

**ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

**INTEGRATED STATE SIGNIFICANT DEVELOPMENT**

**DETERMINATION OF DEVELOPMENT APPLICATION  
PURSUANT TO SECTIONS 76(A)9 & 80**

I, the Minister for Urban Affairs and Planning, pursuant to Sections 76(A)9 & 80 of the *Environmental Planning and Assessment Act 1979* determine the development application referred to in schedule 1 by granting consent to the application subject to the conditions set out in schedules 3-6.

These conditions are required to:

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

Andrew Refshauge MP  
**Minister for Urban Affairs and Planning,**

Sydney,

2 March

2000

File No. S99/00410

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**SCHEDULE 1**

<b>Development Application:</b>	DA 52-03-99.
<b>Applicant:</b>	Hunter Valley Coal Corporation Pty Limited.
<b>Consent Authority:</b>	Minister for Urban Affairs and Planning
<b>Land:</b>	See Appendix 1.
<b>Proposed Development:</b>	The development of an open cut coal mine and associated surface facilities in accordance with the Environmental Impact Statement for the Ravensworth East Mine and subsequent Statements of Environmental Effects.

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## SCHEDULE 2 DEFINITIONS

Applicant	Hunter Valley Coal Corporation Pty Ltd, or its successors
BCA	Building Code of Australia
Biodiversity Offset Strategy	The revegetation and enhancement program described in the <i>Environment Impact Statement</i> for the Mt Owen Operations project, dated December 2003
CCC	Community Consultative Committee
Council	Singleton Shire Council
DA	Development Application
Day	Day is defined as the period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning and Environment
DRE	Division of Resources and Energy, within the NSW Department of Industry
EIS	Environmental Impact Statement titled <i>Ravensworth East Mine – Environmental Impact Statement</i> , dated January 1999
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
Evening	Evening is defined as the period from 6 pm to 10 pm
GTA	General Terms of Approval
HCFFAC	Hunter Coalfield Flora and Fauna Advisory Committee: the committee established by the Secretary to provide advice on flora and flora management in the Hunter Coalfield (or specific mines in the Hunter Coalfield). However, until this committee is established the current Mt Owen Interagency Advisory Group will carry out any function assigned to the HCFFAC in the conditions of consent.
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Minister	Minister for Planning, or delegate
MOD 1 EA	Modification application 52-03-99 MOD 1 and accompanying documents titled <i>Modification to the Ravensworth East Open Cut Coal Mine Consent</i> , dated May 2000
MOD 2 EA	Modification application 52-03-99 MOD 2 and accompanying documents titled <i>Mount Owen Mine Stage 3 Tailings Emplacement Area</i> , dated November 2002
MOD 3 EA	Modification application 52-03-99 MOD 3 and accompanying documents titled <i>Modifications to Coal Receival and Tailings Disposal System – Mt Owen and Ravensworth East Mines</i> , dated December 2003
MOD 4 EA	Modification application 52-03-99 MOD 4 and accompanying letter dated 8 April 2005 and attachment titled <i>Overview and Justification for Proposed Modifications to DA 52-03-99 for Ravensworth East Mine</i>
MOD 6 EA	Modification application 52-03-99 MOD 6 and accompanying documents titled <i>Greater Ravensworth Tailings Pipeline</i>

*Modification Environmental Assessment, dated November 2015, including the response to submissions dated December 2015*

Night	Night is defined as the period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
Privately owned land	Land that is not owned by a public agency, or a mining company or its subsidiary
Receiver	As defined in the <i>NSW Industrial Noise Policy</i> (EPA 2000)
RMS	Roads and Maritime Services
ROM	Run of Mine
Secretary	Secretary of the Department, or nominee
Site	Land to which the DA applies

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**Red type represents the July 2000 modification**  
**Pink type represents the June 2003 modification**  
**Orange type represents the May 2004 modification**  
**Blue Type represents the August 2005 modification**  
**Green Type represents the February 2016 modification**

## **SCHEDULE 3 ADMINISTRATIVE CONDITIONS**

### **Obligation to Minimise Harm to the Environment**

1. The Applicant shall 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 shall:
  - (a) carry out the development generally in accordance with the EIS, MOD 1 EA, MOD 2 EA, MOD 3 EA, MOD 4 EA and MOD 6 EA; and
  - (b) comply with the conditions of this consent and the Tailings Pipeline Development Layout Plan.

*Notes: The Tailings Pipeline Development Layout Plan is shown in Appendix 2.*

3. If there is any inconsistency between the documents in condition 2(a), the most recent documents shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over documents in condition 2(a) to the extent of any inconsistency.
4. The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any reports, plans or correspondence that are submitted in accordance with this consent; and
  - (b) the implementation of any actions or measures contained in these reports, plans or correspondence.

### **Limits on Approval**

5. This consent shall lapse 21 years after a mining lease is granted pursuant to this consent.
6. The Applicant shall not extract more than 4 million tonnes of ROM coal a year from the Ravensworth East Mine.
7. The Applicant may transport up to 4 million tonnes of ROM coal a year to the Mt Owen mine for processing and export by rail.

### **Structural Adequacy**

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

*Notes:*

- *Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of development.*

- *The development is located partly 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 in a Mine Subsidence District.*

## **Demolition**

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

## **Operation of Plant and Equipment**

10. The Applicant shall ensure that all plant and equipment used at the site is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## **Contributions to Council**

11. The Applicant shall pay the following contributions to Singleton Council in accordance with the provisions of its Section 94 Contributions Plan No. 1:
  - (a) community facilities: \$900 per additional employee in the event that numbers at Ravensworth East mine are increased above 260. Numbers are to be recorded in the **Annual Review** and the contribution will be due at the time whenever employee numbers are increased; and
  - (b) Hebden Road upgrading and maintenance: \$8,000 (1999 dollars) per annum to be paid as from 1 July each financial year upon commencement of operation.

*Note: The above contributions are subject to annual adjustment in accordance with movements in the Consumer Price Index – All Ordinaries Group (Sydney).*

## **Interaction with Mt Owen Coal Mine**

12. The Applicant may combine any of the environmental management, monitoring or reporting requirements under this consent with those required under the Mt Owen development consent (DA 14-1-2004), including:
  - Environmental Management Plans;
  - Environmental Management Strategies;
  - Environmental Monitoring Programs;
  - Annual **Reviews**;
  - Independent Environmental Audits;
  - Community Consultative Committee; and
  - systems for public access to information, to the satisfaction of the **Secretary**.

**SCHEDULE 4  
SPECIFIC ENVIRONMENTAL CONDITIONS**

**NOISE**

**Noise Impact Assessment Criteria**

1. The applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria in Table 1.

*Table 1: Noise impact assessment criteria dB(A)*

<i>Day</i> <i>L<sub>Aeq</sub>(15 minute)</i>	<i>Evening/Night</i> <i>L<sub>Aeq</sub>(15 minute)</i>	<i>Night</i> <i>L<sub>AI</sub>(1 minute)</i>	<i>Land Number</i>
35	35	45	All privately owned land.

However, if the Applicant has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and the EPA, then the Applicant may exceed the noise limits in Table 2 in accordance with the negotiated noise agreement.

*Notes:*

(a) Noise from the development is to be measured at the most affected point or 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<sub>Aeq</sub>(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 shall also be applied to the measured noise levels where applicable.

(b) Noise from the development is to be measured at 1 metre from the dwelling façade to determine compliance with the *L<sub>AI</sub>(1 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).

(c) The noise emission limits identified in the above table apply under meteorological conditions of:

- Wind speeds of up to 3 m/s at 10 metres above ground level; or
- Temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.

**Land Acquisition Criteria**

2. If the noise generated by the development exceeds the criteria in Table 2, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 9-11 of schedule 5.

Table 2: Land acquisition criteria dB(A)

<i>Day/Evening/Night</i> <i>L<sub>Aeq</sub>(15 minute)</i>	<i>Land</i>
40	All privately owned land

Note: Noise generated by the development is to be measured in accordance with the notes presented below Table 1.

### Cumulative Noise Criteria

3. The Applicant shall take all reasonable and feasible measures to ensure that the noise generated by the development combined with the noise generated by other mines does not exceed the following amenity criteria on any privately owned land:
  - *L<sub>Aeq</sub>(11 hour)* 50 dB(A) – Day;
  - *L<sub>Aeq</sub>(4 hour)* 45 dB(A) – Evening; and
  - *L<sub>Aeq</sub>(9 hour)* 40 dB(A) – Night.
  
4. If the cumulative noise generated by the development combined with the noise generated by other mines exceeds the following amenity criteria on any privately owned land, then upon receiving a written request from the landowner, the Applicant shall acquire the land on as equitable basis as possible with the relevant mines, in accordance with the procedures in conditions 7 - 9 of schedule 5:
  - *L<sub>Aeq</sub>(11 hour)* 53 dB(A) – Day;
  - *L<sub>Aeq</sub>(4 hour)* 48 dB(A) – Evening; and
  - *L<sub>Aeq</sub>(9 hour)* 43 dB(A) – Night.

### Monitoring

5. By the end of June 2005, the Applicant shall prepare a Noise Monitoring Program for the development, to the satisfaction of the Secretary. The Noise Monitoring Program shall include a combination of real-time and supplementary attended monitoring measures, and a noise monitoring protocol for evaluating compliance with the noise criteria in this consent.

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

### Continuous Improvement

6. The Applicant shall:
  - (a) investigate ways to reduce the noise generated by the development, including maximum noise levels which may result in sleep disturbance;
  - (b) implement all reasonable and feasible best practice noise mitigation measures on the site; and
  - (c) report on these investigations and the implementation of any new noise mitigation measures on site in the Annual Review, to the satisfaction of the Secretary.

## BLASTING AND VIBRATION

### Airblast Overpressure Criteria

7. The Applicant shall ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 3 at any residence on privately owned land.

*Table 3: Airblast overpressure impact assessment criteria*

<b>Airblast overpressure level (dB(Lin Peak))</b>	<b>Allowable exceedance</b>
115	5% of the total number of blasts over a period of 12 months
120	0%
126	Ravensworth Homestead

### Ground Vibration Impact Assessment Criteria

8. The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 4 at any residence on privately owned land.

*Table 4: Ground vibration impact assessment criteria*

<b>Peak particle velocity (mm/s)</b>	<b>Allowable exceedance</b>
5	5% of the total number of blasts over a period of 12 months
10	0%

### Blasting Hours

9. The Applicant shall only carry out blasting at the development between 9 am and 5 pm (EST) and 9 am and 6 pm (DST) Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the **EPA**.

### Blasting Frequency

10. The Applicant shall not carry out more than 2 blasts a day at the site without the written approval of the **Secretary**.

## **Blast Management Plan**

11. By the end of June 2005, the Applicant shall prepare a Blast Management Plan for the development, in consultation with the CCC, and to the satisfaction of the **Secretary**. This plan must include:
  - (a) a description of what actions and measures would be implemented to:
    - ensure the safety of people, property and livestock;
    - minimise the dust and fume emissions from blasting at the development, particularly during adverse meteorological conditions; and
    - minimise the cumulative impacts of blasting (associated with blasting at the development and at surrounding mines – such as Mt Owen, Ashton, Camberwell and Glendell); and
  - (b) a detailed Blast Monitoring Program, which is to include monitoring at the Ravensworth Homestead for the life of the development.

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

12. Within 3 months of the completion of the Independent Environmental Audit (see condition 6 of schedule 6), the Applicant shall review and revise the Blast Management Plan for the development to the satisfaction of the **Secretary**.
13. If the Ravensworth East and Mt Owen coal mines are no longer owned by the same corporate entity, and prior to undertaking any blasting at the development within 500 metres of any infrastructure or services owned and operated by Mt Owen, the Applicant must reach an agreement with the owner of the Mt Owen coal mine in regards to potential blasting impacts at the development, to the satisfaction of the **Secretary**

If the matter cannot be resolved between the Applicant and the owner of the Mt Owen mine, then either party may refer the matter to the **Secretary** for resolution at any time.

## **Public Notice**

14. During the life of the development, the Applicant shall:
  - (a) notify the landowner/occupier of any residence within 3 km of the development who registers an interest in being notified about the blasting schedule at the mine;
  - (b) operate a Blasting Hotline, or alternate system agreed to by the **Secretary**, to enable the public to get up-to-date information on the blasting schedule at the development; and
  - (c) advertise the blasting hotline number in a local newspaper at least 4 times each year, to the satisfaction of the **Secretary**.

## **Property Inspections**

15. By the end of June 2005, the Applicant shall advise all landowners within 3 km of the development that they are entitled to a structural property inspection.
16. If the Applicant receives a written request for a structural property inspection from any landowner within 3 km of the development, the Applicant shall within 3 months of receiving this request:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Secretary**, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and
- (b) give the landowner a copy of the property inspection report.

**Property Investigations**

- 17. If any landowner within 3 km of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the development, the Applicant shall within 3 months of receiving this request:
  - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Secretary**, to investigate the claim; and
  - (b) 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 damages to the satisfaction of the **Secretary**.

If the Applicant or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the **Secretary** for resolution.

**AIR QUALITY**

**Impact Assessment Criteria**

- 18. The Applicant shall ensure that the dust emissions generated by the development do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 5, 6 and 7 at any residence on, or on more than 25 percent of, any privately owned land.

*Table 5: Long term impact assessment criteria for particulate matter*

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

*Table 6: Short term impact assessment criterion for particulate matter*

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

*Table 7: Long term impact assessment criteria for deposited dust*

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

*Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.*

### Land Acquisition Criteria

19. If the dust emissions generated by the development exceed the criteria in Tables 8, 9 or 10 at any residence on, or on more than 25 percent of, any privately owned land, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 9-11 of schedule 5.

*Table 8: Long term land acquisition criteria for particulate matter*

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

*Table 9: Short term land acquisition criteria for particulate matter*

Pollutant	Averaging period	Criterion	Percentile <sub>1</sub>	Basis
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	150 µg/m <sup>3</sup>	99 <sup>2</sup>	Total <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	98.6	Increment <sup>4</sup>

<sup>1</sup>Based on the number of block 24 hour averages in an annual period.

<sup>2</sup>Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with the EPA.

<sup>3</sup>Background PM<sub>10</sub> concentrations due to all other sources plus the incremental increase in PM<sub>10</sub> concentrations due to the mine alone.

<sup>4</sup>Incremental increase in PM<sub>10</sub> concentrations due to the mine alone.

*Table 10: Long term land acquisition criteria for deposited dust*

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
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Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month
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*Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.*

### Operating Conditions

20. The Applicant shall:
- ensure any visible air pollution generated by the development is assessed regularly, and that mining operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately owned land;
  - ensure real-time air quality monitoring for 24-hour average PM<sub>10</sub> and the meteorological monitoring data are assessed regularly, and that mining operations are relocated, modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and
  - implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion at the development.
- to the satisfaction of the **Secretary**.

### Monitoring

21. By the end of June 2005, the Applicant shall prepare a detailed Air Quality Monitoring Program to the satisfaction of the **Secretary**. The Air Quality Monitoring Program shall include a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the dust emissions of the development; and an air quality monitoring protocol for evaluating compliance with the air quality criteria in this consent.

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

### METEOROLOGICAL MONITORING

22. The Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the development in accordance with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales*, and to the satisfaction of **EPA** and the **Secretary**.

### SURFACE AND GROUNDWATER

#### Discharge Limits

23. The Applicant shall only discharge water from the development in accordance with the provisions of a **EPA** Environment Protection Licence and the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.

#### Site Water Balance

24. The Applicant shall:

- (a) prepare a detailed site water balance for the development;
- (b) measure:
  - water use on site;
  - water transfers across the site;
  - water transfers between the site and surrounding mines;
- (c) review the site water balance for the development annually; and
- (d) report the results of this review in the **Annual Review**, to the satisfaction of the **Secretary**.

### **Erosion of Sediment Control**

25. The Applicant shall implement a range of standard erosion and sediment controls at the development, in general accordance with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual.

### **Surface Water Monitoring**

26. The Applicant shall regularly monitor:
- (a) the volume and quality of water discharged from the site under the Hunter River Salinity Trading Scheme;
  - (b) surface water flows and quality upstream and downstream of the development in Yorks Creek and Swamp Creek;
  - (c) channel stability in Yorks Creek and Swamp Creek;
  - (d) long term monitoring of the condition of the Swamp Creek diversion channel and potentially affected downstream watercourses during the life of the mining lease. In the event that the monitoring identifies any adverse impacts are occurring, a plan of remediation shall be developed and implemented to the satisfaction of the **Secretary**;
  - (e) report the results of this monitoring in the **Annual Review**, to the satisfaction of the **Secretary**.

### **Ground Water Monitoring**

27. The Applicant shall regularly monitor:
- (a) the volume of ground water seeping into the open cut mine workings;
  - (b) regional groundwater levels and quality in the surrounding aquifers;
  - (c) the groundwater pressure response in the surrounding coal measures; and
  - (d) report the results of this monitoring in the **Annual Review**, to the satisfaction of the **Secretary**.

### **Water Management Plan**

28. By the end of June 2005, the Applicant shall prepare a Water Management Plan for the mine, to the satisfaction of the **Secretary**. This plan must include:
- (a) a site water balance;
  - (b) an Erosion and Sediment Control Plan;
  - (c) a Surface Water Monitoring Program;
  - (d) a Ground Water Monitoring Program; and
  - (e) a Surface and Ground Water Response Plan, to address any potential adverse impacts associated with the development.

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

29. Within 3 months of the completion of the Independent Environmental Audit (see condition 6 of schedule 6), the Applicant shall review and revise the Water Management Plan for the development to the satisfaction of the Secretary.

### **Final Void Management**

30. At least 5 years before the cessation of mining, the Applicant shall prepare a Final Void Management Plan for the development, in consultation with the DRE, and to the satisfaction of the Secretary. This plan must:
  - (a) investigate options for the future use of the final void;
  - (b) assess the potential interactions between the diversion of Swamp Creek and the final void; and
  - (c) describe what actions and measures would be implemented to:
    - minimise any potential adverse impacts associated with the final void; and
    - manage and monitor the potential impacts of the final void over time.

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

## **FLORA AND FAUNA**

### **Revegetation**

31. The Applicant shall establish and maintain at least 30 percent of the site as native woodland, to the satisfaction of the Secretary. The area of native woodland to be established on the site must allow for the future connection with the Southern Remnant of the Ravensworth State Forest following the cessation of mining and removal of existing infrastructure at the Mt Owen coal mine.

### **Flora and Fauna Management Plan**

32. By the end of August 2005, the Applicant shall prepare a Flora and Fauna Management Plan for the development to the satisfaction of the Secretary. The Plan must include:
  - (a) a flora and fauna monitoring program for the development.
  - (b) a detailed description of the procedures to:
    - salvage and reuse material from the site;
    - clear vegetation on site;
    - collect and propagate seed from the local area;
    - establish native bushland and post mining fauna habitat;
    - maintain revegetated areas;
    - control weeds and feral pests;
    - control access; and
    - protect and rehabilitate riparian vegetation.to the satisfaction of the Secretary

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

33. Within 3 months of the completion of the Independent Environmental Audit (see condition 6 of schedule 6), the Applicant shall review and revise the Flora and Fauna Management Plan for the development to the satisfaction of the **Secretary**.

### **Compensatory Planting**

- 33A. The Applicant shall plant and maintain, until established, 10 River Oak trees for every established River Oak tree removed during construction of the tailings pipeline under MOD 6.

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

## **TRAFFIC AND TRANSPORT**

### **Monitoring of Coal Transport**

34. The Applicant shall:
- (a) keep records of the:
    - amount of coal transported from the site each year; and
    - number of coal haulage train movements generated by the development (on a daily basis); and
  - (b) include these records in the **Annual Review**.
35. No coal shall be hauled on public roads without the approval of the **Secretary** and Council.

## **VISUAL IMPACT**

### **Visual Amenity**

36. The Applicant shall implement measures to mitigate the visual impacts, including the design and construction of development infrastructure in a manner that minimises visual contrasts, to the satisfaction of the **Secretary**.

### **Lighting Emissions**

37. The Applicant shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the development; and
  - (b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*,  
to the satisfaction of the **Secretary**.

## **GREENHOUSE GAS**

38. The Applicant shall:
- (a) monitor the greenhouse gas emissions generated by the development;
  - (b) investigate ways to reduce greenhouse gas emissions generated by the development;  
and

- (c) report on greenhouse gas monitoring and abatement measures in the **Annual Review**,  
to the satisfaction of the **Secretary**.

### **WASTE MINIMISATION**

- 39. The Applicant shall:
  - (a) monitor the amount of waste generated by the development;
  - (b) investigate ways to minimise waste generated by the development;
  - (c) implement reasonable and feasible measures to minimise waste generated by the development; and
  - (d) report on waste and management and minimisation in the **Annual Review**,  
to the satisfaction of the **Secretary**.

### **BUSHFIRE MANAGEMENT**

- 40. The Applicant shall:
  - (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; and
  - (c) prepare a conservation sensitive Bushfire Management Plan for the site in consultation with the HCFFAC, to the satisfaction of Council and the Rural Fire Service.

### **MINE CLOSURE STRATEGY**

- 41. At least 5 years prior to the cessation of mining, the Applicant shall prepare a Mine Closure Strategy for the development, in consultation with the **DRE** and Council, and to the satisfaction of the **Secretary**.

**SCHEDULE 5**  
**ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT**

**Notification of Landowners**

1. If the results of the air quality and/or noise monitoring required in schedule 4 identify that the air pollution and/or noise generated by the development is greater than any of the air quality and/or noise criteria in schedule 4, except where this is predicted in the EIS, then the Applicant shall notify the **Secretary** and the affected landowners and/or existing or future tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the air quality and/or noise criteria in schedule 4.
2. By the end of August 2005, the Applicant shall develop a brochure to advise landowners and/or existing or future tenants (including tenants of mine owned properties) of the possible health and amenity impacts associated with exposure to particulate matter, in consultation with NSW Health, and to the satisfaction of the **Secretary**.

The Applicant shall review relevant human health studies and update this brochure every 3 years, to the satisfaction of the **Secretary**.

The Applicant shall provide this brochure (and associated updates) to:

- (a) all landowners and/or existing or future tenants (including tenants of mine owned properties) in areas where the air dispersion model predictions in the EIS identify that the dust emissions generated by the development are likely to be greater than the air quality land acquisition criteria in condition 19 of schedule 4; and
- (b) all landowners and/or existing or future tenants (including tenants of mine owned properties) of properties where the monitoring results identify that the mine is exceeding the air quality land acquisition criteria in condition 19 of schedule 4.

**Independent Review**

3. If a landowner considers the development to be exceeding the air quality and/or noise criteria in schedule 4, except where this is predicted in the EIS, then he/she may ask the Applicant in writing for an independent review of the air pollution and/or noise impacts of the development on his/her land.

If the **Secretary** is satisfied that an independent review is warranted, the Applicant shall within 3 months of the **Secretary** advising that an independent review is warranted:

- (a) consult with the landowner to determine his/her concerns;
  - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Secretary**, to conduct air quality and/or noise monitoring on the land, to determine whether the development is complying with the relevant air quality and/or noise criteria in schedule 4, and identify the source(s) and scale of any air quality and/or noise impact on the land, and the development's contribution to this impact;
  - (c) give the **Secretary** and landowner a copy of the independent review.
4. If the independent review determines that the development is complying with the relevant air quality and/or noise criteria in schedule 4, then the Applicant may discontinue the independent review with the approval of the **Secretary**.

5. If the independent review determines that the development is not complying with the relevant air quality and/or noise criteria in schedule 4, and that the development is primarily responsible for this non-compliance, then the Applicant shall:
  - (a) take all practicable measures, in consultation with the landowner, to ensure that the development complies with the relevant air quality and/or noise criteria; and
  - (b) conduct further air quality and/or noise monitoring to determine whether these measures ensure compliance; or
  - (c) secure a written agreement with the landowner to allow exceedances of the air quality and/or noise criteria in schedule 4, to the satisfaction of the **Secretary**.

If the additional monitoring referred to above subsequently determines that the development is complying with the relevant air quality and/or noise criteria in schedule 4, then the Applicant may discontinue the independent review with the approval of the **Secretary**.

If the measures referred to in (a) do not achieve compliance with the air quality and/or noise land acquisition criteria in schedule 4, and the Applicant cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then the Applicant shall, upon receiving a written request from the landowner, acquire the landowner's land in accordance with the procedures in conditions 9-11 below.

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

7. If the independent review determines that the relevant air quality and/or noise land acquisition criteria in schedule 4 are being exceeded at the residence and/or on the landowner's land, and that more than one mine is responsible for this non-compliance, and the Applicant cannot secure a written agreement with the landowner to allow these exceedances within 3 months, 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 9-11 below.

If the Applicant is unable to finalise an agreement with the landowner and/or other mine/s, then the Applicant or landowner may refer the matter to the **Secretary** for resolution.

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

## Land Acquisition

9. 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 property at the date of this written request, as if the property was unaffected by the development the subject of the DA, 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 property and/or any approved building or structure which has been physically commenced 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 local government area, or to any other local government area determined by the **Secretary**;
    - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; 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** shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

If either party disputes the independent valuer's determination, then the independent valuer should refer the matter back to the **Secretary**.

Upon receiving such a referral, the **Secretary** shall appoint a panel comprising the:

- (i) appointed independent valuer;
  - (ii) **Secretary** and/or nominee/s; and
  - (iii) President of the Law Society of NSW or nominee,
- to consider submissions from both parties, including meeting with the parties individually if requested, and to determine a fair and reasonable acquisition price for the land, and/or the terms upon which the land is to be acquired.

Within 14 days of receiving the panel's determination, the Applicant shall make a written offer to purchase the land at a price not less than the panel's determination.

If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the **Secretary**.

10. The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the **Secretary** and the costs of determination referred above.

11. If the Applicant and landowner agree that only part of the land shall be acquired, then the Applicant shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General.

**SCHEDULE 6**  
**ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND**  
**REPORTING**

**ENVIRONMENTAL MANAGEMENT STRATEGY**

1. By the end of June 2005, the Applicant shall prepare an Environmental Management Strategy for the development to the satisfaction of the **Secretary**. This strategy must:
  - (a) provide the strategic context for environmental management of the development;
  - (b) identify the statutory requirements that apply to the development;
  - (c) describe in general how the environmental performance of the development would be monitored and managed during the development;
  - (d) 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;
    - manage cumulative impacts; and
    - respond to emergencies;
  - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development; and
  - (f) be updated following each Independent Environmental Audit required by condition 6 below.

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

2. Within 3 months of the completion of the Independent Environmental Audit (see condition 6 below), the Applicant shall review, and if necessary revise, the Environmental Management Strategy to the satisfaction of the **Secretary**.

**ENVIRONMENTAL MONITORING PROGRAM**

3. By the end of June 2005, the Applicant shall prepare an Environmental Monitoring Program for the development in consultation with relevant agencies, and to the satisfaction of the **Secretary**. This program must consolidate the various monitoring requirements in schedule 4 of this consent into a single document.
4. Within 3 months of the completion of the Independent Environmental Audit (see condition 6 below), the Applicant shall review, and if necessary revise, the Environmental Monitoring Program to the satisfaction of the **Secretary**.

**ANNUAL REVIEW**

5. By the end of March each year, unless the **Secretary** agrees otherwise, the Applicant shall review 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;
  - monitoring results of previous years; and
  - relevant predictions in the documents in condition 2(a) of Schedule 3;
- (c) identify any non-compliance over the past 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.

## **INDEPENDENT ENVIRONMENTAL AUDIT**

6. At the end of Year 3 of the development, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
  - (a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Secretary;
  - (b) be consistent with *ISO 19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing*, or updated versions of these guideline;
  - (c) assess the environmental performance of the development, and its effects on the surrounding environment;
  - (d) assess whether the development is complying with the relevant standards, performance measures, and statutory requirements;
  - (e) review the adequacy of the Applicant's Environmental Management Plans, Environmental Management Strategy and Environmental Monitoring Programs required under this consent; and
  - (f) if necessary, recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.
7. Within 3 months of commissioning this audit, the Applicant shall submit a copy of the audit report to the Secretary, with a response to any of the recommendations contained in the audit report.

## **COMMUNITY CONSULTATIVE COMMITTEE**

8. The Applicant shall operate a CCC for the development to the satisfaction of the Secretary. This CCC must be operated in accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments (Department of Planning, 2007), or its latest version or replacement.

### *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, environmental groups and the local community.*

- *The Applicant may, with the approval of the Secretary, combine the function of this CCC with the function of other CCCs in the area; however, if it does this it must ensure that the above obligations are fully met in the combined process.*

9. *Deleted*

10. The Applicant shall establish a trust fund to be managed by the Chair of the Committee to facilitate the functioning of the Committee, and pay \$2000 per annum to the fund for the duration of mining in the DA area, or as otherwise directed by the **Secretary**. The monies are to be used only if required for the engagement of consultants to interpret technical information and the like. The annual payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting. A record of the finances of the trust fund during each year shall be provided to the **Secretary** and Applicant by the Chair on each anniversary of the first payment. Any unspent monies shall be returned to the Applicant each year.

## **ACCESS TO INFORMATION**

11. The Applicant shall:

(a) make copies of the following publicly available on its website:

- the documents in condition 2(a) 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 Annual Reviews;
- any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
- any other matter required by the Secretary; and

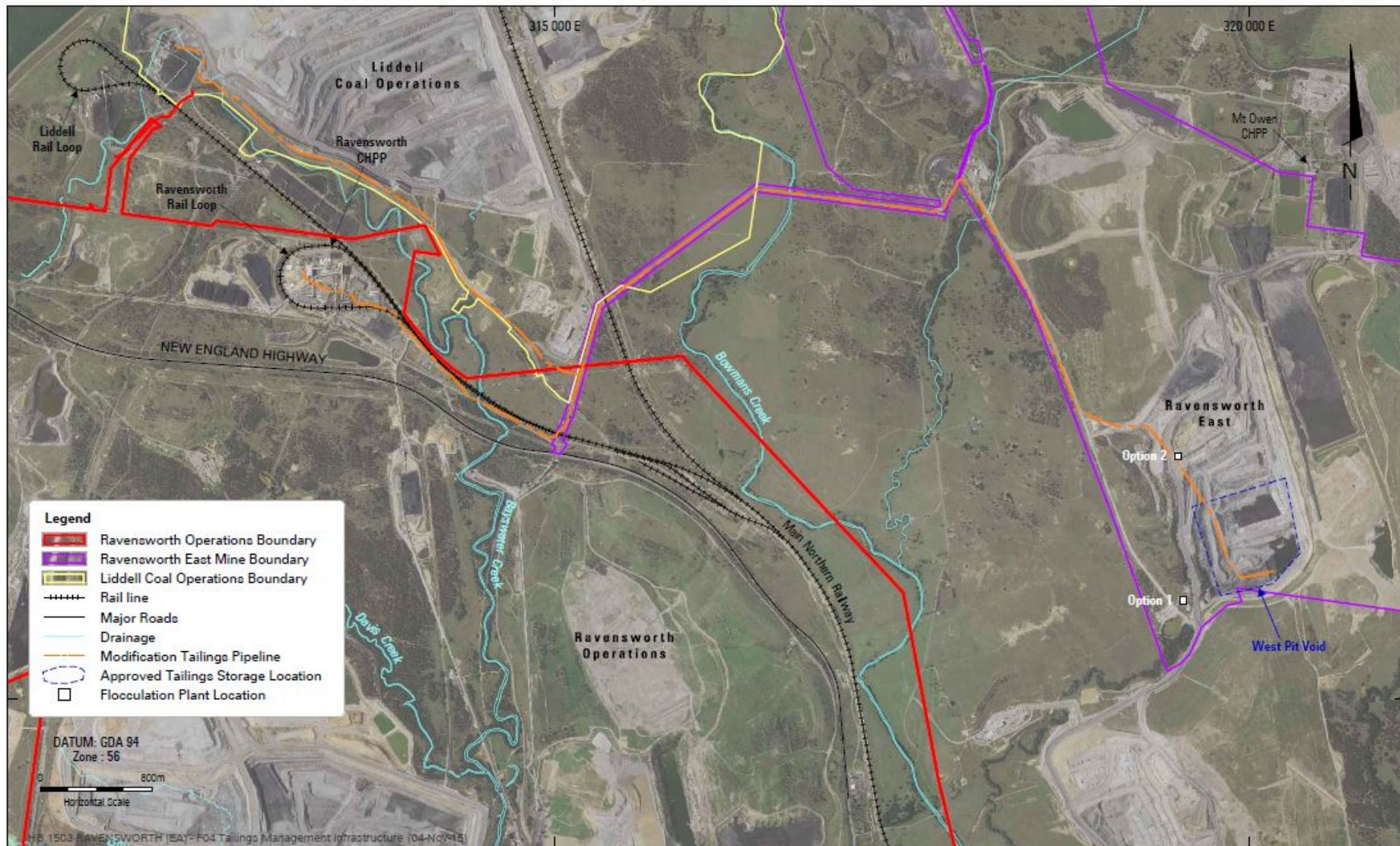
(b) keep this information up-to-date, to the satisfaction of the Secretary.

12. *Deleted*

**APPENDIX 1  
SCHEDULE OF LAND**

<b>Portion (Lots)</b>	<b>DP Number</b>	<b>Owner</b>
Lot 352	867083	Enex Ravensworth Pty Limited
Lot 1	303842	Enex Ravensworth Pty Limited
Lot 1	303843	Enex Ravensworth Pty Limited
Lot 11	6842	Enex Ravensworth Pty Limited
Lot 9	6842	Enex Ravensworth Pty Limited
Lot 1	135026	Enex Ravensworth Pty Limited
Lot 1	135027	Enex Ravensworth Pty Limited
Lot 232	752470	Enex Ravensworth Pty Limited
Lot 32	535087	Enex Ravensworth Pty Limited
Lot 2	865784	Enex Ravensworth Pty Limited
Lot 2	859544	Enex Ravensworth Pty Limited
Lot 3	859544	Enex Ravensworth Pty Limited
Lot 180	858299	Hunter Valley Coal Corporation Pty Limited
Lot 22	841165	Hunter Valley Coal Corporation Pty Limited
Lot 25	841160	Hunter Valley Coal Corporation Pty Limited
Lot 2	730978	Budroll Pty Limited
Lot 13	665120	Hunter Valley Coal Corporation Pty Limited
Lots 13 & 15	247945	Macquarie Generation
Former Great North Railway between Lots 13 & 15 DP 247945 and Lot 180 DP 858299		Rail Estate
Over Lot 2	233019	Rail Estate
Lot 1	865784	Glendell Tenements Pty Limited

**APPENDIX 2  
TAILINGS PIPELINE DEVELOPMENT LAYOUT PLAN**



**Figure 1: Greater Ravensworth tailings management infrastructure**

