Development Consent

Section 80 of the *Environmental Planning and Assessment Act 1979*

I, the Minister for Infrastructure, Planning and Natural Resources, approve the Development Application referred to in schedule 1, subject to the conditions in schedules 3 to 6.

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

Craig Knowles MP
Minister for Infrastructure and Planning
Minister for Natural Resources

Sydney, 2004 File No: S02/02690

SCHEDULE 1

Development Application:	DA 450-10-2003.
Applicant:	Coal & Allied Operations Pty Ltd.
Consent Authority:	Minister for Infrastructure and Planning.
Land:	See Appendix 1.
Proposed Development:	The extension of open cut coal mine operations at the West Pit of Hunter Valley Operations in general accordance with the Environmental Impact Statement for the *Hunter Valley Operations - West Pit Extension and Minor Modifications*, which includes: • extending open cut mining operations to the east of currently approved development; • using existing mining methods and equipment; • using existing coal preparation facilities at the West Pit to process up to 6 million tonnes per annum (Mtpa) of coal and use of related coal reject disposal facilities; • continuing coal production at the rate of 12 Mtpa at West Pit; • increasing the approved production capacity of the Carrington Pit from 6 Mtpa to 10 Mtpa; • increasing approved coal haulage from mining areas south of the Hunter River to the Hunter Valley Coal Preparation Plant from 8 Mtpa to 16 Mtpa; • upgrading the capacity of the Hunter Valley Coal Preparation Plant from 13 Mtpa to 20 Mtpa; • upgrading the Belt Line Conveyor from the Hunter Valley Coal Preparation Plant to the Hunter Valley Loading Point; • constructing a conveyor between the Hunter Valley Loading Point and the Newdell Loading Point; • hauling coal, on an intermittent basis, between the Hunter Valley Loading Point and Newdell Loading Point and the Ravensworth Coal Terminal; • hauling coal, on an intermittent basis, between the Hunter Valley Coal Preparation Plant and the Hunter Valley Loading Point along a private haul road;

- moving coal and coal rejects between mining areas and facilities of the Hunter Valley Operations, including mining areas and facilities located south of the Hunter River;
- constructing temporary crossings of the Hunter River to allow the relocation of heavy mining equipment; and
- consolidating 15 existing development approvals, applying to Hunter Valley Operations north of the Hunter River, into a single consent.

State Significant Development: The proposal is classified as State significant development, under section 76A(7) of the *Environmental Planning and Assessment Act 1979*, because it involves coal-mining related development that requires a new mining lease under section 63 of the *Mining Act 1992*.

Integrated Development: The proposal is classified as integrated development, under section 91 of the *Environmental Planning and Assessment Act 1979*, because it requires additional approvals under the:

- *Protection of the Environment Operations Act 1997;*
- *National Parks and Wildlife Act 1974*;
- *Water Act 1912;*
- *Rivers and Foreshores Improvement Act 1948*;
- *Roads Act 1993*; and
- *Mine Subsidence Compensation Act 1961*.

Designated Development: The proposal is classified as designated development, under section 77A of the *Environmental Planning and Assessment Act 1979*, because it is for a coal mine that would "*produce or process more than 500 tonnes of coal a day*", and consequently meets the criteria for designated development in schedule 3 of the *Environmental Planning and Assessment Regulation 2000*.

BCA Classification: Class 10b: Coal conveyor

Note:

1) *To find out when this consent becomes effective, see section 83 of the Environmental Planning and Assessment Act 1979 (EP&A Act);*
2) *To find out when this consent is liable to lapse, see section 95 of the EP&A Act; and*
3) *To find out about appeal rights, see section 97 of the EP&A Act.*

Red type represents August 2005 modification
Blue type represents June 2006 modification
Green type represents March 2013 modification
Light blue type represents January 2014 modification
Orange type represents December 2016 modification

SCHEDULE 2
DEFINITIONS

Annual Review	The review required by condition 9 of Schedule 6
Applicant	Coal & Allied Operations Pty Ltd
ARTC	Australian Rail Track Corporation
BCA	Building Code of Australia
Bore	Any bore or well or excavation or other work connected or proposed to be connected with sources of sub-surface water, and used or proposed to be used or capable of being used to obtain supplies of such water whether the water flows naturally at all times or has to be raised whether wholly or at times by pumping or other artificial means
CCC	Community Consultative Committee
Council	Singleton Shire Council
DA	Development Application
Day	Day is defined as the period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
DPI	Department of Primary Industries
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPL	Environment Protection Licence
EPL 640	Environment Protection Licence No. 640 issued for HVO's operations north of the Hunter River or any subsequent replacement for, or variation of, EPL 640
Evening	Evening is defined as the period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
GTA	General Term of Approval
HVO	Hunter Valley Operations
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at Land and Property Information at the date of this consent
LPB	Low Permeability Barrier
Mining operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of coal on site
MOP	Mining Operations Plan
MSC	Muswellbrook Shire Council
MSB	Mine Subsidence Board
Negligible	Small and unimportant, such as to be not worth considering
Night	Night is defined as the period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	*National Parks and Wildlife Act 1974*
OEH	Office of Environment and Heritage
PCA	Principal Certifying Authority appointed under Section 109E of the Act
POEO Act	*Protection of the Environment Operations Act 1997*
Privately owned land	Land that is not owned by a public agency, or a mining company, or its subsidiary
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
ROM coal	Run-of-mine coal
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
Site	The land described in Appendix 1

Vacant land	Vacant land is defined as the whole of the lot in a current plan registered at the Land Titles Office that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot at the date of this consent.

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SCHEDULE 3
ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Applicant must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

Terms of Approval

2. The Applicant must carry out the development generally in accordance with the:
   (a) DA 450-10-2003;
   (b) EIS titled *Hunter Valley Operations – West Pit Extension and Minor Modifications*, volumes 1 – 4, dated October 2003, and prepared by Environmental Resources Management Australia;
   (c) the section 96(1A) modification application for the Hunter Valley Loading Point, dated 30 June 2005, and prepared by Matrix Consulting;
   (d) *Carrington Pit Extended Statement of Environmental Effects* volumes 1 & 2, dated October 2005, and prepared by Environmental Resources Management Australia;
   (e) *Carrington Pit Extension Response to Submissions Report*, dated May 2006, and prepared by Environmental Resources Management Australia;
   (f) Summary of Commitments for Carrington Pit as Extended, dated 28 May 2006 and prepared by the Applicant;
   (g) *Carrington West Wing Environmental* Assessment dated 1 October 2010, *Carrington West Wing Response to Submissions* dated 21 December 2010, *Carrington West Wing Agricultural Impact Assessment* dated 10 June 2011, *Carrington West Wing Statement of Commitments* dated 4 March 2013;
   (h) *HVO North – Fine Reject Emplacement Modification Environmental Assessment* dated June 2013 and *HVO North – Fine Reject Emplacement Modification Response to Submissions* dated August 2013; and
   (i) modification application DA 450-10-2003 Modification 5 and accompanying environmental assessment entitled *Hunter Valley Operations North Modification 5 HVLP Sediment Basin and HVO North Communication Towers Environmental Assessment* and dated November 2016.

2A. The Applicant must carry out the development in accordance with the conditions of this consent.

3. If there is any inconsistency between the documents listed in condition 2, the most recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over the documents in condition 2 to the extent of any inconsistency.

4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
   (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents);
   (b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and
   (c) the implementation of any actions or measures contained in these documents.

Surrender of Consents

5. Within 3 months of the submission of the revised West Pit extension MOP to the DRE, the Applicant must surrender all existing development consents and existing use rights associated with Hunter Valley Operations' (HVO's) mining operations and related facilities north of the Hunter River in accordance with clause 97 of the *EP&A Regulation*.

Limits on Approval

6. The Applicant may carry out mining operations on the site until 12 June 2025.

   Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Secretary and DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and those additional undertakings have been carried out satisfactorily.

7. The Applicant must not extract more than 12 million tonnes per annum (Mtpa) of ROM coal from the West Pit and 10 Mtpa of ROM coal from the Carrington Pit.

8. The Applicant must ensure that the Hunter Valley Coal Preparation Plant does not receive more than 16 Mtpa of coal from mining operations south of the Hunter River, and process more than 20 Mtpa of coal.

9. The Applicant must ensure that the West Pit Coal Preparation Plant does not process more than 6 Mtpa of coal.

Structural Adequacy

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

Notes:
1) Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.
2) Part 8 of the EP&A Regulation sets out the requirements for the certification of development.
3) [1]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 Mine Subsidence Board's approval before constructing or relocating any improvements on the site.

Demolition

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

Operation of Plant and Equipment

12. The Applicant must ensure that all plant and equipment used at the site, or to transport coal off-site, are:
(a) maintained in a proper and efficient condition; and
(b) operated in a proper and efficient manner.

Community Enhancement Contribution

13. Before carrying out any development, or as agreed otherwise by Council, the Applicant must pay Council $15,000 for the provision of stream improvement works in the Hunter River or its tributaries. If Council has not carried out these enhancement works within 12 months of payment, the Applicant may retrieve the funds from Council.

14. Deleted

[1] Incorporates MSB GTA.

SCHEDULE 4
SPECIFIC ENVIRONMENTAL CONDITIONS

ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from any landowner of the land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in conditions 6-7 of schedule 5 and condition 5 of schedule 5 for property 8.

Table 1: Land subject to acquisition upon request

8 - Holz	10 - Moses
9 - Dallas	12 - Barry

Note: To identify the locations referred to in Table 1, see Appendix 2.

2. While the land listed in condition 1 is privately-owned, the Applicant must implement all practicable measures to ensure that the impacts of the development comply with the predictions in the EIS, to the satisfaction of the Secretary.

AIR QUALITY & GREENHOUSE GAS

Odour

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

Greenhouse Gas Emissions

4. 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 Secretary.

Air Quality Criteria

4A. Except for the air quality affected land in Table 1, the Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not exceed the criteria listed in Tables 2, 3 or 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

In this condition 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the operational requirements in Condition 5 of Schedule 4 and the requirements in Conditions 5 and 6 of Schedule 4 to develop and implement a real-time air quality management system that ensures effective operational responses to the risks of exceedance of the criteria.

Table 2: Long term criteria for particulate matter

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

Table 3: Short term criterion for particulate matter

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

Table 4: Long term criteria for deposited dust

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

Notes to Tables 2–4:

- *[a] Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);*
- *[b] Incremental impact (i.e. incremental increase in concentrations due to the development on its own);*

- [c] *Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.*
- [d] *Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary.*

Air Quality Acquisition Criteria

4B. If particulate matter emissions generated by the development exceed the criteria in Tables 5, 6 or 7 on a systemic basis 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 5.

Table 5: Long term acquisition criteria for particulate matter

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

Table 6: Short term acquisition criteria for particulate matter

Pollutant	Averaging period	[d] Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 150 µg/m^3
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m^3

Table 7: Long term acquisition criteria for deposited dust

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

Notes to Tables 5-7:

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

Mine-owned Land

4C. The Applicant must ensure that particulate matter emissions generated by the development do not exceed the criteria listed in Table 2, Table 3 and Table 4 at any occupied residence on any mine-owned land (including land owned by adjacent mines) unless:

(a) the tenant and landowner has been notified of health risks in accordance with the notification requirements under Schedule 5 of this consent;

(b) the tenant on land owned by the Applicant can terminate their 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;

(c) 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);

(d) particulate matter air quality monitoring is undertaken to inform the tenant and landowner of potential health risks; and

(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 Secretary.

Air Quality Operating Conditions

5. The Applicant must:
   (a) implement best management practice to minimise the off-site odour, fume and dust emissions of the development, including best practice coal loading and profiling and other measures to minimise dust emissions from coal transportation by rail;
   (b) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting, predictive and real time air dispersion modelling and real-time air quality monitoring data to guide the day to day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;
   (c) manage $PM_{2.5}$ levels in accordance with any requirements of any EPL;
   (d) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d above under Table 5-7);
   (e) minimise any visible off-site air pollution;
   (f) minimise the surface disturbance of the site generated by the development; and
   (g) co-ordinate air quality management on site with the air quality management at nearby mines (Mount Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development,

   to the satisfaction of the Secretary.

Air Quality & Greenhouse Gas Management Plan

6. The Applicant must prepare a detailed Air Quality & Greenhouse Gas Management Plan for the development to the satisfaction of the Secretary. This plan must:
   (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of June 2013;
   (b) describe the measures that would be implemented to ensure:
      - best management practice is being employed;
      - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; and
      - compliance with the relevant conditions of this consent.
   (c) describe the proposed air quality management system;
   (d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;
   (e) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from air quality monitoring;
   (f) include an air quality monitoring program that:
      - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development;
      - adequately supports the proactive and reactive air quality management system;
      - includes $PM_{2.5}$ monitoring;
      - includes monitoring of occupied development-related residences and residences on air quality-affected land listed in Table 1, subject to the agreement of the tenant;
      - evaluates and reports on the effectiveness of the air quality management system; and
      - includes a protocol for determining any exceedances of the relevant conditions in this approval; and
   (g) include a protocol that has been prepared in consultation with the owners of nearby mines (Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development.

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

[2]NOISE

Noise Impact Assessment Criteria

7. The Applicant must ensure that the noise generated by the development does not exceed the noise impact assessment criteria presented in Table 9 at any privately-owned land.

[2] Incorporates EPA GTAs

Table 9: Noise impact assessment criteria dB(A)

Day/Evening/Night $L_{Aeq(15\ minute)}$	**Night** $L_{A1(1\ minute)}$	**Land Number**
40	*46*	*4 – Muller (from year 1 to year 7)* *7 – Stapleton* *Jerrys Plains Village – represented by residence locations 13 and 14 on Figure 24, volume 4 of the EIS (years 20 & 21).* *1 – Hayes (years 20 & 21)* *18 – Bennet (years 20 & 21)* *51 – Nicholls (years 20 & 21)* *52 – Old – (years 20 & 21)*
39	*46*	*2 – Skinner* *3 – Elisnore* *11 – Fisher* *19 – Biralee Feeds* *31 – Cooper* *36 – Garland* *54 – Skinner*
38	*46*	*1 – Hayes (from year 1 to year 19)* *18 – Bennet (from year 1 to year 19)* *51 – Nicholls (from year 1 to year 19)* *52 – Old (from year 1 to year 19)*
36	*46*	*4 – Muller (from year 8 to year 21)*
35	*46*	*All other residential or sensitive receptors, excluding the receptors listed in condition 1 above.*

Notes:

(a) The years referenced in Table 9 are to be considered as the position of mining operations as set out in the EIS for that year. If mining operations are delayed or accelerated from the planned location as shown in the EIS for a particular year, then the noise assessment criteria will be adjusted in accordance with the location of actual mining operations. The location of actual mining operations in relation to locations predicted in the EIS, will be indicated in the Annual Review (see schedule 6, condition 5).

(b) The noise limits in Table 9 are for the noise contribution of the West Pit extension and all Hunter Valley Operations north of the Hunter River and coal haulage identified in the EIS from the south side of the Hunter River.

(c) Noise from the development is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary, to determine compliance with the $L_{Aeq(15\ minute)}$ noise limits in the above table.

(d) To determine compliance with the $L_{Aeq(15\ minute)}$ noise limits in the above table. Where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy must also be applied to the measured noise levels where applicable.

(e) Noise from the development is to be measured at 1 metre from the dwelling façade to determine compliance with the $L_{A1(1\ minute)}$ noise limits in the above table.

(f) The noise limits in Table 9 are to be applied in accordance with the limitations and requirements set out in Appendix 3.

Land Acquisition Criteria

8. If the noise generated by the development exceeds the criteria in Table 10, the Applicant must, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in Conditions 6 and 7 of Schedule 5.

Table 10: Land acquisition criteria dB(A)

Day/Evening/Night $L_{Aeq(15\ minute)}$	**Property**
43	*11 – Fisher*
42	*7 - Stapleton*
41	*All residential or sensitive receptors, excluding the receptors listed in condition 1 above*

Note: See notes (c) to (f) to Table 9.

Noise Operating Conditions

9. The Applicant must:
   (a) implement best management practice to minimise the operational, low frequency, road and rail traffic noise of the development;
   (a) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;
   (b) maintain the effectiveness of any installed noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;
   (c) ensure that any noise attenuated plant on site is deployed preferentially in locations relevant to sensitive receivers;
   (d) minimise the noise impacts of the development during meteorological conditions when the noise limits in this approval do not apply;
   (e) ensure that the site is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142);
   (f) use its best endeavours to ensure that the rolling stock supplied by service providers is designed, constructed and maintained to minimise noise;
   (g) co-ordinate the noise management on site with the noise management at nearby mines (Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative noise impacts of these mines and the development,

   to the satisfaction of the Secretary.

Noise Management Plan

10. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
   (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of June 2013;
   (b) describe the measures that would be implemented to ensure:
      - best management practice is being employed;
      - the noise impacts of the development are minimised during meteorological conditions when the noise criteria in this consent do not apply; and
      - compliance with the relevant conditions of this consent.
   (c) describe the proposed noise management system in detail, including:
      - nomination of the real-time noise monitoring locations and the noise levels that would trigger additional noise management actions;
      - a matrix of predetermined actions to be employed when trigger levels are exceeded; and
      - procedures for varying the rates and locations of attended monitoring should the real-time monitoring data suggest that the relevant noise limits are being exceeded;
   (d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;
   (e) include a noise monitoring program that:
      - uses attended monitoring to evaluate the performance of the development, including a minimum of four days attended monitoring per quarter at locations agreed to by the Secretary, or more regularly where required;
      - uses real-time monitoring to support the proactive and reactive noise management system on site;
      - evaluates and reports on the effectiveness of the noise management system on site;
      - provides for the annual validation of the noise model for the development; and
   (f) include a protocol that has been prepared in consultation with the owners of nearby mines (Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative noise impacts of these mines and the development.

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

METEOROLOGICAL MONITORING

11. The Applicant must maintain a permanent meteorological station at a location approved by the EPA, and to the satisfaction of the Secretary, to monitor the parameters specified in Table 13, using the specified units of measure, averaging period, frequency, and sampling method in the table.

Table 11: Meteorological monitoring

Parameter	**Units of measure**	**Averaging period**	**Frequency**	**Sampling method[1]**
Lapse rate	*°C/100m*	*1 hour*	Continuous	*Note[2]*
Rainfall	*mm/hr*	*1 hour*	Continuous	*AM-4*
Sigma Theta @ 10 m	*°*	*1 hour*	*Continuous*	*AM-2*
Siting	*-*	*-*	*-*	*AM-1*
Temperature @ 10 m	*K*	*1 hour*	*Continuous*	*AM-4*
Temperature @ 2 m	*K*	*1 hour*	*Continuous*	*AM-4*
Total Solar Radiation @ 2m	*W/m^2*	*1 hour*	*Continuous*	*AM-4*
Wind Direction @ 10 m	*°*	*1 hour*	*Continuous*	*AM-2*
Wind Speed @ 10 m	*m/s*	*1 hour*	Continuous	*AM-2*

[1] NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.
[2]The Applicant must calculate lapse rate from measurements made at 2m and 10m or any improved system of the determination of inversions.

BLASTING & VIBRATION

Airblast Overpressure Limits

12. The Applicant must ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 14 at any residence on privately-owned land.

Table 12: Airblast overpressure impact assessment criteria

Airblast overpressure level (dB(Lin Peak))	**Allowable exceedance**
115	5% of the total number of blasts in a 12 month period
120	0%

Ground Vibration Impact Assessment Criteria

13. The Applicant must ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 15 at any residence on privately-owned land.

Table 13: Ground vibration impact assessment criteria

Peak particle velocity (mm/s)	**Allowable exceedance**
5	5% of the total number of blasts in a 12 month period
10	0%

Blasting Hours

14. The Applicant must only carry out blasting at the development between 7 am and 6 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, Public Holidays or any other time without the written approval of the EPA.

Blasting Frequency

14A. The Applicant may carry out a maximum of:
(a) 3 blasts a day, unless an additional blast is required following a blast misfire; and
(b) 12 blasts a week,
for all open cut mining operations at the HVO North mine.

This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to blasts required to ensure the safety of the mine or its workers.

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

Interactions With Adjoining Mines

15. Prior to carrying out any mining or associated development within 500 metres of active mining areas at Ravensworth Operations, the Applicant must enter into an agreement with Ravensworth Operations Pty Ltd (or its assigns or successors in title) to address the potential interactions between the two mines. If during the course of entering into this agreement, or subsequently implementing this agreement, there is a dispute between the parties about any aspect of the agreement, then either party may refer the matter to the Secretary for resolution.

16. Prior to carrying out any mining or associated development within 500 metres of active mining areas at Cumnock No. 1 Colliery, the Applicant must enter into an agreement with Cumnock No. 1 Colliery Pty Ltd (or its assigns or successors in title) to address the potential interactions between the two mines. If during the course of entering into this agreement, or subsequently implementing this agreement, there is a dispute between the parties about any aspect of the agreement, then either party may refer the matter to the Secretary for resolution.

Property Inspections

16A. If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant must:
(a) provide the Secretary with a report that:
- establishes the baseline condition of any buildings and other structures on the land, or updates the previous property inspection report; and
- identifies measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and

(b) provide the landowner with a copy of the new or updated property inspection report.

The report is to be prepared by a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the inspection report, either party may refer the matter to the Secretary for resolution.

If the Applicant considers that an extension of time is required to complete the report, the Applicant may apply in writing to the Secretary for an extension. The Applicant must provide a copy of the request and of the Secretary's decision to the landowner.

Property Investigations

16B. If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant must:
(a) provide the Secretary with a report that:
- investigates the claim; and
- identifies measures or works that should be implemented to rectify any blasting impacts of the development on these buildings and/or structures; and

(b) provide the landowner with a copy of the claim inspection report and recommendations.

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

The report is to be prepared by a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the claim inspection report, either party may refer the matter to the Secretary for resolution.

If the Applicant considers that an extension of time is required to complete the report, the Applicant may apply in writing to the Secretary for an extension. The Applicant must provide a copy of the request and of the Secretary's decision to the landowner.

Blasting Operating Conditions

17. During mining operations on site, the Applicant must:
(a) implement best management practice to:
- protect the safety of people and livestock in the surrounding area;

- protect public or private infrastructure/property in the surrounding area from any damage; and
- minimise the dust and fume emissions of any blasting;

(b) minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods;
(c) co-ordinate the timing of blasting on site with the timing of blasting at nearby mines (including the Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative blasting impacts of these mines and HVO North mine; and
(d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site,

to the satisfaction of the Secretary.

18. The Applicant must not undertake blasting on site within 500 metres of:
(a) any public road without the approval of the appropriate road authority; or
(b) any land outside the site that is not owned by the Applicant; unless
- the Applicant has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Applicant has advised the Department in writing of the terms of this agreement, or
- the Applicant has:
  - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and
  - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

Blast Management Plan

19. The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
(a) be submitted to the Secretary for approval by the end of September 2013 unless otherwise agreed;
(b) propose and justify any alternative ground vibration limits for any public infrastructure in the vicinity of the site;
(c) describe the measures that would be implemented to ensure:
- best management practice is being employed;
- compliance with the relevant conditions of this consent;
- that blasting will not cause damage to the Carrington West Wing Groundwater Barrier (LPB) as described in Condition 23 of Schedule 4.

(d) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the RMS and Council;
(e) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated;
(f) include a monitoring program for evaluating the performance of the development, including:
- compliance with the applicable criteria;
- minimising the fume emissions from the site; and

(g) include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative blasting impacts of these mines and the HVO North mine.

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

[3]SURFACE & GROUND WATER

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

Pollution of Waters

20. Except as may be expressly provided by an EPA licence, the Applicant must comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

[3] Incorporates EPA GTA

Water Supply

20A. 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 Secretary.

Compensatory Water Supply

20B. The Applicant must provide compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the development, in consultation with DPI Water, and to the satisfaction of the Secretary.

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

Discharge Limits

21. Except as may be expressly provided by an EPA licence or the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 (or any subsequent version of the Regulation), the Applicant must:
(a) not discharge more than 237 ML/day from the licensed discharge points at HVO north of the Hunter River;
(b) ensure that the discharges from licensed discharge points comply with the limits in Table 17:

Table 15: Discharge Limits

Pollutant	Units of measure	100 percentile concentration limit
pH	pH	6.5 ≤ pH ≤ 9.5
Non-filterable residue	mg/litre	NFR ≤ 120

Note: This condition does not authorise the pollution of waters by any other pollutants.

[4]Water Licensing

22. Prior to the renewal of a licence obtained under the *Water Act*, or 5 years after the issue date (whichever is first), the Applicant must undertake a comparison of predicted impacts, on water resources, in the EIS against actual impacts, to the satisfaction of the DPI Water.

Groundwater Barrier

22A. Within 2 years of commencing mining in the Carrington Pit Southern Extension, or as otherwise agreed with the Secretary, the Applicant must construct a groundwater barrier wall across the eastern arm of the palaeochannel of the Hunter River, to the satisfaction of the Secretary and at a location no further south than shown in the figure "*Carrington River Red Gums, Billabong and Associated Infrastructure*" included in the *Carrington Pit Extension Response to Submissions Report*, dated May 2006.

22B. By 31 December 2006, or as otherwise agreed with the Secretary, the Applicant must submit a report to the Department and the DPI Water that:
(a) examines all reasonable and feasible options for the design and construction of the groundwater barrier wall (including matters such as materials, timing and method of construction, costs, projected initial and long-term effectiveness) to the satisfaction of the Secretary; and
(b) recommends a preferred option for the approval of the Secretary.

Carrington West Wing Groundwater Barrier (LPB)

[4] Incorporates DPI Water GTAs

23. The Applicant must design the Carrington West Wing LPB to the satisfaction of DPI Water and the Secretary. The detailed design must:
    (a) ensure that negligible movement of water can occur through the barrier in either direction over the long term;
    (b) be prepared by a suitably qualified and experienced expert/s;
    (c) be endorsed by DPI Water and approved by the Secretary, prior to construction of the LPB;
    (d) achieve the relevant performance measures including:
        - applicable permeability of 10^{-8} metres/second or less;
        - applicable Australian Standards (including AS 3798-2007); and
        - hydraulic, geomorphologic and seismic stability which will withstand any blasting-related vibrations, mining operations, fluvial and weather events, decay corrosive and biological attack.

Note: The conceptual low permeability barrier is shown in Appendix 4.

24. Prior to undertaking any mining operations within 100 metres of the western arm of the Hunter River paleochannel, the Applicant must:
    (a) install the LPB in the western arm of the paleochannel;
    (b) submit an as-executed report to the Secretary and DPI Water by a suitably qualified and experienced practising engineer, certifying that the LPB has been constructed to achieve the relevant performance measures set out in Condition 23(d) of Schedule 4; and
    (c) obtain endorsement on the installed LPB from DPI Water.

If there is evidence after its installation that the LPB is not achieving the performance objective and performance measures in Condition 23 of Schedule 4, mining operations within 100 metres of the western arm of the Hunter River paleochannel must cease until approval to recommence is granted by the Secretary.

LPB Monitoring and Management Plan

25. The Applicant must prepare and implement a Low Permeability Barrier Monitoring and Management Plan to the satisfaction of DPI Water and the Secretary. The plan must:
    (a) address the monitoring and management of both the Carrington West Wing LPB and the Carrington Pit Southern Extension LPB;
    (b) be prepared by a suitably qualified and experienced expert;
    (c) be endorsed by DPI Water and approved by the Secretary, prior to construction of the Carrington West Wing LPB;
    (d) describe the monitoring and maintenance procedures to be implemented and the scheduling of these procedures;
    (e) demonstrate that the monitoring system is capable of timely detection of any failure or deficiency in either LPB; and
    (f) describe the contingency measures that will be implemented in the event of a failure or deficiency in either LPB.

Flood Design Works

26. The Applicant must design and construct the flood levees and associated flood design works in the Carrington West Wing area at least 1.0 metres higher than the 1 in 100 year ARI flood event, to the satisfaction of DPI Water.

Water Management Plan

27. The Applicant must prepare a Water Management Plan for the HVO North mine to the satisfaction of the Secretary. This plan must be prepared in consultation with DPI Water and the EPA by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and submitted to the Secretary by the end of September 2013 unless otherwise agreed. This plan must include:
    (a) a Site Water Balance that:
        - includes details of:
            - sources and security of water supply, including contingency planning for future reporting periods;
            - water use on site;
            - water management on site, including details of water sharing between neighbouring mining operations;
            - any off-site water transfers and discharges;
            - reporting procedures, including comparisons of the site water balance for each calendar year; and

- describes the measures that would be implemented to minimise clean water use on site;

(b) a Surface Water Management Plan, that includes:
- detailed baseline data on surface water flows and quality in the waterbodies that could be affected by the development;
- a detailed description of the water management system on site, including the:
  - clean water diversion systems and their final positioning;
  - erosion and sediment controls; and
  - water storages;
- detailed plans, including design objectives and performance criteria, for:
  - design and management of the final voids;
  - design and management of the evaporative sink;
  - design and management of any tailings dams;
  - ensuring the stability of high walls adjacent to low permeability barriers;
  - establishment of drainage lines on the rehabilitated areas of the site; and
  - control of any potential water pollution from the rehabilitated areas of the site;
- performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the development:
  - the water management system;
  - the stability of high walls adjacent to low permeability barriers;
  - surface water quality of the Hunter River; and
  - stream and riparian vegetation health of the Hunter River;
- a program to monitor:
  - the effectiveness of the water management system; and
  - surface water flows and quality, stream and riparian vegetation health in the Hunter River (in so far as it could potentially be affected by the development); and
- a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development.

(c) a Groundwater Management Plan, which includes:
- detailed baseline data on groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the development;
- groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
- a program to monitor:
  - groundwater inflows to the open cut mining operations;
  - the impacts of the development on:
    - the alluvial aquifers, including additional groundwater monitoring bores as required by DPI Water;
    - the effectiveness of the low permeability barrier;
    - base flows to the Hunter River;
    - any groundwater bores on privately-owned land that could be affected by the development; and
    - groundwater dependent ecosystems, including the River Red Gum Floodplain Woodland EEC located in the Hunter River alluvium;
  - the seepage/leachate from water storages, backfilled voids and the final void;
- a program to validate and recalibrate (if necessary) the groundwater model for the development, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and
- a plan to respond to any exceedances of the groundwater assessment criteria.

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

Final Void Management Plan

28. At least 5 years before the cessation of open cut coal extraction that will result in the creation of a final void, or as otherwise agreed with the Secretary, the Applicant must prepare a Final Void Management Plan for each void, in consultation with DRE and DPI Water, and to the satisfaction of the Secretary. Each plan must:

(a) assess locational, design and future use options;

(b) be integrated with the Water Management Plan and the Rehabilitation Management Plan;

(c) assess short term and long term groundwater and other impacts associated with each option; and

(d) describe the measures to be would be implemented to avoid, minimise, manage and monitor potential adverse impacts of the final void over time.

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

Fine Reject Management Strategy

28A. The Applicant must prepare a life of mine fine reject management strategy to the satisfaction of the Secretary. The strategy must:

(a) be prepared in consultation with DRE and DPI Water, and submitted to the Secretary for approval by 30 June 2015;
(b) describe potential locations and design options for the emplacement of fine reject on site;
(c) assess any material short term and long term impacts on surface and groundwater resources associated with each option;
(d) describe the measures that would be implemented to avoid, minimise, manage and monitor any adverse impacts of the fine reject emplacements over time;
(e) describe how the fine reject emplacements would be rehabilitated and describe potential options for future land uses; and
(f) be integrated with the Rehabilitation Management Plan and Agricultural Land Reinstatement Management Plan for the mine.

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

[5]Temporary Crossing of the Hunter River

29. Prior to the commencement of any work within 40 metres of the Hunter River, a permit under Part 3A of the *Rivers and Foreshores Improvement Act 1948* must be obtained from the DPI Water. All works must be:

(a) undertaken in accordance with the permit application, except as otherwise provided by conditions of the permit;
(c) designed and constructed such that the works do not cause sedimentation, erosion or permanent diversion of the Hunter River;
(d) constructed in accordance with section 10.8 (Temporary Crossing of the Hunter River), volume 1 of the EIS, dated October 2003; and titled *"Hunter Valley Operations – West Pit Extension and Minor Modifications";* and
(e) constructed in accordance with the Statement of Environmental Effects, prepared by Coal & Allied, dated August 2001, titled *"Proposed relocation of a dragline and electric rope shovel - Ravensworth and Hunter Valley Operations."*

Notes:
(a) Should Crown land, as defined under the Crown Lands Act 1989, be included in the temporary crossing, there is a requirement to seek approval from the Department of Lands under the Crown Lands Act; and
(b) Any works on Crown public roads require the Department of Lands' approval and must satisfy the statutory requirements of the Roads Act 1993.

FAUNA & FLORA

Rehabilitation/Regeneration Strategy

30. The Applicant must not destroy or disturb more than 1 mature river red gum in the river red gum population associated with the Carrington billabong, and ensure that the mining highwall is located at least 150 metres from the standing water line of the billabong.

31. By 30 June 2007, the Applicant must prepare a comprehensive Rehabilitation and Restoration Strategy for the Carrington billabong and river red gum population, in consultation with DPI Water, and to the satisfaction of the Secretary. This strategy must be prepared by suitably qualified expert/s, and must include:

(a) the rehabilitation and restoration objectives for the billabong and associated river red gum population;
(b) a description of the short, medium and long term measures that would be implemented to rehabilitate and restore the billabong and associated river red gum population (including measures to address matters which affect the long term health and sustainability of the billabong and river red gums such as surface and ground water supply, and controlling weeds, livestock and feral animals); and
(c) detailed assessment and completion criteria for the rehabilitation and restoration of the billabong and associated river red gum population.

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

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[5] Incorporates DPI Water GTAs

Note. The billabong, standing water line and river red gum population referred to are the billabong, standing water line and endangered population of river red gums located on land owned by the Applicant between the Hunter River and Levee 5, as shown in the figure "Carrington River Red Gums, Billabong and Associated Infrastructure" included in the Carrington Pit Extension Response to Submissions Report, dated May 2006.

31A. The Applicant must revegetate an area of at least 0.14 hectares using trees representative of the Swamp Oak Floodplain Forest community on land which adjoins existing riparian vegetation and is suitable for the establishment of this community.

32. By 30 June 2007, the Applicant must prepare a conceptual Landscape and Rehabilitation Management Strategy, in consultation with affected agencies, to the satisfaction of the Secretary. The strategy must:
    (a) include objectives for landscape management and rehabilitation of the site and a justification for the proposed strategy;
    (b) present a conceptual plan for landscape management and rehabilitation of the site;
    (c) be integrated with the relevant requirements of the Mining Operations Plan;
    (d) describe the measures that would be implemented to achieve the objectives (including an indicative timetable for mine closure);
    (e) include proposals to offset the flora and fauna impacts of the development (including proposals resulting from condition 31 and 31A above), and an outline of how the strategy would integrate with existing and planned corridors of native vegetation in areas surrounding the development; and
    (f) outline how the proposed strategy would be integrated with the landscape management and rehabilitation of the other operations within Hunter Valley Operations (both north and south of the Hunter River) and other coal mines in the vicinity.

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

Strategic Study Contribution

33. If, during the development, the Department or the OEH commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National Park to the Barrington Tops National Park, then the Applicant must contribute a reasonable amount, up to $10,000, towards the completion of this study.

Operating Conditions

34. The Applicant must salvage and reuse as much material as possible from the land that will be mined, such as soil, seeds, tree hollows, rocks and logs. Cleared vegetation must be reused or recycled to the greatest extent practicable. No burning of cleared vegetation must be permitted. Reuse options including removing millable logs, recovering fence posts, mulching and chipping unusable vegetation waste for on-site use are to be implemented.

Flora and Fauna Management

35. The Applicant must prepare procedures for the management of flora and fauna for the development. These procedures must:
    (a) provide details on:
        - delineating areas of disturbance;
        - protecting areas outside of the disturbance areas;
        - identifying when pre-clearance surveys are required for fauna;
        - determining the best time to clear vegetation to avoid nesting/breeding activities of threatened fauna;
        - capturing and releasing fauna;
        - relocating bat roosts;
        - salvaging habitat resources and collecting seed;
        - controlling weeds in regeneration/rehabilitation areas; and
        - controlling access to the regeneration/rehabilitation areas;
    (b) describe how the land in regeneration areas would be revegetated;
    (c) describe how the mined areas would be rehabilitated for grazing and biodiversity values;
    (d) identify actions to minimise the potential impacts of the development on threatened fauna;
    (e) describe how the performance of the revegetation/rehabilitation strategies would be monitored over time including, as a minimum, the parameters in Table 18; and
    (f) identify who is responsible for monitoring, reviewing, and implementing the procedures.

    The Applicant must submit a copy of these procedures to the Secretary for approval within 6 months of the date of this consent.

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

Table 16: Parameters and Units of Measure for Fauna and Flora Monitoring

Parameter	**Units of measure**
Density of vegetation	*Plants/m²*
	Understorey
	Ground cover
Diversity of flora	*Species/m²*
Age/maturity of flora	*Vegetation height/diameter/form*
Vegetation health	-
Disturbance	*Weeds/m²*
	Erosion
	Feral animals
	Stock
Density of fauna	*Fauna (Avian/Mammals/Reptiles-Amphibians)/m²*
Diversity of fauna	*Species/m²*
Density of fauna habitat	*Hollow-bearing trees/nesting sites/ logs/dams, etc.* *Habitat Complexity Score*
Ecosystem Function	*Landscape Function Analysis*

Note: The requirements of condition 35 may be satisfied within the Rehabilitation Management Plan required under Condition 62C of Schedule 4.

Annual Review

36. The Applicant must:
    (a) review the performance of the flora & fauna management procedures annually, and, if necessary,
    (b) revise these documents to take into account any recommendations from the annual review.

[6]ABORIGINAL CULTURAL HERITAGE

Note: The Applicant is required to obtain consent from the OEH under the National Parks and Wildlife Act 1974 to destroy Aboriginal sites and objects on the site. The OEH has issued General Terms of Approval for the sites listed in condition 37.

West Pit Extension - Consents to Destroy

37. The Applicant must obtain consent from OEH to destroy the following sites:
- WPE 1
- WPE 2
- WPE 3
- WPE 4
- WPE 5
- WPE 6
- WPE 7
- WPE 8
- WPE 9
- WPE 10
- WPE 11
- 37-2-1964
- 37-2-1965
- 37-2-1966
- 37-2-1967
- 37-2-0038
- 37-2-0144
- 37-2-0894
- 37-2-0896
- 37-2-0805

West Pit Extension - Salvage

38. Before making application for section 90 consents under NP&W Act, the Applicant must prepare a salvage program for the sites listed in condition 37 in consultation with the OEH and Aboriginal communities, and to the satisfaction of the OEH.

39. The Applicant must obtain consent under the *National Parks and Wildlife Act 1974* to destroy the following sites:

- 37-2-0145
- 37-2-0147
- 37-2-0148
- 37-2-0523
- 37-2-0524
- 37-2-0525
- 37-2-0526
- 37-2-0787
- 37-2-0788
- 37-2-0789
- 37-2-0790
- 37-2-0791
- 37-2-0792
- 37-2-0793
- TD
- TG
- 37-2-1504
- 37-2-1522
- 37-2-1535
- 37-2-1864
- 37-2-1874

[6] Incorporates OEH GTAs.

- 37-2-0527
- 37-2-0528
- 37-2-0562
- 37-2-0777
- 37-2-0778
- 37-2-0779
- 37-2-0780
- 37-2-0781
- 37-2-0782
- 37-2-0783
- 37-2-0784
- 37-2-0785
- 37-2-0786
- 37-2-2078 (C1)
- 37-2-2079 (C2)
- 37-2-2080 (C3)
- 37-5-0494 (C4)
- 37-2-2083 (C8)
- 37-2-2084 (C9)
- 37-2-0794
- 37-2-0795
- 37-2-0796
- 37-2-0895
- 37-2-1865
- 37-2-1866
- 37-2-1867
- 37-2-1868
- 37-2-1869
- 37-2-1870
- 37-2-1871
- 37-2-1872
- IF1
- 37-2-2085 (C10)
- 37-2-1962 (CM45)
- 37-2-1963 (CM46)
- 37-2-1504 (CM1)
- 37-2-1505 (CM2)
- 37-2-1522 (CM19)
- 37-2-1875
- 37-2-1876
- 37-2-1962
- 37-2-1963
- 37-5-0061
- 37-2-1861
- 37-2-1862
- 37-2-1873
- 37-2-1860
- 37-5-0131
- 37-3-0286
- 37-5-0061
- 37-1-0399
- 37-2-1535 (CM32)
- 37-2-2754
- 37-2-2755
- 37-2-2756
- 37-2-2757

Aboriginal Heritage Site 37-2-1877 (CM-CD1)

40. Mining operations and associated activities in the Carrington West Wing area are not permitted to be carried out within 20 metres of Aboriginal heritage site 37-2-1877 (CM-CD1) and the Older Stratum as shown on the plan in Appendix 5.

    Note: for clarification purposes, Condition 40 of Schedule 4 does not prohibit heritage surveys and studies to be undertaken within CM-CD1 or within 20 metres of CM-CD1 and the Older Stratum.

40A. The Applicant must ensure that mining operations (including blasting) and associated activities do not cause any impact to Aboriginal heritage site 37-2-1877 (CM-CD1) and the Older Stratum.

Heritage Management Plan

41. The Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
    (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
    (b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
    (c) be submitted to the Secretary for approval by the end of June 2013, unless the Secretary agrees otherwise;
    (d) include the following for the management of Aboriginal Heritage:
    - a detailed plan of management for Aboriginal heritage site 37-2-1877 (CM-CD1) including a description of the measures that would be implemented to protect, monitor and manage the site from mining operations and associated activities;
    - a description of the measures that would be implemented for:
        - managing heritage items on the site, including any proposed archaeological investigations and/or salvage measures;
        - managing the discovery of any human remains or previously unidentified Aboriginal objects on site;
        - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site;
        - ongoing consultation with the Aboriginal stakeholders on the conservation and management of Aboriginal cultural heritage both on-site and within any Aboriginal heritage conservation areas; and
        - ensuring any workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions; and
    - a strategy for the storage of any heritage items salvaged on site, both during the development and in the long term.

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

41A. Prior to disturbance by mining, the Applicant must ensure that the scarred tree 37-2-2080 (C3) is removed and relocated to a site where it will be protected from future development, in consultation with the Wonnarua Tribal Council, and to the satisfaction of the Secretary.

Note: In conditions 37 – 41A, all seven-figure numbers refer to Aboriginal site listings in OEH's Aboriginal Heritage Information Management System (AHIMS). All other numbers are site numbers used by the Applicant in on-site Aboriginal heritage studies. Site numbers beginning with C or CM are associated with the Carrington Pit, as shown in Fig 5.1 of Annex G of the Carrington Pit Extended Statement of Environmental Effects.

Trust Fund Contribution

42. Before carrying out the development, or as agreed otherwise by the Secretary, the Applicant must contribute $20,000 to the Hunter Aboriginal Cultural Heritage Trust Fund for further investigations into Aboriginal cultural heritage, as defined by the Trust Deed.

TRAFFIC & TRANSPORT

New Access Intersection to Hunter Valley Loading Point

Note: The Applicant requires Council approval under the Roads Act 1993 for the new road entry from Liddell Station Road to the Hunter Valley Loading Point.

43. [7]The Applicant must design, construct and maintain for the duration of this consent, the proposed new access intersection from Liddell Station Road to the Hunter Valley Loading Point to the satisfaction of the Council.

Road Closure

Note: The Applicant requires MSC approval under the Roads Act 1993 prior to closing a section of Pikes Gully Road.

44. Within 12 months of the date of this consent, unless otherwise agreed by the Secretary, the Applicant is to complete the relevant requirements to enable the section of Pikes Gully Road situated in the Muswellbrook local government area to be closed as a public road.

45. The Applicant must not blast within 500 metres of a public road while the road is open to the public. Any road closures with respect of blasting must be subject to a plan of management approved by Council.

Lemington Road

46. The Applicant must reimburse Council for any road upgrading works undertaken on Lemington Road, to a maximum amount of $30,000.

47. The Applicant must alter or cease mining operations if driver visibility or traffic safety on Lemington Road is adversely affected by dust, in accordance with the requirements of Council.

48. The Applicant must be responsible for the full cost of the maintenance of the Lemington Road deviation undertaken for the Carrington Pit until March 2011, in accordance with the standards and requirements of Council.

Intersection of Lemington Road and the Golden Highway

49. Within 2 years of the date of this consent, the Applicant must upgrade the intersection of the Golden Highway (SH 27) and Lemington Road to a type "BAR" intersection with a sealed shoulder to the satisfaction of the RMS.

Road Safety Audit

49A.
- (a) By 31 December 2006, the Applicant must prepare and submit a road safety audit to the RMS and Council for all public roads used by mine employees and service vehicles in the vicinity of the development, including an audit of the existing intersections of all mine access roads with public roads;
- (b) any improvement to meet accepted road safety standards required by the relevant road manager (ie the RMS or Council) for public roads as a result of impacts related to the development as identified by the audit must be undertaken at the Applicant's cost and to the satisfaction of the road manager;

[7] Incorporates Council GTA

(c) any dispute between the Applicant and the relevant road manager in relation to the audit findings and the requirements of the road manager for improvements of public roads is to be determined by the Secretary; and
(d) any maintenance of line marking and sign posting required by the relevant road manager at existing intersections of mine access roads with public roads must be undertaken at the Applicant's cost and to the satisfaction of the road manager.

Coal Haulage

50. [8]The Applicant must ensure that spillage of coal from coal haulage vehicles is minimised and that sediment-laden runoff from roads is effectively managed, to the satisfaction of the Secretary. Measures that must be implemented include:
(a) covering all loads where loaded coal trucks leave the site and enter public roads;
(b) ensuring the gunwhales of all loaded trucks are clean of coal;
(c) providing effective wheel wash facilities at all coal load and unload facilities prior to vehicles entering public roads; and
(d) sweeping, at regular intervals and at the completion of campaign hauls, public roads used for the transportation of coal.

51. The Applicant must enter into an agreement with Council for the maintenance of the sections of Pikes Gully Road and Liddell Station Road whilst used by the Applicant for the haulage of coal, and during the period the roads are owned by Council.

Monitoring

52. The Applicant must maintain and include in each Annual Review records of the:
(a) amount of coal transported from the site each year;
(b) amount of coal received from Hunter Valley Operations south of the Hunter River;
(c) amount of coal hauled by road to the Hunter Valley Loading Point;
(d) amount of coal hauled by road to the Newdell Loading Point;
(e) amount of coal hauled by road from the Newdell Loading Point to the Ravensworth coal Terminal;
(f) amount of coal hauled by road from the Hunter Valley Loading Point to the Ravensworth Coal Terminal; and
(g) number of coal haulage truck movements generated by the development.

VISUAL IMPACT

Visual Amenity

53. The Applicant must implement measures to mitigate visual impacts including:
(a) design and construction of development infrastructure in a manner that minimises visual contrasts; and
(b) progressive rehabilitation of mine waste rock emplacements (particularly outer batters), including partial rehabilitation of temporarily inactive areas.

54. The Applicant must plant trees to provide an effective visual screen from Lemington Road in the vicinity of the Belt Line Road and adjacent to the Mitchell pit area. The plan for this tree planting is to:
(a) provide for tree planting within 2 years of the date of this consent;
(b) achieve an 80% survival rate by the 5th year;
(c) be submitted to DRE and Secretary for review and approval; and
(d) provide an assessment of whether visual bunds are required to supplement the vegetative visual screen.

Lighting Emissions

55. The Applicant must take all practicable measures to mitigate off-site lighting impacts from the development.

56. All external lighting associated with the development must comply with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.

WASTE MINIMISATION

[8] This may include the use of sediment dams or the incorporation of runoff into the mine water management system.

57. The Applicant must minimise the amount of waste generated by the development to the satisfaction of the Secretary.

HAZARDS MANAGEMENT

Spontaneous Combustion

58. The Applicant must:
    (a) take the necessary measures to prevent, as far as is practical, spontaneous combustion on the site; and
    (b) manage any spontaneous combustion on-site to the satisfaction of DRE.

Dangerous Goods

59. The Applicant must ensure that the storage, handling, and transport of:
    (a) dangerous goods is done in accordance with the relevant *Australian Standards*, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*; and
    (b) explosives are managed in accordance with the requirements of DRE.

BUSHFIRE MANAGEMENT

60. The Applicant must :
    (a) ensure that the development is suitably equipped to respond to any fires on-site; and
    (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development.

61. The Applicant must ensure that the Bushfire Management Plan for the site, is to the satisfaction of Council and the Rural Fire Service.

REHABILITATION

Rehabilitation Objectives

62. The Applicant must rehabilitate the site to the satisfaction of DRE. The rehabilitation must be generally in accordance with the proposed rehabilitation strategy described by the documents listed in Condition 2 of Schedule 3 (and depicted conceptually in the final landform plans in Appendices 6 and 7) and the objectives in Table 17.

Table 17: Rehabilitation Objectives

Area/Domain	**Rehabilitation Objectives**
Mine site (as a whole), including the final void	Safe, stable & non-polluting
Carrington West Wing revised proposed extension area	Reinstatement of Rural Land Capability agricultural land values to be measured as: 65.0 hectares of Class II and 65.0 hectares of Class III
Surface infrastructure	To be decommissioned and removed, unless DRE agrees otherwise
Community	Ensure public safety Minimise the adverse socio-economic effects associated with mine closure

Note: The Carrington West Wing revised proposed extension area is shown in Appendix 5.

Operating Conditions

62A. The Applicant must:
    (a) develop a detailed soil management protocol that identifies procedures for
        - comprehensive soil surveys prior to soil stripping;
        - assessment of top-soil and sub-soil suitability for mine rehabilitation; and
        - annual soil balances to manage soil handling including direct respreading and stockpiling;
    (b) maximise the salvage of suitable top-soils and sub-soils and biodiversity habitat components such as bush rocks, tree hollows and fallen timber for rehabilitation of disturbed areas within the site and for enhancement of biodiversity offset areas;
    (c) ensure that coal reject or any potentially acid forming interburden materials must not be emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas; and

(d) ensure that no dirty water can drain from an out of pit emplacement area to any offsite watercourse or to any land beyond the lease boundary.

Progressive Rehabilitation

62B. The Applicant must carry out rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage in the development.

Rehabilitation Management Plan

62C. The Applicant must prepare a Rehabilitation Management Plan for the HVO North mine to the satisfaction of DRE. This plan must:

(a) be prepared in consultation with the Department, DPI Water, OEH, Council and the CCC;
(b) be submitted to DRE by the end of September 2013;
(c) be prepared in accordance with any relevant DRE guideline;
(d) include an Agricultural Land Reinstatement Management Plan;
(e) include detailed performance and completion criteria for evaluating the achievement of the rehabilitation objectives in Table 17 and the overall rehabilitation of the site, and triggering remedial action (if necessary);
(f) include proposals to offset the flora and fauna impacts of the development (including proposals resulting from condition 31 above), and an outline of how the plan would integrate with existing and planned corridors of native vegetation in areas surrounding the development;
(g) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;
(h) outline how the proposed plan would be integrated with the landscape management and rehabilitation of the other operations within Hunter Valley Operations (both north and south of the Hunter River) and other coal mines in the vicinity;
(i) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
(j) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
(k) build to the maximum extent practicable on the other management plans required under this consent.

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

Agricultural Land Reinstatement Management Plan

62D. The Agricultural Land Reinstatement Management Plan required under Condition 62C of Schedule 4 is intended to ensure that the alluvial lands are restored to a productive capacity at least equivalent to their pre-mining state and are able to be managed using techniques and equipment common to management of equivalent lands in the district. The plan must:

(a) be prepared in consultation with DPI and to the satisfaction of the Secretary;
(b) be prepared in accordance with any relevant DPI guideline;
(c) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the Carrington West Wing revised proposed extension area, and triggering remedial action (if necessary);
(d) include a long-term monitoring programme on the success of reinstating alluvial lands, which must:
  - assess a comprehensive suite of indicators of productivity and environmental sustainability (such as soil settling, soil profile development, other soil characteristics, water transmissivity and soil water availability, agricultural productivity, fertilizer needs, weeds and pests) over an extended period (a minimum of 20 years);
  - compare the performance of the reinstated alluvial lands with a reference site; and
  - make monitoring results publicly available.

(e) in accordance with Condition 4(h) of Schedule 6 provide for reviews of progress against the plan every 3 years (unless otherwise agreed by the Secretary after completion of the second review) and for a final review by the end of 2033.

Note: The Carrington West Wing revised proposed extension area is shown in Appendix 5.

MINE EXIT STRATEGY

63. Within 5 years of the date of this consent, the Applicant must work with the Council and MSC to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the development at the end of its life.

SCHEDULE 5
ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT

Notification of Landowners/Tenants

1. By the end of September 2013, the Applicant must:
   (a) notify in writing any remaining private owners of:
   - the land listed in Table 1 of schedule 4 that they have the right to require the Applicant to acquire their land at any stage during the development;
   - any residence on the land listed in Table 1 of schedule 4 that they have the right to request the Applicant to ask for additional noise and/or air quality mitigation measures to be installed at their residence at any stage during the development; and
   - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;

   (b) notify the tenants of any mine-owned land of their rights under this approval; and
   (c) send a copy of the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the documents listed in condition 2 of schedule 3 identify that dust emissions generated by the development are likely to be greater than any air quality criteria in schedule 4 at any time during the life of the development.

2. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 purchased by the Applicant, 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);
   (b) advise the prospective tenants of the rights they would have under this approval; and
   (c) request the prospective tenants consult their medical practitioner to discuss the air quality monitoring data and prediction and health impacts arising from this information,

   to the satisfaction of the Secretary.

3. As soon as practicable after obtaining monitoring results showing:
   (a) an exceedance of any criteria in schedule 4, the Applicant must:
   - notify each affected landowner and/or tenant of the land (including the tenants of any mine-owned land) in writing of the exceedance; and
   - provide each affected party with regular monitoring results until the development is again complying with the relevant criteria; and

   (b) an exceedance of the air quality criteria in schedule 4, the Applicant must additionally provide each affected party with:
   - a copy of the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time), if not recently provided; and
   - monitoring data in an appropriate format such that the party’s medical practitioner can assist them in making an informed decision on the health risks associated with continued occupation of the property,

   to the satisfaction of the Secretary.

Independent Review

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

   If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary’s decision, the Applicant must:
   (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
   - consult with the landowner to determine his/her concerns;
   - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in Schedule 4; 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 regarding the impact on the land;
     - identify the measures that could be implemented to ensure compliance with the relevant criteria; and

   (b) give the Secretary and landowner a copy of the independent review.

5. If the independent review determines that the development is complying with the criteria in Schedule 4, then the Applicant may discontinue the independent review with the approval of the Secretary.

If the independent review determines that the development is not complying with the criteria in Schedule 4, 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 the development complies with the relevant criteria; or

(b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria,

to the satisfaction of the Secretary.

If the independent review determines that the development is not complying with the relevant acquisition criteria in Schedule 4, and that the development is primarily response 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 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 and other relevant mine/s to allow exceedances of the relevant impact assessment criteria,

to the satisfaction of the Secretary.

If the independent review determines that the development is not complying with the relevant acquisition criteria in Schedule 4, 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;

(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 Secretary; and
   - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and

(c) reasonable compensation for any disturbance caused by the land acquisition process.

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

Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute (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.

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

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

8. The Applicant must pay all reasonable costs associated with the land acquisition process described in Condition 7 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

SCHEDULE 6
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
   (a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant;
   (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 any Environmental Management Strategy as approved from time to time by the 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 approval, 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 and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
   (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
   (g) a protocol for managing and reporting any:
      - incidents;
      - complaints;
      - non-compliances with statutory requirements; and
      - exceedances of the impact assessment criteria and/or performance criteria;
   (h) a protocol for periodic review of the plan; and
   (i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of people who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.

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

Updating & Staging Submission of Strategies, Plans or Programs

3. 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 Secretary for approval. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

   With the agreement of the Secretary, the Applicant may revise any strategy, plan or program approved under this consent without undertaking consultation with all parties nominated under the applicable conditions in this consent.

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

Revision of Strategies, Plans & Programs

4. Within 3 months of the:
   (a) submission of an incident report under condition 7 below;
   (b) submission of an Annual Review under condition 9 below; or
   (c) submission of an audit report under condition 10 below; and
   (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 Secretary.

   Within 4 weeks of conducting any such review, the Applicant must advise the Secretary of the outcomes of the review, and provide any documents that have been revised to the 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.

Adaptive Management

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

COMMUNITY CONSULTATIVE COMMITTEE

6. The Applicant must operate a Community Consultative Committee (CCC) for the development, to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Community Consultative Committee (CCC) Guidelines for State Significant Projects* (Department of Planning, 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, and the local community.*
   - *With the approval of the Secretary, the CCC may be combined with any similar CCC for the HVO Mine Complex.*

REPORTING

Incident Reporting

7. The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

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

Annual Review

9. By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
   (a) describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
   (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
   - relevant statutory requirements, limits or performance measures/criteria;
   - requirements of any plan or program required under this consent;
   - monitoring results of previous years; and
   - relevant predictions in the documents listed in condition 2 of Schedule 3;

   (c) identify any non-compliance over the past 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
   (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

   The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 6 of Schedule 6) and any interested person upon request.

INDEPENDENT ENVIRONMENTAL AUDIT

10. Prior to 1 December 2019, and every three years thereafter, unless the 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 Secretary;
   (b) include consultation with the relevant agencies and the CCC;
   (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);
   (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;
   (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and
   (f) be conducted and reported to the satisfaction of the Secretary.

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

11. Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.

ACCESS TO INFORMATION

12. By 31 December 2016, unless otherwise agreed by the Secretary, the Applicant must:
    (a) make the following information publicly available on its website:
    - the documents listed in condition 2 of Schedule 3;
    - current statutory approvals for the development;
    - approved strategies, plans or programs required under the conditions of this consent;
    - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
    - a complaints register, updated quarterly;
    - the Annual Reviews (over the last 5 years);
    - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
    - any other matter required by the Secretary; and

    (b) keep this information up-to-date,

    to the satisfaction of the Secretary.

APPENDIX 1
SCHEDULE OF LAND

Development Application Area - Lot and DP Schedule						
Hunter Valley Operations, West Pit Extension and Minor Modifications						
DP	**Lot**	**Portion**	**Part**	**Volume**	**Folio**	**Property Owner**
752468	128					Coal & Allied Operations Pty Limited
1018576	1					Coal & Allied Operations Pty Limited
1017998	100					Novacoal Australia Pty Limited
705454	161					Novacoal Australia Pty Limited and Mitsubishi Development Pty Ltd
727718	165					Coal & Allied Operations Pty Limited
191982	1					Coal & Allied Operations Pty Limited
752481			20	3269	568	Coal & Allied Operations Pty Limited
752481		170				Coal & Allied Operations Pty Limited
808301	2					Coal & Allied Operations Pty Limited
90727	1			7716	156	Coal & Allied Operations Pty Limited
752481						Coal & Allied Operations Pty Limited
544091	201					Coal & Allied Operations Pty Limited
752481	98					Coal & Allied Operations Pty Limited
752481	21					J. & A. Brown and Abermain Seaham Collieries Limited
752481	18					Coal & Allied Operations Pty Limited
752481	17					Coal & Allied Operations Pty Limited
752481	22					J. & A. Brown and Abermain Seaham Collieries Limited
752481	124					Coal & Allied Operations Pty Limited
752481	125					Coal & Allied Operations Pty Limited
752481	126					Coal & Allied Operations Pty Limited
752481	127					Coal & Allied Operations Pty Limited
752481	123					Coal & Allied Operations Pty Limited
752481	122					Coal & Allied Operations Pty Limited
752481	121					Coal & Allied Operations Pty Limited
752481	120					Coal & Allied Operations Pty Limited
752481	119					Coal & Allied Operations Pty Limited
752481	118					Coal & Allied Operations Pty Limited
752481	117					Coal & Allied Operations Pty Limited
7542481		89				J. & A. Brown and Abermain Seaham Collieries Limited
740183	10					Coal & Allied Operations Pty Limited
752481	171			6353	145	J. & A. Brown and Abermain Seaham Collieries Limited
110662	1			13933	249	J. & A. Brown and Abermain Seaham Collieries Limited
737796	1					Coal & Allied Operations Pty Limited
110656	1			11057	141	J. & A. Brown and Abermain Seaham Collieries Limited
752468	126					Novacoal Australia Pty Limited
779625	1					Novacoal Australia Pty Limited
779626	1					Novacoal Australia Pty Limited
625507	1					Novacoal Australia Pty Limited and Mitsubishi Development Pty Ltd
48165						Lemington Road
786904	22					Coal & Allied Operations Pty Limited
786904	21					Novacoal Australia Pty Limited

48555	4			Novacoal Australia Pty Limited
1037665	101			Coal & Allied Operations Pty Limited
752468	80	1782	37	Novacoal Australia Pty Limited
752468	81			Novacoal Australia Pty Limited
752468	53	7834	45	Novacoal Australia Pty Limited
752468	83	7834	45	Novacoal Australia Pty Limited
752468	157			Novacoal Australia Pty Limited
752481	83	6408	207	Novacoal Australia Pty Limited
752481	82	6408	207	Novacoal Australia Pty Limited
596670	3	13659	69	J. & A. Brown and Abermain Seaham Collieries Limited
868175	305			Novacoal Australia Pty Limited
752481	200	6408	207	Novacoal Australia Pty Limited
752468	158	6408	206	Novacoal Australia Pty Limited
752468	84	6408	206	Novacoal Australia Pty Limited
752468	54	6408	206	Novacoal Australia Pty Limited
752468	65			Novacoal Australia Pty Limited
752468	70	1782	37	Novacoal Australia Pty Limited
752468	71			Novacoal Australia Pty Limited
752468	68	1782	37	Novacoal Australia Pty Limited
752468	66	6408	206	Novacoal Australia Pty Limited
752468	159	6408	206	Novacoal Australia Pty Limited
252530	8	8625	137	Novacoal Australia Pty Limited
752468	94	6408	206	Novacoal Australia Pty Limited
752468	156	6408	206	Novacoal Australia Pty Limited
752468	102	6408	206	Novacoal Australia Pty Limited
700554	12	8625	137	Novacoal Australia Pty Limited
130831	1	10547	67	Novacoal Australia Pty Limited
252530	2	8625	137	Novacoal Australia Pty Limited
252530	4	8625	137	Novacoal Australia Pty Limited
48555	7			Novacoal Australia Pty Limited
252530	5	8625	137	Novacoal Australia Pty Limited
130831	2			Novacoal Australia Pty Limited
252530	3	8625	137	Novacoal Australia Pty Limited
393657	1			Novacoal Australia Pty Limited
780177	1	8625	137	Novacoal Australia Pty Limited
868175	304			Novacoal Australia Pty Limited
860535	319			Coal & Allied Operations Pty Limited
48555	3			Novacoal Australia Pty Limited
48555	2			Novacoal Australia Pty Limited
48555	5			Novacoal Australia Pty Limited
752481	58	8625	137	Novacoal Australia Pty Limited
256503	2			J. & A. Brown and Abermain Seaham Collieries Limited
130831	4	10547	67	Novacoal Australia Pty Limited
130831	3	10547	67	Novacoal Australia Pty Limited
752468	82	1782	37	Novacoal Australia Pty Limited
752481	38	8625	137	Novacoal Australia Pty Limited
48537	1			Novacoal Australia Pty Limited
727260	1			Novacoal Australia Pty Limited and Mitsubishi Development Pty Ltd
574166	1			Macquarie Generation
211043	1			Cumnock No 1 Colliery Pty Limited
574166	2			Novacoal Australia Pty Ltd

						and Mitsubishi Development Pty Ltd
700429	100					The Shortland County Council
979456						J. & A. Brown & Abermain Seaham Collieries Ltd
869839	380					Novacoal Australia Pty Limited and Mitsubishi Development Pty Ltd
808431	2					Novacoal Australia Pty Limited
1019325	601					Macquarie Generation
808431	1					Coal & Allied Operations Pty Limited
201214	1					Novacoal Australia Pty Limited
869399	22					Coal Operations Australia Limited, Cumnock No.1 Colliery Pty Limited, Muswellbrook Coal Company Limited, BCA No. 11 Pty Limited
858172	11					Coal & Allied Operations Pty Limited
752470						Coal & Allied Operations Pty Limited
659810	1					J. & A. Brown and Abermain Seaham Collieries Limited
114966	2			12915	20	J & A Brown & Abermain Seaham Collieries Limited
700429	101					Coal & Allied Operations Pty Limited
729048	1					Coal & Allied Operations Pty Limited
752470	148					Crown Land Reserve 144
93617						Crown land Reserve 68816

Carrington West Wing Extension Area

DP	Lot	Portion	Part	Volume	Folio	Property Owner
808301	2					Coal & Allied Operations Pty Limited
1078618	1					Coal & Allied Operations Pty Limited
1113789	7					Novacoal Australia and Coal & Allied Operations Pty Limited
597726	300					Coal & Allied Operations Pty Limited
752468	127					Coal & Allied Operations Pty Limited

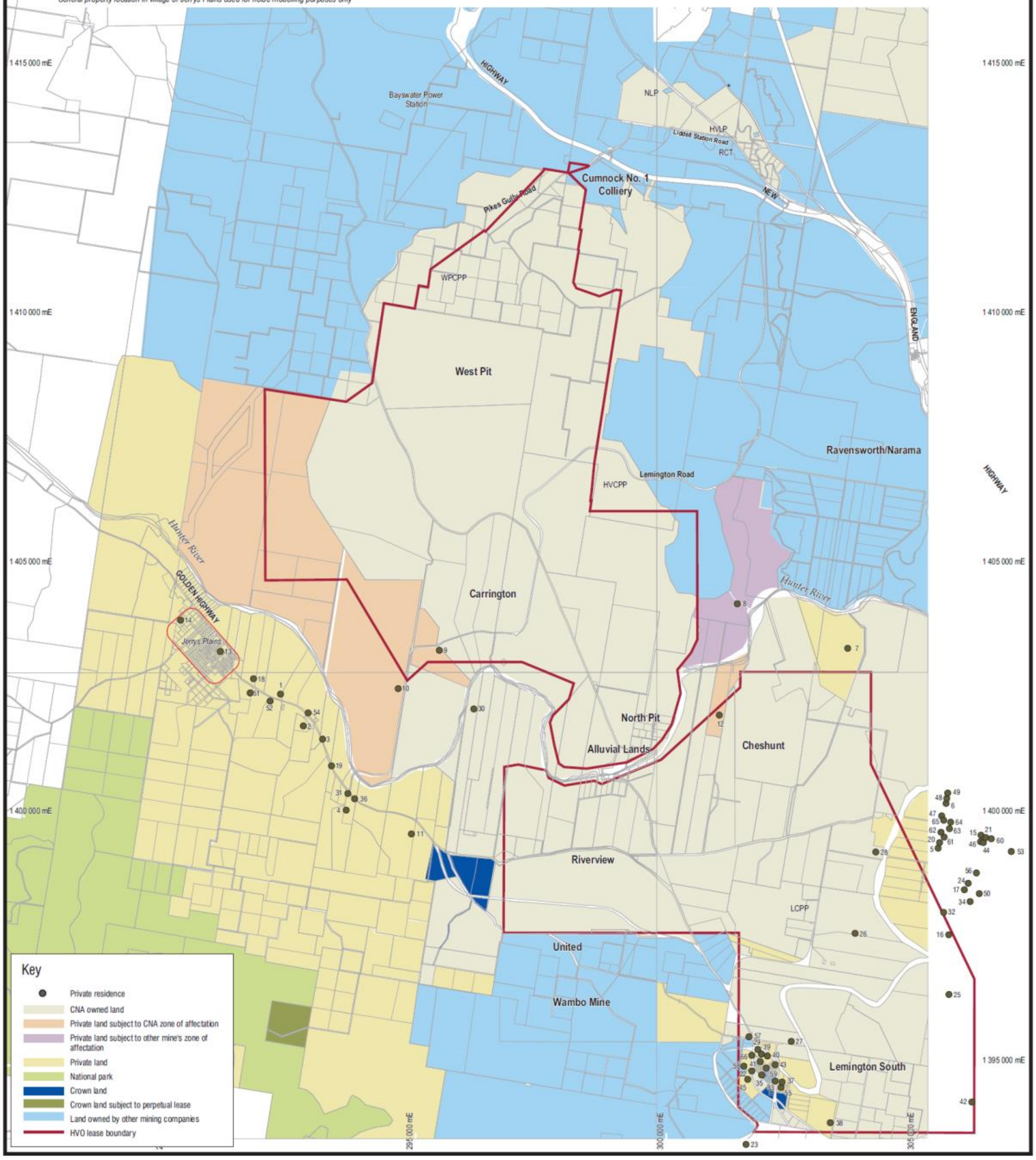
Cumnock Void 3 Boundary Amendment

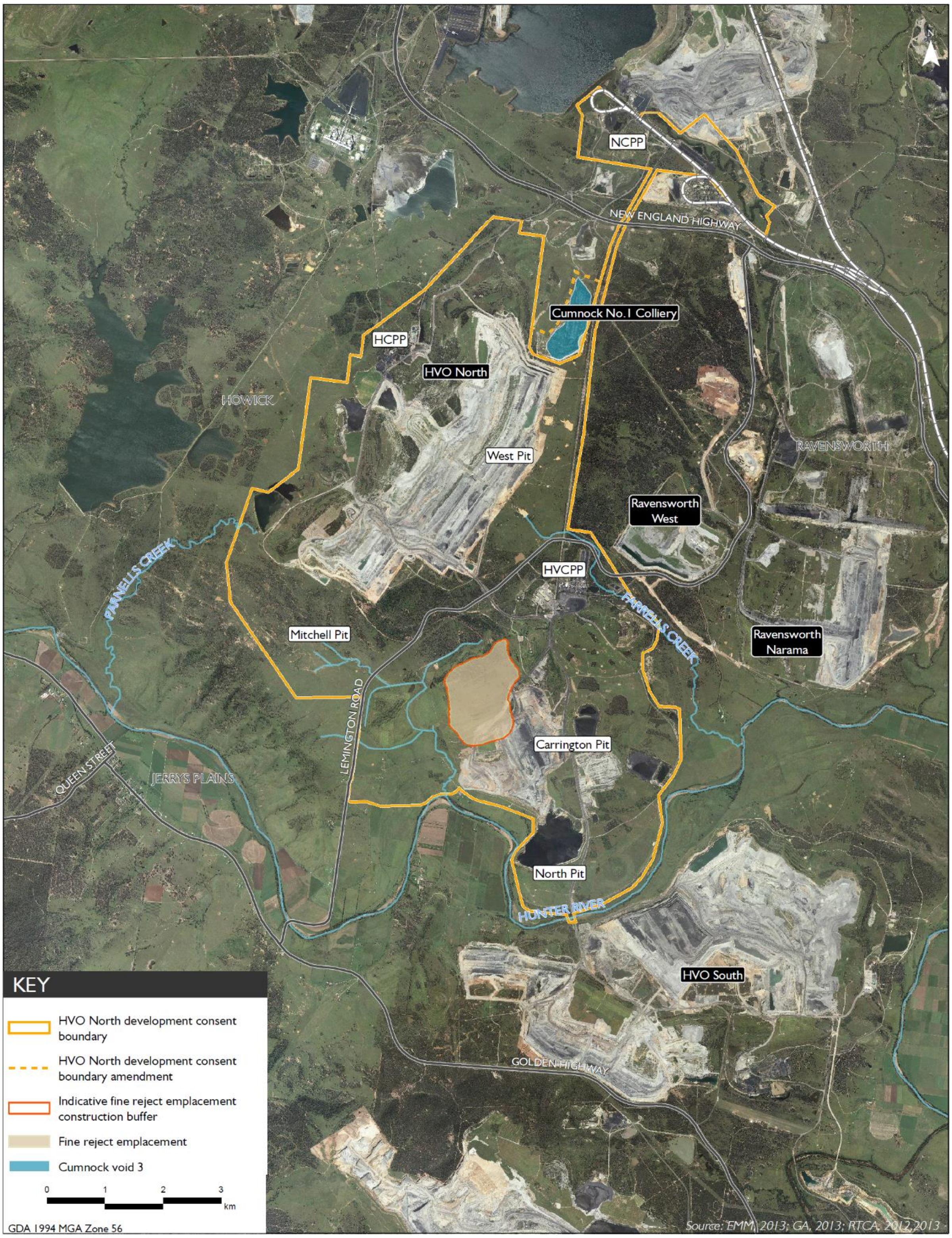
DP	Lot	Portion	Part	Volume	Folio	Property Owner
1132357	3000					Cumnock No 1 Colliery Pty Limited, ICRA CUMNOCK PTY LIMITED
1153575	1000					Coal & Allied Operations Pty Limited & Novacoal Australia PTY
48555	5 (part lot)					Novacoal Australia Pty Limited

APPENDIX 2
LANDOWNERSHIP PLAN & RESIDENTIAL RECEIVERS

Property No.	Last name or Company name	First name	Property No.	Last name or Company name	First name	Property No.	Last name or Company name	First name	Property No.	Last name or Company name	First name
1	Hayes	RJ	18	Bennet	K	35	Exxon	C & M	52	Old	
2	Skinner	DR	19	Biralee Feeds		36	Garland		53	Shortland Electricity	MR
3	Elisnore		20	Bowman	E	37	Hall	J	54	Skinner	
4	Muller		21	Burley	PR & CM	38	Henderson	H	55	St Phillips Church	
5	Bowman	E	22	Burley/Bushfire Brigade	T	39	Kannar	H	56	Tansil Pty Ltd	
6	Moxey	EA & MM	23	Cec M Hawkes Pty Ltd		40	Kannar	H	57	Wambo Mining Corporation Pty Ltd	
7	Stapleton	N	24	Clifton & Edwards	JV & JS	41	Kannar	H	58	Wambo Mining Corporation Pty Ltd	
8	Holz	N & L	25	Coal & Allied		42	Kannar	H	59	Wambo Mining Corporation Pty Ltd	
9	Dallas	G	26	Coal & Allied		43	Kannar (Abandoned House)	HJ, WH & H	60	Witchard	BH & CJ
10	Moses	RJ	27	Coal & Allied		44	Kauter, Bowman & Wright	WM & L	61	Wyoming Holstiens	
11	Fisher	C	28	Coal & Allied		45	Kelly	CI	62	Wyoming Holstiens	
12	Barry	E	29	Coal & Allied		46	Maskey	EA & MM	63	Wyoming Holstiens	
13	Jerrys Plains Centre *		30	Coal & Allied		47	Moxey	EA & MM	64	Wyoming Holstiens	
14	Jerrys Plains North *		31	Cooper		48	Moxey	EA & MM	65	Wyoming Holstiens	
15	Adamson	KJ & CP	32	Curlewis Pastoral Company		49	Moxey	NR & GJ	66	Xstrata Coal Pty Ltd	
16	Algie	RJ & CY	33	Edward & Haynes	K & LF	50	Nelson				
17	Algie	RJ & CY	34	Ernst	GJ & JG	51	Nicholls	TP & CM			

* General property location in village of Jerrys Plains used for noise modelling purposes only




NCPP
NEW ENGLAND HIGHWAY
Cumnock No.1 Colliery
HCPP
HVO North
HOWICK
West Pit
RAVENSWORTH
Ravensworth West
HVCPP
PARNELLS CREEK
FARRELLS CREEK
Mitchell Pit
Ravensworth Narama
LEMINGTON ROAD
Carrington Pit
QUEEN STREET
JERRY'S PLAINS
North Pit
HUNTER RIVER
HVO South
GOLDEN HIGHWAY
KEY
HVO North development consent boundary
HVO North development consent boundary amendment
Indicative fine reject emplacement construction buffer
Fine reject emplacement
Cumnock void 3
0
1
2
3
km
GDA 1994 MGA Zone 56
Source: EMM, 2013; GA, 2013; RTCA, 2012,2013

APPENDIX 3
NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The criteria in Table 9 and 10 apply under all meteorological conditions except:
   a) during periods of rain or hail;
   b) when average wind speed at microphone height exceeds 5 m/s;
   c) when wind speeds greater than 3 m/s are measured at 10 m above ground level; or
   d) during temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

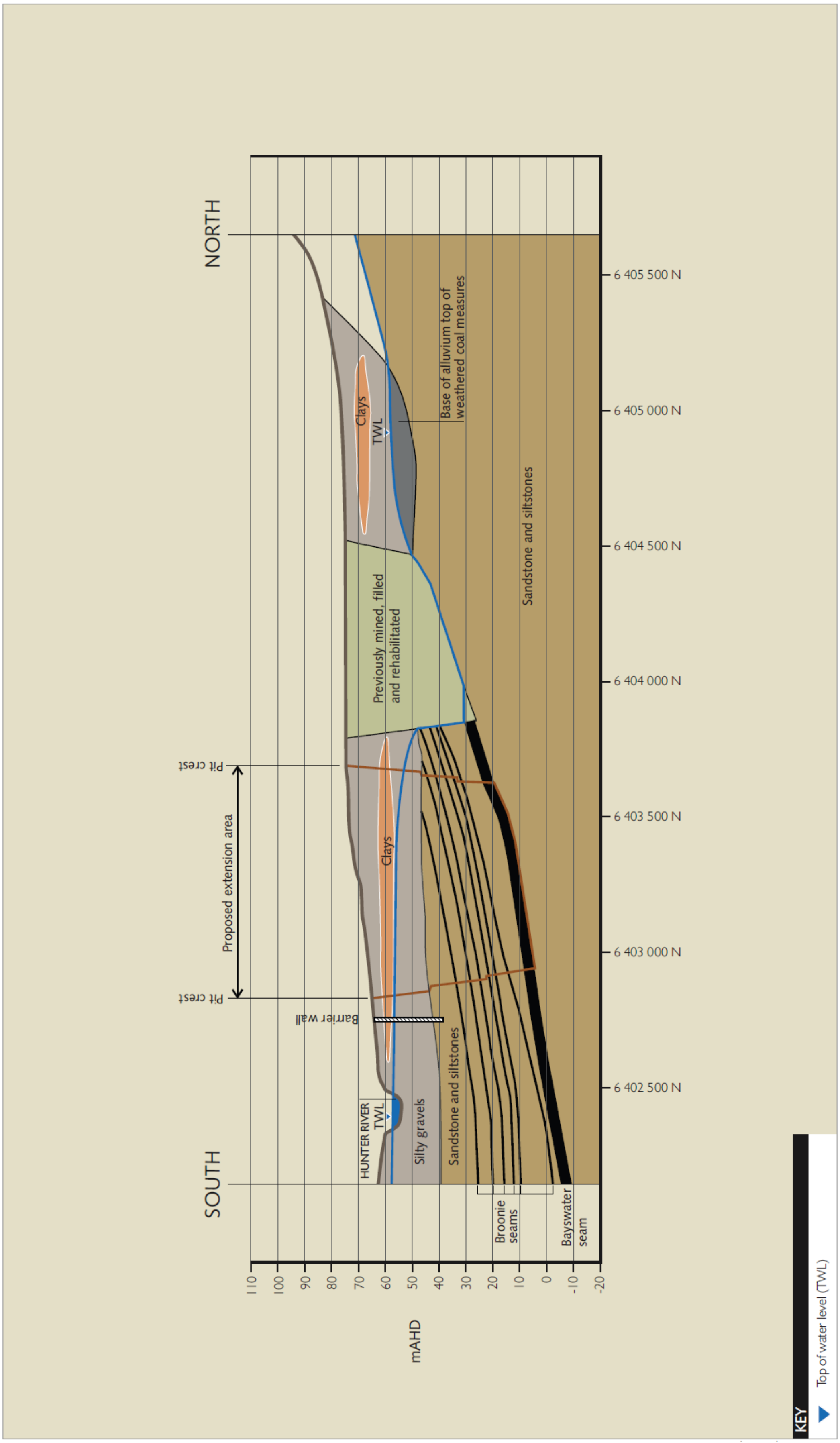
2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be those recorded by the meteorological station located on the site.

Compliance Monitoring

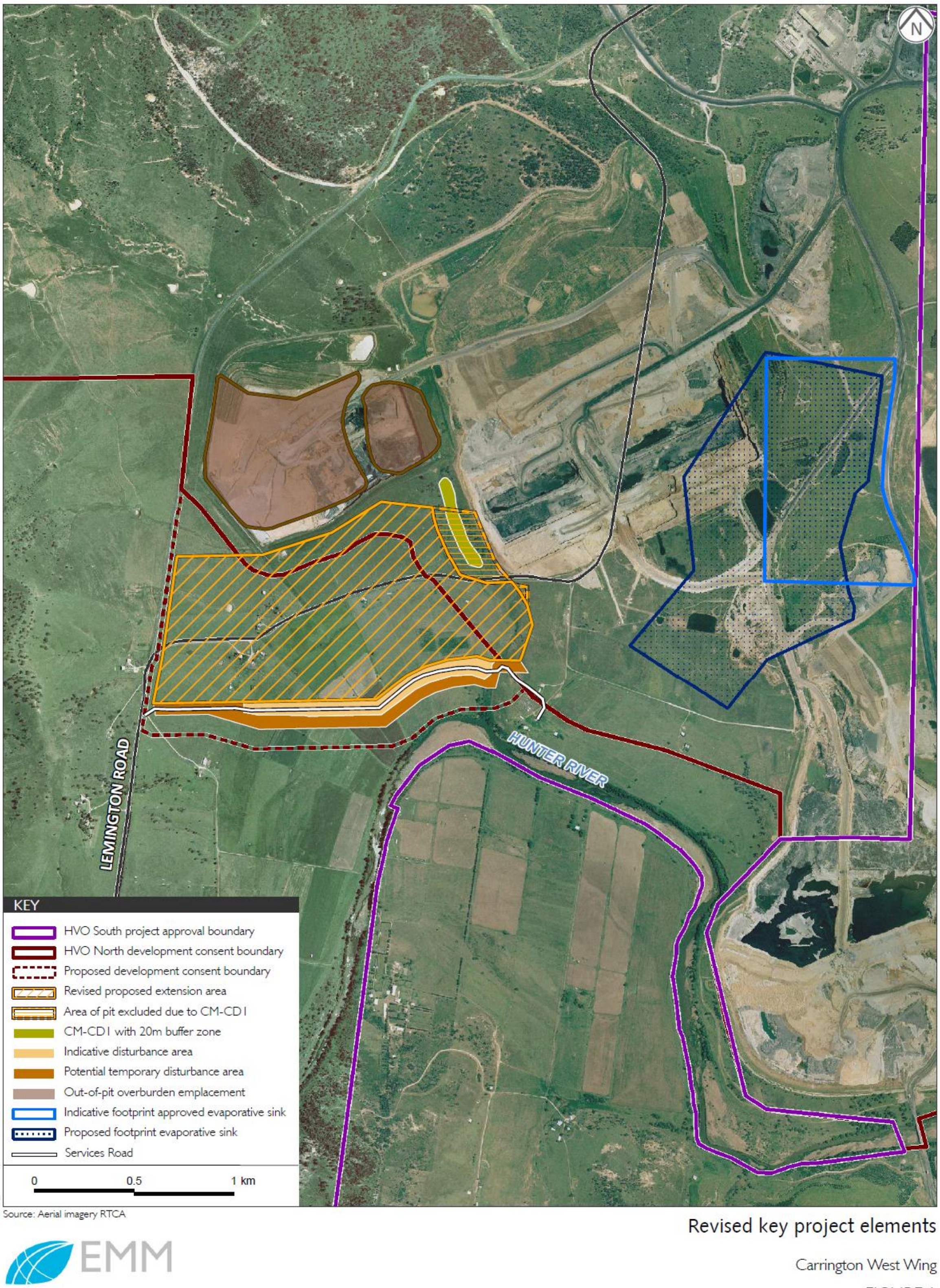
3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
4. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW *Industrial Noise Policy* (as amended or replaced from time to time), including the requirements relating to:
   a) monitoring locations for collection of representative noise data;
   b) meteorological conditions during which collection of noise data is not appropriate;
   c) equipment used to collect noise data, and conformation with relevant Australian Standards for such equipment; and
   d) modifications to noise data collected, including the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

APPENDIX 4

CONCEPTUAL GROUNDWATER BARRIER WALL



APPENDIX 5
REVISED MINE PLAN AVOIDING SITE CM-CD1

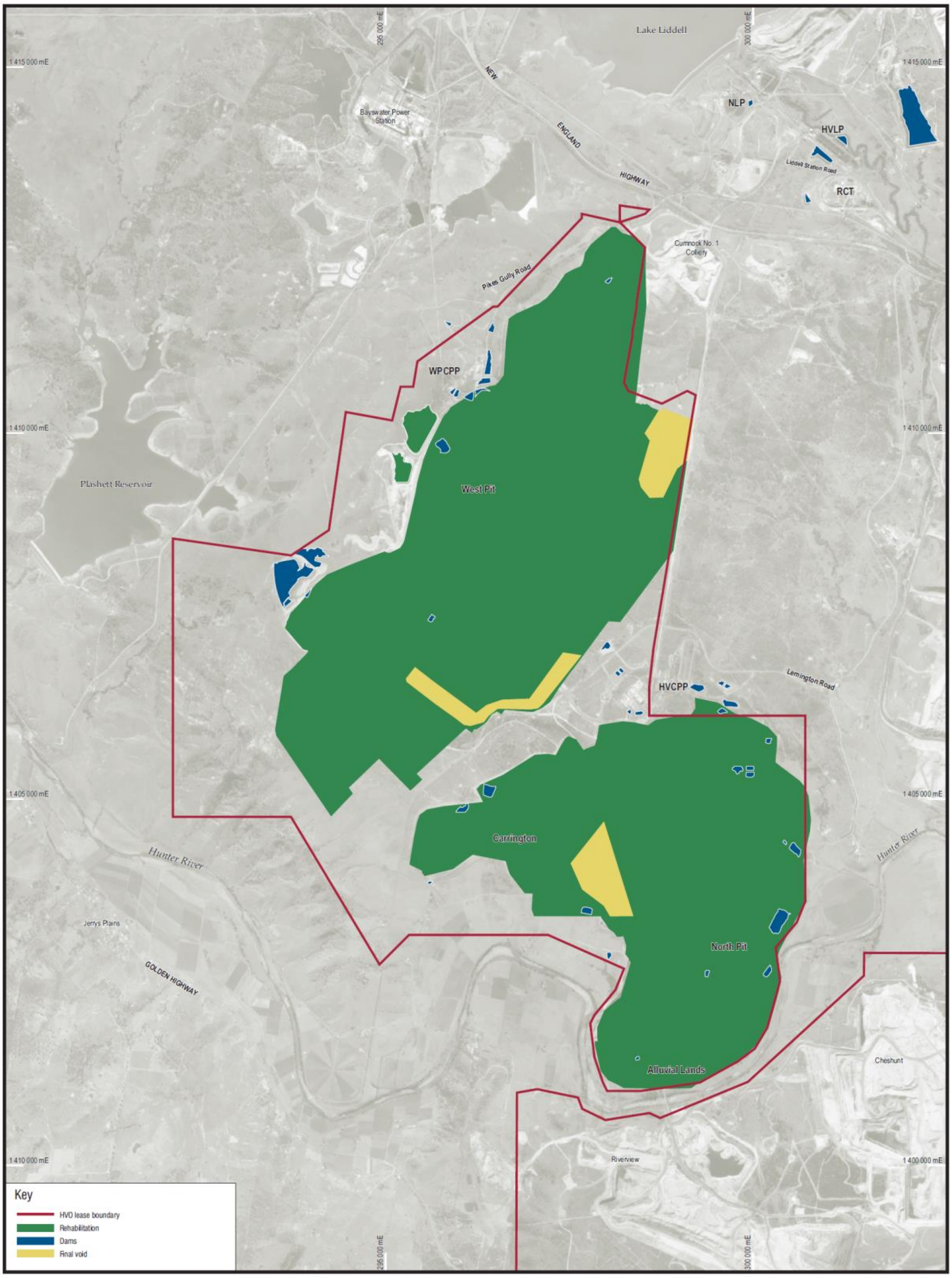


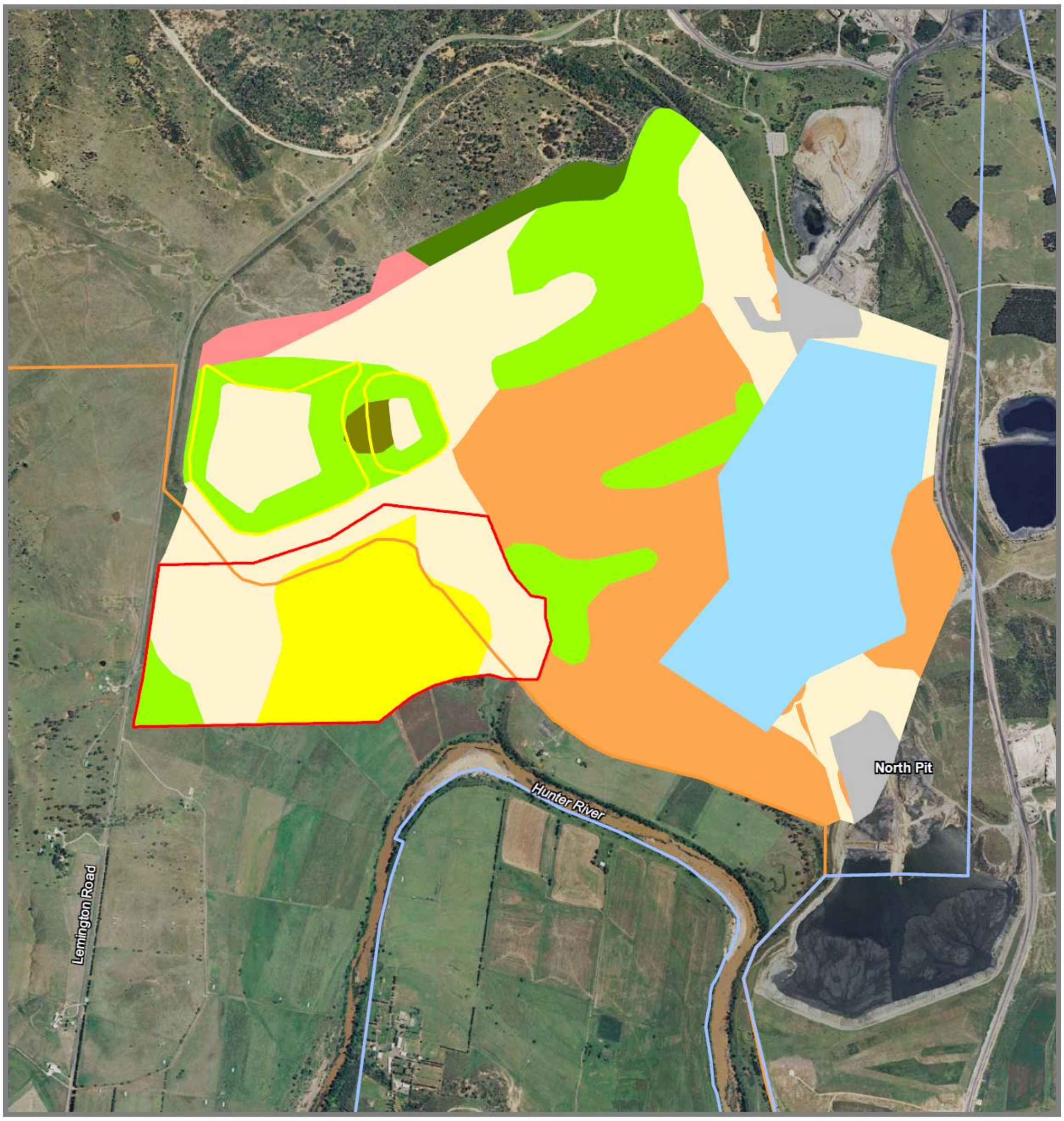
Revised key project elements

Carrington West Wing

FIGURE 1

APPENDIX 6
CONCEPTUAL FINAL LANDFORM PLANS

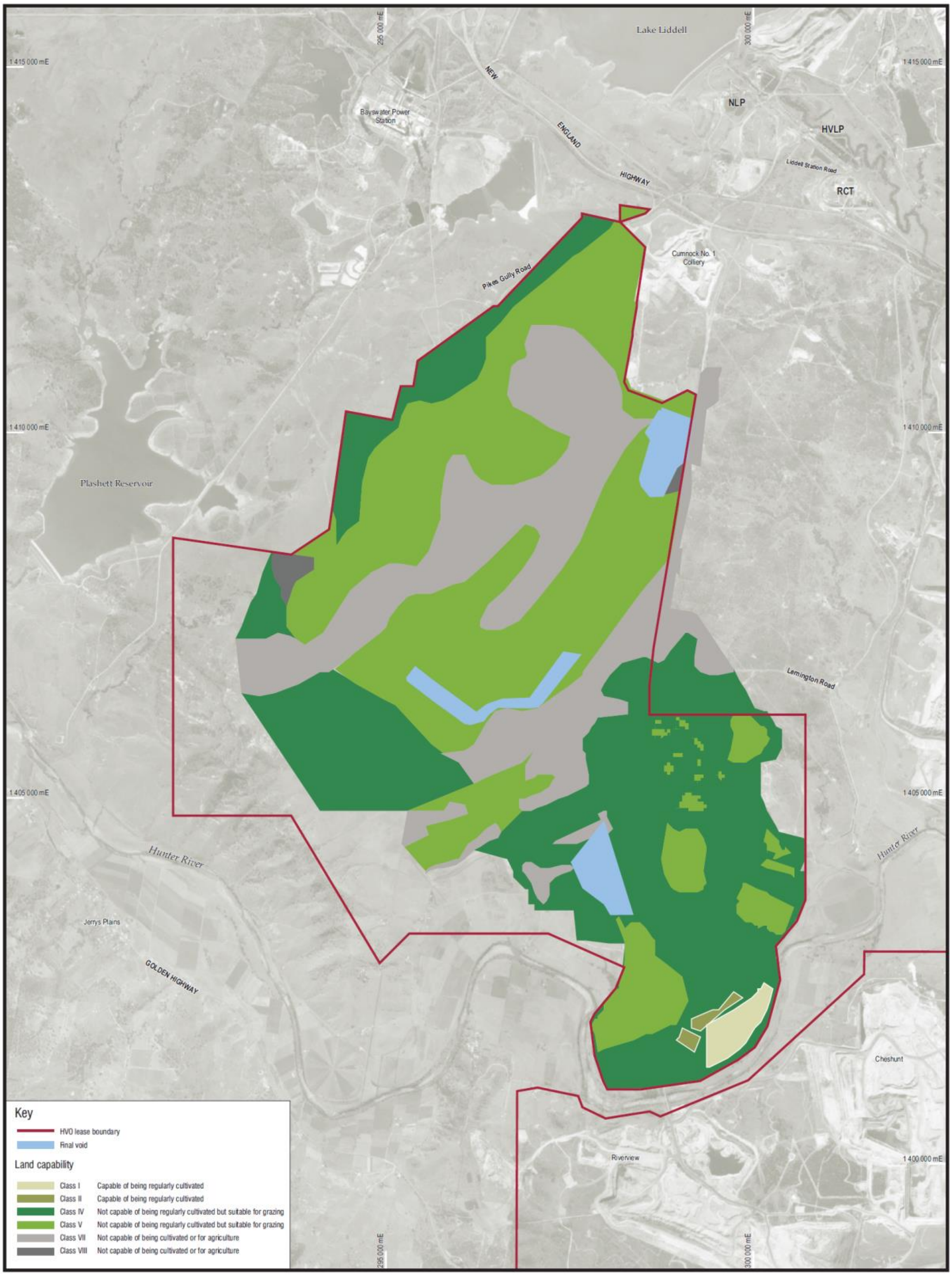




Regenerated Grassland (grazing)
Regenerated Woodland (biodiversity)
Rehabilitated Grassland (grazing/cropping)
Rehabilitated Woodland (biodiversity)
Rehabilitated Woodland (grazing)
Void / dam / mining area
Rehabilitated Woodland (Central Hunter Box - Ironbark Woodland) - indicative location
Rehabilitated Grassland (grazing/ cropping) - Class II land capability

HVO North current development consent boundary
HVO South project approval boundary
Proposed footprint of evaporative sink
Out-of-pit overburden emplacement
Proposed extension area

APPENDIX 7
CONCEPTUAL FINAL LANDUSE PLANS



Source: Aerial imagery RTCA

EMM

Post-mining agricultural suitability classes

Carrington West Wing

FIGURE 2