

# Notice of Modification

## Section 75W of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission of NSW modifies the development consent referred to in schedule 1, subject to the conditions in schedule 2.

These conditions are required to:

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

Member of the Commission

Member of the Commission

Sydney

2012

### SCHEDULE 1

The development consent for the Hunter Valley Operations – North Coal Mine (DA 450-10-2003).

### SCHEDULE 2

1. In the list of Definitions in Schedule 2, delete the following terms and definitions:

DEC	The Department of Environment and Conservation
DNR	Department of Natural Resources
DPI (MR)	Department of Primary Industries (Mineral Resources)
Land	Land means the whole of a lot in a current plan registered at the Land Titles Office at the date of this consent
Privately-owned land	Land excluding land owned by a mining company, where: <ul style="list-style-type: none"><li>• A private agreement does not exist between the Applicant and the land owner; and</li><li>• There are no land acquisition provisions requiring the Applicant to purchase the land upon request from the land owner</li></ul>
RTA	Roads and Traffic Authority
Site	Land to which the DA applies

2. In the list of Definitions in Schedule 2, Insert the following terms and definitions in alphabetical order:

ARTC	Australian Rail Track Corporation
DPI	Department of Primary Industries
DRE	Division of Resources and Energy within the Department of Trade, Investment, Regional Infrastructure and Services
EPA	Environment Protection Authority
Executive Director Mineral Resources	Executive Director of Mineral Resources within DRE, or equivalent position
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
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
Negligible	Small and unimportant, such as to be not worth considering

NOW	NSW Office of Water within the Department of Primary Industries
OEH	Office of Environment and Heritage
Privately owned land	Land that is not owned by a public agency, or a mining company, or its subsidiary
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
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
RMS	Roads and Maritime Services
Site	The land described in Appendix 1

3. Delete all references to "DNR" and replace with "NOW".
4. Delete all references to "DEC" and replace with:
  - a) "OEH", in conditions 33, 37, 38 and 41A of Schedule 4, and in the Note and footnote to the heading "**ABORIGINAL CULTURAL HERITAGE**" in Schedule 4; and
  - b) "EPA" in all other cases.
5. Delete all references to "DPI(MR) " and replace with "DRE".
6. Delete all references to "RTA" and replace with "RMS".
7. In Condition 2 of Schedule 3, delete all words after "prepared by the Applicant;" and insert instead:
  - (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; and
  - (h) conditions of this consent.
8. In Condition 3 of Schedule 3, delete "latter document shall prevail over the former" and insert instead "most recent document shall prevail".
9. In Condition 4 of Schedule 3:
  - a) in paragraph (a), delete "plans", and insert instead "strategies, plans, programs, reviews, audits"; and
  - b) in paragraph (b), delete "reports, plans or correspondence", and insert instead "documents".
10. Delete Condition 6 of Schedule 3 and insert instead:
  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 Director-General and the Executive Director Mineral Resources. 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.*
11. After Condition 13 of Schedule 3, insert the following:
 

**Staged Submission of any Strategy, Plan and Program**

  14. With the approval of the Director-General, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis.

*Notes:*

  - While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and
  - If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.
12. Below Table 1 of Schedule 4, delete the note and insert instead:
 

*Note: To identify the locations referred to in Table 1, see Appendix 2.*
13. Delete Conditions 3, 4-6, 9, 10, 17-19, 23-27, 32, 39-41 and 62 of Schedule 4, including their headings.
14. In Condition 7 of Schedule 4, delete note (f) to Table 9, and insert instead:
  - (f) *The noise limits in Table 9 are to be applied in accordance with the limitations and requirements set out in Appendix 3.*

15. After Table 10 in Condition 8 of Schedule 4, insert the following:

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

16. Delete the note prior to Condition 20 of Schedule 4 and replace it with the following:

*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.*

17. After Table 16, following Condition 35 of Schedule 4, insert the following note:

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

18. Insert the following in Schedule 4, in appropriate numerical order.

## **AIR QUALITY & GREENHOUSE GAS**

### **Odour**

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

### **Greenhouse Gas Emissions**

4. The Applicant shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.

### **Air Quality Criteria**

- 4A. Except for the air quality affected land in Table 1, the Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not 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.

*Table 2: Long term criteria for particulate matter*

Pollutant	Averaging Period	<sup>d</sup> Criterion
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

*Table 3: Short term criterion for particulate matter*

Pollutant	Averaging Period	<sup>d</sup> Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>

*Table 4: Long term criteria for deposited dust*

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

*Notes to Tables 2–4:*

- <sup>a</sup> Total impact (ie incremental increase in concentrations due to the development plus background concentrations due to all other sources);
- <sup>b</sup> Incremental impact (ie incremental increase in concentrations due to the development on its own);
- <sup>c</sup> 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.
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General.

## 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 shall 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	<sup>d</sup> Criterion
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

*Table 6: Short term acquisition criteria for particulate matter*

Pollutant	Averaging period	<sup>d</sup> Criterion
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 150 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>b</sup> 50 µg/m <sup>3</sup>

*Table 7: Long term acquisition criteria for deposited dust*

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

*Notes to Tables 5-7:*

- <sup>a</sup> Total impact (ie incremental increase in concentrations due to the development plus background concentrations due to all other sources);
- <sup>b</sup> Incremental impact (ie incremental increase in concentrations due to the development on its own);
- <sup>c</sup> 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.
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General.

## Mine-owned Land

- 4C. The Applicant shall 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:
- the tenant and landowner has been notified of health risks in accordance with the notification requirements under Schedule 5 of this consent;
  - 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;
  - air mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Applicant);
  - particulate matter air quality monitoring is undertaken to inform the tenant and landowner of potential health risks; and
  - 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 Director-General.

## Air Quality Operating Conditions

5. The Applicant shall:
- 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<sub>2.5</sub> 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 Tables 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 Director-General.

#### **Air Quality & Greenhouse Gas Management Plan**

6. The Applicant shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the development to the satisfaction of the Director-General. This plan must:
  - (a) be prepared in consultation with the EPA, and submitted to the Director-General 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<sub>2.5</sub> 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 (Mount Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development.

#### **Noise Operating Conditions**

9. The Applicant shall:
  - (a) implement best management practice to minimise the operational, low frequency, road and rail traffic noise of the development;
  - (b) 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;
  - (c) 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;
  - (d) ensure that any noise attenuated plant on site is deployed preferentially in locations relevant to sensitive receivers;
  - (e) minimise the noise impacts of the development during meteorological conditions when the noise limits in this approval do not apply;
  - (f) 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);
  - (g) use its best endeavours to ensure that the rolling stock supplied by service providers is designed, constructed and maintained to minimise noise;
  - (h) ensure any new rail rolling stock manufactured specifically for the development is designed, constructed and maintained to minimise noise; and

- (i) co-ordinate the noise management on site with the noise management at nearby mines (Mount 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 Director-General.

### **Noise Management Plan**

10. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the EPA, and submitted to the Director-General 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 Director-General, 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 (including the tenth percentile methodology); and
  - (f) include a protocol that has been prepared in consultation with the owners of nearby mines (Mount Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative noise impacts of these mines and the development.

### **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 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.*

### **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 shall:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:
    - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
    - identify measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and
  - (b) give the landowner a copy of the new or updated property inspection report.

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

## 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 shall:
- commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and
  - give the landowner a copy of the property investigation report.

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

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 independent property investigation, then either party may refer the matter to the Director-General for resolution.

## Blasting Operating Conditions

17. During mining operations on site, the Applicant shall:
- 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;
  - minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods;
  - co-ordinate the timing of blasting on site with the timing of blasting at nearby mines (including the Mount Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative blasting impacts of these mines and HVO North mine; and
  - 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 Director-General.
18. The Applicant shall not undertake blasting on site within 500 metres of:
- any public road without the approval of the appropriate road authority; or
  - 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 Director-General 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 shall prepare and implement a Blast Management Plan for the development to the satisfaction of the Director-General. This plan must:
- be submitted to the Director-General for approval by the end of June 2013;
  - propose and justify any alternative ground vibration limits for any public infrastructure in the vicinity of the site;
  - describe the measures that would be implemented to ensure:
    - best management practice is being employed;
    - compliance with the relevant conditions of this consent;
  - 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;
  - include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated;
  - 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 Mount Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative blasting impacts of these mines and the HVO North mine.

### **Water Supply**

- 20A. The Applicant shall 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 Director-General.

### **Compensatory Water Supply**

- 20B. The Applicant shall 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 NOW, and to the satisfaction of the Director-General.

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 Director-General for resolution.

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

### **Carrington West Wing Groundwater Barrier (LPB)**

23. Prior to undertaking any mining operations within 100 metres of the western arm of the Hunter River paleochannel, the Applicant shall:
- (a) install the LPB in the western arm of the paleochannel;
  - (b) submit an as-executed report to the Director-General and NOW, certified by a suitably qualified and experienced practising engineer, confirming that the LPB has been constructed:
    - generally in accordance with the concept design in the EA and applicable Australian Standards (including AS 3798-2007);
    - to achieve a permeability of  $10^{-6}$  metres/second or less; and
    - in a manner that is hydraulically, geomorphologically and seismically stable and likely to withstand any blasting-related vibrations.

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

24. The Applicant shall design the Carrington West Wing LPB to the satisfaction of NOW and Director-General. The detailed design must:
- (a) be prepared by a suitably qualified and experienced expert/s;
  - (b) be endorsed by NOW and approved by the Director-General, prior to construction of the LPB;
  - (c) certify that the design would achieve the relevant performance measures; and
  - (d) certify that the LPB design would remain effective over an appropriate lifespan and would withstand mining operations, seismic, fluvial and weather events, decay corrosive and biological attack.

### **LPB Monitoring and Management Plan**

25. The Applicant must prepare and implement a Low Permeability Barrier Monitoring and Management Plan to the satisfaction of NOW and the Director-General. 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 NOW and approved by the Director-General, 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 would be capable of timely detection of any failure or deficiency in either LPB; and
  - (f) describe the contingency measures that would be implemented in the event of a failure or deficiency in either LPB.



## **Flood Design Works**

26. The Applicant shall 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 NOW.

## **Water Management Plan**

27. The Applicant shall prepare and implement a Water Management Plan for the HVO North mine to the satisfaction of the Director-General. This plan must be prepared in consultation with NOW and the EPA by suitably qualified and experienced persons whose appointment has been approved by the Director-General, and submitted to the Director-General by the end of June 2013. 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;
      - 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);
    - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development; and
  - (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 NOW;
        - 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.

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

• 37-2-0145	• 37-2-0787	• TD
• 37-2-0147	• 37-2-0788	• TG
• 37-2-0148	• 37-2-0789	• 37-2-1504
• 37-2-0523	• 37-2-0790	• 37-2-1522
• 37-2-0524	• 37-2-0791	• 37-2-1535
• 37-2-0525	• 37-2-0792	• 37-2-1864
• 37-2-0526	• 37-2-0793	• 37-2-1874
• 37-2-0527	• 37-2-0794	• 37-2-1875
• 37-2-0528	• 37-2-0795	• 37-2-1876
• 37-2-0562	• 37-2-0796	• 37-2-1962
• 37-2-0777	• 37-2-0895	• 37-2-1963
• 37-2-0778	• 37-2-1865	• 37-5-0061
• 37-2-0779	• 37-2-1866	• 37-2-1861
• 37-2-0780	• 37-2-1867	• 37-2-1862
• 37-2-0781	• 37-2-1868	• 37-2-1873
• 37-2-0782	• 37-2-1869	• 37-2-1860
• 37-2-0783	• 37-2-1870	• 37-5-0131
• 37-2-0784	• 37-2-1871	• 37-3-0286
• 37-2-0785	• 37-2-1872	• 37-5-0061
• 37-2-0786	• IF1	• 37-1-0399
• 37-2-2078 (C1)	• 37-2-2085 (C10)	• 37-2-1535 (CM32)
• 37-2-2079 (C2)	• 37-2-1962 (CM45)	• 37-2-2754
• 37-2-2080 (C3)	• 37-2-1963 (CM46)	• 37-2-2755
• 37-5-0494 (C4)	• 37-2-1504 (CM1)	• 37-2-2756
• 37-2-2083 (C8)	• 37-2-1505 (CM2)	• 37-2-2757
• 37-2-2084 (C9)	• 37-2-1522 (CM19)	

#### **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.
- 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 shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Director-General. This plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;
  - be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
  - be submitted to the Director-General for approval by the end of June 2013, unless the Director-General agrees otherwise;
  - 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 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.

## REHABILITATION

### Rehabilitation Objectives

62. The Applicant shall rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. 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 the Executive Director Mineral Resources 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 shall:
- (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 resspreading 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 shall 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 shall 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 shall prepare and implement a Rehabilitation Management Plan for the HVO North mine to the satisfaction of the Executive Director Mineral Resources. This plan must:
- (a) be prepared in consultation with the Department, NOW, OEH, Council and the CCC;
  - (b) be submitted to the Executive Director Mineral Resources by the end of June 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.

#### **Agricultural Land Reinstatement Management Plan**

62D. The Agricultural Land Reinstatement Management Plan required under Condition 62C of Schedule 4 must:

- (a) be prepared in consultation with DPI and to the satisfaction of the Director-General;
- (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 proposal for a long-term research project to measure success in 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, fertiliser needs, weeds and pests) over an extended period (a minimum of 10 years); and
  - be replicated, peer reviewed and published.

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

19. Delete Conditions 1 to 11 of Schedule 5 and insert instead:

#### **Notification of Landowners/Tenants**

1. By the end of March 2013, the Applicant shall:
  - (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 shall:
  - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time);
  - (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 predictions and health impacts arising from this information, to the satisfaction of the Director-General.

3. As soon as practicable after obtaining monitoring results showing:
- (a) an exceedance of any criteria in schedule 4, the Applicant shall:
    - 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 shall 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 Director-General.

### **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 Director-General in writing for an independent review of the impacts of the development on his/her land.

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

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, 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 Director-General 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 Director-General.
- If the independent review determines that the development is not complying with the relevant criteria in Schedule 4, and that the development is primarily responsible for this non-compliance, then the Applicant shall:
- (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 Director-General.

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 responsible for this non-compliance, then upon receiving a written request from the landowner, the Applicant shall 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 shall:
- (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 Director-General.

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 shall 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 shall make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - presence of improvements on the land and/or any approved building or structure which has been physically commenced 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 Director-General; 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 Director-General for resolution.

Upon receiving such a request, the Director-General 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 shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General 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 Director-General 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 shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General'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 Director-General determines otherwise.

8. The Applicant shall 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.

20. Delete Conditions 4 and 5 of Schedule 6 and insert instead:

## MANAGEMENT PLAN REQUIREMENTS

4. The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
- (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant consent, licence or lease conditions);
    - any relevant limits or performance measures/criteria;

- the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures/criteria;
- (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
- (d) a program to monitor and report on the:
  - impacts and environmental performance of the development;
  - effectiveness of any management measures (see c above);
- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (g) a protocol for managing and reporting any:
  - incidents;
  - complaints;
  - non-compliances with statutory requirements; and
  - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

#### **ANNUAL REVIEW**

5. By the end of March 2013, and annually thereafter, the Applicant shall review the environmental performance of the development to the satisfaction of the Director-General. This review must:
- (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the past calendar year, which includes a comparison of these results against the:
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the EA;
  - (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 next year to improve the environmental performance of the development.

#### **REVISION OF STRATEGIES, PLANS AND PROGRAMS**

- 5A. Within 3 months of:

- (a) the submission of an annual review under Condition 5 above;
- (b) the submission of an incident report under Condition 5B below;
- (c) the submission of an audit under Condition 6 below; and
- (d) any modification to the conditions of this consent (unless the conditions require otherwise),

the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Director-General.

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

#### **INCIDENT REPORTING**

- 5B. The Applicant shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the development, the Applicant shall notify the Director-General and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

#### **REGULAR REPORTING**

- 5C. The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

21. Delete Conditions 8 - 10 of Schedule 6 and insert instead:

8. The Applicant shall establish and operate a new Community Consultative Committee (CCC) for the development to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and be operating by the end of March 2013.

*Notes:*

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this approval.*
- *The CCC should have an independent chair and include appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*

9. The Applicant shall:

- (a) by the end of March 2013, make the following information publicly available on its website:
- all documents referred to in Condition 2 of Schedule 3;
  - all current statutory approvals for the development;
  - approved strategies, plans and programs required under the conditions of this consent;
  - a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
  - a complaints register, which is to be updated on a monthly basis;
  - minutes of CCC meetings;
  - the last five AEMRs or Annual Reviews;
  - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
  - any other matter required by the Director-General; and
- (b) keep this information up to date, to the satisfaction of the Director-General.

#### **Online Communication of Operational Responses and Noise and Air Quality Monitoring**

10. The Applicant shall, by the end of March 2013:

- (a) make the following information for the development publicly available on its website, on a daily basis and in a clearly understandable form:
- daily weather forecasts for the coming week;
  - proposed operational responses to these weather forecasts;
  - real-time noise and air quality monitoring data (subject to any necessary caveats); and
  - any operational responses that were taken in response to the noise and air quality monitoring data, and
- (b) make provision on its website for the provision of on-line and/or email comments by members of the community regarding this information, to the satisfaction of the Director-General.

22. Delete Appendices 1 and 2 and insert instead:



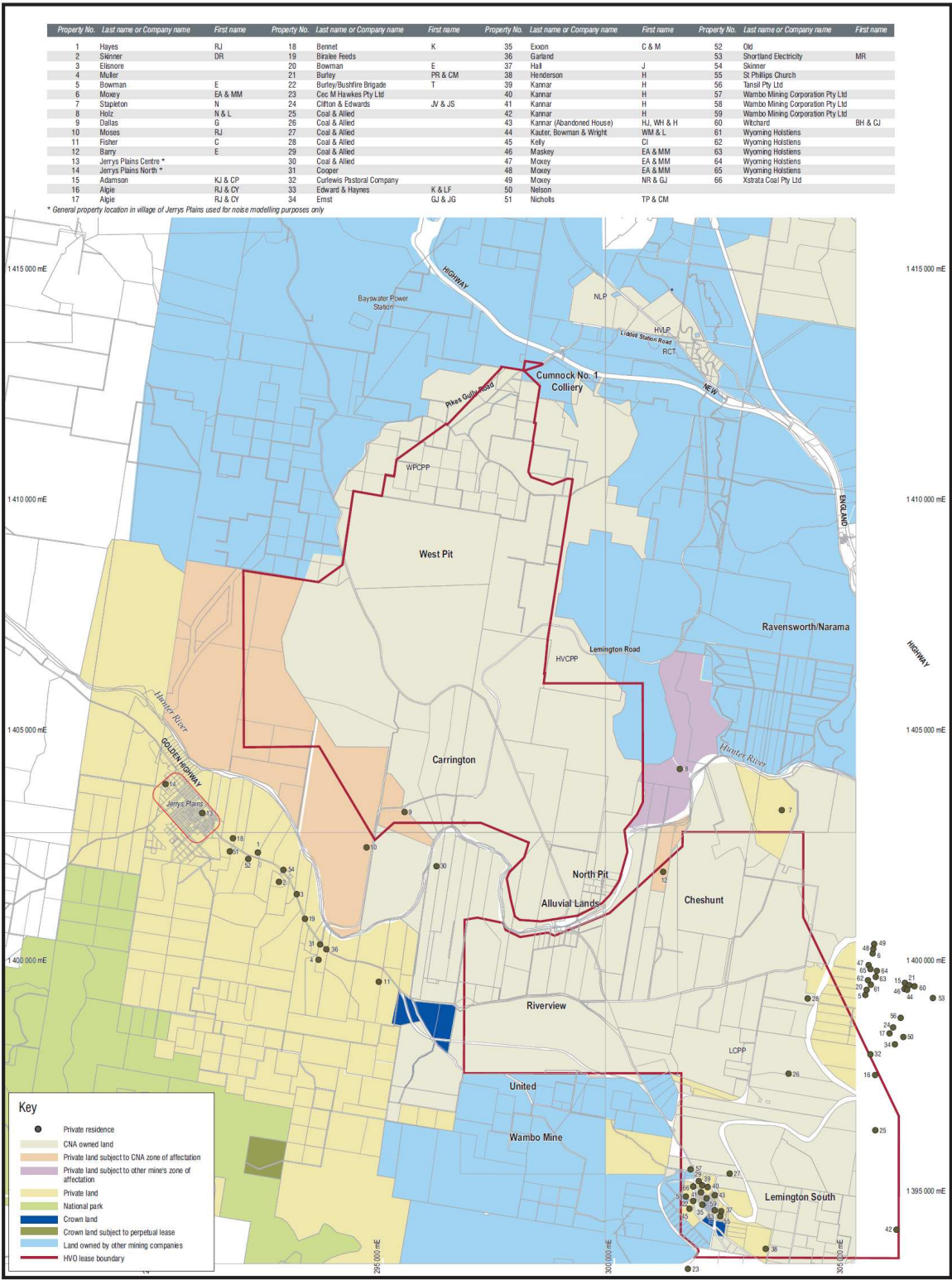
**APPENDIX 1  
SCHEDULE OF LAND**

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
<b>Carrington West Wing Extension Area</b>						
<b>DP</b>	<b>Lot</b>	<b>Portion</b>	<b>Part</b>	<b>Volume</b>	<b>Folio</b>	<b>Property Owner</b>
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

APPENDIX 2  
LANDOWNERSHIP PLAN & RESIDENTIAL RECEIVERS



## **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.

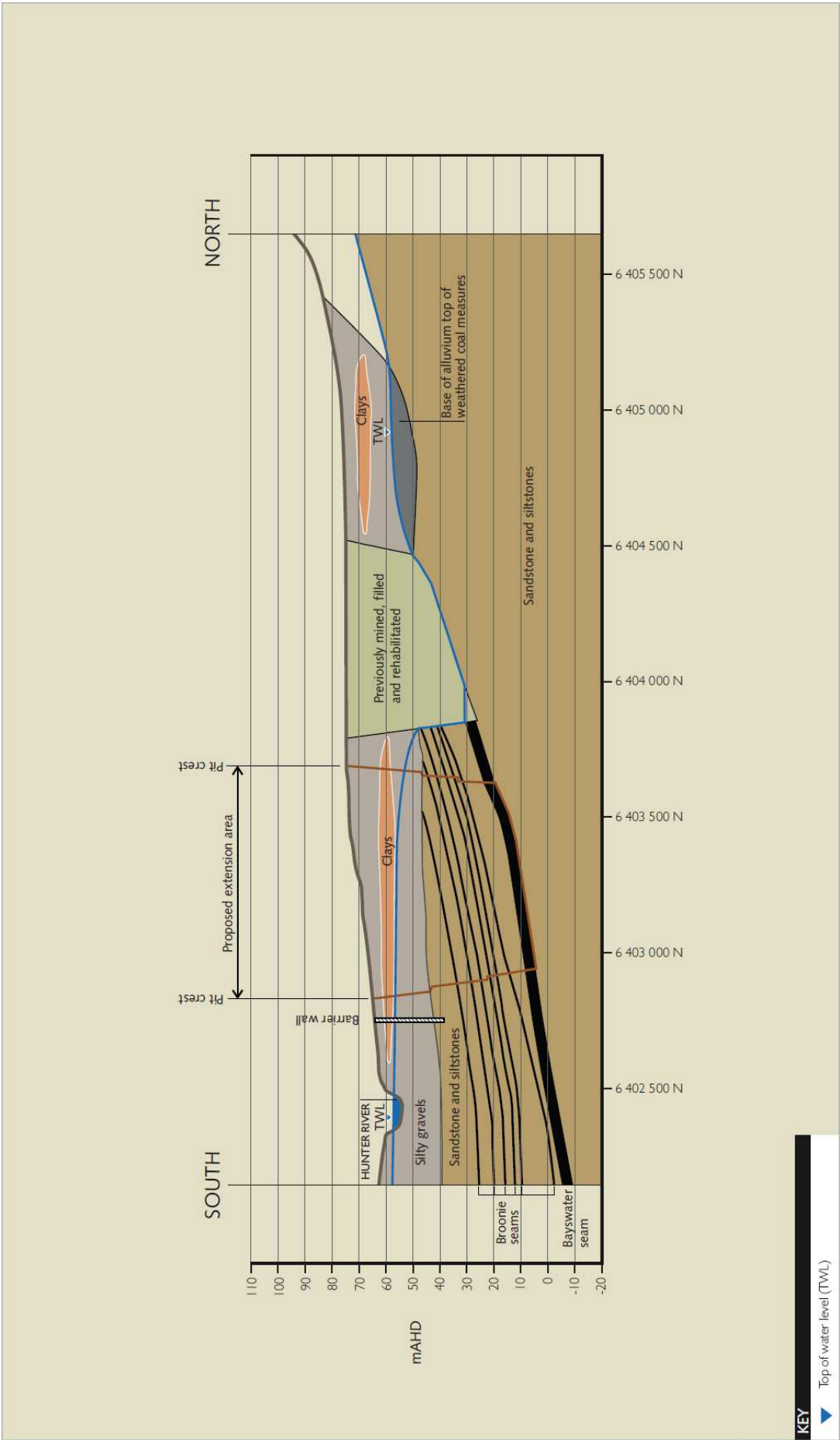
#### **Determination of Meteorological Conditions**

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

#### **Compliance Monitoring**

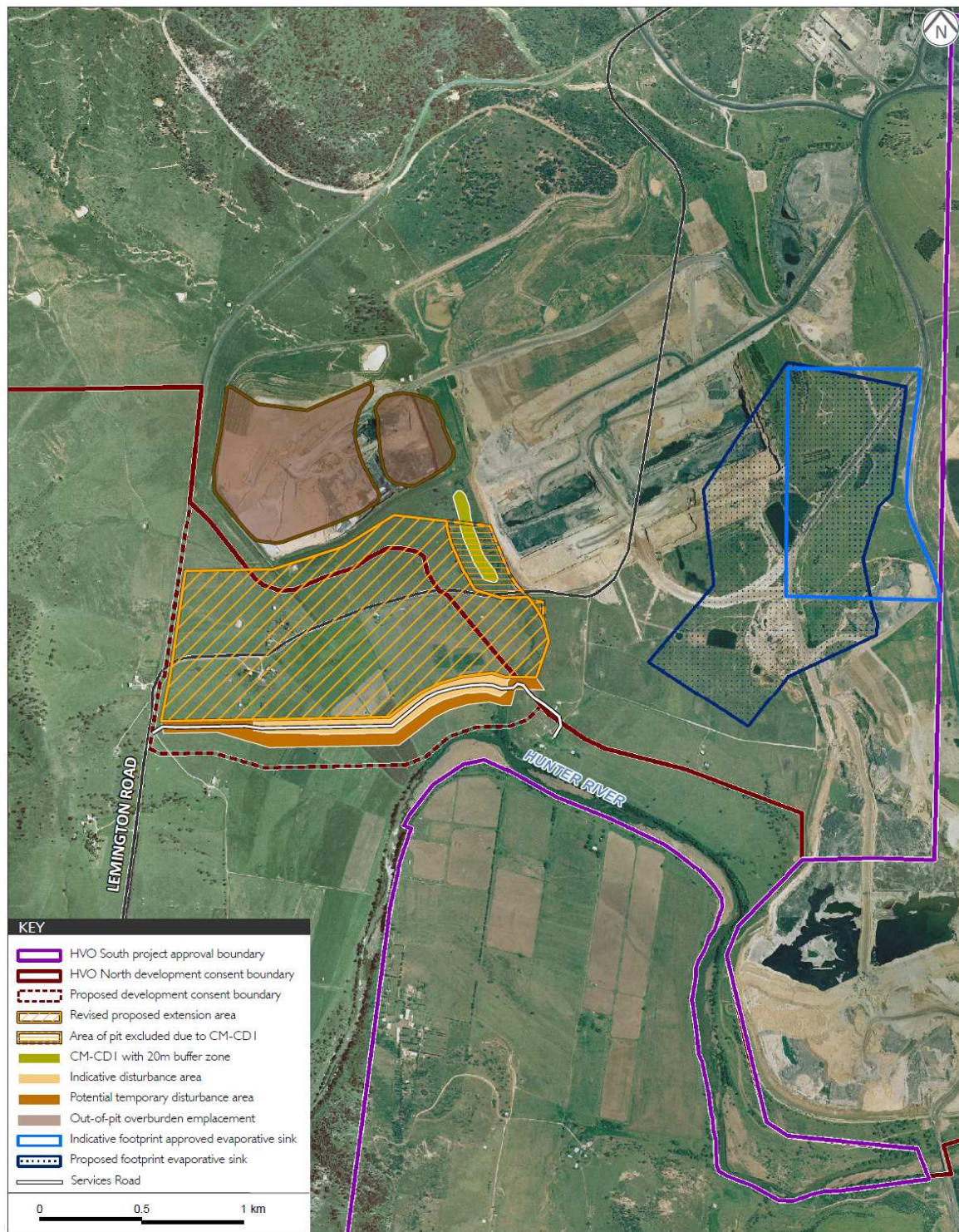
3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
4. Unless otherwise agreed with the Director-General, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW *Industrial Noise 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

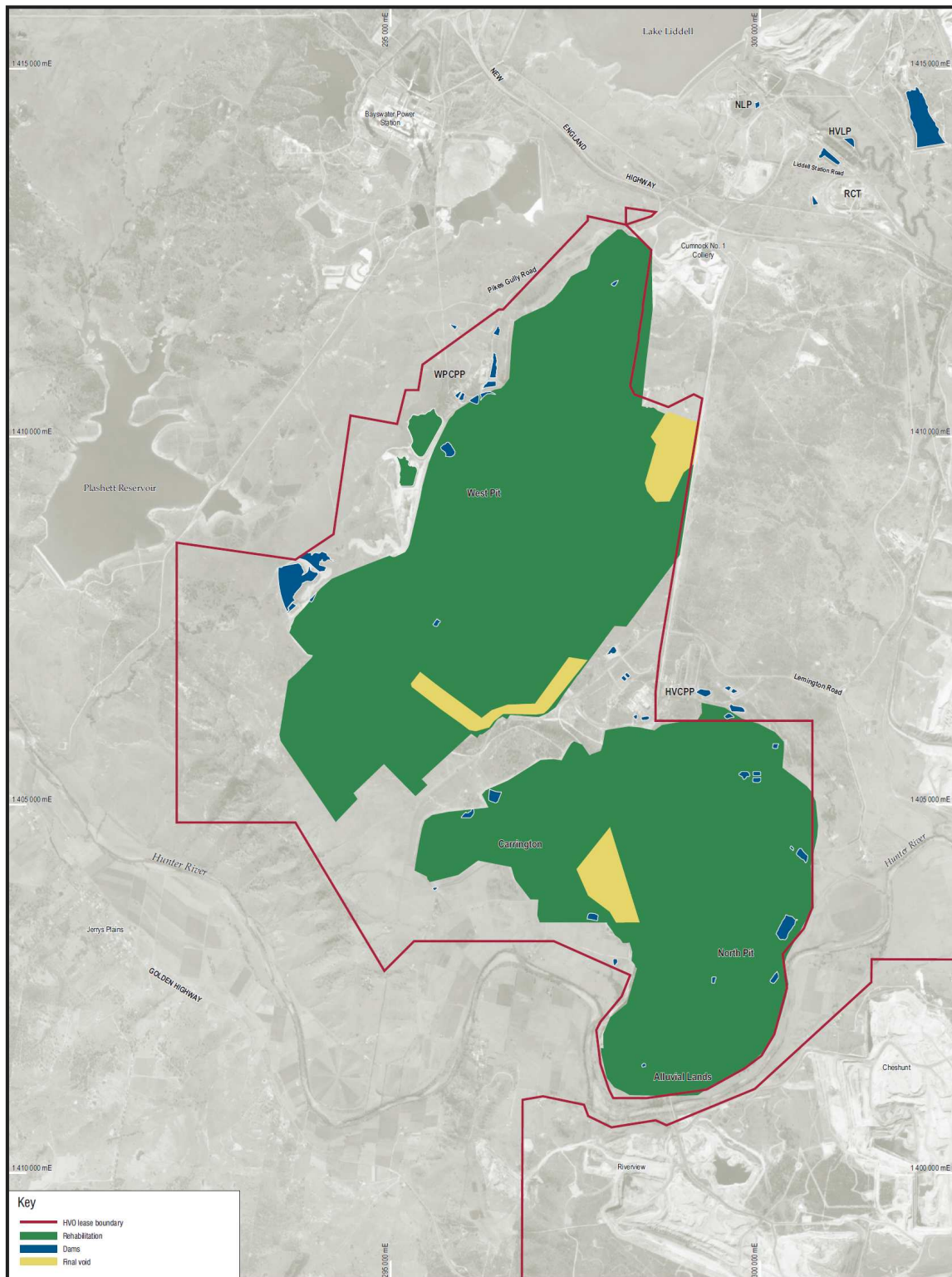


Carrington West Wing

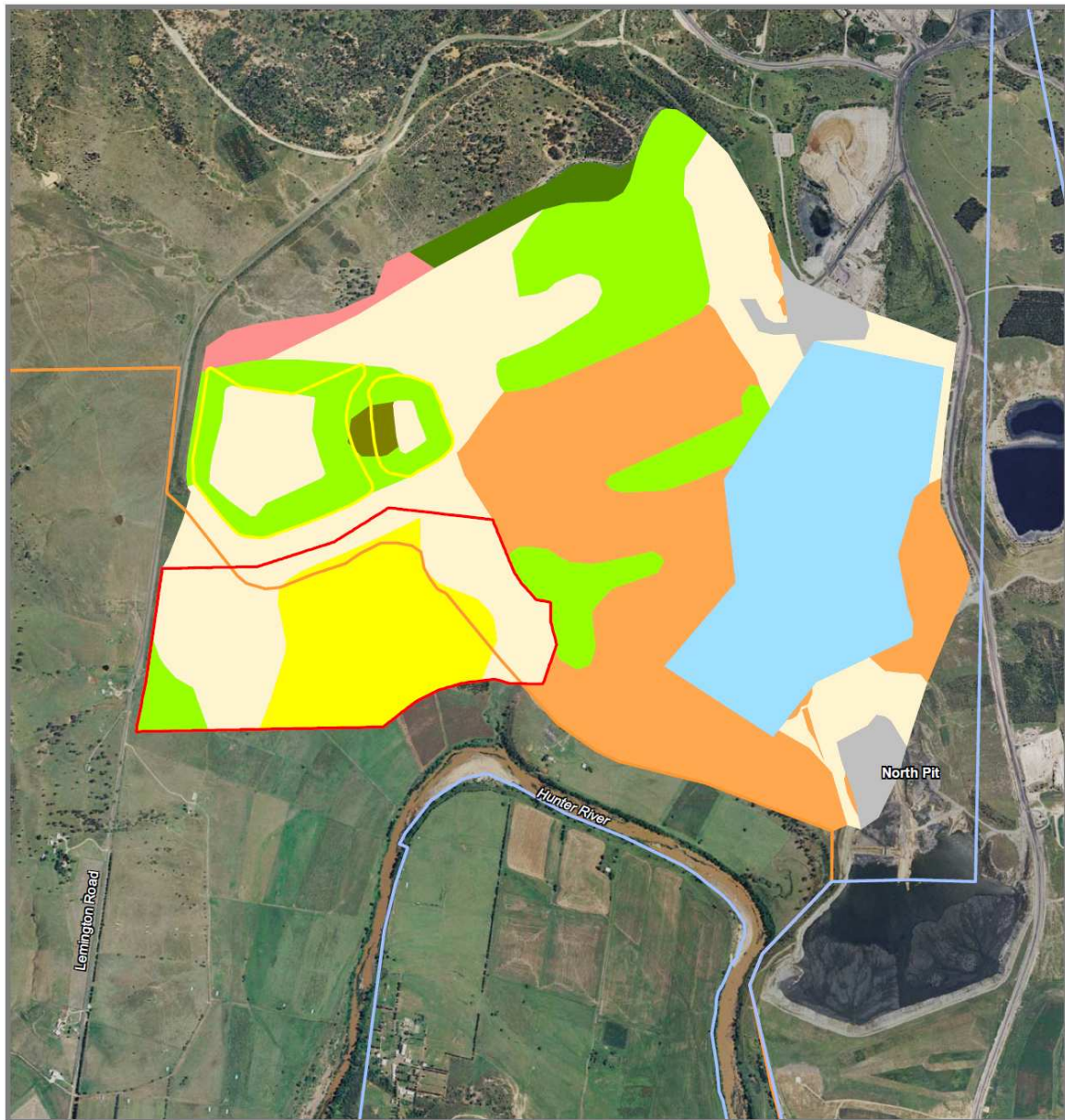
FIGURE I



## APPENDIX 6 CONCEPTUAL FINAL LANDFORM PLANS

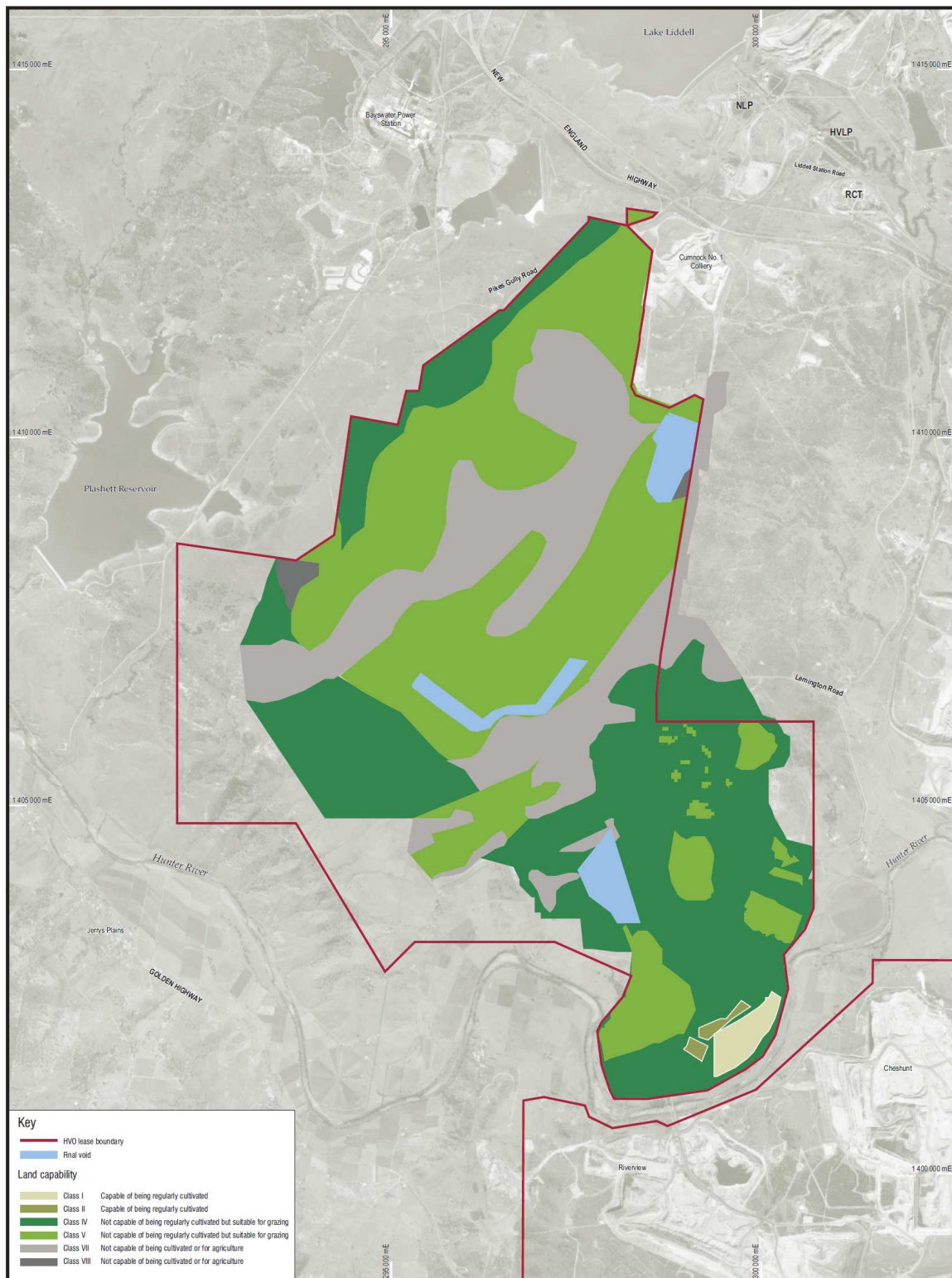






- |  |   |
|--|---|
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #FF69B4; border: 1px solid black; margin-right: 5px;"></span> Regenerated Grassland (grazing)   | <span style="display: inline-block; width: 20px; height: 10px; border: 2px solid orange; margin-right: 5px;"></span> HVO North current development consent boundary                   |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #006400; border: 1px solid black; margin-right: 5px;"></span> Regenerated Woodland (biodiversity)   | <span style="display: inline-block; width: 20px; height: 10px; border: 2px solid blue; margin-right: 5px;"></span> HVO South project approval boundary                                |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span> Rehabilitated Grassland (grazing/cropping)  | <span style="display: inline-block; width: 20px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> Proposed footprint of evaporative sink |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #00FF00; border: 1px solid black; margin-right: 5px;"></span> Rehabilitated Woodland (biodiversity)   | <span style="display: inline-block; width: 20px; height: 10px; border: 2px solid yellow; margin-right: 5px;"></span> Out-of-pit overburden emplacement                                |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #FF8C00; border: 1px solid black; margin-right: 5px;"></span> Rehabilitated Woodland (grazing)  | <span style="display: inline-block; width: 20px; height: 10px; border: 2px solid red; margin-right: 5px;"></span> Proposed extension area   |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #A9A9A9; border: 1px solid black; margin-right: 5px;"></span> Void / dam / mining area  |   |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #808080; border: 1px solid black; margin-right: 5px;"></span> Rehabilitated Woodland (Central Hunter Box - Ironbark Woodland) - Indicative location |   |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> Rehabilitated Grassland (grazing/ cropping) - Class II land capability                |   |

## APPENDIX 7 CONCEPTUAL FINAL LANDUSE PLANS







Post-mining agricultural suitability classes

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FIGURE 2

23. Update the Table of Contents to accurately reflect the above changes to the Development Consent.