

# Development Consent

## Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

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



Oliver Holm  
Executive Director  
Resource Assessments & Compliance

Sydney

29/9/

2015

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### SCHEDULE 1

<b>Application Number:</b>	SSD-5145
<b>Applicant:</b>	Centennial Northern Coal Services Pty Limited
<b>Consent Authority:</b>	Minister for Planning
<b>Land:</b>	See Appendix 1
<b>Development:</b>	Northern Coal Services Project

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## TABLE OF CONTENTS

<b>DEFINITIONS</b>	<b>1</b>
<b>ADMINISTRATIVE CONDITIONS</b>	<b>3</b>
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT	3
TERMS OF CONSENT	3
LIMITS ON CONSENT	3
STRUCTURAL ADEQUACY	4
DEMOLITION	4
OPERATION OF PLANT AND EQUIPMENT	4
<b>ENVIRONMENTAL CONDITIONS – GENERAL</b>	<b>5</b>
NOISE	5
AIR QUALITY AND GREENHOUSE GAS	7
METEOROLOGICAL MONITORING	8
WATER	8
BIODIVERSITY	10
HERITAGE	11
TRAFFIC & TRANSPORT	11
VISUAL	11
WASTE	11
BUSHFIRE MANAGEMENT	12
REHABILITATION	12
<b>ADDITIONAL PROCEDURES</b>	<b>14</b>
NOTIFICATION OF LANDOWNERS	14
INDEPENDENT REVIEW	14
<b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	<b>15</b>
ENVIRONMENTAL MANAGEMENT	15
REPORTING	17
INDEPENDENT ENVIRONMENTAL AUDIT	17
ACCESS TO INFORMATION	17
<b>APPENDIX 1: SCHEDULE OF LAND</b>	<b>19</b>
<b>APPENDIX 2: DEVELOPMENT LAYOUT</b>	<b>22</b>
<b>APPENDIX 3: NOISE ASSESSMENT</b>	<b>25</b>
<b>APPENDIX 4: NOISE RECEIVERS</b>	<b>26</b>
<b>APPENDIX 5: ABORIGINAL CULTURAL HERITAGE</b>	<b>28</b>
<b>APPENDIX 6: APPLICANT'S STATEMENT OF COMMITMENTS</b>	<b>30</b>

## DEFINITIONS

Annual review	The review of operations required by Condition 11 of Schedule 5
Applicant	Centennial Northern Coal Services Pty Limited, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
ARI	Annual recurrence interval
BCA	Building Code of Australia
Built features	Includes any building or work erected or constructed on land, including dwellings, outbuildings and infrastructure such as any formed road, street, path, walk, or driveway and any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
CES	Cooranbong Entry Site, as shown in Figure 2 of Appendix 2
CPP	Coal preparation plant
Conditions of this consent	Conditions contained in Schedules 2 to 5 inclusive
Coal transportation and processing operations	Includes the following, where carried out on the site: <ul style="list-style-type: none"> <li>• processing, handling and storage of coal;</li> <li>• transportation of coal by private haul road, conveyor or rail; and</li> <li>• transportation and emplacement of coal rejects and tailings</li> </ul>
Construction activities	The construction works at the CES and NCSS, including construction of coal stockpiles, the CPP, piping of LT Creek, pollution control works and automation of coal handling facilities as described in the EIS
CPI	Consumer Price Index, as published by the Australian Bureau of Statistics
DA 73-11-98	Development consent for the Newstan Colliery Lease Extension Area, granted on 14 May 1999, as since modified
DA 97/800	Development consent for the Mandalong Mine, granted on 14 October 1998, as since modified
Day	The period from 7.00 am to 6.00 pm on Monday to Saturday, and 8.00 am to 6.00 pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the EIS
DPI-Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the Department of Trade & Investment, Regional Infrastructure & Services
EIS	Environmental Impact Statement titled <i>Northern Coal Logistics Project Environmental Impact Statement</i> , dated September 2014; associated response to issues raised in submissions, titled <i>Northern Coal Logistics Project Response to Submissions</i> , dated February 2015; and additional information regarding residual concerns, titled <i>Mandalong Southern Extension Project Response to RTS Report</i> , dated April 2015
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>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6.00 pm to 10.00 pm
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
Ha	Hectare
Heritage item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i>
HLLS	Hunter Local Land Services
Incident	A set of circumstances that: <ul style="list-style-type: none"> <li>• causes or threatens to cause material harm to the environment; and/or</li> <li>• breaches or exceeds the limits or performance measures/criteria in this consent</li> </ul>
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
LMCC	Lake Macquarie City Council
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development prior to

Morning shoulder period	or during those impacts occurring The period from 6am to 7am, Monday to Saturday, and 6am to 8am on Sunday and Public Holidays
MSB	Mine Subsidence Board
NCSS	Newstan Colliery Surface Site as shown in Figure 3 of Appendix 2
Night	The period from 10pm to 7am on Monday to Saturday, and 10.00 pm to 8.00 am on Sundays and Public Holidays. Where a Morning Shoulder period applies, the Night period reduces to the period from 10pm to 6am
OEH	Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or a mining or power generation company (or its subsidiary)
Product coal	Saleable coal transported from the site, whether processed or unprocessed
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
Registered Aboriginal Parties	Aboriginal community stakeholders listed in Table 1 of Appendix 5
Rehabilitation	The restoration of land disturbed by the development to a good condition to ensure it is safe, stable and non-polluting
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact
ROM coal	Run-of-mine coal
Secretary	The Secretary of the Department, or nominee
Site	All land to which the development application applies as listed in Appendix 1 and shown in Appendix 2
Statement of Commitments	The Applicant's commitments, as set out in the EIS, and shown in Appendix 6

## **SCHEDULE 2 ADMINISTRATIVE CONDITIONS**

### **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT**

1. In addition to meeting the specific performance measures and criteria established under this consent, the Applicant shall implement all reasonable and feasible 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 CONSENT**

2. The Applicant shall carry out the development:
  - (a) generally in accordance with the EIS;
  - (b) in accordance with the Development Layout and Statement of Commitments; and
  - (c) in accordance with the conditions of this consent.

*Note: The Development Layout is shown in the figures in Appendix 2.*

3. If there is any inconsistency between the above documents, the more recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail 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 strategies, plans, programs, reviews, audits, reports or correspondence submitted in accordance with this consent; and
  - (b) the implementation of any actions or measures contained in these documents.

### **LIMITS ON CONSENT**

#### **Coal Transportation and Processing Operations**

5. The Applicant may carry out coal transportation and processing operations on the site until 31 December 2045.

*Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or DRE. Consequently this consent will continue to apply in all other respects other than the right to conduct coal transportation and processing operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.*

6. In any calendar year, the Applicant shall not:
  - (a) receive, handle or process more than 8 million tonnes of ROM coal at the NCSS site;
  - (b) transport more than 6 million tonnes of ROM coal from the CES to the NCSS;
  - (c) transport more than 6 million tonnes of ROM coal from the CES to Eraring Power Station;
  - (d) receive more than 4.5 million tonnes of ROM coal from Newstan Colliery at the NCSS;
  - (e) transport more than 0.88 million tonnes of ROM coal from Awaba Colliery to the NCSS;
  - (f) transport more than 4.5 million tonnes of product coal from the NCSS to Eraring Power Station;
  - (g) transport more than 0.5 million tonnes of product coal (middlings) from NCSS to CES; and
  - (h) transport more than 8 million tonnes of product coal from the NCSS by rail.
7. The Applicant shall not despatch more than 8 trains from the site in any day.
8. Prior to transporting more than 5.5 million tonnes of coal by rail in any calendar year, the Applicant shall construct the automated coal recovery and train loading system as proposed in the EIS, to the satisfaction of the Secretary. Following its construction, the Applicant shall use the automated coal recovery and train loading system for all transport of coal by rail.

#### **Hours of Operation**

9. The Applicant shall comply with the operating hours in Table 1.

**Table 1: Operating hours**

<b>Activity</b>	<b>Operating Hours</b>
Coal transportation and processing operations; maintenance activities	24 hours a day, 7 days per week
Construction activities	7.00 am to 6.00 pm on Monday to Friday, and 8.00 am to 1.00 pm on Saturday, with no construction activities on Sunday or on public holidays

*Note: This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons regarding works which may need to be undertaken to avoid loss of life, property loss and/or to prevent environmental harm.*

### **STRUCTURAL ADEQUACY**

10. The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures that are part of the development ,are constructed in accordance with:
- the relevant requirements of the BCA; and
  - any additional requirements of the MSB, where the building or structure is located on land within a declared Mine Subsidence District.

*Notes:*

- Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*
- Under Section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the MSB's approval before subdivision or constructing any improvements in a Mine Subsidence District.*

### **DEMOLITION**

11. 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**

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

**SCHEDULE 3  
ENVIRONMENTAL CONDITIONS – GENERAL**

**NOISE**

**Construction Noise**

1. The Applicant shall ensure that the noise generated by construction activities is managed in accordance with the requirements of the *Interim Construction Noise Guideline* (DECC, 2009), as may be updated from time to time.

**Operational Noise Criteria**

2. Until the automated coal recovery and train loading system required by condition 8 of Schedule 2 is in use, the Applicant shall ensure that the operational noise generated by the development (including maintenance activities) does not exceed the criteria in Table 2 at any residence on privately-owned land.

**Table 2: Operational Noise Criteria**

Receiver	Noise Limit (dB(A))				
	Morning Shoulder ( $L_{Aeq}(15\ min)$ )	Day ( $L_{Aeq}(15\ min)$ )	Evening ( $L_{Aeq}(15\ min)$ )	Night ( $L_{Aeq}(15\ min)$ )	Night ( $L_{A1}(1\ min)$ )
NC2	36	36	35	35	45
NC3, Residences around NC6	40	40	39	39	45
22, 23, 26, 28, 32	-	35	35	35	45
All other residences on privately-owned land	-	35	35	35	45
		( $L_{Aeq}(1\ hour)$ )			
NC6 (school), when in use	-	45 (external to school building)	-	-	-

Notes to Table 2:

- The receiver locations in Table 2 are shown in Figures 1 and 2 of Appendix 4.
- Criteria for the Morning Shoulder period only applicable where these have been specifically developed for this period.

Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. Appendix 3 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has an agreement with the relevant landowner to exceed the noise criteria in Table 2, and the Applicant has advised the Department in writing of the terms of this agreement.

3. Once the automated coal recovery and train loading system required by condition 8 of Schedule 2 is in use, and thereafter, the Applicant shall ensure that the operational noise generated by the development (including maintenance activities) does not exceed the criteria in Table 3 at any residence on privately-owned land.

**Table 3: Operational Noise Criteria**

Receiver	Noise Limit (dB(A))				
	Morning Shoulder ( $L_{Aeq}(15\ min)$ )	Day ( $L_{Aeq}(15\ min)$ )	Evening ( $L_{Aeq}(15\ min)$ )	Night ( $L_{Aeq}(15\ min)$ )	Night ( $L_{A1}(1\ min)$ )
NC2	35	35	35	35	45
NC3, Residences around NC6	38	38	37	37	45
22, 23, 26, 28, 32	-	37	37	37	45

All other residences on privately-owned land	-	35	35	35	45
		<i>(L<sub>Aeq</sub>(1 hour))</i>			
NC6 (school), when in use	-	45 (external to school building)	-	-	-

Notes to Table 3:

- The receiver locations in Table 3 are shown in Figures 1 and 2 of Appendix 4.
- Criteria for the Morning Shoulder period only applicable where these have been specifically developed for this period.

Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. Appendix 3 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has an agreement with the relevant landowner to exceed the noise criteria in Table 3, and the Applicant has advised the Department in writing of the terms of this agreement.

### Operating Conditions

4. The Applicant shall:
- implement best management practice to minimise the construction, operational, road and rail noise of the development;
  - operate an on-site noise management system that uses a combination of predictions, forecasting and real-time and attended noise monitoring of all noise associated with the development, to ensure compliance with the relevant conditions of this consent, including noise during construction and operations;
  - minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 3); and
  - regularly assess noise monitoring data to determine whether the development is complying with the relevant conditions of consent, to the satisfaction of the Secretary.

### Noise Management Plan

5. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
  - be submitted to the Secretary for approval by 31 March 2016 unless otherwise agreed by the Secretary;
  - describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent;
  - describe the proposed noise management system in detail;
  - include a monitoring program that evaluates and reports on:
    - the effectiveness of the on-site noise management system;
    - compliance against the noise criteria in this consent; and
    - compliance with the noise operating conditions in condition 4 above;
  - include a program to calibrate and validate the real-time monitoring results with the attended monitoring results over time, so the real-time noise monitoring program can be used to better indicate compliance with the noise criteria in this consent, and trigger further attended monitoring as necessary;
  - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents; and
  - outlines procedures to manage responses to any complaints or issues raised by the owners of affected residences.

## AIR QUALITY & GREENHOUSE GAS

### Odour

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

## Air Quality Criteria

7. 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 cause exceedances of the criteria in Table 4 at any residence on privately-owned land.

**Table 4: Air quality criteria**

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

*Notes to Table 4:*

*a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).*

*b Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).*

*c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.*

*d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.*

*e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 9 and 10 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.*

## Mitigation Measures

8. If the development causes an exceedance of the air quality criteria in Table 4, the Applicant shall, upon receiving a written request for air quality mitigation measures from the landowner, undertake air quality mitigation measures directed towards reducing the potential human health and amenity impacts of the development at a residence. These measures may include (for example):
- air conditioning, including heating;
  - first flush water systems;
  - installation and regular replacement of water filters;
  - cleaning of rainwater tanks;
  - clothes dryers; and
  - regular cleaning or any residence and its related amenities, such as barbeque areas and swimming pools.

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

## Operating Conditions

9. The Applicant shall:
- implement all reasonable and feasible measures to minimise the:
    - off-site odour and dust emissions of the development; and
    - release of greenhouse gas emissions from the development;
  - minimise any visible air pollution generated by the development;
  - minimise the surface disturbance of the site;
  - operate a comprehensive air quality management system to ensure compliance with the relevant conditions of this consent; and
  - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note *d* to Table 4 above), to the satisfaction of the Secretary.

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

10. The Applicant shall prepare and implement an Air Quality & Greenhouse Gas Management Plan for the development, to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
  - (b) be submitted to the Secretary for approval by 31 March 2016, unless otherwise agreed by the Secretary;
  - (c) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
  - (d) describe the on-site air quality management system in detail; and
  - (e) include an air quality monitoring program that:
    - adequately supports the air quality management system;
    - includes PM<sub>2.5</sub> monitoring;
    - includes the use of real-time monitors to evaluate the performance of the development;
    - evaluates and reports on:
      - compliance with the air quality criteria;
      - the effectiveness of the air quality management system; and
      - compliance against the air quality operating conditions in condition 9 above;
    - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

## **METEOROLOGICAL MONITORING**

11. For the life of the development, the Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
  - (b) is capable of continuous real-time measurement of the atmospheric stability category determined by the sigma theta method in accordance with the *NSW Industrial Noise Policy*.

## **WATER**

### **Water Supply**

12. The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of its operations to match its available water supply.

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

### **Water Pollution**

13. Unless an EPL authorises otherwise, the Applicant shall comply with Section 120 of the POEO Act.
14. The Applicant shall implement all reasonable and feasible measures to reduce water pollution associated with the discharge of mine-water (particularly salinity and dissolved or suspended metals associated with groundwater pumped from underground mine workings) required to comply with any EPL applying to the development.

### **Mine-Water Discharges Management Plan**

15. The Applicant shall prepare and implement a Mine-Water Discharges Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
  - (b) be submitted to the Secretary for approval by 30 June 2016 unless otherwise agreed by the Secretary;
  - (c) describe the measures that would be implemented to ensure compliance with conditions 13 and 14 and relevant performance measures in Table 5;
  - (d) include targets, developed in co-operation with the EPA, to reduce acute and chronic toxicity from mine-water discharged from both the NCSS and CES to achieve the in-stream water quality and aquatic ecology objectives and criteria required by condition 16 below;
  - (e) include measures, developed in co-operation with the EPA to be implemented over 2-year, 10-year and life-of-project timeframes to reduce the salinity and metals toxicity in mine-water discharged from both the NCSS and CES to achieve these targets; and
  - (f) take into account relevant requirements of the Water Management Plan required by condition 17 below.

## Water Management Performance Measures

16. The Applicant shall comply with the performance measures in Table 5, to the satisfaction of the Secretary.

**Table 5: Water Management Performance Measures**

<b>Feature</b>	<b>Performance Measure</b>
Potable Water	<ul style="list-style-type: none"> <li>Minimise the use of potable water from the public supply for purposes where non-potable water is acceptable.</li> </ul>
Site (as a whole)	<ul style="list-style-type: none"> <li>Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1, Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i>.</li> <li>Design, install and maintain any infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land</i> (DPI 2012), or the latest version.</li> <li>Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (NSW Fisheries 2003) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or the latest versions.</li> </ul>
Sediment Dams	<ul style="list-style-type: none"> <li>Maintain dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>.</li> </ul>
Clean water diversions	<ul style="list-style-type: none"> <li>Design, install and maintain new clean water diversion structures to convey the 100 year ARI flood.</li> <li>Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site.</li> </ul>
Mine-water storages	<ul style="list-style-type: none"> <li>Design, install and maintain mine-water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine-water off-site.</li> </ul>
Aquatic and riparian ecosystems (including affected sections of LT, Stony and Lords Creeks, unnamed watercourses receiving discharges from Hawkmount Quarry and CES, Muddy Creek and Muddy Lake)	<ul style="list-style-type: none"> <li>Maintain or improve baseline channel stability</li> <li>Develop site-specific in-stream water quality and aquatic ecology (macroinvertebrate health and ecotoxicity assessment) objectives and criteria in consultation with the EPA and in accordance with any EPL applying to the NCSS and/or CES .</li> </ul>
Chemical and hydrocarbon storage	<ul style="list-style-type: none"> <li>Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards.</li> </ul>

## Water Management Plan

17. The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with DPI-Water and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
  - be submitted to the Secretary for approval by 31 March 2016, unless otherwise agreed by the Secretary;
  - include detailed performance criteria and describe measures to ensure that the Applicant complies with the Water Management Performance Measures in Table 5;
  - include the following, in addition to the standard requirements for management plans (see condition 2 of Schedule 5):
    - a Site Water Balance, that includes details of:
      - water use and management on site;
      - any off-site water discharges; and
      - reporting procedures, including the preparation of a site water balance for each calendar year of the development; and
      - investigates and implements all reasonable and feasible measures to minimise potable water use and to recycle water;
    - a Surface Water Management Plan, that includes:
      - detailed baseline data on water flows and quality in the watercourses that could be affected by the development;
      - a detailed description of the development's water management systems, including the:
        - clean water diversion systems;

- erosion and sediment controls; and
- mine-water management systems;
- detailed plans including design objectives and performance criteria for:
  - design and management for the emplacement of coal reject materials and any potential acid-forming materials;
  - the proposed piping of LT Creek to enable the construction of coal stockpiles; and
  - management of sodic and dispersible soils;
- detailed performance criteria, including trigger levels, for investigating any potentially adverse impacts associated with:
  - the water management systems;
  - downstream surface water quality;
  - downstream watercourse channel stability, particularly for the Fassfern Archery Club section of LT Creek;
  - downstream flooding impacts; and
  - stream and riparian vegetation health;
- a program to monitor and report on:
  - the effectiveness of the water management systems; and
  - surface water flows and water quality, and the condition of stream and riparian vegetation in the watercourses on site and downstream of the site;
  - macroinvertebrate health and ecotoxicity parameters downstream of mine-water discharges; and
  - downstream flooding impacts;
- reporting procedures for the results of the monitoring program; and
- a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the development.

## BIODIVERSITY

### Biodiversity Offset Strategy

18. Prior to clearing any native vegetation, the Applicant shall finalise and implement a Biodiversity Offset Strategy, to compensate for the clearing of 2.13 ha of *Coastal Foothills Spotted Gum – Ironbark Forest*, 5.06 ha of *Coastal Plains Smooth-barked Apple Woodland* and 241 clumps of *Tetratheca juncea*. The Biodiversity Offset Strategy must:
- (a) be finalised in consultation with OEH;
  - (b) include a suitable biodiversity offset area, and make arrangements to manage, protect and provide long-term security for the biodiversity offset area; and
  - (c) make other arrangements to offset vegetation clearing, such as research into genetic diversity of *Tetratheca juncea*, in consultation with OEH, to the satisfaction of the Secretary.

### Biodiversity Management Plan

19. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH and HLLS, and submitted to the Secretary for approval prior to clearing any native vegetation or by 31 December 2016, whichever is the sooner;
  - (b) describe the short-term, medium-term, and long-term measures that would be implemented to:
    - manage remnant vegetation and habitat at the site;
    - avoid or minimise direct and indirect impacts to threatened species outside of proposed areas of ground disturbance; and
    - implement the Biodiversity Offset Strategy;
  - (c) include detailed performance and completion criteria for the Biodiversity Offset Strategy;
  - (d) include a detailed description of the measures that would be implemented over the next 3 years (to be updated for each 3-year period following initial preparation of the plan) to:
    - enhance the quality of existing vegetation and fauna habitat;
    - minimise the impacts to fauna, including undertaking pre-clearance surveys;
    - replace cleared hollow-bearing trees with appropriate nest boxes at a ratio of 2:1;
    - provide for the translocation of *Tetratheca juncea* clumps affected by the development;
    - manage salinity;
    - control erosion, weeds, feral pests and unauthorised access; and
    - manage bushfire risk; and
  - (e) include a program to monitor and report on these measures, and progress against the performance and completion criteria.

## Conservation Bond

20. Within 6 months of the approval of the Biodiversity Management Plan, unless the Secretary agrees otherwise, the Applicant shall lodge a Conservation Bond with the Department, to ensure that the Biodiversity Offset Strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the Biodiversity Offset Strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs.

The Secretary will release the bond if the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan. If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the Conservation Bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long-term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement, or transfer to the conservation reserve estate can be used to reduce the liability of the Conservation Bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Management Plan.*

## HERITAGE

### Heritage Management Plan

21. The Applicant shall prepare and implement a Heritage Management Plan for the development, to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH and Registered Aboriginal Parties;
  - (b) be submitted to the Secretary for approval, prior to commencement of construction activities, or by 31 March 2016, whichever is sooner; and
  - (c) include:
    - a description of the measures that would be implemented to:
      - protect, monitor and/or manage Aboriginal cultural heritage items including the scarred tree adjacent to Hawkmount Quarry identified as RPS COAL LOG 1 (AHIMS 45-7-0324);
      - manage the discovery of previously unidentified Aboriginal items;
      - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the Applicant's land;
      - ongoing consultation with Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage;
    - a short-term and long-term strategy for the storage of any Aboriginal cultural heritage items salvaged on site; and
    - a protocol for the management of impacts to historic heritage sites/items, including archival recording where impacts to historic heritage sites/items cannot be avoided.

Note: *This plan can be incorporated with any Heritage Management Plan for Centennial's other mines and mine infrastructure on the Central Coast / Lake Macquarie areas.*

## TRAFFIC AND TRANSPORT

22. The Applicant shall, at its own cost, repair any damage to any local road caused by construction traffic from the development, to the satisfaction of LMCC.

### Construction Traffic Management Plan

23. The Applicant shall prepare and implement a Construction Traffic Management Plan for the development, to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with LMCC;
  - (b) be approved by the Secretary prior to the commencement of construction at NCSS or Hawkmount Quarry; and
  - (c) detail the measures that would be applied to:
    - limit the noise and dust impacts of construction traffic; and
    - avoid and/or limit potential conflicts between construction traffic and other road users.

## VISUAL

### Visual Amenity and Lighting

24. The Applicant shall:
- implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
  - ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*; and
  - take all practical measures to shield views of mining operations from users of public roads and privately-owned residences, to the satisfaction of the Secretary.

## WASTE

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

## BUSHFIRE MANAGEMENT

26. The Applicant shall:
- ensure appropriate Asset Protection Zones are maintained at NCSS and CES, to the satisfaction of LMCC;
  - ensure that the NCSS and CES are suitably equipped to respond to fires; and
  - assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

## REHABILITATION

### Rehabilitation Objectives

27. The Applicant shall rehabilitate the site to the satisfaction of DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS, and comply with the objectives in Table 6.

**Table 6: Rehabilitation Objectives**

<b>Feature</b>	<b>Objective</b>
Site (as a whole)	<ul style="list-style-type: none"> <li>Safe, stable &amp; non-polluting</li> </ul>
Surface infrastructure	<ul style="list-style-type: none"> <li>To be decommissioned and removed, unless DRE agrees otherwise.</li> <li>NCSS, CES, Hawkmount Quarry and Reject Emplacement areas to be made safe and hydraulically and geotechnically stable.</li> <li>NCSS and CES to be rehabilitated for use as light industrial areas; or revegetated with suitable local native plant species to a landform consistent with the surrounding environment.</li> </ul>
Rehabilitation materials	<ul style="list-style-type: none"> <li>Materials from areas disturbed under this consent (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources.</li> </ul>
Reject Emplacement Areas	<ul style="list-style-type: none"> <li>Hawkmount Quarry and the Reject Emplacement Area sites to be revegetated with suitable local native plant species, and to a landform consistent with the surrounding environment.</li> <li>Capping materials (including depth of application) to be approved by DRE prior to capping.</li> </ul>
Revegetated final landforms	<ul style="list-style-type: none"> <li>Stable and sustain the intended land use.</li> <li>Consistent with surrounding topography to minimise visual impacts.</li> <li>Incorporate relief patterns and design principles consistent with natural drainage.</li> </ul>
Native flora and fauna	<ul style="list-style-type: none"> <li>Flora species used in rehabilitation selected to re-establish and complement local and regional biodiversity.</li> <li>Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats.</li> </ul>

All watercourses subject to mine-water discharges	<ul style="list-style-type: none"> <li>Hydraulically and geomorphologically stable, with aquatic ecology and riparian vegetation that is the same or better than prior to grant of this consent.</li> </ul>
Water quality	<ul style="list-style-type: none"> <li>Water retained on site is fit for the intended post mining land use(s).</li> <li>Water management is consistent with the regional catchment management strategy.</li> </ul>
Community	<ul style="list-style-type: none"> <li>Ensure public safety.</li> <li>Minimise the adverse socio-economic effects of mine closure.</li> </ul>

### Progressive Rehabilitation

28. The Applicant shall rehabilitate the site progressively, that is, as soon as is practicable following disturbance, to the satisfaction of DRE.

### Rehabilitation Management Plan

29. The Applicant shall prepare and implement a Rehabilitation Management Plan for the development, to the satisfaction of the Secretary and DRE. This plan must:
- be prepared consultation with DRE, OEH, DPI-Water, LMCC and the CCC;
  - be submitted to the Secretary and DRE for approval prior to clearing any native vegetation, or as otherwise agreed by the Secretary;
  - be prepared in accordance with relevant guidelines and consistent with the rehabilitation objectives in the EIS and in Table 6;
  - describe how the performance of the rehabilitation would be monitored and assessed against the objectives in Table 6;
  - provide for detailed development closure planning, including measures to minimise socio-economic effects associated with mine closure, to be developed prior to the site being placed on care and maintenance; and
  - be integrated with the other management plans required under this consent.

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

## SCHEDULE 4

### ADDITIONAL PROCEDURES

#### NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing:
  - (a) an exceedance of any relevant criteria in Schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and
  - (b) an exceedance of any relevant air quality criteria in Schedule 3, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

#### INDEPENDENT REVIEW

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

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

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

## SCHEDULE 5

### ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

#### ENVIRONMENTAL MANAGEMENT

##### Environmental Management Strategy

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval by 31 March 2016, or as otherwise agreed by the Secretary;
  - (b) provide the strategic framework for environmental management of the development;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance; and
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this consent; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.

##### Management Plan Requirements

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

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

##### Application of Existing Management Plans

3. Prior to the approval of management plans under this consent, the Applicant shall manage development undertaken pursuant to this consent in accordance with any equivalent or similar management plan/s required under development consents DA 97/800 or DA 73-11-98.

### **Staged Submission of Strategies, Plans or Programs**

4. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

*Note: If the submission of any strategy, plan or program is to be staged, then the Applicant must ensure that existing 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.*

### **Consolidation of Strategies, Plans or Programs**

5. With the approval of the Secretary, the Applicant may incorporate any strategies, plans or programs required by this consent with the strategies, plans and programs required for Centennial's mining operations within the general vicinity of the development.

### **Revision of Strategies, Plans and Programs**

6. Within 3 months of:
- the submission of an incident report under condition 9 below;
  - the submission of an annual review under condition 11 below;
  - the submission of an audit report under condition 12 below; or
  - 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 Secretary.

Where this review leads to revisions in any such document, then within 4 weeks of the review, the revised document must be submitted to the Secretary for approval.

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

### **Adaptive Management**

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

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

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

### **Community Consultative Committee**

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

*Notes:*

- This condition may be satisfied by a CCC for the Newstan / Awaba Mines already in place as at the date of this consent.*
- In accordance with the Guidelines, the CCC must include an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community.*
- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*
- The requirement for this CCC may be fulfilled by a regional CCC for Centennial's mines and mine infrastructure in the Central Coast/Lake Macquarie areas.*

## REPORTING

### Incident Reporting

9. The Applicant shall immediately notify the Secretary 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 Secretary 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 Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

### Regular Reporting

10. The Applicant shall regularly report the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

### Annual Review

11. By the end of March each year, or as otherwise agreed by the Secretary, 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 past 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 past calendar year, which includes a comparison of these results against the:
    - (i) relevant statutory requirements, limits or performance measures/criteria;
    - (ii) requirements of any plan or program required under this consent;
    - (iii) monitoring results of previous years; and
    - (iv) relevant predictions in the EIS;
  - (c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
  - (d) identify any trends in the monitoring data over the life of the development;
  - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

## INDEPENDENT ENVIRONMENTAL AUDIT

12. By 14 May 2018, 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 team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

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

13. Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

## ACCESS TO INFORMATION

14. Within 3 months of the date of this consent, the Applicant shall:
  - (a) make copies of the following publicly available on its website:
    - (i) the documents referred to in condition 2 of Schedule 2;
    - (ii) all current statutory approvals for the development;
    - (iii) all approved strategies, plans and programs required under the conditions of this consent;

- (iv) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
  - (v) a complaints register, updated monthly;
  - (vi) minutes of CCC meetings for the last 2 years;
  - (vii) the annual reviews of the development;
  - (viii) any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
  - (ix) any other matter required by the Secretary; and
- (b) keep this information up-to-date,  
to the satisfaction of the Secretary.
-

## APPENDIX 1: SCHEDULE OF LAND

Lot	Schedule	DP
100		1149240
104		1149241
103		1149241
1		1031778
7306		1164232
UCL		418269
7306		1164232
214		755207
1		582126
65		1126625
153		755207
102		755218
7305		1149082
7304		1149082
215		755207
11		1050120
1		659579
C		381399
78		755207
27		755207
64		755207
390		1064199
591		607932
1		121470
631		816256
442		583057
148		728974
149		728974
391		1064199
443		583057
435		1111527
441		583057
186		755218
187		755218
170		755218
179		755218
173		755218
169		755218
1	A	6747
2	A	6747
171		755218
208		755207
205		755207
8		821188
8		1031859
447		1064562
12		1031859
322		39722
318		39722
155		755207

Lot	Schedule	DP
23		264502
100		1127677
101		1127677
3		1031778
2		1031778
20		1031778
15		1031778
13		1031778
6		46737
234		755207
19		1031778
102		1149241
66		755207
7		1031778
5		1031778
17		1031778
18		1031778
4		46737
5		46737
10		1031778
8		1031778
6		1031778
4		1031778
16		1031778
9		1031778
11		1031778
12		1031778
1		1108065
630		816256
259		1139078
207		755207
211		755207
206		755207
230		755207
226		755207
225		755207
224		755207
223		755207
227		755207
101		755218
20		840668
211		840670
211		702166
210		755218
20		734860
221		702167
101		828283
24		264502
1		960790
97		755218
1		817425
184		755218

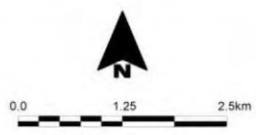
<b>Lot</b>	<b>Schedule</b>	<b>DP</b>
21		734860
100		828283
10		1050120

## APPENDIX 2: DEVELOPMENT LAYOUT



**SLR**  
 10 KINGS ROAD  
 NEW LAMBTON  
 NEW SOUTH WALES 2305  
 AUSTRALIA  
 T: 61 2 4037 3200  
 F: 61 2 4037 3201  
 www.slrconsulting.com

Project No: 630.10123.00840  
 Date: 18.2.14  
 Drawn by: LJF  
 Scale: 1:75000  
 Sheet Size: A4  
 Coord. System: MGA 94 Zone 56



Centennial Coal  
**NORTHERN COAL LOGISTICS PROJECT**

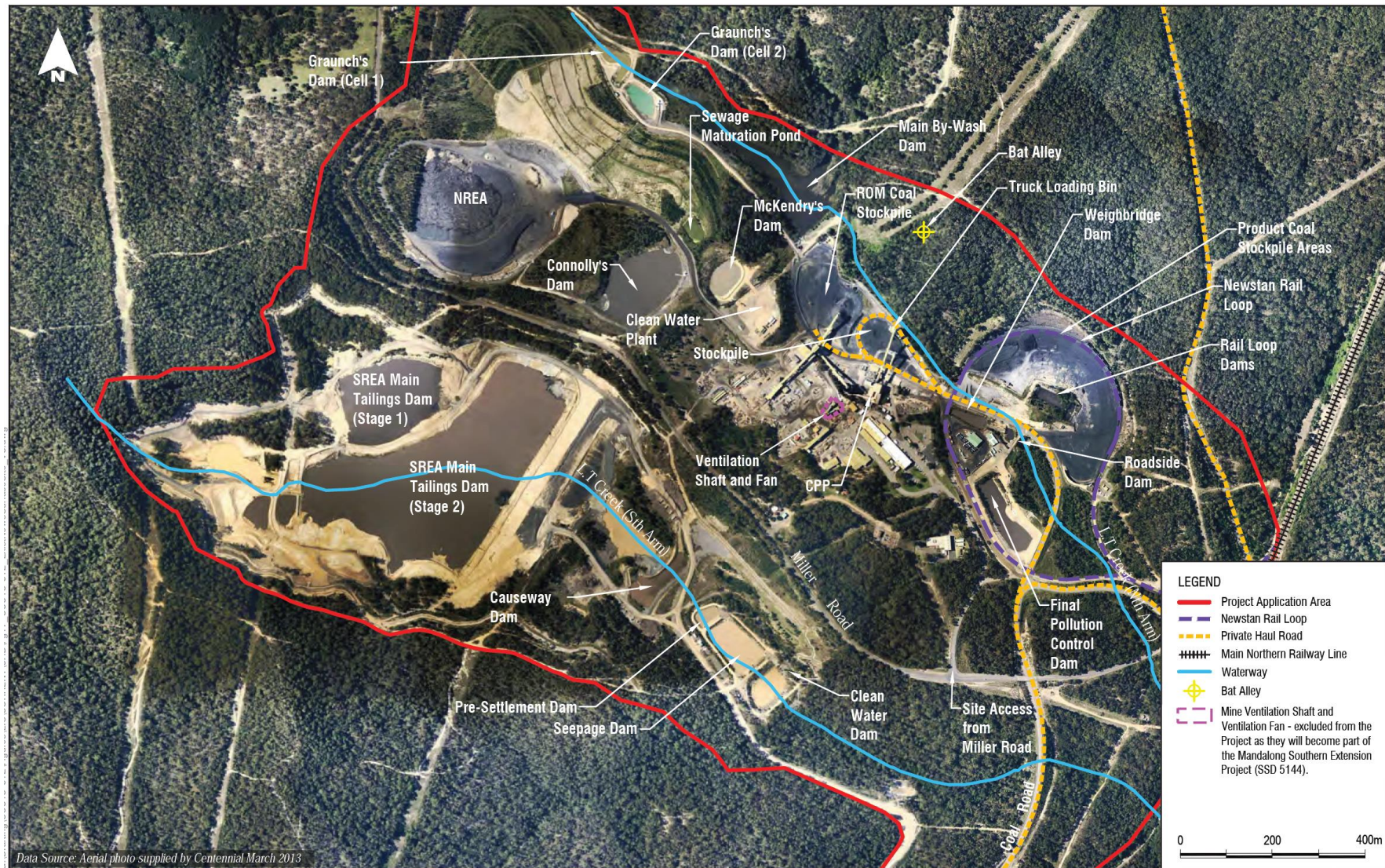
**Project Application Area**

FIGURE 2

**Figure 1: Northern Coal Logistics Project- Application Area**



**Figure 2: Cooranbong Entry Site (CES)**



**Figure 3: Newstan Colliery Surface Site (NCSS)**

## APPENDIX 3: NOISE ASSESSMENT

### Applicable Meteorological Conditions

1. The noise criteria in Tables 2 and 3 of the conditions are to apply under all meteorological conditions except the following:
  - (a) Wind speeds greater than 3 m/s at 10 m above ground level; or
  - (b) Stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or
  - (c) Stability category G temperature inversion conditions.

### Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that 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 consent.
4. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
  - (a) monitoring locations for the collection of representative noise data;
  - (b) meteorological conditions during which collection of noise data is not appropriate;
  - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
  - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

## APPENDIX 4: NOISE RECEIVER LOCATIONS

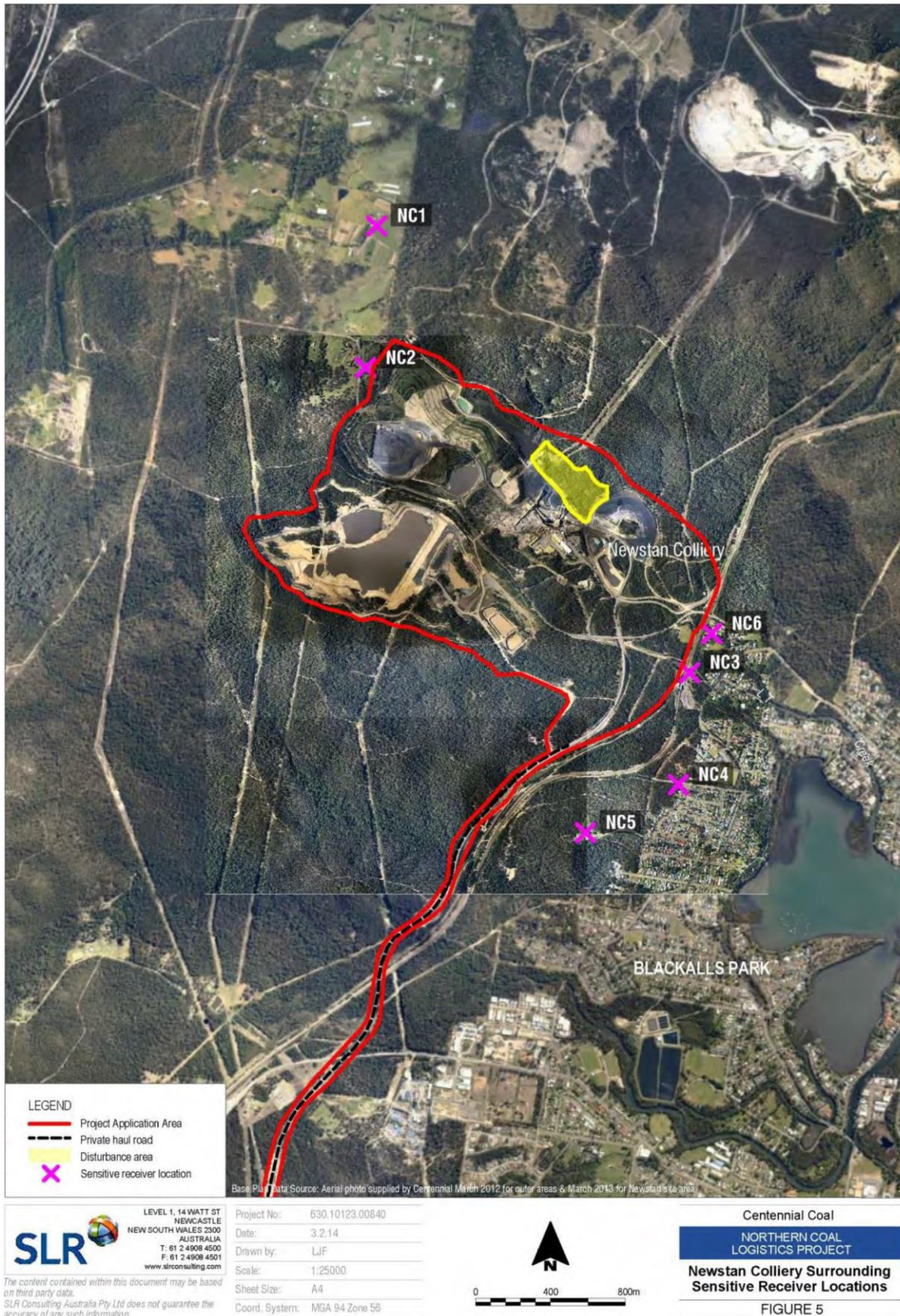


Figure 1: NCSS - Noise Receiver Locations



**Figure 2: CES - Noise Receiver Locations**

# APPENDIX 5: ABORIGINAL CULTURAL HERITAGE

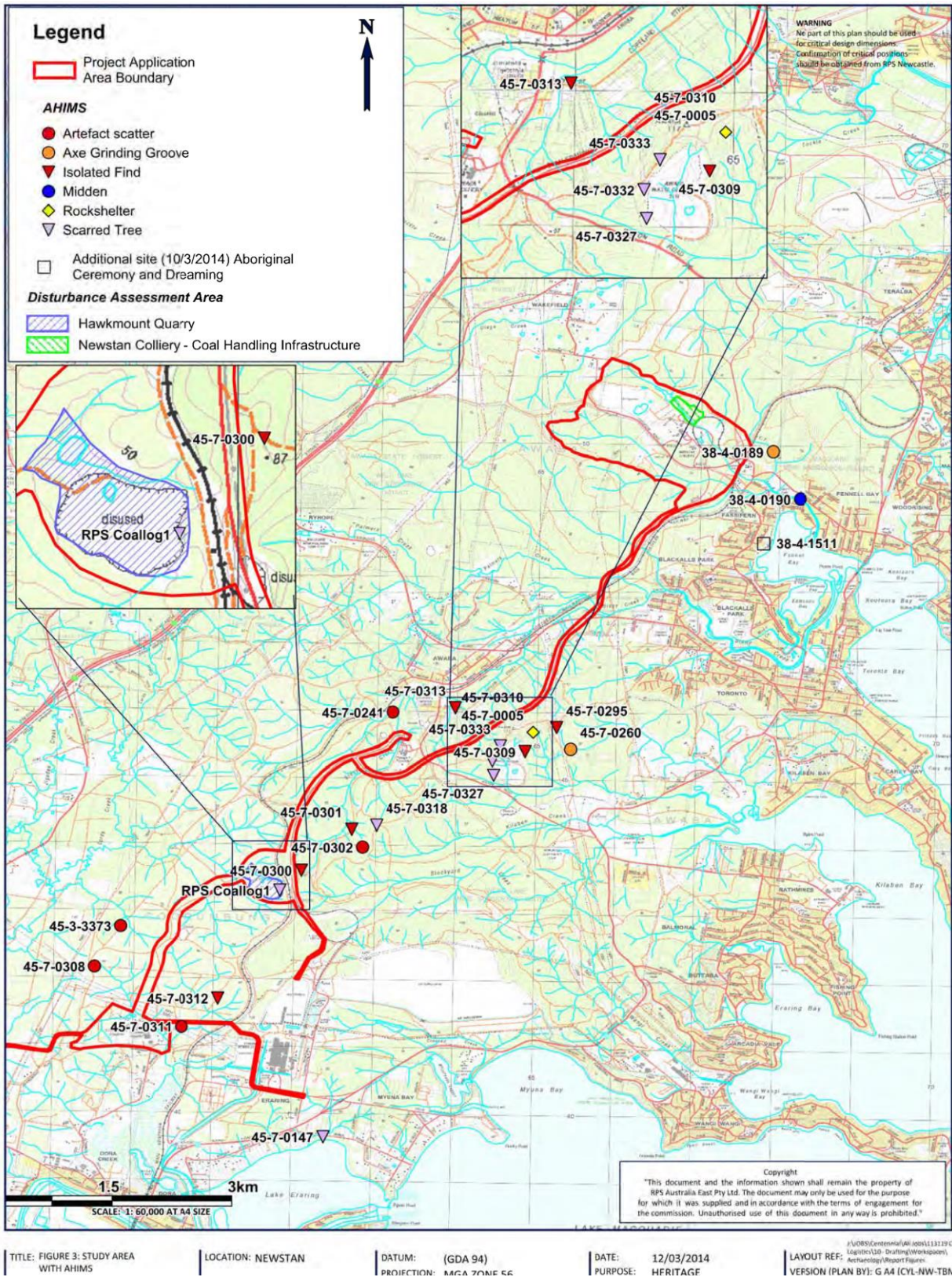


Figure 1: Aboriginal cultural heritage sites

**Table 1: Registered Aboriginal Parties**

Awakabal Descendants Traditional Owners Aboriginal Corporation
Awakabal Traditional Owners Aboriginal Corporation
Bahatabah Local Aboriginal Land Council
Biraban Local Aboriginal Land Council
Cacatua Culture Consultants
Darkinjung Local Aboriginal Land Council
Guringai Tribal Link
Wonn 1
Yula-Punaal Education and Healing Aboriginal Corporation

## APPENDIX 6: APPLICANT'S STATEMENT OF COMMITMENTS

Desired Outcome	Commitment/Action
<b>Construction Management</b>	
Minimise impacts from the upgrade works at the Newstan Colliery Surface Site on the environment and sensitive receivers	Six months prior to the commencement of any construction activities at the Newstan Colliery Surface Site, Northern Coal Services will develop a Construction Environmental Management Plan.
	All construction activity at the Newstan Colliery Surface Site will occur between the standard hours of 7.00 am to 6.00 pm Monday to Friday and 8.00 am to 1.00 pm on Saturday (no construction on Sundays or public holidays).
<b>Environmental Management and Reporting</b>	
Enable Northern Coal Services to manage its operations in an environmentally appropriate manner	Within six months following development consent, Centennial will develop a single consolidated EMS for Centennial's northern operations, including the Northern Coal Logistics Project. The review will take into consideration the environmental assessments undertaken as part of this EIS, the commitments made in this EIS and all relevant consent conditions.
Enable Northern Coal Services to meet its statutory reporting obligations	Northern Coal Services will obtain a new EPL for the Project in accordance with the POEO Act requirements.
	Each year, Northern Coal Services will prepare an Annual Review, which will report environmental monitoring results and evaluate performance for the previous 12 month period, to be distributed to the relevant government agencies, Newstan Colliery CCC and Mandalong Mine CCC.
	Northern Coal Services will report all monitoring results monthly on Centennial's website in accordance with the POEO Act.
<b>Soil and Land Capability</b>	
Appropriate management of topsoil during construction	Northern Coal Services will incorporate soil stripping, handling, stockpiling and transportation management activities into the Construction Environmental Management Plan for the proposed upgrade works at the Newstan Colliery Surface Site.
<b>Water</b>	
Monitor water impacts on the environment	Within six months of development consent, Northern Coal Services will develop a single consolidated Water Management Plan, including a water monitoring program, for the Northern Coal Logistics Project.
Minimise impacts to waterways downstream of Newstan Colliery Surface Site	<p><u>LT Creek</u></p> <ul style="list-style-type: none"> <li>• The stability of LT Creek through the Fassifern Archery Club will be increased with the construction of small rock bed control structures within the flow area.</li> <li>• Quarterly and event based waterway visual inspections of LT Creek will be undertaken during the initial period of increased discharge via Newstan LDP001 until the stability of the creek under the new flow regime has been confirmed.</li> </ul>
	<p><u>Stony Creek</u></p> <p>The stability of waterway between Newstan LDP017 and Stony Creek will be monitored. If identified as necessary, localised bank protection works will be undertaken to bank sections where water discharges from Newstan Colliery Surface</p>

	Site are identified as reducing bank stability. Such works will be subject to land owner consent.
<b>Flora and Fauna</b>	
Monitor and mitigate impacts to Bat Alley at the Newstan Colliery Surface Site	<p>The Strategy for the Conservation of Bats in Derelict Mines (NPWS 2001) will be followed. In addition:</p> <ul style="list-style-type: none"> <li>• A 50 metre exclusion or non-disturbance zone will be maintained around Bat Alley consistent with advice sought from RPS (2014a).</li> <li>• The Project design incorporates light and sound barrier walls around the proposed ROM coal stockpile in this locality.</li> </ul>
Mitigate impacts to threatened species at Newstan Colliery Surface Site and Hawkmount Quarry REA	As part of the detailed design phase for the upgrade works at the Newstan Colliery Surface Site, Northern Coal Services will ensure that that proposed disturbance footprint is positioned to minimise removal of <i>T. juncea</i> (the Project includes removal of 376 clumps of <i>T. juncea</i> ).
	As part of the detailed design phase for the establishment of the Hawkmount Quarry REA, Northern Coal Services will ensure that that proposed disturbance footprint is positioned to minimise removal of <i>G. parviflora</i> subsp. <i>parviflora</i> (the Project includes removal of one stem of <i>G. parviflora</i> subsp. <i>parviflora</i> ).
	As part of the detailed design phase for the establishment of the Hawkmount Quarry REA, Northern Coal Services will ensure that that proposed disturbance footprint is positioned to avoid removal of any <i>T. juncea</i> .
Offset the ecological impacts of the Project	<p>Northern Coal Services will implement the following compensatory measures to offset the potential ecological impacts of the Project:</p> <ul style="list-style-type: none"> <li>• Prior to disturbance activities at the Newstan Colliery Surface Site, develop and implement a <i>T. juncea</i> translocation research program to build on the current knowledge regarding translocation of this species. The 376 clumps of <i>T. juncea</i> within the proposed disturbance area at Newstan Colliery Surface Site will be translocated and monitored in accordance with the proposed research program.</li> <li>• Within 6 months following completion of vegetation clearing at the Newstan Colliery Surface Site and/or Hawkmount Quarry, nest boxes will be installed at a ratio of 1:1 (i.e. one nest box for every habitat hollow removed). The design and installation of nest boxes will draw on the information obtained from the five year research program undertaken by Centennial Mandalong into the utilisation of different nest box designs and aspects.</li> <li>• Within 12 months following development consent, fund the development and implementation of a research proposal to investigate genetic patterns among and within populations of <i>T. juncea</i> from a range of habitat types. The benefits of this research will assist in determining whether conservation and offsetting actions can protect the genetic diversity of <i>T. juncea</i>.</li> </ul>
<b>Aboriginal Heritage</b>	
Monitor, mitigate and manage impacts to Aboriginal heritage sites	The scarred tree (RPS COAL LOG 1; AHIMS 45-7-0324) identified at Hawkmount Quarry will be clearly identified and avoided by proposed surface works. If any surface works are to occur within 100 metres of this site, a suitable buffer zone will be established to cordon off the area and avoid unintentional impact.
	If further Aboriginal site(s) are identified in the Project Application Area, any surface works in the vicinity will cease and a suitably qualified archaeologist and representatives from the registered Aboriginal parties will be contacted in order to

	ensure appropriate assessment and management.
	All relevant Northern Coal Services employees and contractors will be made aware of their statutory obligations for Aboriginal heritage under the NPW Act 1974 as part of the site induction process.
<b>Non-Indigenous Heritage</b>	
Minimise impacts to items of European heritage	If further non-Indigenous cultural heritage material is in the Project Application Area, any surface works in the vicinity will cease and a suitably qualified heritage consultant will be contacted to assess the item. Northern Coal Services will adopt the appropriate mitigation measures, as provided by the heritage consultant, before recommencement of work.
	All relevant Northern Coal Services employees and contractors will be made aware of their statutory obligations for non-Indigenous heritage under the Heritage Act 1977 as part of the site induction process.
<b>Air Quality</b>	
Mitigate air quality impacts at Newstan Colliery Surface Site	In order to achieve the air quality criteria at receptors surrounding the Project Application Area for the life of the Project, an Air Quality Management Plan will be prepared taking into consideration the commitments made in this EIS and relevant consent conditions.
	Northern Coal Services will commit to automating the train loading operations aspect of the Northern Coal Logistics Project once it is proposed to export 5.5 Mtpa. Water sprays will be installed on the transfer point of the train loading bin so as to minimise dust generation during the loading of trains.
	Northern Coal Services will undertake regular reviews of the air quality model for the site as the volume of coal increases.
	Northern Coal Services will install automation in the coal handling operations between the CHPP and the rail loop stockpile as required to maintain compliance with air quality criteria and to meet operational efficiency requirements. Automatic water sprays on all new transfer points between the CHPP, the new product coal stockpile and the rail loop stockpile will be installed.
Monitor air quality impacts from the Project	<p>Northern Coal Services will continue the existing air quality monitoring program at Newstan Colliery Surface Site and Cooranbong Entry Site, which comprises:</p> <ul style="list-style-type: none"> <li>• Newstan Colliery Surface Site - monitoring of dust deposition, TSP, PM10 and PM2.5; and</li> <li>• Cooranbong Entry Site - monitoring of dust deposition, TSP and PM10.</li> </ul>
<b>Noise</b>	
Reduce noise emissions from the Newstan Colliery Surface Site	In order to achieve the noise criteria at receptors surrounding the Project Application Area for the life of the Project, a Noise Management Plan will be prepared taking into consideration the commitments made in this EIS and relevant consent conditions.
	The proposed new CPP will be clad with noise attenuating panels.
<b>Visual Amenity</b>	
Minimising visual impacts from the	New infrastructure items will be dark in tone and constructed of non-reflective materials.

Newstan Colliery Surface Site	All new lighting installations will be low level intensity lighting comprising individual and directional spot lighting design to minimise light spill.
<b>Dangerous Goods</b>	
Provide safe storage, handling and disposal of dangerous goods	Within six months following development consent, Northern Coal Services will update the existing Newstan Colliery Emergency Management System and Mandalong Mine Emergency Management System to cover the Project. These updates will take into consideration the relevant requirements under the impending Workplace Health and Safety (Mines) Act 2013, commitments made in this EIS and all relevant consent conditions.
<b>Bushfire</b>	
Reduce risk to Northern Coal Services infrastructure and local landholders' properties from bushfire	Within six months following development consent, Northern Coal Services will develop a single consolidated Emergency Management System for the Project to incorporate the findings and conclusions of the bushfire risk assessment (Kleinfelder 2014), the commitments made in this EIS and all relevant consent conditions.
<b>Post-Mining Closure and Rehabilitation</b>	
Rehabilitate the Project Application Area to agreed final land uses	<p>Within five years of Project completion, Northern Coal Services will prepare a detailed Closure Management Plan with the aim of rehabilitating the Project Application Area to create a landform with land use compatible with the surrounding land-use and/or the pre- determined and agreed beneficial land use(s). In addition to addressing the removal of surface infrastructure, the Closure Management Plan will include:</p> <ul style="list-style-type: none"> <li>• Rehabilitation of disturbed areas to a condition that is self-sustaining or where maintenance requirements are consistent with an agreed post-mining land use; and</li> <li>• Final rehabilitation success criteria.</li> </ul>
<b>Social</b>	
Continue to engage with stakeholders	Northern Coal Services will continue to implement the Stakeholder Engagement Strategy for the Project.