<ul style="list-style-type: none"> During excavations works undertaken for the diversion of Main Creek.
	<ul style="list-style-type: none"> Infrastructure will be sited to avoid impacts to known heritage sites. Should impacts be unavoidable, Heritage NSW and the local Aboriginal community representatives will be consulted. 	<ul style="list-style-type: none"> Continuous, as required.
	<ul style="list-style-type: none"> The Aboriginal community will be given the opportunity to collect any surface artefacts from the planned surface (remediation) activities. 	<ul style="list-style-type: none"> Prior to ground disturbing works in an area.
	<ul style="list-style-type: none"> In consultation with the local Aboriginal community, the existing Aboriginal Cultural Heritage Management Plan (ACHMP) will be revised and built upon to detail management of project induced effects. 	<ul style="list-style-type: none"> Prior to the commencement of ground disturbing works.
Ensure minimal subsidence impacts on archaeology.	<ul style="list-style-type: none"> Heritage NSW and the Local Aboriginal Community Representatives will be consulted should there be impacts to potential Aboriginal deposits as a result of remediation works along creeks and works to rehabilitate cracks. 	<ul style="list-style-type: none"> Prior to any remediation that may be required.

Desired Outcome	Existing or Proposed Actions	Timing
	<ul style="list-style-type: none"> A qualified archaeologist will assess the potential impact of the planned works. 	<ul style="list-style-type: none"> Prior to any subsidence remediation works.
	<ul style="list-style-type: none"> Should subsidence levels be greater than predicted, archaeological sub-surface testing may be undertaken in affected areas with the involvement of the Aboriginal stakeholders and Heritage NSW. 	<ul style="list-style-type: none"> As required.
	<ul style="list-style-type: none"> The Hebden SMPs to be developed will incorporate and build upon the existing Archaeology Subsidence Management Plan. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
SURFACE WATER		
Operations are managed such that adverse impacts to surface water are prevented, minimised and/or offset.	<ul style="list-style-type: none"> HV Coking Coal will maintain the existing surface water monitoring program, and undertake additional monitoring including collection of grab samples during or immediately after surface runoff events along ephemeral watercourses; monthly water quality sampling of major water storages on the site; collection of data on water quantity and at least weekly collection of underground mine dewatering and raw water supply volume data. 	<ul style="list-style-type: none"> Continuous, as required.
	<ul style="list-style-type: none"> HV Coking Coal will maintain a photographic record of the creeks and dam walls to determine historical (baseline) rates of erosion. 	<ul style="list-style-type: none"> Continuous, as required.
	<ul style="list-style-type: none"> As part of the erosion and flood studies, HV Coking Coal will assess whether rapid changes in channel or floodplain form occur in the aftermath of runoff events. 	<ul style="list-style-type: none"> Continuous, as required.
	<ul style="list-style-type: none"> Monitoring results will be reported in the AEMR and distributed to the relevant Government agencies, CCC members and other relevant stakeholders. 	<ul style="list-style-type: none"> Annually.
	<p>HV Coking Coal will prepare:</p> <ul style="list-style-type: none"> a response strategy to address any destabilisation of Main Creek; a works programming for any necessary remedial works in Main Creek should subsidence expression initiate incision and headward erosion; an outline of expansion of piezometric monitoring; and a TARP as part of a surface water and groundwater monitoring and management program. 	<p>Prior to Hebden Seam longwall mining undermining Man Creek.</p>
	<ul style="list-style-type: none"> No impacts will occur to licensed water users, basic landholder rights or minimum baseflows in Glennies Creek regulated river or environmental water requirements. 	<ul style="list-style-type: none"> Continuous.
	<ul style="list-style-type: none"> A Site Water Management Plan will be prepared outlining management measures associated with potential erosivity of the Bettys Creek diversion or degradation of Glennies Creek and any subsidence effects that may occur on the diversion or Glennies Creek and its associated alluvium. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> The mine plan will be developed and operated such that no detectable or measureable ingress of surface water into the mine workings will be generated that can't be reversed. 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.
	<ul style="list-style-type: none"> HV Coking Coal will not restrict Glencore's ability to stabilise and reconfigure the diversion to Bettys Creek, and will develop an updated Site Water Management Plan to manage any adverse impacts from extraction of the Hebden Seam panels, including the collection of 	<ul style="list-style-type: none"> Prior to the commencement of proposed longwall mining in the affected area.

Desired Outcome	Existing or Proposed Actions	Timing
	<p>monitoring data by an independent consultant agreed to by HV Coking Coal and Glencore prior to the diversion being undermined.</p> <ul style="list-style-type: none"> HV Coking Coal will provide evidence that their water accounting procedure complies with dealings rules as prescribed under the Hunter Regulated River Water Sharing Plan (HRRWSP) and/or Hunter Unregulated River and Alluvium Water Sharing Plan (HURAWSP). 	<ul style="list-style-type: none"> Continuous, as required.
	<ul style="list-style-type: none"> HV Coking Coal will ensure it has sufficient water to meet mine operational demands in accordance with the statutory rules of the Hunter Regulated River Water Sharing Plan (HRRWSP) and/or Hunter Unregulated River and Alluvium Water Sharing Plan (HURAWSP), and any other statutory instruments in force under the Water Act 1912, and Water Management Act 2000. Should insufficient water be available to continue mining operations, mining operations will be scaled back to meet water supply requirements. any proposed workings under Glennies Creek and its associated alluvium will be designed to be stable in the long term, taking site conditions into consideration 	<ul style="list-style-type: none"> Continuous, as required.
GROUNDWATER		
Operations are managed such that adverse impacts to local and regional groundwater resources are prevented, minimised and/or offset.	<ul style="list-style-type: none"> The current groundwater monitoring program will continue with ongoing review and possible modification of the program as further data is obtained and interpreted. Annual reports documenting and interpreting the collected data will be prepared. 	<ul style="list-style-type: none"> Continuous, as required.
	<ul style="list-style-type: none"> Groundwater samples will be collected annually from selected piezometers and analysed at a NATA registered laboratory for major ions and selected metals. The groundwater program will be maintained in its current form, with a review of the program after interpretation of the first 12 months' data. 	<ul style="list-style-type: none"> Annually, as required.
	<ul style="list-style-type: none"> A private well monitoring program will be initiated to determine its pre mining yield if requested by a private bore owner. Should a reduction in groundwater availability be detected, remedial action will be undertaken by HV Coking Coal to offset the measured losses. Such actions may include digging the well deeper, installing a new well or installing a replacement bore. 	<ul style="list-style-type: none"> 12 months prior to extraction of the Barrett Seam (subject to the timing of any request). Subsequent to detecting a loss of groundwater availability due to mining.
	<ul style="list-style-type: none"> Performance indicators will be identified and a statistical assessment will be undertaken to detect when, or if, a significant change has occurred in the groundwater system and to benchmark the natural variation in groundwater quality and standing water levels. 	<ul style="list-style-type: none"> Prior to longwall mining in the Hebden Seam.
	<ul style="list-style-type: none"> Contingency procedures will be developed. Activation of contingency procedures will be linked to the assessment of monitoring results. 	<ul style="list-style-type: none"> As required.
	<ul style="list-style-type: none"> Following the completion of extraction of each longwall panel, a report will be prepared that summarises relevant monitoring data. Relevant monitoring and management activities for each year will also be reported in the AEMR. 	<ul style="list-style-type: none"> Following the completion of extraction of each longwall panel and in the AEMR.

Desired Outcome	Existing or Proposed Actions	Timing
AIR QUALITY		
Operations are managed to minimise potential adverse impacts to the environment, residences and the community.	<ul style="list-style-type: none"> • Implement the following air quality control procedures. • Coal handling areas, stockpiles, roads and trafficked areas will be maintained in a moist condition using water carts and / or water sprays to minimise wind-blown and traffic-generated dust. • Water sprays will be used at the longwall and development face to control particulates. • All haul roads will have edges clearly defined with marker posts or equivalent to control their locations, especially when crossing large overburden emplacement areas. • Obsolete roads will be ripped and re-vegetated; • Development of minor roads will be limited and the locations of these will be clearly defined. • Minor roads used regularly for access etc will be watered/treated to control dust. • Due to OHS regulations regarding underground air quality, dust generated underground will be minimised. Currently this includes the application of water and/or use of dust suppressants. 	<ul style="list-style-type: none"> • Continuous, as required.
	<ul style="list-style-type: none"> • HV Coking Coal will continue air monitoring in accordance with the Integra Underground EMS Procedure 002-2, Air Quality Monitoring Program, including monitoring weather conditions, TSP, PM₁₀ (using HVAS), real time PM₁₀ (using TEOM) and dust fallout. 	<ul style="list-style-type: none"> • Continuous.
	<ul style="list-style-type: none"> • The results of the ongoing air quality monitoring program will be communicated to residents in the Local Community. 	<ul style="list-style-type: none"> • Continuous, as required.
GREENHOUSE GASES		
Manage operations such that greenhouse gas emissions on the environment are minimised and beneficial use of methane is maximised.	<ul style="list-style-type: none"> • Fugitive methane emissions will be captured for energy generation where possible. If not feasible, flaring will be adopted, where practicable. 	<ul style="list-style-type: none"> • Continuous.
	<ul style="list-style-type: none"> • Greenhouse gas emissions will be estimated and reported annually. 	<ul style="list-style-type: none"> • Following commencement of proposed mining.
	<ul style="list-style-type: none"> • Energy and greenhouse gas emission reduction initiatives will be implemented throughout the life of the development, including the following. <ul style="list-style-type: none"> • The efficiency of all new and upgraded mobile and fixed equipment will be considered during procurement for fuel powered equipment. • Ensuring equipment will be maintained to retain high levels of energy efficiency. • The inventory of emissions developed for this environmental assessment will be maintained. • Emissions and abatement strategies will be reported annually as part of the internal environmental reporting and National Greenhouse and Energy Reporting obligations and in the AEMR. 	<ul style="list-style-type: none"> • Continuous, as required.
NOISE AND VIBRATION		
Operations are managed to minimise potential adverse impacts on the environment, residences and the community.	<ul style="list-style-type: none"> • HV Coking Coal will implement the following noise management procedures and monitoring programs. 	<ul style="list-style-type: none"> • Continuous, as required.

Desired Outcome	Existing or Proposed Actions	Timing
	<ul style="list-style-type: none"> • Use of conveyors instead of haul roads where approved. • Construction of acoustic bunds adjacent to haul roads where recommended by an acoustic consultant. • Use of routine monitoring results to refine on-site noise mitigation measures and operating procedures. • Undertake noise audits at boundary positions to static sources to verify potential change in overall sound emissions. • Undertake regular discussions with potentially affected residents to proactively identify noise related issues of concern. • Undertake quarterly monitoring at identified representative receivers. • Implement acoustic mitigation at residences where exceedances of the project specific criteria are demonstrated via the monitoring program and requested by the landowner. • Consideration of negotiated agreements with landowners where exceedances of the project specific criteria are substantiated by monitoring. • Informing residents that the existing community information line for Integra Underground would apply to this proposal. • Existing and / or additional real time noise monitoring will be utilised to manage, assess and control potential emissions from site. 	
	<ul style="list-style-type: none"> • A blast management protocol will be developed in conjunction with GMO to manage potential impacts from other mine's blasting on the underground mining activities. 	<ul style="list-style-type: none"> • Prior to the commencement of proposed mining in the vicinity of open cut mining operations.
	<ul style="list-style-type: none"> • Integra will investigate the feasibility of installing an overland conveyor to transport coal from the Integra Underground to the Integra CHPP and provide the outcomes of that investigation to the Planning Secretary. 	<ul style="list-style-type: none"> • Prior to 30 June 2010
TRANSPORT		
Management of rail infrastructure.	<ul style="list-style-type: none"> • A new Mt Owen Rail Spur Management Plan will be prepared in consultation with GMO, and will include monitoring, stakeholder consultation and mitigation measures. 	<ul style="list-style-type: none"> • Prior to the commencement of proposed longwall mining in the affected area.
Management of roads.	<ul style="list-style-type: none"> • Current traffic and transport management measures will continue. In addition, linemarking of Stony Creek Road and Middle Falbrook Road will be undertaken if requested by Council. 	<ul style="list-style-type: none"> • Continuous.
WASTE		
Avoidance of unnecessary resource consumption; reuse, reprocessing, recycling and energy recovery wherever possible and, where this is not possible, disposal of wastes in an environmentally responsible manner.	<ul style="list-style-type: none"> • Wastes will continue to be managed in accordance with the Integra Underground Procedure PRO_0381 - Waste Management, including the following. <ul style="list-style-type: none"> • Reuse of mine water for dust suppression at the Integra Underground and Open Cut, in the CHPP and at neighbouring mines. • All waste oils will be pumped into on site storage tanks for subsequent transfer to a registered waste disposal company. • Old batteries will be stored in a designated bin prior to collection by a licensed contractor. • All scrap steel will be stored in dedicated skips and sold to scrap steel merchants for recycling. 	<ul style="list-style-type: none"> • Continuous, as required.

Desired Outcome	Existing or Proposed Actions	Timing
	<ul style="list-style-type: none"> • Bulk chemical containers will be returned to suppliers for reuse as part of the supply agreement. • Pallets will be collected by a recycling contractor. • Colour-coded recycling containers will be placed in identified areas for collection of cardboard and paper products and collected regularly by licensed contractors / recyclers. • Sewerage waste from site offices, administration building, maintenance areas and bath houses will be treated using an aerated wastewater treatment system before being discharged to an anaerobic and aerobic dam system. The water will then be irrigated onto adjacent land. • Sludge from the aerated wastewater systems will be pumped out as required by contractors and disposed of to a licensed facility. • Hazardous materials will be stored in accordance with Australian Standards. • Old paints /preservatives, disused chemicals, solvents and coolants will be stored in allocated areas prior to being removed by a licensed hazardous water contractor. • Liquid waste from parts washers will be stored in 200L containers for removal by licensed waste contractors. • Waste oil filters will be taken to a recycling facility by a registered waste disposal contractor. • Materials containing liquids will be removed by a licensed contractor for recycling or disposal at a licensed waste management facility. • Domestic wastes and maintenance consumables will be separated and collected by waste contractors. 	
REHABILITATION		
That effective rehabilitation is undertaken at the completion of mining.	<ul style="list-style-type: none"> • Rehabilitation associated with proposed mining will be undertaken in accordance with the relevant MOP, REMP, Extraction Plans and SMPs. 	<ul style="list-style-type: none"> • Following the completion of mining in the affected area.
SOCIO-ECONOMIC		
Net benefits of the proposal sufficiently outweigh potential adverse impacts.	<ul style="list-style-type: none"> • A social impact monitoring strategy will be developed that quantifies the impacts on the local community and the effectiveness of strategies implemented in minimising these impacts. 	<ul style="list-style-type: none"> • Following commencement of proposed longwall mining in the affected area.

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