



# Report

## Myuna Mine Independent Environmental Audit

24 OCTOBER 2013

Prepared for  
Myuna Centennial Pty Limited  
PO Box 1000  
Toronto NSW 2283  
43177866

**URS**



Project Manager / Auditor :



.....  
Nick Ballard  
Associate Environmental  
Scientist

**URS Australia Pty Ltd**

**Level 4, 407 Pacific Highway  
Artarmon NSW 2064  
Australia  
T: 61 2 8925 5500  
F: 61 2 8925 5555**

Independent Contractor /  
Lead Auditor:



.....  
Michael Woolley  
Principal Environmental  
Engineer

Date: **24 October 2013**  
Reference: 43177866/1/0  
Status: Final

**© Document copyright of URS Australia Pty Limited.**

This report is submitted on the basis that it remains commercial-in-confidence. The contents of this report are and remain the intellectual property of URS and are not to be provided or disclosed to third parties without the prior written consent of URS. No use of the contents, concepts, designs, drawings, specifications, plans etc. included in this report is permitted unless and until they are the subject of a written contract between URS Australia and the addressee of this report. URS Australia accepts no liability of any kind for any unauthorised use of the contents of this report and URS reserves the right to seek compensation for any such unauthorised use.

**Document delivery**

**URS Australia** provides this document in either printed format, electronic format or both. URS considers the printed version to be binding. The electronic format is provided for the client's convenience and URS requests that the client ensures the integrity of this electronic information is maintained. Storage of this electronic information should at a minimum comply with the requirements of the Commonwealth Electronic Transactions Act (ETA) 2000.

Where an electronic only version is provided to the client, a signed hard copy of this document is held on file by URS and a copy will be provided if requested.



# Table of Contents

<b>Executive Summary .....</b>	<b>vii</b>
<b>1 Introduction.....</b>	<b>1</b>
1.1 Background .....	1
1.2 Scope of Work.....	1
1.3 Audit Methodology .....	2
1.3.1 Documents reviewed .....	3
1.4 Personnel and Timing .....	3
1.5 Sensitive Information .....	3
1.6 Format of Report.....	3
<b>2 Site Description .....</b>	<b>5</b>
2.1 Site Location and History.....	5
2.2 Description of Site Operations .....	5
2.3 Activities Occurring During the Site Inspection .....	6
<b>3 Consultation.....</b>	<b>7</b>
3.1 Consultation with Key Government Agencies .....	7
3.1.1 NSW Department of Planning and Infrastructure.....	7
3.1.2 NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy (DTIRIS-DRE).....	7
3.1.3 NSW Environmental Protection Agency (EPA) / Office of Environment and Heritage (OEH) .....	8
<b>4 Site Observations .....</b>	<b>9</b>
4.1 Site Inspection Observations .....	9
<b>5 Environmental Performance.....</b>	<b>15</b>
5.1 Incident Management .....	15
5.2 Complaint Management .....	16
<b>6 Compliance with Relevant Statutory Requirements.....</b>	<b>17</b>
<b>7 Review of Environmental Management System .....</b>	<b>21</b>
7.1 Environmental Management Overview .....	21
7.2 Environmental Management Strategy.....	22
7.3 Management Programs and Plans .....	23
7.3.1 General Summary of Management Plan Adequacy Review .....	24

<b>8 Subsidence Management.....</b>	<b>31</b>
8.1 Background .....	31
8.2 Geotechnically Engineered Mine Design.....	31
8.3 Subsidence Monitoring .....	31
8.4 Adequacy Assessment.....	32
<b>9 Water Management.....</b>	<b>33</b>
9.1 Water Management Overview .....	33
9.2 Site Inspection .....	33
9.3 Mine Water Management Adequacy Review .....	39
9.3.1 Overview of the Water Management Plan (2012).....	39
9.3.2 Overview of the Surface Water Management Plan (GHD, 2012).....	41
9.3.3 Overview of the Water and Salt Balance Assessment (GHD, 2012) .....	42
9.3.4 Erosion and Sediment Control Plan (GHD, 2012):.....	43
9.3.5 Groundwater Monitoring Program (GHD, 2012).....	43
9.3.6 Surface and Groundwater Response Plan (GHD, 2012) .....	44
9.4 Improvement Opportunities .....	44
<b>10 Summary of Non Compliances and Recommendations .....</b>	<b>47</b>
<b>11 Limitations .....</b>	<b>55</b>

## Tables

Table 1	Overall Compliance Assessment and Audit Score .....	vii
Table 4-1	Summary of Observations .....	9
Table 5-1	Summary of incidents recorded by category for the period January 2012 – 12 June 2013 .....	16
Table 6-1	Summary of Major Approvals and Licences Assessed as Part of this Audit .....	17
Table 6-2	List of Strategies, Plans and Programs reviewed for adequacy .....	18
Table 7-1	Adequacy review of management plans / monitoring programs and recommendations .....	25
Table 9-1	Summary of Observations Relating to Water Management .....	33
Table 10-1	Summary of conditions / requirements assessed as non-compliant or indeterminate and recommendations .....	49
Table 10-2	Summary of additional recommendations from Independent Environmental Audit (not related to non compliances).....	53

## Figures

Figure 1 - Centennial Environmental Management Framework.....	21
---	----

## Appendices

Appendix A Compliance Matrix	
------------------------------	--





## Abbreviations

Abbreviation	Description
AQMP	Air Quality Management Plan
AEMR	Annual Environmental Management Report
CCC	Community Consultative Committee
CoA	Condition of Approval
Council	Lake Macquarie City Council
CHP	Coal Handling Plant
DA	Development Application
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Infrastructure
Director-General	Director-General of Department of Planning, or delegate
DP&I	Department of Planning & Infrastructure (formerly DoP)
DTIRIS-DRE	Department of Trade and Investment, Regional Infrastructure and Services (formerly Department of Primary Industries (DPI))
EIS	Environmental Impact Statement
EC	Electrical Conductivity
EEC	Endangered Ecological Community, as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
Environmental consequences	Environmental consequences of Subsidence Impacts, including: damage to infrastructure, buildings and residential dwellings; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology, ponding etc.
EMP	Environmental Management Plan
EMS	Environmental Management System
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
ESCP	Erosion and Sediment Control Plan
Evening	Evening is defined as the period from 6pm to 10pm
IINSW	Industry and Investment NSW
INP	Industrial Noise Policy
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 approval
LMCC	Lake Macquarie City Council
LW	Longwall
MIA	Mine Infrastructure Area
Mine Water	Water that accumulates within active mining areas, coal rejects emplacement areas, tailings dams and infrastructure areas, synonymous with dirty water
Mining Operations	Includes all coal extraction, processing, and transportation activities carried out on site
Minister	Minister for Planning, or delegate
Mtpa	Million tonnes per annum
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NMP	Noise Monitoring Program
NOW	NSW Office of Water (adopted certain responsibilities of DWE from July 2009)
OEH	Office of Environment and Heritage (formerly Department of Environment,

Abbreviation	Description
	Climate Change and Water (DECCW))
Panel	Independent Hearing and Assessment Panel for the Project
Privately owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary).
PA	Project Approval
Project	The development as described in the EA
PSMP	Property Subsidence Management Plan
Proponent	Centennial Coal Company
REF	Review of Environmental Factors
ROM	Run of Mine
RTA	Roads and Traffic Authority
SEE	Statement of Environmental Effects
Site	Lands described in Schedule 1 of the Development Consents of DA 10/0080 and DA 35-2-2004
SOC	Statement of Commitments The Proponent's commitments in Appendix 1
Subsidence or Subsidence effects	Deformation of the ground mass due to mining, being all mining induced ground movements, including both vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by Subsidence Effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface disturbance or troughs
SMP	Subsidence Management Plan
TARP	Trigger Action Response Plan
TSS	Total Suspended Solids

## Executive Summary

URS Australia Pty Ltd (URS) was engaged by Centennial Coal Pty Ltd (Centennial Coal) and Myuna Centennial Pty Limited to carry out an Independent Environmental Audit of the Myuna Colliery (Myuna) in the Lake Macquarie area, New South Wales (NSW). Myuna Colliery is an underground mine which is wholly owned and operated by Centennial Myuna Pty Ltd, a fully owned subsidiary of Centennial Coal Company Limited.

Condition of Approval (CoA) No.9, Schedule 5 of the Myuna Colliery - Myuna Colliery Mining Project Approval (PA 10\_0080) (dated 18 January 2012) requires Myuna to commission and independent environmental audit prior to the end of June 2013 and every three years thereafter.

The audit was completed in accordance with the Condition of Approval (CoA) No. 108 and URS proposal 3120275 to conduct the work dated 21 December 2012.

This is the first independent audit to be carried out at Myuna and for the purpose of this audit, the audit period has generally been defined as from 18 January 2012 (date of Project Approval) to 25 June 2013 (date of site visit conducted as part this audit). This report presents the findings of this audit.

The audit was completed in accordance with the Condition of Approval (CoA), Schedule 5, number 9 and URS proposal 3120275 to conduct the work dated 21 December 2012. The audit methodology comprised the following activities:

- Initial discussions with Myuna to organise the audit, including the provision of documentation, the site visit and timing;
- Discussions with the DP&I to discuss any concerns and areas for particular focus during the audit;
- Review of site compliance register and other documentation provided by Myuna;
- A two-day site inspection and interviews with key site personnel between 24 and 25 June 2013;
- Consultation with key government agencies;
- Review of additional documentation provided by Myuna after the site inspection; and
- Submission of this Report to Myuna outlining the audit findings.

The independent environmental audit assessed compliance with relevant approvals, licences and other management plans applicable to Myuna. The detailed compliance assessment, including comments and recommendations, is presented in Appendix A. Non-compliance with relevant approvals and recommendations to improve compliance status is discussed in section 10.

The overall compliance status is summarised in Table 1 Summary of Compliance and Audit Score.

**Table 1 Overall Compliance Assessment and Audit Score**

Relevant Approval	Percent Compliant (%)	Number of Conditions Non Compliant or Indeterminate
Project Approval Myuna Mine PA 10_0080	95	3
Project Approval Myuna Mine PA 10_0080 Appendix 3 Statement of Commitments	100	0
Environmental Protection Licence No. 366	96	3
Consolidated Coal Lease 762	97	1
Mining Purposes Lease 334 (Covering Pit Top area only)	97	1

## Executive Summary

In addition the scope of the audit included a review of the adequacy of the strategies, plans and programs required under the Development Consent. The findings of the adequacy review are presented in Section 7. A number of continuous improvement opportunities were identified and presented.

A summary of recommended actions to improve compliance status are presented in Section 10.

## Introduction

### 1.1 Background

URS Australia Pty Ltd (URS) was engaged by Centennial Coal Pty Ltd (Centennial Coal) and Myuna Centennial Pty Limited to carry out an Independent Environmental Audit of the Myuna Colliery (Myuna) in the Lake Macquarie area, New South Wales (NSW). Myuna Colliery is an underground mine which is wholly owned and operated by Centennial Myuna Pty Ltd, a fully owned subsidiary of Centennial Coal Company Limited.

Condition of Approval (CoA) No.9, Schedule 5 of the Myuna Colliery - Myuna Colliery Mining Project Approval (PA 10\_0080) (dated 18 January 2012) requires Myuna to commission an independent environmental audit prior to the end of June 2013 and every three years thereafter.

The audit was completed in accordance with the Condition of Approval (CoA), Schedule 5, number 9 and URS proposal 3120275 to conduct the work dated 21 December 2012.

This is the first independent audit to be carried out at Myuna as per the CoA 10\_0080. For the purpose of this audit the audit period has been defined as from the 18 January 2012 (date of Project Approval) to 25 June 2013 (date of last site visit conducted as part of this audit). The audit focused on activities over occurring of this period, as well as current site operation conditions. This report presents the findings of this audit.

### 1.2 Scope of Work

The audit was conducted in accordance with the requirements set out in the Development Consent of DA 10/0080, Schedule 5, Condition number 9, which required that the following scope of works be carried out.

---

*By the end of June 2013, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:*

*(a) Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;*

*(b) Include consultation with the relevant agencies;*

*(c) Assess the environmental performance of the project and assess whether it is complying with the requirements in this approval 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 project, 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 fields specified by the Director-General.*

---

## 1 Introduction

The DP&I requested appropriately qualified water and subsidence experts in their letter of approval for environmental auditors to Myuna dated 6 May 2013. The water and subsidence experts were approved by the DP&I on 28 May 2013.

### 1.3 Audit Methodology

The purpose of this Independent Environmental Audit was to assess compliance with CoA, licences and approvals that apply to the development and review the adequacy of strategies, plans or programs required under the Development Consent. It was undertaken in accordance with the method described in URS' Proposal (dated 22 December 2012).

A site-based compliance register was supplied by Myuna, which formed the basis of the audit protocol. It included a list of conditions and commitments to be assessed for compliance, including Development Consent (DA 10/0080), Consolidated Coal Lease (CCL) No. 762 and Environment Protection Licence (EPL) No.366.

URS did not assess compliance with all approvals issued over the life of the project but instead chose representative approvals relevant to the works being undertaken at the time of the audit site inspection. These are discussed in the Compliance Review Section 6.

The Audit was carried out in accordance with ISO 19011:2003 Guidelines for quality and/or environmental management systems auditing (ISO, 2002), which superseded the ISO 14000 series.

The audit methodology comprised:

- Initial discussions with Myuna to organise the audit, including the provision of documentation, the site visit and timing of milestones;
- A phone discussion with the DP&I to discuss any concerns and areas for particular focus during the audit;
- Review of site compliance register and other documentation provided by Myuna;
- A two-day site inspection and interviews with key site personnel, on 25 and 26 June 2012 with additional site inspections over the following week for the Surface and Groundwater Experts. Tasks undertaken during the audit site inspection included:
  - opening meeting;
  - site inspection with the Myuna Environmental Coordinator and the Myuna Technical Services Manager
  - review of relevant documentation provided by the Myuna Environmental Coordinator,
  - interviews with key personnel including Myuna Environmental Coordinator, Technical Services Manager and Mine Surveyor;
  - close out meeting;
- Consultation with key government agencies;
- Review of additional documentation provided by Myuna after the site inspection; and
- Submission of this Draft Report to Myuna Coal outlining the audit findings.

This report provides a summary of findings including details of non-compliances identified in the audit, an audit score (percentage compliant), and recommended actions to improve compliance status.

## 1 Introduction

### 1.3.1 Documents reviewed

The following information was reviewed during the audit process:

- Regulatory approvals as listed in Section 6.
- Management Plans as listed in Section 7.
- Approvals checklists supplied by Myuna;
- Approvals database demonstrated during the audit site inspection;
- Site environmental procedures and checklists;
- Selected correspondence with relevant government agencies and stakeholders;
- Selected records indicating competence, induction and training;
- Selected meeting minutes;
- Selected reports; and
- Evidence of monitoring and review.

Documents used as part of the audit are referenced as part of the text discussing compliance status.

### 1.4 Personnel and Timing

In accordance with CoA No. 9, Schedule 5 of PA 10\_0080 the audit was to be conducted by a qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General. The audit team comprised of the following URS personnel, as approved by the Director-General (letters dated 6 and 28 May 2013):

- Michael Woolley, URS, lead auditor;
- Nick Ballard, URS, auditor;
- Neil Mattes, URS, subsidence expert; and
- Saul Martinez, URS, surface water expert.

Michael Woolley is registered by RABQSA as a Certified Lead Auditor for Environmental Management, Site Contamination Assessment and Compliance Auditing.

The site visit for the audit was conducted by the team listed above between 24 February and 28 June 2013.

Personnel interviewed during the site visit included the following people:

- Nerida Manley, Environment and Community Coordinator;
- Mal Yule, Technical Services Manager; and
- Daniel Hart; Mine Surveyor.

### 1.5 Sensitive Information

It is understood that information collected during the audit may be sensitive. Documents used during the audit to verify compliance were kept secure and not distributed outside the relevant personnel involved in the audit.

### 1.6 Format of Report

The format of this report is as follows:

- Section 1 provides an introduction and defines the scope and nature of the audit;
- Section 2 describes Myuna Colliery's operations as observed during the site inspection;

## 1 Introduction

- Section 3 summarises the consultation with key regulatory agencies;
- Section 4 provides a summary of site observations made during the site visit;
- Section 5 provides an assessment of the environmental performance of the development and its effects on the surrounding environment;
- Section 6 describes the auditors' approach to assessing Myuna against the relevant standards, performance measures and statutory requirements;
- Section 7 presents the assessment of adequacy of the Environmental Management Strategy and environmental management and monitoring plans;
- Section 8 provides an overview of Myuna's approach to subsidence management and a review of the adequacy of subsidence management;
- Section 9 provides an overview of Myuna's approach to Surface Water Management at Myuna;
- Section 10 summarises the non compliances and recommendations made throughout the report.

Appendix A is a tabulated review of the results of the assessment against the CoA and Statement of Commitments (SoCs) of PA 10\_0080, Environmental Protection Licence 366 conditions and Consolidated Coal Lease conditions.



## Site Description

This section provides a brief overview of Myuna and operations carried out on site.

### 2.1 Site Location and History

Myuna Colliery is an existing underground coal mine located on the western side of Lake Macquarie, at Wangi Wangi, approximately 25 kilometres south-west of Newcastle, New South Wales.

Myuna Colliery has been operating within the existing Development Consent Mining Area since 1979 with coal extraction commencing in 1982. Coal extraction has been carried out under the existing Development Consent (SH 110/148) granted in 1977 and under existing mining leases and Section 74 of the Mining Act beyond this area. Extraction of coal and associated mining activities has occurred in three coal seams (Wallahah, Great Northern and Fassifern) using bord and pillar methods. The mine was purchased from Powercoal Pty Ltd in 2002. Myuna Colliery is located in the northern portion of the Sydney Basin. The coal deposits within its mining tenements belong to the late Permian Age Newcastle Coal Measures. Myuna Colliery currently mines within the Wallarah, Great Northern, and Fassifern seams of the Newcastle Coal Measures. To date, geological exploration at Myuna Colliery has primarily targeted the Wallarah, Great Northern and Fassifern seams.

Coal produced by Myuna is supplied directly to Eraring Power Station by the Enclosed Overland Conveyor. Approval for Eraring Energy's Enclosed Overland Conveyor is provided by section 21 of the *Eraring Power Station Act 1981*. Myuna does not wash ROM coal and there is no coal reject material produced on site. A negligible amount of waste rock from the Coal handling Plant (CHP) is stored on site.

In 2010 Myuna Colliery submitted a Project Approval under Part 3A of the *Environment Planning and Assessment Act 1979* to continue mining in those areas outside the existing Development Consent Mining Area and within the existing mining leases. In January 2012 Myuna received Project Approval (10\_0080) for the continuation of mining until 31 December 2032. This approval extends mining and coal handling at Myuna within the Colliery lease area and proposes to:

- Mine using bord and pillar mining methods in the Wallarah, Great Northern, and Fassifern seams in Consolidated Coal Lease (CCL) 762 and Mining Lease (ML) 1370 for a another 21 years;
- Produce, handle and distribute up to 2 million tonnes per annum (Mtpa) of coal to Eraring Power Station using existing above ground infrastructure;
- Continue the use of ancillary infrastructure and services for a further 21 years;
- Upgrade the water management system; and
- Rehabilitate the surface facilities within five years of completion of mining.

### 2.2 Description of Site Operations

Myuna Colliery is a 24 hour a day, seven day a week operation that currently employs 221 staff. The Myuna colliery consists of the following underground workings and surface infrastructure:

- Myuna Mine underground workings comprise:
  - three seams – Wallarah, Great Northern and Fassifern.
- Non-mine infrastructure, located at the Surface Facilities Area includes:
  - enclosed overland conveyor (Eraring Energy owned);
  - potable water supplies (Hunter Water Corporation) from Toronto and Wangi Wangi reservoirs;

## 2 Site Description

- overhead transmission lines (Energy Australia) (including 11kV and 33kV power supplies);
- Energy Australia 33kV substation;
- telecommunications (Telstra) network cabling; and
- Hunter Water Corporation sewage system.

There were no surface explorations drilling activities reported in the audit period. Myuna Colliery does not wash ROM coal, there is no coal reject material produced on site. A negligible amount of waste rock from the CHP is stored on site.

Myuna Colliery's Surface Facilities Area is located in proximity to Wangi Creek which is a heavily modified waterway as a result of the Wangi Power Station outflow canal. Myuna Colliery's existing water management system discharges water to Wangi Creek through two discharge points licensed under the Colliery's Environmental Protection Licence 366, namely Licensed Discharge Points (LDP) LDP00A and LDP00B.

### 2.3 Activities Occurring During the Site Inspection

At the time of the audit site visit, a number of activities were observed, as outlined below:

- Underground mining during the audit period was conducted in the Wallarah, Great Northern and Fassifern seams. Mining in the three seams allows blending of the run of mine coal.

Photos of environmentally significant aspects of the operation, taken during the site inspection in June 2013, are provided throughout the report.

## Consultation

### 3.1 Consultation with Key Government Agencies

As part of the audit process, URS contacted key government agencies to seek their views on the environmental performance of Myuna.

#### 3.1.1 NSW Department of Planning and Infrastructure

The Lead Auditor discussed the audit scope with NSW DP&I Environmental Planning Officer, Colin Phillips, on 23 August 2013. Comments received via email from Mr Phillips on 26 August 2013 included:

- The DP&I requested the audit focus on the water management system on site, both that of surface water and the management of mine water. In particular, once it is brought to the surface and combined with the surface water management system as well as the impacts of water discharges from the site to the receiving waters. Details concerning water management at the site are discussed in detail in Section 9 of this report and also Conditions 21, 22, 23, 25, 26 and 27 of Schedule 3 of Project Approval 10\_0080 and Condition L1.1, L2.1, L2.2, L2.3 and L3.1 of EPL 366 of the compliance tables in Appendix A.
- As the site is also located relatively close to residential areas the DP&I requested that a check of whether the noise levels from the site to the surrounding community are controlled using all reasonable and feasible noise mitigation measures. Details concerning noise management at the site are discussed in detail in Conditions 11, 12, 13 and 14 of Schedule 3 of Project Approval 10\_0080 and L5.1, L5.3, L5.4, L5.5, L5.6, M4.1 and R4 of EPL 366 of the compliance tables in Appendix A.
- There were no other specific comments noted by the DP&I in relation to the scope of the audit or with the Myuna operation.

#### 3.1.2 NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy (DTIRIS-DRE)

Feedback was sought on 23 August 2013 from the DTIRIS-DRE officer responsible for Myuna Mine who reported the following:

- The most recent AEMR inspection was conducted on 7 August 2013. Concerns were reported to be identified associated with management of legacy issues of the emergency coal stockpile area, formerly used by Wangi Wangi Power Station until this closed in the early 1980's as well as the refuse stockpile (located to the southern end of the emergency coal stockpile area). DTIRIS-DRE reported concerns over the length of time the material was being stored and overall long-term management plans for future waste of this type;

It is noted that this inspection was outside the time of the audit period. URS has made various comments regarding the waste within the report. It is understood that since the date of the audit Myuna has been working with DTIRIS-DRE to address the issues identified. These actions are not reflected in this report.

- It was noted during the discussion that DTIRIS-DRE indicated that the MOP document did not meet its requirements (as of 23 August 2013) as it did not identify in detail how the long-term rehabilitation of the mine would occur.

### 3 Consultation

It is understood that Myuna has been working with DTIRIS-DRE to address the requirements of the MOP which has resulted in approval for the MOP dated 8 October 2013.

#### **3.1.3 NSW Environmental Protection Agency (EPA) / Office of Environment and Heritage (OEH)**



From recent interactions with the EPA in Newcastle, it is their policy not to comment in relation to providing feedback on Independent Environmental Audits.

## Site Observations




### 4.1 Site Inspection Observations

Observations from the site inspection conducted at the time of the site audit are provided in the table below. It is noted that observations directly relating to water management are detailed in Section 9 of the report within **Table 4-1**. The auditors were escorted around the site on two separate occasions by mine personnel who made themselves available for this purpose.

**Table 4-1 Summary of Observations**

Photo #	Observation	Photo
<b>Myuna Pit Top</b>		
4.1	Sealed and generally tidy pit top area outside the stores and workshop	
4.2.	North corner of the colliery overlooking the main settlement ponds	

## 4 Site Observations




Photo #	Observation	Photo
4.3.	Internal road sweeping was observed during the site inspection.	
4.4.	New pump switchboard installed at the settlement ponds.	
4.5.	On-site weather station and power points for high volume air samplers.	



## 4 Site Observations



Photo #	Observation	Photo
4.6.	Wallarah seam outlet pipe into settlement ponds.	
4.7.	Waste stockpile from underground operations located at emergency coal stockpile area.	 

## 4 Site Observations




Photo #	Observation	Photo
4.8.	Close-up of waste stockpile from underground operations located at emergency coal stockpile area.	
4.9.	Emergency coal stockpile area used when Eraring Power station is unable to accept coal. Last used greater than 12 months prior to the audit site inspection .	
4.10.	Catchment area located to north of Emergency Stockpile.	



## 4 Site Observations

Photo #	Observation	Photo
4.11.	New stormwater diversion drain that discharges downstream to Licenced Discharge Point B (LDPB).	
4.12.	First flush settlement tank and oil separator adjacent to the main entrance.	
4.13	Signage for former Licenced discharge point at the CHP Dam. It is recommended signage to former licenced discharge points be removed. Myuna reported that new signage has been ordered for replacing existing signs for the LDPs.	

## 4 Site Observations

Photo #	Observation	Photo
4.14	Soil stockpile from clean water diversion drain excavation. Sediment fences require attention at this location.	
4.15	Evidence of weeds at LDP A outlet point. It is recommended that the weed control program continue to be implemented to control weeds onsite.	
4.16	Evidence of weeds at LDP monitoring point. It is recommended that the weed control program continue to be implemented to control weeds onsite.	



## Environmental Performance

This Section addresses the requirement of the scope of works to “*assess the environmental performance of the project*”.

Myuna has developed the following management / monitoring plans to monitor the environmental performance of the project and mitigate its effects on the surrounding environment.

- Noise Management Plan;
- Air Quality & Greenhouse Gas Management Plan;
- Water Management Plan which includes:
  - Site Water Balance;
  - Erosion & Sediment Control Plan;
  - Surface Water Management Plan;
  - Groundwater Monitoring Program; and
  - Surface & Groundwater Response Plan.
- Biodiversity Management Plan;
- Heritage Management Plan, which has been split into two management plans, including:
  - Aboriginal Cultural Heritage Management Plan; and
  - Non-indigenous Cultural Heritage Management Plan.
- Mining Operations Plan / Rehabilitation Management Plan;
- Pollution Incident Response Management Plan;

The auditors based the assessment of the environmental performance of the Project on the assessment of implementation of the above management and monitoring plans as well as the assessment of compliance with the CoA, SOC, EPL, Mining Lease, CCL and SMP approvals. The findings of this assessment are provided in the Compliance Matrix presented in Appendix A with the identified non-compliances and associated recommendations summarised in Section 10.

The adequacy of the above management plans has been assessed in Section 7 of this report.

In addition, to further evaluate the Project’s environmental performance, the auditors reviewed the environmental incidents and complaints recorded during the audit period. The discussion of incidents and complaints is provided below.

### 5.1 Incident Management

Centennial Coal has developed Minimum Environmental Performance Standards for incident reporting (ECMS 03) and accompanying Guidance Notes. These documents summarise reporting obligations and outline the management process for responding to different incident categories. Centennial Coal classifies incidents using the following categories:

- Category 1: Prosecution (Major) – major actual or potential material harm, major remediation required.
- Category 2: Offence (Significant) – significant potential or actual material harm, significant remediation required.
- Category 3: Reportable (Moderate) – reportable incident of actual or potential material harm to the environment, recurrent licence / approval exceedance or non-compliance, multiple / recurrent complaint

## 5 Environmental Performance

- Category 4: Technical (Minor) – licence / approval / standard exceedance or non-compliance, minor matter with no ecological damage evident, one off complaint, spill emission incident exceeding control system limits
- Category 5 Incident (Low) – on site only within limits of approved control systems, no environmental harm with little need for remediation.

Incidents are logged within Lotus Notes using Centennial's ECD system. **Table 5-1** summarises the number of incidents recorded by category.

**Table 5-1 Summary of incidents recorded by category for the period January 2012 – 12 June 2013**

Category	No. of incidents
1: Prosecution (Major)	0
2. Offence (Significant)	0
3. Reportable (Moderate)	0
4. Technical (Minor)	1
5. Incident (Low)	1

As shown in **Table 5-1** above, Myuna has not recorded any major, significant or moderate incidents. The two incidents referred to in Table 5-1 concern a water exceedance and a monthly dust exceedance, both of which are discussed in more detail in Schedule 5, Condition 5.3 and Schedule 3, Condition 3.17 respectively.

### 5.2 Complaint Management

No complaints were reported to have been received during the audit period. Myuna has developed a procedure titled "Recording Community Complaint/Enquiry" that outlines the process for managing community complaints. Myuna operates an Environment and Community Enquiry Line (02) 4970 0270. Calls are received at the Myuna site office that is staffed 24 hours a day, seven days per week. If the call concerns a complaint and/or enquiry it is recorded on the "Myuna Mine Community Initiated Contact Record Sheet".

The record sheet would be forwarded to the Environmental Coordinator or the Mine Manager (during or outside of normal working hours) for investigation. Following investigation, the Environmental Coordinator or Mine Manager would respond to the complainant.

Complaints are required to be logged by Environmental Coordinator within Lotus Notes using the Environmental Community Database (ECD) system. The database requires the following information to be collected: reference number, complainant details, complaint type, date and time of occurrence, complaint details, investigation / cause, remediation details, implementation process, implementation date and details of consultation.

The Complaints and Enquiry Line is advertised via the Centennial and Myuna websites and the 2012 Community Complaints Register, also available on the Myuna website.

## Compliance with Relevant Statutory Requirements

This Section fulfils the audit requirement to assess whether the project is complying with the relevant requirements in the Project Approval and any relevant mining lease and EPL.

**Table 6-1** identifies the major approvals, licences and leases held by Myuna.

**Table 6-1 Summary of Major Approvals and Licences Assessed as Part of this Audit**

Title	Summary	Date Granted	Expiry
Project Approval (10_0080)	Extension of Mining – Environmental Assessment approved by the Department of Planning	18/01/2012	31/12/2032
Development Consent	Development of Myuna and Cooranbong collieries, as described in the EIS and subject to certain conditions	21/12/1977	No expiration date specified in the consent. Subject to renewal of mining leases
Environmental Protection Licence (EPL) 366	Licence authorising discharges to water and Mining for coal at a rate of 0.5 – 2 Mtpa	01/01/2000	-
Consolidated Coal Lease (CCL) 762	A title including the area originally in CL195 for coal mining purposes of Approximately 10,820 hectares	CL 195 granted 8/8/1979, consolidated into CCL 762 in 1991	Renewal 13/12/2022
Mining Purposes Lease (MPL) 334	Title to construct and operate prescribed mine related plant and infrastructure of approximately 33 hectares	20/10/1994	Renewal 20/10/2015
Mining Lease (ML) 1370	Title that provides rights to mine the coal resource of approximately 653 hectares	26/09/1995	Renewal 02/12/2016
Exploration Licence (EL) 4444	Licence granted to allow exploration to be undertaken to determine the occurrence and extent of the coal resource and to assess the potential for mining of approximately 5,164 hectares	23/10/1992	Renewal 23/10/2012
Trade Waste Permit (D 171027)	Permits the discharge of 'prohibited substances' to sewer in accordance with various quality requirements	23/10/1995	-
Section 151 Licence (Mining Operations – Various Licence)	Installation and Monitoring of Surface Subsidence Stations at Point Wolsoncroft	10/09/2009	10/09/2015

## 6 Compliance with Relevant Statutory Requirements

Title	Summary	Date Granted	Expiry
Section 151 Licence (Mining Operations – Various Licence)	Installation and Monitoring of Surface Subsidence Stations at Pulbah Island	1/11/2011	31/10/2016
Section 151 Licence (Mining Operations – Various Licence)	Installation and Monitoring of Surface Subsidence Stations at Wangi Wangi Point	16/02/2011	16/02/2015
Water Access Licence	Licensing of three existing dewatering bores at the Surface Facilities Area	Licence currently being applied for	-

It is noted that not all Approvals were considered in the audit. The audit assessed compliance with the following approvals:

- Myuna Colliery – Project Approval DA 10\_0080 and Statement of Commitments;
- Environmental Protection Licence (EPL) 366;
- Consolidated Coal Lease (CCL) 762; and
- Mining Purposes Lease (MPL) 334.

A summary list identifying the strategies, plans and programs that were reviewed for adequacy is provided in **Table 6-2**

**Table 6-2 List of Strategies, Plans and Programs reviewed for adequacy**

Strategy / Plan / Program	Date Prepared / Revised	Approval Date
Environmental Management Strategy	August 2012	4 September 2012
Environmental Management System		Not approved
Noise Management Plan	July 2012	30 July 2012
Air Quality & Greenhouse Gas Management Plan	July 2012	8 August 2012
Water Management Plan that includes: <ul style="list-style-type: none"> <li>• Site Water Balance;</li> <li>• Erosion &amp; Sediment Control Plan;</li> <li>• Surface Water Management Plan;</li> <li>• Groundwater Monitoring Program; and</li> <li>• Surface &amp; Groundwater Response Plan.</li> </ul>		Pending
Biodiversity Management Plan	August 2012	3 September 2012
Aboriginal Cultural Heritage Management Plan	August 2012	26 November 2012
Non-indigenous Cultural Heritage Management Plan.	August 2012	4 September 2012
Pollution Incident Response Management Plan	August 2012	Approval Not Required

The status of Myuna's performance during the audit, in respect of each of the Conditions of Approval (CoA), EPL conditions, Mining Lease conditions, Consolidated Coal Lease conditions, Groundwater Licences and (selected) Groundwater Monitoring Borehole Licence conditions, and Subsidence Management Plan Approval conditions is presented in Appendix A (Groundwater Licences are considered in the Water Expert report in Appendix B). Conditions considered to be not complied with or indeterminate have been listed in Section 10 of this report.

## 6 Compliance with Relevant Statutory Requirements

Performance categories in respect of compliance are defined as follows:

- Compliant currently in compliance;
- Non Compliant currently not in compliance;
- Not Applicable condition of consent not applicable at time of audit;
- Indeterminate it has not been possible to determine whether compliance exists; and
- Not Assessed the condition has not been assessed as part of the scope of this audit.

Comments and observations are listed alongside each condition to provide context and reasons for each compliance finding. Where appropriate, recommendations have been provided alongside these conditions.

Where compliance with a condition had not been achieved during the audit period, but the site could demonstrate current compliance, this has been recorded as such.

Conditions considered Non Compliant have been presented in Section 10 of this report as a summary table. The table includes a discussion of the compliance status and recommendations for improvement where appropriate.

In general, URS has not undertaken a rigorous or technical assessment of the documents required by the CoA, EPL, ML or CCL, particularly where these documents have been signed off and/or approved by relevant regulatory authorities (for example, DP&I, EPA, DRE).





## Review of Environmental Management System

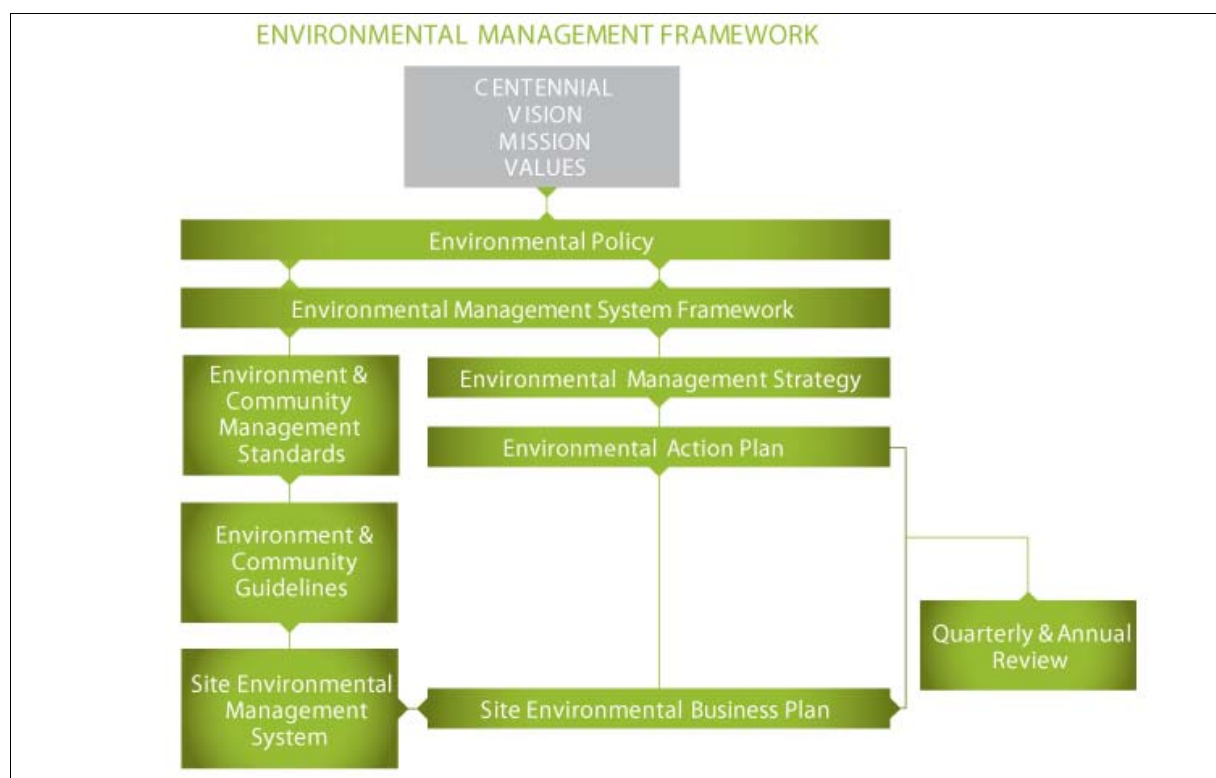
This Section fulfils the requirement to assess the adequacy of strategies, plans or programs required under the Development Consent. The implementation of the management plans / programs is discussed in the compliance tables at Appendix A.

### 7.1 Environmental Management Overview

Centennial Coal has established an Environmental Policy and Environmental Management System (EMS) Framework, as well as a number of Environment and Community Standards. The policy, EMS framework and associated procedure provide guidance to Centennial's sites, such as Myuna, on the development of their own Environmental Management plans.

Myuna has developed an Environmental Management Strategy and a number of supporting environmental management plans to manage environmental aspects and impacts of its operational activities. Myuna's Environmental Strategy (the Strategy) operates under the overarching Centennial Coal Environmental Policy and EMS Framework. Centennial's Environmental Management Framework is depicted in Figure 7-1 below:

**Figure 1 - Centennial Environmental Management Framework**



Centennial Coal has developed an Environmental Management System Framework Document (EMS Framework) incorporating the following four components:

- EMS Framework Document 2011 (Volume 1)
- EMS Procedures (Volume 2)
- Environment and Community Management Standards (Volume 3)
- Environment and Community Management Plans (Volume 4)

## 7 Review of Environmental Management System

The EMS Framework has been developed to be consistent with the International Standard for Environmental Management Systems ISO 14001. The EMS Framework outlines the following elements:

- Commitment and policy;
- Identification of aspects and impacts;
- Legal and other requirements;
- Objectives and targets;
- Management plans;
- Responsibility for implementing the EMS;
- Training, awareness and competence;
- Communication;
- Documentation and document control;
- Operational control;
- Emergency preparedness and response;
- Measurement and evaluation; and
- Management review.

The EMS Framework is applicable to all activities and areas managed by Centennial. The purpose of the EMS Framework is to provide an effective management tool, which will foster sound environmental management of all EMS Framework that each Business Unit, such as Myuna, develop an Environmental Management Strategy, consistent with the EMS Framework objectives.

The detail of the Centennial Coal EMS Framework and the site implementation of these documents were not assessed in detail during the audit.

### 7.2 Environmental Management Strategy

A summary of the strategies, plans and programs that were reviewed for adequacy is provided in **Table 1 2**.

Myuna prepared an Environmental Management Strategy (the Strategy) in August 2012 to satisfy the requirements of Schedule 5, Condition 1 of PA 10\_0080. The Strategy was approved by the Director-General (letter dated 4 September 2012) and was observed to be available to company employees via the Centennial Intranet. The latest Project Approval (Schedule 5, Condition 1 of PA 10\_0080) requires the following:

*'The Proponent shall revise and implement an Environmental Management Strategy for the project to the Satisfaction of the Director-General. This strategy must:*

- (a) be submitted for approval to the Director-General within 7 months of the date of this approval;*
- (b) provide the strategic framework for the environmental management of the project;*
- (c) identify the statutory approvals that apply to the project;*
- (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;*
- (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 project;*
  - receive, handle, respond to, and record complaints;*
  - resolve any disputes that may arise during the course of the project;*
  - respond to any non-compliance; and*

## 7 Review of Environmental Management System

- respond to emergencies; and
- (f) include:
  - copies of any strategies, plans and programs approved under the conditions of this approval; and
  - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

In accordance with the Conditions of Approval, Section 1.3 of the Strategy sets out the regulatory requirements of the project and Section 5.0 sets out the accountabilities and responsibilities of the Mine Manager and the Environmental Coordinator. The Strategy also contains procedures applicable to CoA Schedule 5, Condition 1, including:

- Section 4.1 described the process for managing community issues and information;
- Section 4.1.3 described how to manage complaints. A protocol was provided in appendix 2 illustrating how complaints are to be managed;
- Section 4.1.1 addressed dispute resolution and the process to follow. A protocol was provided in appendix 3 illustrating how complaints are to be managed;
- Section 4.2.3 addressed non-compliance reporting. Specific management plans detail further information concerning non-compliances. No reference was made to an overarching incident and/or non-compliance procedure.
- Section 7.0 referenced that a pollution incident response management plan (PIRMP) would be prepared by 1 September 2012. A PIRMP dated august 2012 was available to review, however, the strategy had not been updated to reflect the PIRMP.

Section 3.0 provided reference to management plans required under Project Approval 10\_0080, however, no clear programs and strategies were provided. A clear plan depicting all the monitoring required to be carried out under the conditions of this approval was available in Appendix 4 as required by the second point of condition f).

### Recommendation

URS identified the following recommendations for improvement in the Strategy:

- It is recommended that the Environmental Management Strategy be reviewed and revised to reference the Pollution Incident Response Management Plan; and
- It is recommended that the Environmental Management Strategy be reviewed and revised to include copies of any strategies, plans and programs approved under the conditions of this approval as required by C5.1(f).

## 7.3 Management Programs and Plans

The following documents were reviewed by the auditors<sup>1</sup>:

- Air Quality & Greenhouse Gas Management Plan;
- Water Management Plan which includes:
  - Site Water Balance;
  - Erosion & Sediment Control Plan;

<sup>1</sup> An assessment of subsidence management and water management including water management plans and an assessment of the adequacy of these processes, is discussed separately in Sections 8 and 9.

## 7 Review of Environmental Management System

- Surface Water Management Plan;
- Groundwater Monitoring Program; and
- Surface & Groundwater Response Plan.
- Biodiversity Management Plan;
- Heritage Management Plan, which has been split into two management plans, including:
  - Aboriginal Cultural Heritage Management Plan; and
  - Non-indigenous Cultural Heritage Management Plan.

The following section outlines a summary of findings made regarding the adequacy of the Management Plans and opportunities for improvement. A summary of adequacy and any recommendations for each management plan is identified below, as well as a general summary.

### 7.3.1 General Summary of Management Plan Adequacy Review

Myuna has established key management and monitoring plans/programs under the scope of the overarching Myuna Environmental Management Strategy and Centennial Coal Environmental Management System – Framework Document. In general, these plans and programs are established and implemented in accordance with the consent conditions of PA 10\_0080 and the requirements of Centennial Coal's Environmental Management System – Framework Document. The management plans provide information to manage, monitor and report on environmental aspects and impacts associated with the development. The following comments are made regarding the EMS and Management Plans:

- Generally the plans were well prepared, up to date, having been recently prepared, and included actions and timings allowing Myuna staff to understand roles and responsibilities and timeframes for specific requirements.
- There is limited integration between the EMS and the Management Plans. The EMS and Management Plans do not reinforce the link to one another, causing a lack of information in some respects or a double up of information in others. For example the Air Quality and Greenhouse Gas Management Plan does not provide a reference or link to the Energy Savings Action Plan.

The findings of the review of the adequacy of the management plans / monitoring programs and subsequent recommendations are provided in Table 7-1 below.

### ***Overarching Recommendations Relating to Management Plans***

The following provides a summary of overarching recommendations relating to Management Plans in general at Myuna:

- That integration between the EMS and the Management Plans is improved. Each plan should outline its strategic context in line with Myuna's EMS and Centennial Coal's Standards.
- That the structure of management plans be improved so as to highlight management actions that can be easily identified, implemented and audited against. This could include having a table or Section listing all of the management/mitigation measures required as part of the plan.
- It is recommended that revised management plans be submitted to the Director-General. Revised plans may not necessarily be approved, however, submission of the plans will ensure that the Director-General has the most up-to-date documents on file and will be aware any changes to environmental management practices at the site.

## 7 Review of Environmental Management System

- That Environmental Management related plans be updated to reflect current operations and incorporate the recommendations of this audit report. Where management plans are identified to require actions as per the above recommendations, a repeat recommendation has not been made in the table below to avoid duplication of recommendations.

**Table 7-1 Adequacy review of management plans / monitoring programs and recommendations**

Management Plan / Monitoring Program	Adequacy Review and Recommendations
Air Quality and Greenhouse Management Plan, December 2012	<p>The Air Quality and Greenhouse Gas Management Plan (Revision 1, July 2012) was approved by the Director-General (letter dated 8 August 2012) and was considered to adequately address the requirements of Condition 19, Schedule 3 of the PA 10_0080. The plan is concise and generally considered adequate for the control of air quality risks onsite if implemented effectively. The following observations are made:</p> <ul style="list-style-type: none"> <li>• The pit top area was generally sealed and well kept. The only unsealed area of land (grassed) at the pit top was around the settlement ponds and garden areas by the entrance.</li> <li>• A road sweeper truck was sighted at the pit top area during the audit.</li> <li>• Outside of the AEMR it was not clear how greenhouse gas information was monitored. The 2012 AEMR contained data concerning the information listed in the plan, however, no actions were stated in the plan as to how that information would be obtained and monitored other than in accordance with the National Greenhouse and Energy Reporting Act (NGER). How the requirements of the Act related to the site was not clear. A spread sheet for the period January to December 2012 showing percentage of methane (CH<sub>4</sub>) emissions at the site was available for review. Section 7.2 (pp.16-17) of the Air Quality and Greenhouse Gas Management Plan detailed the requirements for monitoring GHGs.</li> <li>• Section 7.1.3 (p.16) stated that high volume air samplers will be installed. The air samplers had not been installed at the time of the audit, however, evidence of preparation for the installation was observed.</li> </ul> <p><b>Recommendations</b></p> <p>The adequacy review identified the following opportunities for improvement and recommendations:</p> <ul style="list-style-type: none"> <li>• Specify the monitoring actions required by the site in accordance with the requirements of the National Greenhouse and Energy Reporting Act (NGER) (Section 7.2, pp.16-17). If actions are conducted at a corporate Centennial level in accordance with corporate requirements specify this in the plan.</li> <li>• Ensure the high volume air samplers are installed in accordance with Appendix 4 (High Volume Air Sampler Technical Memorandum – SLR 21 March 2012). <ul style="list-style-type: none"> <li>– revise the plan to state that the air samplers have been installed and how the air samplers will be operated and maintained.</li> <li>– Update the Dust Management Plan (MY10956, Appendix 3) to show the location of the high volume air samplers.</li> </ul> </li> </ul>

## 7 Review of Environmental Management System

Management Plan / Monitoring Program	Adequacy Review and Recommendations
Noise Management Plan July 2012	<p>The Noise Management Plan, dated 24 July 2012 has been established and implemented by Myuna to address the requirement of Condition 13, Schedule 3 of the PA 10_0080. The plan was approved by the Director-General on 30 July 2012.</p> <p>The plan applies to the monitoring and control of surface operations to ensure compliance with project approval conditions. During the site inspection, a number of local sensitive receiver locations were attended by the auditors. Generally, it was found that the plan sufficiently addressed the requirements of Condition 13 of Schedule 3 of the Project Approval. The plan is due to be revised on 1 February 2014. The following observations are made:</p> <ul style="list-style-type: none"> <li>Section 5.3 (Shot Blasting, p.5) stated that <i>'all shots will be planned and designed to achieve the required outcomes with minimal impacts on the surrounding residential receivers'</i>. Site management reported that latest shot blasting event occurred on 23 and 24 August 2013 and that this was the first occurrence in 13 months. No planning and design to take into account surrounding residential receivers was reported to have been conducted as underground shot blasting was reported to have a negligible impact on the surface and below levels of human perception.</li> <li>Figure 1 (p.13) showed eight noise sensitive receivers (R1, R2, R3 R4, R5, R6 R7 and R8), however, only six locations are stated in Section 7.1.2 (Attended Monitoring, p.9). The December 2012 Quarterly Noise Monitoring report only included the six locations stated in Section 7.1.2 of the plan.</li> </ul> <p><b>Recommendations</b></p> <p>The adequacy review identified the following opportunities for improvement and recommendations:</p> <ul style="list-style-type: none"> <li>Remove the statement in Section 5.3 (p.5) that states <i>'all shots will be planned and designed to achieve the required outcomes with minimal impacts on the surrounding residential receivers'</i> as this activity is not conducted.</li> <li>Review and revise Figure 1 (p.13) to reflect current noise sensitive receivers.</li> </ul>
Water Management Plan (August 2012)	<ul style="list-style-type: none"> <li>Refer to Section 9.3.1 for a review of the Water Management Plan.</li> </ul>
Surface Water Management Plan (August 2012)	<ul style="list-style-type: none"> <li>Refer to Section 9.3.2 for a review of the Surface Water Management Plan.</li> </ul>
Erosion and Sediment Control Plan (August 2012)	<ul style="list-style-type: none"> <li>Refer to Section 9.3.4 for a review of the Erosion and Sediment Control Plan.</li> </ul>
Surface and Groundwater Response Plan (August 2012)	<ul style="list-style-type: none"> <li>Refer to Section 9.3.6 for a review of the Surface and Groundwater Response Plan.</li> </ul>
Pollution Incident Response Management Plan (PIRMP) (August 2012)	<p>The PIRMP dated 21 August 2012 was developed in response to a requirement by the <i>Protection of the Environment Legislation Amendment Act 2011</i>, now covered under section 153A of the POEO Act.</p> <p>The PIRMP defines how external pollution reporting is to be undertaken in accordance with Centennial Coal's Management Standard-012 External Environmental Reporting.</p> <p>The PIRMP provides guidance concerning pollution incident reporting. Whilst the Centennial Coal Incident Reporting Standard 006 (the overarching standard concerning internal incident reporting) was referenced in Section 15.0 (References) it was not discussed or referenced in the body of the PIRMP.</p> <p>URS undertook a high-level, summary assessment of adequacy against the content of the PIRMP, as outlined at Clause 98C of the <i>Protection of the Environment (General) Regulation 2009</i>. URS found a high level of compliance against the requirements identified in the Regulation. The following observations</p>



## 7 Review of Environmental Management System

Management Plan / Monitoring Program	Adequacy Review and Recommendations
	<p>are made:</p> <ul style="list-style-type: none"> <li>• Appendices 1 (Figure 4-7) and 2 (Figure 4-9) showed the former licenced discharge points (LDP001 and LDP002) not the current LDB A and LDP B.             <ul style="list-style-type: none"> <li>– the two Figures provided in the PIRMP did not show the location of potential pollutants on the premises.</li> <li>– whilst the Figures showed an aerial view of the site the figure did not clearly show the surrounding area that may be affected by a pollution incident (i.e. nearby residential properties).</li> </ul> </li> </ul> <p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• To comply with <i>Protection of the Environment (General) Regulation 2009</i> clause 98C, ensure the maps appended to the PIRMP clearly and legibly show the location of the premises to which the licence relates, the surrounding area that are likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises.</li> </ul>
Heritage Management Plan / Non-Indigenous Cultural Heritage Management Plan August 2012)	<p>The following two heritage plans have been prepared:</p> <ul style="list-style-type: none"> <li>• Northern Holdings Aboriginal Cultural Heritage Management Plan dated August 2012; and</li> <li>• Non-Indigenous Cultural Heritage Management Plan dated August 2012</li> </ul> <p>Centennial Coal's Northern Holdings Aboriginal Cultural Heritage Management Plan dated August 2012 prepared by RPS (East Australia) Pty Ltd on behalf of Centennial was approved on 26 November 2012. The Plan addressed management of Aboriginal Cultural Heritage at Centennial's northern operations facilities including:</p> <ul style="list-style-type: none"> <li>• Newstan/Awaba Colliery;</li> <li>• Myuna Colliery;</li> <li>• Mannering Colliery; and</li> <li>• Mandalong Mine.</li> </ul> <p>For Myuna the following site specific issues were addressed in the Northern Holdings Aboriginal Cultural Heritage Management Plan:</p> <ul style="list-style-type: none"> <li>• Overview of operations</li> <li>• Registered Aboriginal parties</li> <li>• Aboriginal heritage commitments and consent conditions</li> <li>• Myuna Colliery Project Approval conditions</li> <li>• Cultural significance ranking outcomes</li> <li>• Archaeological significance ranking outcomes</li> <li>• Site specific management measures</li> </ul> <p>The Non-Indigenous Cultural Heritage Management Plan was approved by the Director-General on 4 September 2013.</p> <p>Section 5.1 (p.11) of the Myuna Non-Indigenous Cultural Heritage Management Plan addressed the protection of the section of remnant railway line associated with the decommissioned Wangi Power Station that is located within the site.</p> <p>No significant indigenous or non-indigenous heritage items were reported to have been identified during the audit period.</p>

## 7 Review of Environmental Management System

Management Plan / Monitoring Program	Adequacy Review and Recommendations
Rehabilitation Management Plan (January to June 2013)	<p>A letter dated 18 January 2013 from Myuna to the Executive Director Mineral Resources requested approval for submission of the Plan in a staged approach for the Mining Operations Plan (Rehabilitation Management Plan) to allow the alignment of the Rehabilitation Management Plan and the Mining Operations Plan that is due for review in June 2013. A response from DRE dated 22 January 2013 approved the staged approach.</p> <ul style="list-style-type: none"> <li>• Stage 1 of the Mining Operations Plan (Rehabilitation Management Plan) – the Rehabilitation Management Plan – was prepared and submitted to the Executive Director Mineral Resources, DRE and DP&amp;I in January 2013. An approval letter for Stage 1 dated 22 January 2013 was received from the Executive Director Mineral Resources.</li> <li>• Stage 2 of the Mining Operations Plan (Rehabilitation Management Plan) dated June 2013 was available for review. Myuna were yet to receive comment/approval from the Executive Director Mineral Resources concerning the Stage 2 plan at the time of the audit.</li> <li>• The current MOP (January 2013 to June 2013) includes a conceptual final land use plan for Surface Facility Areas.</li> <li>• The approval letter from DRE on 22 January 2013 noted that no rehabilitation activities are proposed in the Stage 1 RMP period and that DRE would assess rehabilitation and criteria in the further staged RMP / MOP submission for the site.</li> </ul> <p>It is noted that:</p> <ul style="list-style-type: none"> <li>• No buildings were renovated, removed or rehabilitated during the audit period.</li> <li>• Rehabilitation to the stormwater drain diversion drain was observed during the site inspection.</li> <li>• Rehabilitation of degraded areas caused by environmental weeds was systematically carried out during the reporting period, as part of land management practices.</li> <li>• No rehabilitation trials, research or initiatives were undertaken during the audit period.</li> </ul>
Mining Operations Plan (Rehabilitation Management Plan) (June 2013)	<p>Stage 2 of the Mining Operations Plan (Rehabilitation Management Plan) was submitted to DRE and DP&amp;I on 5 June 2013 and was yet to be formally approved at the time of the audit site inspection. The following observations are made (acknowledging the plan was yet to be approved at the time of the review):</p> <ul style="list-style-type: none"> <li>• The period of the plan is from June 2013 to June 2020.</li> <li>• No rehabilitation or removal and renovation of buildings are proposed in the plan period.</li> <li>• Myuna will continue to operate infrastructure to support mining throughout the duration of the MOP period from 2013 to 2020.</li> <li>• Rehabilitation of exploration drill sites will be undertaken at the completion of these sites during the MOP period in consultation with the relevant landowner.</li> <li>• Rehabilitation of water management structures are not planned during the MOP period. Dams and water management structures will be used to manage water on site.</li> </ul> <p>The MOP was approved in a letter from DRE dated 8 October 2013.</p>



## 7 Review of Environmental Management System

Management Plan / Monitoring Program	Adequacy Review and Recommendations
Biodiversity Management Plan (August 2012)	<p>The Biodiversity Management Plan was approved by the Director-General on 3 September 2012 in accordance with Condition 28 of Schedule 3 of the Myuna Project Approval.</p> <ul style="list-style-type: none"> <li>The plan was prepared by qualified ecologists (RPS Consultants (Australia) Pty Ltd) who were approved by the Director - General on 20 April 2012.</li> <li>Section 4.3 (p.11) Section 5 (pp.16-26) of the plan addressed measures that would be implemented over the life of the mine to protect and enhance the Swamp Sclerophyll Forest on Coastal Floodplains endangered ecological community near Wangi Wangi Creek. Section 5 (pp.16-26) of the Plan addressed measures that would be implemented over the life of the mine to ensure that native vegetation and habitat within the surface facilities are properly managed. The 2011 Environmental Assessment concluded that minimal surface impacts and changes to sub-surface hydrology were expected as a result of the extension of mining.</li> <li>Evidence of weed management activities were observed during the site inspection.</li> <li>A Weed Action Plan – Treated Areas 2012 figure showed weed focus areas for the periods: April to May, June, July and August. A Weed Action Plan for 2013 showed areas for treatment of Lantana for January 2013 and miscellaneous boundary spraying.</li> <li>A Weed Action Plan Component Update for January 2013 identified 58hrs of labour had been spent on weed management along with 20 Litres (L) of herbicide. No spray adjuvants or dye were used. Upcoming works for Autumn/Winter 2013 included spraying of the creek line for Bitou Bush, spraying of emerging fireweed in the adjustment paddock and manual control of Coral trees. A weed survey is planned for Spring 2013. Photographic records were available for January 2013 at monitoring Points 1 and 2 shown on the Weed Action Plan Component Update for January 2013.</li> <li>Hunter Land Management Pty Ltd is engaged to conduct weed management activities.</li> <li>Fluren Pty Ltd are engaged to conduct weed slashing at the site. The auditors sighted job sheets for weed slashing dated 15 October through to the 24 October 2013 (docket no.: 4408 – 4413). A job sheet dated (ref: 5851) 11 June 2013 for slashing was also available for review.</li> <li>Fauna monitoring is to be implemented if subsidence is measured greater than 20 mm. This requirement has not yet been triggered in the Plan.</li> <li>Section 5.6 (p.24) referred to fire management issues. A Bushfire Management Plan dated 1 May 2009 was available for review. The plan had not been reviewed in accordance with Condition 32 of Schedule 3 of the PA 10_0080. There was no reference to an existing bushfire management plan and/or procedures in the plan.</li> </ul> <p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>Ensure that Section 5.6 of the Biodiversity Management Plan references any updates to the bushfire management plan/procedures as required by Condition 32 of Schedule 3 of the PA 10_0080.</li> </ul>



## Subsidence Management

### 8.1 Background

Mining at Myuna is by conventional bord-and-pillar methods using continuous miners, with any secondary extraction limited to pillar removal or reduction. In general, extraction under dry land and foreshore marginal zones (Zone A) is required under the Project Approval to be restricted to first workings with geotechnically-engineered long term stable pillars; secondary extraction is only permitted beneath some areas of Lake Macquarie (Zone B). The first workings are required to be designed to “remain stable and non-subsiding” (Condition 9 of Schedule 3 of the Project Approval), with a maximum allowable subsidence of 20mm. In Zone B, should secondary extraction be carried out, the subsidence limit is 650mm.

The key strategy which has been adopted to manage subsidence within these quite tight limits is the implementation of geotechnically engineered mine design.

In the period covered by this audit, all extraction (in both Zones A and B) has been first workings only, with expected negligible surface subsidence effects.

### 8.2 Geotechnically Engineered Mine Design

For areas limited to first workings, the key element in geotechnical design of the mine is the design of pillars for long-term stability. In the future, should secondary extraction be carried out, the geotechnical design will also address assessment of the surface subsidence effects of the planned extraction, simplistically involving a combination of both pillar compression and “roof beam” deflection effects.

As required by the Approval Conditions and in accordance with widespread local practice, pillar stability is assessed using the University of NSW (UNSW) method, which from a practical viewpoint is normally carried out by Myuna staff using a software package on licence from UNSW. The basic requirement under the Approval Conditions is for a Factor of Safety (FoS) of at least 2.11, which for this design method corresponds to a probability of failure of about 1:1,000,000. In most cases there are other factors affecting pillar sizing which lead to an adopted pillar which is larger than that required to achieve the minimum FoS of 2.11, and consequently FoS are typically significantly higher than this.

For pillar sizes and/or shapes which are significantly different from the normal long-term practice at Myuna, and for any secondary extraction design, formal advice is obtained from a geotechnical consultant with expertise in subsidence assessment and strata control design (usually Seedsman Geotechnics) in relation to pillar stability, strata control and subsidence effects. This advice is typically supported by numerical analysis which has been based on, and calibrated against, experience and observed behaviour at Myuna and other Newcastle Coalfield mines.

### 8.3 Subsidence Monitoring

With extraction beneath dry land being limited to bord and pillar first workings with geotechnically engineered long-term stable pillars, negligible subsidence is expected, and for many mines there is little or no formal subsidence monitoring carried out. At Myuna, survey monitoring to confirm performance is limited to survey lines along the foreshores of Wangi peninsula, Pulbah Island and Point Wolstoncroft. Points are surveyed for level by differential levelling carried out in accordance with regulatory standards. Survey of horizontal strains is neither necessary nor practicable for the very small vertical subsidence movements involved (<20mm). The survey lines have been in place for many years, and are now monitored annually. To date there have been no instances of measured

## 8 Subsidence Management

subsidence in excess of 20mm, with measured movements being mostly in the range + 10mm. In many cases the “true” subsidence movements are probably overwhelmed or distorted by natural surface movements due to changes in climatic condition (particularly soil moisture) , which can cause shrink/swell movements well in excess of 20mm.

In the period under review (since January 2012), the only mining carried out beneath a shoreline has been some Wallarah Seam extraction beneath the eastern end of the Wangi peninsula, in areas where there has previously been extraction in both the Great Northern and Fassifern seams. Total measured vertical displacements of the surface survey targets in the 12+ years since their installation are up to a maximum of 12mm subsidence, and the recent Wallarah extraction does not appear to have resulted in any measurable increase in subsidence.

Subsidence data was also reviewed for lines along the east and west shorelines of Point Wolstoncroft. In one part of the western shoreline over a length of about 500 m the measured subsidence as at December 2012 was in the range 15-20 mm, with one point registering 20 mm subsidence. Movements along the corresponding stretch of the eastern shoreline were mostly 10 – 15 mm, while movements on both shorelines to the north of these sections were typically 5 – 10 mm. There has been no extraction in this area during the review period, but in the past there has been extraction in both the Wallarah and Fassifern seams, including an area in the Wallarah beneath Point Wolstoncroft where the pillars were smaller than usual for Myuna (about 23 m centres rather than 30 m centres). The trend in the subsidence data with time suggests that subsidence in this area may exceed 20 mm in the near future.

### 8.4 Adequacy Assessment

With long experience at Myuna in carrying out multi-seam first workings extraction which result in negligible subsidence and long term stability, and processes in place to apply geotechnical engineering expertise to any proposed significant departures from normal Myuna practice in regard to mine layout and pillar dimensions or proportions, the management of subsidence within Zone A is considered to be appropriate and robust.

In the event that significant areas of secondary extraction in Zone B are implemented, the measures in place to geotechnically engineer the underground design should be well suited to keep subsidence within the 650mm limit. Monitoring the lake bed to actually confirm that the subsidence limits have not been exceeded could however be quite challenging. These matters would be considered in detail as part of the development of the Extraction Plan and Subsidence Management Plan required under the Project Approval and Consolidate Coal Lease conditions respectively prior to commencement of secondary extraction in Zone B.

## Water Management

### 9.1 Water Management Overview

From a water management perspective, the site's water is managed through the Water Management Plan, Myuna Colliery 2012 (WMP).

Documents supporting the above plan include:


- Surface Water Management Plan, Myuna Colliery 2012 (SWMP) which references early assessments in 2008 and 2010;
- Water and Salt Balance Assessment, Myuna Colliery, August 2012;
- Erosion and Sediment Control Plan, Myuna Colliery, August 2012;
- Groundwater Monitoring Program, Myuna Colliery, August 2012;
- Surface and Groundwater Response Plan, Myuna Colliery, August 2012;
- Water Management Assessment Myuna Colliery, GHD, October 2010;
- Water Balance Assessment Myuna Colliery, GHD, October 2010.

The WMP is the overarching document for water management for the site. The WMP investigates ways to improve the mine's water management system with particular focus on the management of the site's dirty water storages and makes recommendations to this effect.

### 9.2 Site Inspection




Observations from the site inspection conducted at the time of the audit directly relating to water management are detailed within **Table 9-1**. The auditor was escorted around the site on two separate occasions by mine personnel who made themselves available for this purpose.

**Table 9-1 Summary of Observations Relating to Water Management**




Photo #	Observation	Photo
9.1	Photograph of LDP B. Note presence of monitoring equipment for both quality and volume/mass. The location of discharge of a recently constructed clean water diversion is located downstream to LDP B. The discharge point is via a concrete outlet for a 600 mm (assumed) reinforced concrete pipe (RCP).	



## 9 Water Management




Photo #	Observation	Photo
9.2.	Flow monitoring equipment at LDP B.	 A photograph showing flow monitoring equipment installed in a stream. The equipment includes a green digital display unit mounted on a pole, a white control box, and a vertical pipe with a float valve. The stream is surrounded by trees and vegetation.
9.3	<p>Perspective view of Emergency Coal Stockpile, stormwater inlet pit as main ingress point to the Emergency Coal Stockpile dam (photo 9.3) and perspective view of Emergency Coal Stockpile dam (photo 9.4).</p> <p>This area is labelled a 'dam'; however, it is in fact a land depression with a relatively large surface area. Site personnel indicate that there is abundant running along the bank of Wangi Creek. Site personnel also described the performance of this area during heavy rain: very shallow depth, extending to the tree line shown in the photograph. However water did not reach bund and it is anticipated that this will not occur even under flooding rain conditions. Further commentary is offered within the audit's text.</p>	 A photograph showing a large, dark, flat area of land, likely a coal stockpile, with a yellow line marking a boundary. The area is surrounded by trees and vegetation.
9.4	Emergency Coal Stockpile, stormwater inlet pit as main ingress point to the Emergency Coal Stockpile dam.	 A photograph showing a concrete structure, likely a dam or inlet pit, with a green tarp covering the area in front of it. The structure is surrounded by trees and vegetation.

## 9 Water Management




Photo #	Observation	Photo
9.5	View of Emergency Coal Stockpile dam.	
9.6	View of Emergency Coal Stockpile dam's spill point (now LDP A). Note pipe on the right bank.	
9.7	View of Mine Industrial Area (MIA) waste and erosion & sediment control measures. Sediment fences require attention. Site management is aware of this and have scheduled maintenance with their regular contractor (SMK).  See photos 9.7 and 9.8.	



## 9 Water Management




Photo #	Observation	Photo
9.8	Sediment fences and drain require attention.	
9.9	Sediment fences require attention.	
9.10	Perspective view of MIA. Runoff is captured and directed to various treatment facilities (O/W separator, First Flush) as appropriate.	

## 9 Water Management

Photo #	Observation	Photo
9.11	MIA oil/water separator. This is operated and maintained by an external contractor. 'Clean' runoff is directed to the CHP dam via pipeline.	
9.12	First Flush settlement tank which has limited capacity. At present this facility discharges directly to LDP B. Myuna is presently investigating/implementing works to direct this water to the CHP dam and/or settling ponds before directing to the bore injection point (to underground workings). This is to ensure that 'dirty' runoff undergoes treatment (via the ponds and underground settling) before discharge off site.	
9.13	View of CHP Dam (Settling Pond 1). It was stated during the audit that the CHP dam undergoes a yearly de-silting, Sediment Ponds 2 and 3 are typically free of sediment.	



## 9 Water Management

Photo #	Observation	Photo
9.14	Note discharge from underground into Settling Pond 2.	
9.15	Settlement Ponds 2 and 3.	
9.16	View of the bore (under construction) to send mine water from the CHP dam back into Great Northern seam. It is understood that a license application has been made to NOW; however, no answer has been received. As a consequence Myuna Colliery are proceeding with the work with completion expected by late August 2013.	

## 9 Water Management

Photo #	Observation	Photo
9.17	Clean water diversion drain around the emergency coal stockpile area.	

Other relevant observations (not supported by the above photographs) include:

- The site's environmental officer performs a weekly inspection of the mine site on foot. Observations from this inspection are recorded on a pro-forma which the auditor reviewed. Within it, noteworthy items are recorded for action; and
- The auditor also reviewed Work Order pro-forma to the site's contractor for various maintenance works (e.g. repair of sediment fences, cleaning of rubbish etc.).

### 9.3 Mine Water Management Adequacy Review

#### 9.3.1 Overview of the Water Management Plan (2012)

The site has prepared a draft Water Management Plan (WMP) prepared by GHD Pty Ltd, however, was yet to be formally approved by the Director-General at the time of the audit. A letter dated 17 August 2012 was available for review confirming submission of the Water Management Plans to DPI for approval. Included for submission with the WMP were the following sub-plans:

- The Water Management Plan;
- Site Water and Salt Balance;
- Erosion and Sediment Control Plan;
- Surface Water Management Plan;
- Groundwater Monitoring Program and Surface; and
- Groundwater Response Plan.

From the documents reviewed, the Surface Water Management Plan (SWMP) is the backbone of the WMP. The SWMP includes copies of two background water management assessments in 2008 and 2010. Review of these assessments indicate that:

- In 2008 there were concerns regarding:
  - capacity of the CHP dam;
  - capacity of the emergency coal stockpile (ECS) dam;
  - definition of catchments contributing to the above;
  - maximising diversion of clean runoff; and

## 9 Water Management

- capacity in other dams to cater for design rainfall events.

It is understood the above concerns were raised ahead of a site review by the then Department of Environment and Climate Change DECC (now Office of Environment and Heritage, part of the EPA), however; no report was prepared by DECC following the site review.

- In May 2010 an investigation into non-compliant discharge was undertaken and recommendations made.

From an adequacy perspective the draft WMP generally covers the requirements of the PA 80\_0010. The objectives of the WMP are to satisfy the imposed statutory requirements in terms of health and environment and has been written to comply with the relevant legislation. The technical studies that form the basis of the WMP are listed below:

- Construction of a clean water diversion;
- Groundwater and surface water:
  - variation to EPL to: (i) combine LDP001 and 002 into LDP B;
  - establish LDP A at the ECS dam; and
  - investigate water reuse options.

The WMP also documents a Failure Modes and Effects Analysis (FMEA) risk assessment which revealed that the most significant environmental risk to the management of water is heavy and prolonged rainfall.

The auditors reviewed a select number of documents supporting the WMP and these are commented on below.

### ***Review of the WMP by DP&I***

The auditor sighted email correspondence from Colin Phillips from DP&I concerning a preliminary review of the WMP. From this it is understood that the review was still in progress; however; DP&I offered some interim feedback with key issues as follows:

- Formal response required on the status of application to alter its EPL to replace LDP 001 and LDP 002 with LDP A and LDP B;
- Clarification sought on apparent re-direction of western and southern clean water catchments to LDP B (*It was observed that the clean water catchments discharge to a location immediately downstream of LDP B and that the Figure presented in the WMP may be misleading due to scale*);
- Reasons sought why runoff from work areas such as the Materials Yard and the area around the oil separator have been diverted to a dirty water catchment treatment system (*It is understood that Myuna Colliery are presently planning/implementing works to divert all runoff collected from the MIA and other hardstand areas to the CHP dam and ponds for treatment prior to discharge to LDP B*);
- Explanation required on the proposal to pump mine water to underground workings particularly in terms of capacity of the workings. The figures in the WMP seem to suggest a deficit in pumping out versus in suggesting that the underground workings will fill up over time; and
- Queries on the assumed moisture content of mined coal (being the same as in-situ coal) for the water balance assessment and consequent impacts of this assumption on the mine's dirty water system capacity.

## 9 Water Management

Other minor issues were also highlighted and it is understood from the email that additional feedback will be provided as DOP's review continues.

At the time of writing this report it was understood that Myuna had responded to comments made by DPI and the document had been resubmitted. No response had been received regarding the changes.

### 9.3.2 Overview of the Surface Water Management Plan (GHD, 2012)

URS reviewed the 2012 Surface Water Management Assessment report prepared by GHD on behalf of Myuna. The following comments are made relating to the assessment:

- From a water management perspective, there are five primary categories of water within the Myuna Colliery operations: clean, dirty, underground mine water, potable and waste water. The SWMP focuses primarily on the management of clean and dirty water at the surface. Key pieces of water management infrastructure are:
  - clean water management: catering for (i) buildings runoff, (ii) hardstand areas runoff, (iii) clean water diversions catering for perimeter catchments to the west of the site.
  - dirty water management to mitigate the risk of coal-laden water from being discharged from the Colliery downstream into Wangi Creek: Primary Settlement Tank, CHP Dam, Emergency Stockpile Dam and to a lesser extent the Mine Water Settling Ponds 2 and 3.
- The SWMP assessed the capacity of both the clean and dirty water management system concluding:
  - the clean water diversions cater for flows between 90 to 630 L/s in a 20 year ARI event storm. The assessment assumes that the drainage network has the capacity to cater for this flow and recommends that a separate detailed hydraulic assessment be undertaken where the diverted catchment is routed through the existing drainage network.
  - the assessment recommends implementing additional capacity to the CHP dam by constructing an injection bore near the dam to act as a sink for the pumped water from the CHP Dam where settlement of particles can occur on a much larger time frame than with the limitations at the surface (this option was under investigation at the time of SWMP writing however construction of the bore was underway at the time of the audit).
  - the assessment concludes that there is enough capacity in the ECS dam to cater for the likely catchment runoff contributing to it.
- The assessment discusses options for water reuse on site as required by the consent conditions and concludes that the opportunities for water reuse are limited due to the high salt concentrations (EC) of the site's mine water thereby requiring some form of desalination prior to reuse (for instance in the underground operation where most of the potable water is consumed). This is considered impractical and uneconomical. The site does recycle its dirty water, primarily by using it to aid dilution of high TSS/EC water at the CHP dam (however the volumes and frequency of this opportunity are small compared with the overall discharge off site), and dust suppression within the Emergency Stockpile Area (again, given that most coal is conveyed directly to Vales Point there is little opportunity for this reuse).
- A water quality assessment was performed by the WMP authors (GHD). The assessment comprehensively evaluates the baseline water quality, the default water quality criteria and proposes new trigger values and expands the suite of analytes.

## 9 Water Management

- A geomorphic/stream health assessment of Wangi Creek is also included and discusses the issues associated with establishing the new LDPs. Although no major impacts are predicted, the report recommends repair of discrete reaches plus monitor/repair of channel incision.
- Throughout the plan references are made to the proposed licenced discharge points LDP A and LDP B. These have now been installed and are included on EPL 366.

### ***Recommendations:***

The report recommended that:

- A drainage investigation be conducted to confirm the capacity of the stormwater network to carry flow from clean water diversions;
- Continue discussions with the NSW Office of Water (NOW) for resolution of the bore license application to discharge water from the CHP dam into the underground workings. It is understood that NOW has been approached on a number of occasions with no response;
- To enable ongoing assessment of water quality discharged from Myuna the existing monitoring program to be maintained for the life of the Project with the following enhancements:
  - augment sampling analytes as per the SWMP.
  - include geomorphic monitoring of Wangi Creek as per the SWMP.
- Update the plan and figures to include the locations of LDP A and LDP B.

### **9.3.3 Overview of the Water and Salt Balance Assessment (GHD, 2012)**

Key components of this study include:

- Construction of a MODFLOW hydrogeological model.
- Construction of a Goldsim model to represent water balances for existing and proposed site-conditions.

The above models were based on information provided by Myuna Colliery and were calibrated (wherever possible) using conservative approaches.

The water balance model predicted that there will be an increase in discharges from Myuna Colliery as a result of the extension to underground mining operations under Project Approval 10\_0080. This was attributed to the increase in water make resulting from the increased mining extent. The increased discharge volume was found not to translate to an increased concentration of salt being discharged. The model supported the conclusion that a variation to the current volumetric condition of EPL 366 was not necessary at this time.

### ***Recommendations:***

The report recommended that:

- A review of the operational requirements with respect to underground water pumping should be undertaken annually to confirm a variation to the volumetric condition of EPL 366 is not required.



## 9 Water Management

### 9.3.4 Erosion and Sediment Control Plan (GHD, 2012):

The Erosion and Sediment Control Plan is a component of the Water Management Plan prepared by GHD Pty Ltd, however, this Plan was yet to be formally approved by the Director-General at the time of the audit. The following observations are made acknowledging the plan was in draft form:

- Currently there are no construction activities on site hence the need for erosion and sediment control measures for the surface operations is minimal;
- One key feature of sediment control is ensuring that the CHP dam has sufficient capacity (it was determined that its volumetric capacity is limited) hence the implementation of bore injection.
- Temporary erosion and sediment controls were observed at the recently installed clean stormwater diversion drain in accordance with Section 4.3 (p.18).
- A road sweeper truck was sighted at the pit top area during the audit in accordance with Section 5.2.1 (p.20).
- Section 2.3 (p.5) of the plan referred to the proposed licenced discharge points LDP A and LDP B. These have now been installed and are included on EPL 366. Figure 2-1 (p.6), Figure 3-3 (p.11), Figure 3-4 (p.15), Figure 3-5 (p.16) and Figure 5-1 (p.25) showed the former licenced discharge points (LDP001 and LDP002) not the current LDB B and LDP A.
- Section 5.3.1 (CHP Dam Capacity Assessment, pp.21-22) referred to limits and volumes associated with the former LDP001 and LDP002 as well as proposed LDP A and LDP B.
- Weekly surface cleaning work orders were noted to include management and operation of the coal pad dam water diesel pump, clean out of drive in sump at the Coal Handling Plant dam and maintenance and servicing of water catchment sumps and drains in accordance with Section 5.5 (Maintenance, pp.24-26).
- Appendix A included sediment basin calculations for the Coal Handling Plant Dam and the Emergency Stockpile Dam.
- Appendix B included standard erosion and sediment controls details including fences that were observed during the site inspection.

### Recommendations

- It is recommended that survey and continued clean-up activities are undertaken annually of the CHP dam;
- Continue monitoring and maintenance activities as presently undertaken;
- Update the plan and figures to include the locations of LDP A and LDP B; and
- Update Section 5.3.1 (CHP Dam Capacity Assessment, pp.21-22) to reference current LDP A and LDP B and current EPL criteria.

### 9.3.5 Groundwater Monitoring Program (GHD, 2012)

The GWMP report states *“With the nature of the groundwater environment and the dominance of Lake Macquarie effecting both groundwater inflow and quality to Myuna Colliery, and the fact that there are no bores within or in close vicinity of the site, recording standing levels within the underground storages is the most appropriate way to monitor groundwater inflows and provide observational data for re-calibrating and updating the hydrogeological model for Myuna”*. Based on this, and with reference with DP&I comments regarding water make and bore injection of water from the CHP dam, the following recommendations are supported:

## 9 Water Management

- quarterly monitoring of storages levels to continue (including recording of all inflows, outflows and internal transfers of the underground system) as recommended in the GWMP;
- sampling for quality (TSS, turbidity and pH) is recommended to be undertaken quarterly at the outlet location of the three transfer pipelines as recommended in the GWMP.

### 9.3.6 Surface and Groundwater Response Plan (GHD, 2012)

The Surface and Groundwater Response Plan is a component of the Water Management Plan prepared by GHD Pty Ltd. The Plan was not formally approved by the Director-General.

The Plan provides specific instructions/actions required to Support Specific Responses:

- Visit by Office of Environment and Heritage and Environmental Protection Authority officers;
- Rainfall triggers;
- Volumetric flow exceedances;
- LDP water quality triggers; and
- Bed and bank stability.

It is considered that, in general, Myuna Colliery are implementing appropriate measures to manage both surface and groundwater. There is a clear demonstration that the site has comprehensive documented analyses and procedures to support day-to-day mining activities; however, the following observations are made:

- Section 1.6 (p.2) of the plan referred the proposed licenced discharge points LDP A and LDP B. These have now been installed and are included on the current EPL 366.
- Table 2-2 (p.6) indicates trigger conditions for managing riparian and in-stream vegetation and channel stability through a photographic log. A photographic log was not observed by the auditors.
- Section 2.3.1 (p.8) addressed underground storages. Refer to Section 9.3.1.1 for further details.
- Section 4.3 (Volumetric Flow Exceedence, p.18) provides the protocol in the event of a flow exceedance. A volume/mass discharge exceedence occurred on 2 March 2013 that exceeded the criteria set out in Condition L3 of EPL 366 for LDPB (refer to Condition 11, Schedule 2, Appendix A for further details). The site notified the EPA Regional Officer by telephone on 5 March 2013 and provided a written report of the incident on 8 March 2013. The protocols listed in Section 4.3 did not match the actions taken by the site following the exceedence.

### Recommendations

- Update the plan to include the locations of LDP A and LDP B;
- Ensure a photographic log of riparian and in-stream vegetation and channel stability is maintained in accordance with the requirements of Section 2.2 and Table 2-2 (p.6);
- Update the protocol in Section 4.3 (Volumetric Flow Exceedence, p.18) to reflect the actions taken following the volume/mass exceedence on 2 March 2013; and
- The site's environmental officer and other responsible parties within the site continue to adhere to the specific recommendations presented in the Plan.

## 9.4 Improvement Opportunities

The audit has identified areas of improvement and these are highlighted through this chapter, in particular feedback from DP&I when it is received. It is recommended that Myuna considers

## 9 Water Management

implementing these recommendations within a defined timeframe as these will become a reference point for future audits.

Compliance against the specific conditions are described in Appendix A with Non-compliances reported in Section 10. In addition to these specific items of non-compliance, URS has noted other areas where continuous improvement opportunities were noted, which are also presented in Section 10.



## Summary of Non Compliances and Recommendations

Some non-compliances have been identified with the Development Consent Conditions, EPL conditions and Mining Lease conditions. These non-compliances as well as the requirements assessed as indeterminate and the associated recommendations have been consolidated and are summarised in **Table 10-1** below. For a number of requirements that were assessed as compliant or not applicable, recommendations were made where continuous improvements were identified. These requirements and recommendations are summarised in **Table 10-2**.

Recommendations relating to observations of general environmental management, the adequacy of the various plans / programs and findings relating to water management, are included in **Table 10-3**.

Recommendations concerning the adequacy of management plans are provided in Section 7 and for water management in Section 9.



## 10 Summary of Non Compliances and Recommendations

**Table 10-1 Summary of conditions / requirements assessed as non-compliant or indeterminate and recommendations**

Condition / Requirement No.	Summary of Condition / Requirement	Comment	Compliance Status and Recommendation
Myuna Colliery –Mining Project - Project Approval DA 10_0080 S3.35	<p><b>Rehabilitation Management Plan</b></p> <p>The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director Mineral Resources. This plan must:</p> <ol style="list-style-type: none"> <li>be prepared in consultation with the Department, DPI Fisheries, LMCC, WSC and the CCC;</li> <li>be prepared in accordance with any relevant DRE guideline;</li> <li>provide for detailed mine closure planning, including measures to minimise socio-economic effects due to mine closure, to be conducted prior to the site being placed on care and maintenance;</li> <li>build, to the maximum extent practicable, on the other management plans required under this approval; and</li> <li>be submitted to the Executive Director Mineral Resources for approval within 12 months of the date of this approval.</li> </ol>	<p><b>Preparation</b></p> <p>The Mining Operations Plan (Rehabilitation Management Plan) dated June 2013 was available for review. A letter dated 18 January 2013 from Myuna to the Executive Director Mineral Resources requested submission of the Plan in a staged approach. A response from DRE dated 22 January 2013 approved the staged approach and approved the plan for the period of January 2013 to June 2013.</p> <p>The current MOP includes a conceptual final land use plan for Surface Facility Areas. Stage 1 of the Rehabilitation Management Plan was prepared and submitted to the Executive Director Mineral Resources in January 2013 to DRE and DOP to clarify the approach was correct. An approval letter for Stage 1 dated 22 January 2013 was received from the Executive Director Mineral Resources. Myuna had yet to receive comment from the Executive Director Mineral Resources concerning the Stage 2 Rehabilitation Management Plan at the time of the audit. The following comments are provided on the MOP:</p> <ol style="list-style-type: none"> <li>The auditors sighted correspondence from Myuna to the Community Consultation Committee, Wyong Shire Council and Lake Macquarie City Council dated 6 June 2013 seeking feedback on Stage 2 of the Mining Operations Plan / Rehabilitation Management Plan.</li> <li>The auditors sighted a letter from DRE dated 22 January 2013 indicating they were satisfied with the plan.</li> <li>Section 5 (pp.20-21) provided detail concerning mine closure planning, including measures to minimise socio-economic effects due to mine closure.</li> <li>Whilst topics such as water management were discussed in the Plan there was not clear reference to other management plans required under this approval.</li> <li>URS sighted a letter of submission dated 5 June 2013 for Stage 2 of the Rehabilitation Management Plan. It is noted that Stage 1 of the Rehabilitation Management Plan was submitted in January 2013 (i.e. within the approval timeframe).</li> <li>Myuna provided an Approval letter for the MOP from DRE dated 8 October 2013.</li> </ol> <p>For the Stage 2 Mining Operations Plan (Rehabilitation Management Plan) the period of the plan is from June 2013 to June 2020. The June 2013 plan notes:</p> <ul style="list-style-type: none"> <li>No rehabilitation or removal and renovation of buildings are proposed in the plan period.</li> <li>Myuna will continue to operate infrastructure to support mining throughout the duration of the MOP period from 2013 to 2020.</li> <li>Rehabilitation of exploration drill sites will be undertaken at the completion of these sites during the MOP period in consultation with the landowner.</li> <li>Rehabilitation of water management structures are not planned during the MOP period. Dams and water management structures will be used to manage water on site.</li> </ul> <p>Correspondence with DTIRIS in August 2013 indicated that further work is required to update the MOP prior to DTIRIS approving the Plan.</p> <p><b>Implementation</b></p> <p>The approval letter from DRE on 22 January 2013 noted that no rehabilitation activities are proposed in the Stage 1 RMP period and that DRE would assess rehabilitation and criteria in the further staged RMP / MOP submission for the site.</p> <p>It is noted that:</p> <ol style="list-style-type: none"> <li>No buildings were renovated, removed or rehabilitated during the audit period.</li> <li>Rehabilitation to the stormwater drain diversion drain was observed during the site inspection.</li> <li>Rehabilitation of degraded areas caused by environmental weeds was systematically carried out during the reporting period, as part of land management practice.</li> <li>No rehabilitation trials, research or initiatives were undertaken during the audit period.</li> </ol> <p>Implementation was generally observed to be in accordance with the MOP. Given Stage 2 of the Mining Operations Plan Rehabilitation Management Plan has yet to be formally approved this Condition was found to be indeterminate.</p>	<p>Preparation – Indeterminate (at time of site inspection formal approval by the Director-General was pending. Noted formal Approval has since been obtained dated 8 October 2013).</p> <p>Implementation – Indeterminate (on basis Plan was still to be approved at the time of the site inspection for the audit).</p>



## 10 Summary of Non Compliances and Recommendations

Condition / Requirement No.	Summary of Condition / Requirement	Comment	Compliance Status and Recommendation
Myuna Colliery –Mining Project - Project Approval DA 10_0080 S3.31	<b>Waste</b>  The Proponent shall: k) minimise the waste generated by the project; and l) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.	<p>A large stockpile of waste was observed on the emergency coal stockpile during the site inspection (approximate dimensions was 15m by 10 m by 4 m high). Site management reported that the material consisted of conveyor waste from the Bradford Beaker and had accumulated over a long period. The waste was observed to include, but not be limited to inert rock and minor coal deposits; however was observed to include, torn sections of conveyor belts, wood, plastic containers, pallet banding and small diameter piping. Site management reported that the waste would be returned underground in the near future.</p> <p>The site's Environmental Protection Licence does not provide an exemption for returning waste material underground. The Mining Operations Rehabilitation Management Plan (January 2013) states that '<i>all wastes generated on site are classified and separated in accordance with DECCW's Waste Classification Guidelines</i>' and that '<i>due to the mining method employed at Myuna Colliery only a small amount of waste rock is produced from the mining process. This is collected and stored on site</i>'.</p> <p>URS considers that the type of waste observed at the emergency coal stockpile would be classed as 'building and demolition waste' as defined by the EPA Waste Classification Guidelines Part 1: Classifying Waste. Further, returning such material back underground may potentially be a breach of Sections 142A and/or 143 of the <i>Protection of the Environment and Operations Act 1997</i> that prohibits the pollution of land and requires waste to be transported to a place that can lawfully accept it. The EPA Waste Classification Guidelines Part 1: Classifying Waste describe building and demolition waste as '<i>bricks, concrete, paper, plastics, glass, metal, and timber, including unsegregated timber, that may contain timber treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP)</i>'. Minor quantities of such waste were reported to be produced per week.</p> <p>As URS cannot provide legal advice, further consideration of the legal status of this activity may be required.</p> <p>On this basis, this Condition has been assessed as Indeterminate.</p>	Indeterminate  <b>Recommendation</b>  It is recommended that Myuna seek legal advice concerning the disposal of waste back underground in accordance with the POEO Act 1997.  Only natural materials such as dirt, rock and coal deposits should be returned underground. Manmade materials including natural material treated with manmade product(s) (i.e. wood) should be segregated and disposed of off-site at an appropriately licensed waste facility. Waste should be separated at the source to prevent contamination of waste streams.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 S5.7	<b>Incident Reporting</b>  The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incidents associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	<p>Site management reported that Myuna has not reported any site incidents to the Director-General.</p> <p>One pH exceedence against the site's EPL thresholds was reported to EPA through the EPA Pollution Hotline.</p> <p>The EPL Annual Returns note the details of the exceedence (see Condition 11, Schedule 2 for further information concerning EPL exceedences).</p> <p>Incidents are reported to DP&amp;I in the AEMR at the end of the reporting period.</p> <p>Communications concerning reporting the pH exceedences to the EPA was available for the auditors to review.</p> <p>It is noted that notification of an environmental incident to the Director-General is specified in, but not limited to, the following plans:</p> <ul style="list-style-type: none"> <li>• Environmental Management Strategy (Section 4.2.3);</li> <li>• Water Management Plan (p.54);</li> <li>• Noise Management Plan (p.6); and</li> <li>• Biodiversity Management Plan (p.7).</li> </ul> <p>On the basis that DP&amp;I were not notified of the exceedences, Myuna were considered Non Compliant with this condition.</p>	Non-Compliant  <b>Recommendation</b>  In accordance with this Condition and Myuna's management plans it is recommended that when the EPA is notified of an environmental incident that has caused, or threatens to cause, material harm to the environment the Director-General and any other agencies be notified at the earliest opportunity.

## 10 Summary of Non Compliances and Recommendations

Condition / Requirement No.	Summary of Condition / Requirement	Comment	Compliance Status and Recommendation
Environmental Protection Licence 366 L2.2	<b>Concentration Limits</b>  Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	<p>The 2012 AEMR (p.21) indicates that there was one non-compliance concerning pH exceedance in accordance with the EPL 366. A pH result of 6.16 was recorded at LDP002 on 18 April 2012. The EPL pH range limit is 6.5 to 8.5. The result was attributed to over flocculation of the CHP Dam following a high rain event to manage high turbidity in the dams. Myuna considered the flocculent changed the pH level of the dams resulting in the low reading. The pH level on the 19 April 2012 was recorded at 7.21.</p> <p>Based on the one off pH exceedance (0.34 below the lower concentration limit) result Myuna was considered to be Non Compliant with this condition .</p>	<p>Non-Compliant</p> <p>(one minor Non Compliant result for pH during the reporting period)</p> <p><b>Recommendation</b></p> <p>Ensure future flocculation events are monitored to ensure pH levels are within the range specified by the EPL prior to discharging to receiving waters.</p>
Environmental Protection Licence 366 L3.1	<b>Volume and Mass Limits</b>  For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a) liquids discharged to water; or b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area.	<p>One volume exceedance from LDP B (formerly LDP001) was notified to the EPA on 5 March 2013. No further action was taken by the EPA.</p> <p>The EPA notification reported that on 2 March 2013 the volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be:</p> <ul style="list-style-type: none"> <li>— a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>— 3,676 kL of clean water flowed through LDP B during the event.</li> </ul> <p>Centennial Myuna received an EPL variation on 27 February 2013 that introduced LDP B to the EPL. LDP001 and LDP002 were removed from the EPL. At the time of the volume/mass exceedance on 2 March 2013 LDP B included the flow from a clean water diversion drain that captured clean water run-off from the west of the pit top facilities. When the EPL variation was received on 27 February 2013 Myuna was in the process of realigning the clean water diversion drain so that it no longer flowed into an upstream connection of LDP B. The auditors observed the new clean water diversion drain and discharge point in place downstream from LDP B during the site inspection in June 2013. This should result in reduce risk of exceeding the EPL discharge limit for volume at this point. Planned improvements to the dirty water system included the annual maintenance de-silting of the CHP dam and the installation of a bore to re-inject water underground (from the CHP dam) into Great Northern seam to ensure that 'dirty' runoff undergoes treatment (via the ponds and underground settling) before discharge off-site.</p> <p>It is acknowledged that continuous flow monitoring data for LDP B is available and that the clean stormwater drain realignment now bypasses LDP B, however, there was an exceedance against the EPL requirement in the audit period and therefore this Condition has been found to be non-compliant.</p>	<p>Non-Compliant</p> <p><b>Recommendation</b></p> <p>Monitor effectiveness of clean water diversion works to reduce discharge flows so as to be within licence volume limits.</p> <p>Ensure improvements continue to the dirty water treatment system.</p>
Environmental Protection Licence 366 L4.3	<b>Waste</b>  This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence.	Refer to Myuna Colliery –Mining Project - Project Approval DA 10_0080 S3.31 above for audit finding.	Indeterminate
Consolidated Coal Lease 762 C2	Mining, Rehabilitation, Environmental Management Process and Mining, Rehabilitation, Environmental Management Process (MREMP) and (MOP)  This Condition has requirements for preparation of the above plans. (See Appendix A for details of this condition).	Refer to Myuna Colliery –Mining Project - Project Approval DA 10_0080 S3.35 above for audit finding.	Preparation and Implementation – Indeterminate (at time of site inspection formal approval by the Director-General was pending. Noted formal Approval has since been obtained dated 8 October 2013).

10 Summary of Non Compliances and Recommendations

Condition / Requirement No.	Summary of Condition / Requirement	Comment	Compliance Status and Recommendation
Myuna Colliery – Mining Purposes Lease 334	<p>Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow the registered holder shall serve on each owner and occupier of the private land and on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.</p> <p>If there are ten or more owners or occupiers affected the registered holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.</p>	<p>This requirement was initiated well before operations were managed by Centennial Coal. As such, this requirement was assumed to have been addressed at the time of the ML 334 being issued and was not assessed as part of this audit.</p> <p>For this reason, this condition was assessed as indeterminate.</p>	<p>Indeterminate</p> <p>(Historical requirement)</p>

## 10 Summary of Non Compliances and Recommendations

The following table has been reproduced from Appendix A. For details on the requirement, and for further discussion of the issue, please refer directly to the table in Appendix A. Many recommendations are based around continuous improvement opportunities identified during the audit and do not necessarily represent immediate potential non-compliance issues.

**Table 10-2 Summary of additional recommendations from Independent Environmental Audit (not related to non compliances)**

Condition / Requirement No.	Recommendation
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.1	Continue monitoring and if 20 mm subsidence is exceeded notify and discuss with DP&I.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 -S3.19	In accordance with Condition 3.19(d) it is recommended that the measures to minimise Greenhouse Gas Emissions from the site be clearly stated and that there be a link between the Air Quality and Greenhouse Gas Management Plan and the Energy Savings Action Plan so that monitoring and actions can be consolidated.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.23	The Site Water and Salt Balance should be updated to reflect the change to the EPL licenced discharge points (LDP A and LDP B).
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.26	Continue to seek all relevant groundwater licences for water bores at Myuna from NOW.  In anticipation of the Water Management Plan (WMP) being approved, it is recommended that monitoring, as defined by the WMP is undertaken.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.27	Ensure environmental inspection sheets reflect the practices and requirements specified in the Surface and Ground Water Response Plan.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.29	Prior to commencing any extraction in the vicinity of the remnant railway line, establish subsidence monitoring points to provide a basis for triggering the actions necessary should subsidence exceed 20mm.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.30	It is recommended Myuna conduct inspections of outdoor lighting to demonstrate it meets the requirements of AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S3.32	Review the Bushfire Management Plan to show the location of existing fire fighting equipment or ensure the existing site service plan shows the location of current fire fighting equipment.
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S5.1	It is recommended that the Environmental Management Strategy be reviewed and revised to reference the Pollution Incident Response Management Plan.  It is recommended that that the Environmental Management Strategy be reviewed and revised to include copies of any strategies, plans and programs approved under the conditions of this approval as required by

## 10 Summary of Non Compliances and Recommendations

Condition / Requirement No.	Recommendation
	C5.1(f).
Myuna Colliery –Mining Project - Project Approval DA 10_0080 - S5.11	It is recommended that the Water Management Plan be uploaded to the Myuna website once approved.
Environmental Protection Licence 366 - P1.1	Update the reference in the Environmental Protection Licence to the current plan number (MY10956). Provide the location of the two high volume air samplers to the EPA for inclusion in the Environmental Protection Licence.
Environmental Protection Licence 366 - L1.1	It is recommended that all of the parameters required by Trade Wastewater agreement D-171027 be monitored.
Environmental Protection Licence 366 - M7.2	Ensure the telephone complaints line advertised in the Community Complaints Register and on the Centennial website are the same.
Consolidated Coal Lease 762 - C16	See recommendations in regarding measuring trade wastewater temperature, Condition L1.1 of EPL 366 recommendation.
Myuna Colliery – Mining Purposes Lease 334 - C7	
Myuna Colliery – Mining Purposes Lease 334 - C14	Include medium and long-term mining plans in the AEMR.
Myuna Colliery – Mining Purposes Lease 334 - C19	See recommendations regarding bushfire management Myuna Colliery – Mining Project - Project Approval DA 10_0080 S3.32
Myuna Colliery – Mining Purposes Lease 334 - C27	See recommendations in the main report regarding sediment control fences.
Myuna Colliery – Mining Purposes Lease 334 - C30	Ensure discharge from LDP A is discharged in such a manner that it will not cause erosion.
General Observation	It is recommended signage to former licenced discharge points be removed. Myuna indicated that new signs had been ordered for the new discharge points.
General Observation	Sediment fences require attention at the stormwater diversion drain soil stockpile.
General Observation	It is recommended that the weed control program continue to be implemented to control weeds onsite.
Water Management Plan	In anticipation of the Water Management Plan (WMP) being approved, it is recommended that monitoring, as defined by the WMP, is undertaken.

## Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Centennial Myuna Pty Ltd and only those third parties who have been authorised in writing by URS to rely on this Report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this Report.

It is prepared in accordance with the scope of work and for the purpose outlined in the Proposal dated 21 December 2012 and the contract dated on 7 February 2013.

Where this Report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in the Report. URS assumes no liability for any inaccuracies in or omissions to that information.

This Report was prepared between 26 June and 30 August 2013 (finalised on 24 October 2013) and is based on the conditions encountered and information reviewed at the time of the site visit from 24<sup>th</sup> June to 27<sup>th</sup> June 2013. URS disclaims responsibility for any changes that may have occurred after this time.

This Report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This Report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Except as required by law no third party may use or rely on this Report unless otherwise agreed by URS in writing. Where such agreement is provided, URS will provide a letter of reliance to the agreed third party in the form required by URS.

To the extent permitted by law, URS expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this Report. URS does not admit that any action, liability or claim may exist or be available to any third party.

Except as specifically stated in this section, URS does not authorise the use of this Report by any third party.

It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the site.

Any estimates of potential costs which have been provided are presented as estimates only as at the date of the Report. Any cost estimates that have been provided may therefore vary from actual costs at the time of expenditure.





## Appendix A Compliance Matrix

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.1	<b>Obligation to Minimise Harm to the Environment</b> The proponent 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 project	Other than where issues have been identified, in general Myuna appeared to be compliant with its obligation to minimise harm to the environment. The Environmental Management Strategy and associated management plans and procedures have been established and generally implemented to identify, plan for and manage environmental aspects and impacts related to the project.	Compliant Refer to the recommendations within this document and the audit report for areas of non-compliance and identified opportunities for improvement.
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.2	The Proponent shall carry out the project general in accordance with the: (a) EA; (b) Statement of Commitments; and (c) Conditions of this approval.	The Environmental Assessment (February 2011), Project Approval (including Statement of Commitments as Appendix 5) were available on the company's website. The Response to Submissions, Myuna Colliery – Extension of Mine Project (November 2011) was also available on the company's website. The Condition of Approval 10_0080 dated 18 January 2012 were available on the company's website. Based on a high level review of these documents, Myuna is considered to have carried out the project in general accordance with the EA (2011), Statement of Commitments and Conditions of Approval.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.3	If there is any inconsistency between the above documents, the latter document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted.	Noted
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: a. any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; and b. the implementation of any actions or measures contained in these documents.	There has been no known request from the Director-General concerning implementation of the plans, thus this requirement has not been triggered within the audit period. There were no known actions from the Director-General resulting from submission of the 2012 Annual Environmental Management Report (AEMR). Submission of plan changes were made prior to approval of the plans. Sighted correspondence from DP&I in ECD dated 10 December 2012 concerning Rehabilitation Plan prior to approval. Sighted correspondence with the Director-General concerning the Non-Indigenous and Heritage Management Plans dated 17 August 2012. The plans were updated prior to approval.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.5	<b>Limits on Approval</b> The Proponent may carry out mining operations on the site until 31 December 2032.	Noted.	Noted
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.6	<b>Limits on Approval</b> The Proponent shall not: a. extract more than 2 million tonnes of ROM coal from the site in any calendar year. b. transport any coal on public roads.	Myuna production figures for the audit period were available to URS to review on site. The following ROM coal production was reported: a. 2012: 1,492,930 tonnes (sighted Greenhouse Data 2012 spread sheet). b. Coal is delivered direct to Earing Power station via overland conveyor. The auditors observed the overland conveyor to Earing Power station during the site walkover.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.7	<b>Limits of Approval</b> The Proponent shall ensure all coal produced from the site via the enclosed overland conveyor to Earing Power Station.	No truck loading facilities were observed during the site inspection. The auditors observed the overland conveyor to Earing Power station during the site walkover. Coal produced during the audit period was transported by overland conveyor to Earing Power Station. Coal that cannot be conveyed to or received at Earing Power Station (such as through shutdown of the conveyor for maintenance) is temporarily stockpiled on-site. Earing Power Station own and operate the conveyor from the colliery to Earing Power Station.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.8	<b>Hours of Operation</b> The Proponent may undertake mining operations 24 hours a day, 7 days a week.	Noted The mine manager reported that the mine operates 24hrs a day seven days a week. The AEMR for 2012 (p.32) noted that there were no complaints concerning the site during the reporting period.	Noted

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.9	<b>Structural Adequacy</b> The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with: a. the relevant requirements of the BCA; and b. any additional requirements of the MSB where the building or structure is located on land with declared Mine Subsidence District.	Site management reported that no buildings were renovated, removed or rehabilitated during the audit period. No new structures were observed by the auditors during the site walkover. The AEMR 2012 (p.33) noted that no buildings were renovated, removed or rehabilitated during the AEMR period. This requirement has not been triggered.	Not Applicable
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.10	<b>Demolition</b> The proponent shall ensure that all demolition work is carried out in accordance with <i>Australian Standard AS 2601-2001: The Demolition of Structure</i> , or its latest version.	Site management reported that no buildings removed during the audit period. No demolitions of structures were observed by the auditors during the site walkover. The AEMR for 2012 (p.33) noted that no buildings were renovated, removed or rehabilitated during the AEMR period. This requirement has not been triggered within the audit period.	Not Applicable
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.11	<b>Operation of Plant and Equipment</b> The Proponent shall ensure that all plant and equipment used on site is: a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner.	PULSE is used to generate weekly work orders. The auditors sighted work orders for weekly inspections including, but not limited to: <ul style="list-style-type: none"> <li>VG56362 – environmental inspections, weekly contractor environmental monitoring, 20 June 2013</li> <li>VG56363 – weekday mine environmental report, 21 June 2013, conducted by SNK Group Pty Ltd.</li> <li>VG56364 – environmental weekly surface cleaning, 21 June 2013.</li> <li>VG11456 – environmental weekly surface cleaning, 5 April 2013.</li> </ul> Work orders for the year 2012 had been archived and were not available for the auditors to review. Weekly surface cleaning work orders were noted to include management and operation of the coal pad dam water diesel pump, clean out of drive in sump at the Coal Handling Plant dam and maintenance and servicing of water catchment sumps and drains. Weekly surface inspections were noted to address inspections for leaking machinery, evidence of oil on floor in the bulk oil storage area and levels of silt in the sumps in the workshop. The weekly contractor environment monitoring checklists included operating pumps. Other measures included; <ul style="list-style-type: none"> <li>On-line environmental data for water sensor at LDP B was observed by the auditors.</li> <li>Calibration certificate No.: SLM 39054 &amp; FILT 3798 for a sound level meter dated 2 July 2012. The timing of calibration for environmental monitoring equipment was in the process of being arranged at the time of the audit. Myuna was in discussion with Carbon Based Environmental Pty Ltd to determine if n weekly or quarterly calibration of equipment was appropriate. No documents concerning the discussion were available for URS to review.</li> <li>The auditors sighted a daily field sheet dated 21 June 2013 from AECOM Australia Pty Ltd for conduct the daily pH sample.</li> <li>Oil separators and oily water detention tanks, drains are serviced every three months by an external contractor (SNK Group Pty Ltd).</li> <li>Only licensed contractors are used to conduct activities such as maintenance of flow meters.</li> <li>Training – staff are trained to use equipment prior to use.</li> </ul>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.11	<b>Operation of Plant and Equipment</b> <i>Continued</i>	<i>Continued</i> Centennial Myuna received an EPL variation on 27th February 2013 that introduced LDP B to the EPL. LDP001 and LDP002 were removed from the EPL. At the time of the volume/mass exceedance on 2 March 2013 LDP B included the flow from a clean water diversion drain that captured clean water run-off from the west of the pit top facilities. When the EPL variation was received on 27 February 2013 Myuna was in the process of realigning the clean water diversion drain so that it no longer flowed into an upstream connection of LDP B. The auditors observed the new clean water diversion drain and discharge point downstream from LDP B during the site inspection in June 2013.  Upon consideration of the above observations it was determined that Myuna were either attempting to or were in the process of minimising the impact of water quality or flow to receiving waters and therefore consider the requirement of this condition to be met. Changes to licenced discharge point locations and the diversion of surface water also indicate positive steps towards management of pollution control devices and infrastructure at the site.	
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.12	<b>Staged Submission of Strategies, Plans or Programs</b> With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	The Rehabilitation Management Plan was submitted on a staged basis with the MOP. The auditors sighted a letter from Myuna to the Director-General dated 7 November 2012 requesting the consolidation of the two plans into one document. Sighted response from Director-General dated 10 December 2012. No other plans were reported to have been submitted on a staged approach. Relevant plans were submitted to the Director-General in one submission.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S2.13	<b>Continuation of Existing Management Plans</b> The Proponent shall continue to implement existing strategies, plans or programs that apply to existing activities until they are replaced by an equivalent strategy, plan or program approved under this approval.	Noted	Noted
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.1	<b>Subsidence</b> The Proponent shall ensure that vertical subsidence within Zone A is limited to a maximum of 20 millimetres (mm) and that extraction methods are limited to first workings only.	Mine plans sighted confirm that all extraction in the review period has been first workings only, in all Zones. Subsidence monitoring results were viewed for the sections of the Wangi Peninsula shoreline where Wallarah seam extraction has been carried out during the review period, with measured subsidence in the range $\pm 10$ mm.  Subsidence data was also reviewed for lines along the east and west shorelines of Point Wolstoncroft. In one part of the western shoreline over a length of about 500 m the measured subsidence as at December 2012 was in the range 15-20 mm, with one point registering 20 mm subsidence. Movements along the corresponding stretch of the eastern shoreline were mostly 10 – 15 mm, while movements on both shorelines to the north of these sections were typically 5 – 10 mm. There has been no extraction in this area during the review period, but in the past there has been extraction in both the Wallarah and Fassifern seams, including an area in the Wallarah beneath Point Wolstoncroft where the pillars were smaller than usual for Myuna (about 23 m centres rather than 30 m centres). The trend in the subsidence data with time suggests that subsidence in this area may exceed 20 mm in the near future.  The AEMR for 2012 (p.8) stated that ' <i>results of subsidence monitoring programs in areas of Point Wolstoncroft and Pulbah Island continue to show negligible subsidence of &lt;20mm with this trend expected to continue</i> '. Furthermore ' <i>a monitoring program has been implemented to collect data on surface movement. The formation of pillars is effectively managed to ensure headings and cut-throughs are formed to design dimensions. A Panel inspection/audit system has been implemented to monitor and report any deviation from the plan and the corrective action taken</i> (AEMRs 2011 and 2012, p.29).	Compliant. <b>Recommendation</b> Continue monitoring and if 20 mm subsidence is exceeded notify and discuss with DP&I.
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.2	<b>Subsidence</b> The Proponent shall ensure that vertical subsidence within Zone B is limited to 650 mm and second workings are limited to partial pillar extraction within the Great Northern and Fassifern coal seams.	There has only been first workings extraction within Zone B in the review period, and consequently any resulting subsidence movements will have been very small, and certainly very much less than 650mm.	Compliant

Appendix A - Myuna Independent Environmental Audit												
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations								
Project Approval 10_0080												
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.3	<b>Subsidence</b> The Proponent shall seek approval from the DSC prior to mining within the Eraring Dam Notification Area.	There has been no extraction within the Eraring Ash Dam Notification Area, hence this requirement has not been triggered.	Not Applicable								
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.4	<b>Environmental Performance Measures</b> The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 1, to the satisfaction of the Director-General. <i>Table 1: Environmental Subsidence Impact Performance Measures</i> <table><tr><th colspan="2">Biodiversity</th></tr><tr><td>Threatened species, populations or their habitats and endangered ecological communities.</td><td>Negligible impact or environmental consequences.</td></tr><tr><td>Seagrass beds</td><td>Negligible environmental consequences including:<ul style="list-style-type: none"><li><i>negligible</i> change in the size and distribution of seagrass beds;</li><li><i>negligible</i> change in the functioning of seagrass beds; and</li><li><i>negligible</i> change to the composition or distribution of seagrass species within seagrass beds.</li></ul></td></tr><tr><td>Benthic communities</td><td>Minor environmental consequences, including minor changes to species composition and/or distribution.</td></tr></table>	Biodiversity		Threatened species, populations or their habitats and endangered ecological communities.	Negligible impact or environmental consequences.	Seagrass beds	Negligible environmental consequences including: <ul style="list-style-type: none"><li><i>negligible</i> change in the size and distribution of seagrass beds;</li><li><i>negligible</i> change in the functioning of seagrass beds; and</li><li><i>negligible</i> change to the composition or distribution of seagrass species within seagrass beds.</li></ul>	Benthic communities	Minor environmental consequences, including minor changes to species composition and/or distribution.	There has only been first workings extraction in the audit period, whereas this condition is relevant to second workings. Threatened species, seagrass beds and benthic communities would not be affected by subsidence less than 20 mm. There are no second working planned for at least two years.	Compliant
Biodiversity												
Threatened species, populations or their habitats and endangered ecological communities.	Negligible impact or environmental consequences.											
Seagrass beds	Negligible environmental consequences including: <ul style="list-style-type: none"><li><i>negligible</i> change in the size and distribution of seagrass beds;</li><li><i>negligible</i> change in the functioning of seagrass beds; and</li><li><i>negligible</i> change to the composition or distribution of seagrass species within seagrass beds.</li></ul>											
Benthic communities	Minor environmental consequences, including minor changes to species composition and/or distribution.											
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.5	<b>Offsets</b> If the Proponent exceeds the performance measures in Table 1 and the Director-General determines that: a) it is neither reasonable nor feasible to remediate the impact or environmental consequence; or b) remediation measures implemented by the Proponent have failed to satisfactorily remediate the impact or environmental consequence; then the Proponent shall provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Director-General.	Noted Not applicable to first workings. No exceedence.	Not Applicable								

Appendix A - Myuna Independent Environmental Audit					
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations	
Project Approval 10_0080					
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.6	<b>Built Features Performance Measures</b> The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 2, to the satisfaction of the Director-General. <i>Table 2: Environmental Subsidence Impact Performance Measures</i>	There has been no mining in the vicinity of Eraring Ash Dam.  All extraction during the audit period has been first workings, with negligible subsidence and no potential impact on the safety or serviceability of any public infrastructure, or additional risk to public safety.	Compliant	
		<b>Built Features</b>			
		Key public infrastructure: Eraring Power Station Ash Dam			Negligible impact or consequence.
		Other public infrastructure (including sewage pipes; power and telecommunications cables). Other built features (including jetties and boat moorings)			Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired, replaced or fully compensated.
		<b>Public Safety</b>			
		Public Safety			Negligible additional risk.
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.7	Any dispute between the Proponent and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 2 is to be settled by the Director-General, following consultation with the MSB and the Executive Director Mineral Resources. Any decision by the Director-General shall be final and not subject to further dispute resolution under this approval.	There have been no disputes which would trigger this condition.	Not Applicable	



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.8	<p><b>Extraction Plan</b></p> <p>The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must:</p> <ol style="list-style-type: none"> <li>be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General;</li> <li>be approved by the Director-General before the Proponent carries out any of the second workings covered by the plan;</li> <li>include detailed plans of existing and proposed first and second workings and any associated surface development;</li> <li>include detailed performance indicators for each of the performance measures in Tables 1 and 2;</li> <li>provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval;</li> <li>describe the measures that would be implemented to ensure compliance with the performance measures in Tables 1 and 2; and manage or remediate subsidence impacts and/or environmental consequences;</li> <li>include a Benthic Communities Management Plan, which has been prepared in consultation with OEH, DPI Fisheries and LMCC, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on benthic communities in Zone B, and which includes: <ul style="list-style-type: none"> <li>surveys of the lake bed to enable contours to be produced and changes in depth following subsidence to be accurately measured;</li> <li>benthic species surveys within Zone B, as well as control sites outside Zone B (at similar depths) to establish baseline data on species number and composition within the communities;</li> <li>a program of ongoing seasonal monitoring of benthic species in both control and impact sites; and</li> <li>development of a model to predict likely impact of increased depth and associated subsidence impacts and effects, including but not limited to light reduction and sediment disturbance, on benthic species number and benthic communities composition, incorporating the survey data collected;</li> </ul> </li> <li>include a Seagrass Management Plan, which has been prepared in consultation with OEH, DPI Fisheries and LMCC, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on seagrass beds, and which includes: <ul style="list-style-type: none"> <li>identification of all seagrass beds (whether established before or after the date of this approval) which may be affected by the proposed second workings;</li> </ul> </li> </ol>	<p><b>Preparation</b></p> <p>This requirement has not been triggered, as there has been no second workings extraction during the audit period.</p> <p>The 2011 EA (p.ix) states that '<i>an Extraction Plan, or equivalent document, which takes into account the existing information presented in this EA, will be developed for mining within Mining Zone B, in consultation with I&amp;I, prior to secondary workings (partial and full extraction) being undertaken in Zone B</i>'.</p> <p><b>Implementation</b></p> <p>This requirement has not been triggered, as there has been no second workings extraction during the audit period.</p>	Not Applicable

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
Project Approval 10_0080				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	Continued S3.8	<p><i>Continued</i></p> <ul style="list-style-type: none"> <li>delineation of seagrass beds at the edge of Zone A that may experience subsidence effects from second workings in Zone B;</li> <li>a program of ongoing monitoring of seagrasses in both control and impact sites; and</li> <li>a program to predict and manage subsidence impacts and environmental consequences to seagrass beds to ensure the performance measures in Table 1 are met;</li> </ul> <p>i) include a Built Features Management Plan, which has been prepared in consultation with DRE, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings on built features, and which:</p> <ul style="list-style-type: none"> <li>addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features;</li> <li>has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;</li> <li>recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate for predicted impacts on potentially affected built features in a timely manner; and</li> <li>in the case of all key and other public infrastructure, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides for annual auditing of compliance and effectiveness during secondary extraction which may impact the infrastructure;</li> </ul> <p>j) include a subsidence monitoring program, which has been prepared in consultation with DRE, OEH, and DPI Fisheries, to:</p> <ul style="list-style-type: none"> <li>provide data to assist with the management of the risks associated with subsidence;</li> <li>validate the subsidence predictions;</li> <li>analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and</li> <li>inform the contingency plan and adaptive management process;</li> </ul> <p>k) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;</p> <p>l) include a Strata Management Plan which has been prepared in consultation with DRE;</p> <p>m) propose appropriate revisions to the Rehabilitation Management Plan required under condition 35 of Schedule 4;</p>		

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	<i>Continued</i> S3.8	<i>Continued</i> n) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1 and 2, or where any such exceedance appears likely; and o) include a program to collect sufficient baseline data for future Extraction Plans.		
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.9	<b>First Workings</b> The Proponent may carry out first workings within the site, other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain stable and non-subsiding, except insofar as they may be impacted by approved second workings.	First workings are designed in accordance with Sections 6.2 and 6.3 of the Statement of Commitments (Appendix 5 of the Project Approval) to remain “stable and non-subsiding”. This design method was nominated in the revised Statement Of Commitments included in Centennial’s response to submissions regarding the Environmental Assessment. There was no submission relating to the EA from DRE in regard to mine design or subsidence. Officials from DRE are frequently on site at Myuna and are well aware of the design approach and the observed performance.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.10	<b>Payment of Reasonable Costs</b> The Proponent may carry out first workings within the site, other than in accordance with an approved Extraction Plan, provided that DRE is satisfied that the first workings are designed to remain stable and non-subsiding, except insofar as they may be impacted by approved second workings.	Noted – see above discussion	Noted

Appendix A - Myuna Independent Environmental Audit																																										
Title	Condition No.	Condition			Comment / Evidence sighted		Compliance Status & Recommendations																																			
Project Approval 10_0080																																										
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.11	<b>Noise Criteria</b> The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 3 at any residence on privately owned land or on more than 25 per cent of any privately-owned land. <i>Table 3: Noise limits dB(A)</i>			<p>Quarterly noise monitoring is conducted at the site. The auditors sighted quarterly attended noise reports for December 2012 and March 2013 conducted by AECOM (Australia) Pty Ltd. The reports concluded that there was no audible noise from mine operations at the receivers. The attended noise monitoring noted that:</p> <ul style="list-style-type: none"><li>For daytime criteria the December 2012 Noise report (p.6) stated that ‘<i>the results [in Table 2] suggest exceedances of the daytime criteria at all receivers of 17-26 dB(A), however based on observations as the measurements were completed this is not the result of operational noise from the mine. It is essential to note that mine noise was not audible at any of the measurement locations during the compliance measurements</i>’.</li><li>For evening criteria the December 2012 Noise report (p.7) stated that ‘<i>the results [in Table 3] suggest exceedances of the evening criteria at all receivers of 18-20 dB(A), however based on observations as the measurements were completed this is not the result of operational noise from the mine. It is essential to note that mine noise was not audible at any of the measurement locations during the compliance measurements</i>’.</li><li>For evening criteria the December 2012 Noise report (p.8) stated that ‘<i>the results [in Table 4] suggest exceedances of the night time criteria at all receivers. The measured LAeq(15 min) exceed the criteria by 14-20 dB(A) and the LA1(1min) exceed the criteria by 18-25 dB(A), however based on observations as the measurements were completed this is not the result of operational noise from the mine. It is essential to note that mine noise was not audible at any of the measurement locations during the compliance measurements</i>’.</li></ul> <p>The December 2012 Noise report concluded that ‘<i>noise levels in exceedance of the Project criteria were measured at each of the designated receivers during the daytime, evening and night time periods. At each receiver location, during each measurement period, there was no audible noise from the mine operations. Mine operations did not contribute significantly to the measured LAeq(15 min) noise levels. The LAeq(15 min) noise levels measured at each of the designated receivers were not a result of noise from mine operations at the Myuna colliery site</i>’. Furthermore it was concluded that ‘<i>installation of the permanent noise logger at site will assist in quantifying the impact of mine related noise at the designated receivers. It is recommended that the quarterly compliance monitoring methodology be reviewed following the first round of monitoring in conjunction with the permanent noise logging</i>’.</p> <p>Site management reported that as part of the ongoing improvement to the noise management procedures at site, a permanent fulltime noise monitoring location is to be installed to model potential noise impacts.</p> <p>Given that there was no audible noise from the mine operations at each receiver location as determined by the independent noise consultants this condition was found to be compliant. Installation of a permanent fulltime noise monitoring location will provide more data concerning noise arising from site operations and will assist with future attended noise monitoring.</p> <p>The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.</p>		Compliant																																			
		<table><tr><th rowspan="2">Location</th><th>Day</th><th>Emergency Day</th><th>Evening</th><th colspan="2">Night</th></tr><tr><th>LAeq (5mins)</th><th>LAeq (5mins)</th><th>LAeq (15 min)</th><th>LAeq (15 min)</th><th>LA1 (1 min)</th></tr><tr><td>R1, R2 and R3 Summerhill Drive and Wangi Close, Wangi Wangi</td><td>35</td><td>40</td><td>35</td><td>35</td><td>45</td></tr><tr><td>R4, Donnelly Road, Arcadia Vale</td><td>35</td><td>44</td><td>40</td><td>38</td><td>49</td></tr><tr><td>R5, R6, R7 and R8 Donnelly Road, Arcadia Vale</td><td>37</td><td>44</td><td>42</td><td>39</td><td>49</td></tr><tr><td>All other privately-owned land</td><td>35</td><td>40</td><td>35</td><td>35</td><td>45</td></tr></table>						Location	Day	Emergency Day	Evening	Night		LAeq (5mins)	LAeq (5mins)	LAeq (15 min)	LAeq (15 min)	LA1 (1 min)	R1, R2 and R3 Summerhill Drive and Wangi Close, Wangi Wangi	35	40	35	35	45	R4, Donnelly Road, Arcadia Vale	35	44	40	38	49	R5, R6, R7 and R8 Donnelly Road, Arcadia Vale	37	44	42	39	49	All other privately-owned land	35	40	35	35	45
		Location	Day	Emergency Day					Evening	Night																																
			LAeq (5mins)	LAeq (5mins)				LAeq (15 min)	LAeq (15 min)	LA1 (1 min)																																
		R1, R2 and R3 Summerhill Drive and Wangi Close, Wangi Wangi	35	40				35	35	45																																
		R4, Donnelly Road, Arcadia Vale	35	44				40	38	49																																
		R5, R6, R7 and R8 Donnelly Road, Arcadia Vale	37	44				42	39	49																																
All other privately-owned land	35	40	35	35	45																																					
However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.																																										
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.12	<b>Operating Conditions</b> The Proponent shall implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the construction and operational noise generated by the project.			Site management reported that as part of the ongoing improvement to the noise management procedures at site, a permanent full time noise monitoring location is to be installed to model potential noise impacts. Installation of a permanent fulltime noise monitoring location will provide more data concerning noise arising from site operations and will assist with future attended noise monitoring.  The CHP and conveyor system is fully enclosed to mitigate potential noise impacts. Doors to the rotary breaker, crusher and crusher conveyor drive house remain closed at night. A coal plug is located in the bottom of the coal bins to minimise the sound when being filled.		Compliant																																			

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.13	<b>Noise Management Plan</b> The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must: <ol style="list-style-type: none"> <li>be submitted for approval to the Director-General within 7 months of the date of this approval;</li> <li>describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;</li> <li>outline procedures to manage responses to any complaints or issues raised by the owners of affected residences; and</li> <li>include a noise monitoring program that:               <ul style="list-style-type: none"> <li>uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and</li> <li>includes a protocol for determining exceedances of the relevant conditions of this approval.</li> </ul> </li> </ol>	<b>Preparation</b> <ol style="list-style-type: none"> <li>URS sighted a letter from the DP&amp;I to Myuna dated 30 July 2012 that approved the Noise Management Plan in accordance with Condition 13 of Schedule 3 of the Myuna Project Approval. Myuna submitted the Noise Management Plan on 27 July 2012.</li> <li>Sections 7.1.2 and 7.1.3 outlined the measures that are implemented to ensure compliance with the conditions of this approval and EPL 366.</li> <li>Section 5.1 outlined the protocols for managing noise exceedances and community noise complaints.</li> <li> <ul style="list-style-type: none"> <li>sections 7.1.2 and 7.1.3 described attended and real-time noise monitoring to be conducted. Myuna was in discussions with a noise consultant concerning the installation of real-time noise monitor at the time of the audit. Real-time noise monitoring was not in place at the time of the audit.</li> <li>a protocol for determining exceedances was included as Appendix A.</li> </ul> </li> </ol> <b>Implementation</b> <ul style="list-style-type: none"> <li>Quarterly attended noise monitoring data was available for December 2012 and March 2013. Monitoring for June 2013 had yet to be completed at the time of the audit.</li> <li>Myuna has been consulting with AECOM concerning the installation of real-time noise monitoring at the site, however, real-time noise equipment had not been installed at the time of the audit. No timeframe for the installation of real-time noise monitoring is specified in the MCoA. No documentation concerning the discussion with the noise consultant was available for URS to review.</li> <li>The auditors conducted a 'drive by' inspection of the noise monitoring location located at Turrarna Street.</li> </ul>	Preparation - Compliant Implementation - Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.14	<b>Construction Noise</b> The Proponent shall limit construction activities to 7am – 6pm weekdays and 8am to 1pm Saturdays with no construction operations on Sundays or Public Holidays. Construction noise shall be managed in accordance with OEH's <i>Interim Construction Noise Guideline 2009</i> .	A stormwater diversion drain was installed at the site in early 2013 having been completed at the time of the audit site inspection. The Complaints Register and the 2012 AEMR 2012 (p.32) noted that there were no complaints concerning the site during the reporting period. No other construction activities have been conducted during the audit period.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.15	<b>Odour</b> The Proponent shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.	No odours were noted at the site during the site inspection. The 2012 AEMR 2012 (p.32) noted that there were no complaints concerning the site during the reporting period.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.16	<b>Greenhouse Gas Emissions</b> The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site, to the satisfaction of the Director-General.	URS sighted a letter from the DP&I to Myuna dated 8 August 2012 that approved the Air Quality and Greenhouse Gas Management Plan in accordance with Condition 19 of Schedule 3 of the Myuna Project Approval. A spread sheet for the period January to December 2012 showing percentage of methane (CH <sub>4</sub> ) emissions at the site was available for review. Section 7.2 (pp.16-17) of the Air Quality and Greenhouse Gas Management Plan detailed the requirements for monitoring GHGs. The 2012 AEMR (p.31) provided details of GHG emissions for diesel, electricity, CO <sub>2</sub> and CH <sub>4</sub> in line with section 7.2 of the Air Quality and Greenhouse Gas Management Plan.	Compliant



Appendix A - Myuna Independent Environmental Audit													
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations									
Project Approval 10_0080													
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.17	<b>Air Quality Criteria</b> The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 4, 5 or 6 at any residence on privately-owned land or on more than 25 percent of any privately owned land. <i>Table 4: Long-term criteria for particulate matter</i>	Dust monitoring results are collected monthly at the locations specified in the EPL. Operational engineering dust controls include the following: <ul style="list-style-type: none"><li>Sweeper truck (observed in operation during the site audit). Sighted Giacci Bros Pty Ltd (road sweepers) General Work Permit 5089793 dated 19 June 2013;</li><li>Bobcat for sweeping of spills;</li><li>Hard standing areas to the pit top and sealed internal roads (with the exception of the emergency stockpile road);</li><li>Only very limited non hardstand areas exist;</li><li>Conveyor belts are covered;</li><li>Piped spray on stockpile road (observed during site inspection);</li><li>Emergency coal stockpile is sprayed – it is noted that the coal not stockpiled is not used unless coal cannot be received at Eraring Power Station. The emergency coal stockpile was reported not to have been used during the audit period.</li></ul> High volume air samplers were in the process of being installed at the time of the audit. The auditors observed recently installed power points adjacent to the on-site weather station for the high volume air sampler. A high dust reading of 9.9 g/m <sup>2</sup> /month was noted on 18 February 2012. This was attributed to vegetable matter and small percentage of coal dust. Despite the high reading the monthly dust deposition rolling average was not exceeded for the audit period. Monthly dust gauge results and the rolling average are reported in Environmental Monthly Reports. Results of dust monitoring from January 2012 through to 16 June 2013 were available for review and indicated that dust levels were below the limits specified in Table 2 of DA 10-0080 for the audit period. The AEMR for 2012 (p.32) noted that there were no complaints concerning the site during the reporting period.	Compliant									
		<table><tr><th>Pollutant</th><th>Averaging Period</th><th><sup>d</sup> Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td><sup>a</sup> 90 µg/m<sup>3</sup></td></tr><tr><td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td><td>Annual</td><td><sup>a</sup> 30 µg/m<sup>3</sup></td></tr></table>			Pollutant	Averaging Period	<sup>d</sup> Criterion	Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>
		Pollutant			Averaging Period	<sup>d</sup> Criterion							
		Total suspended particulate (TSP) matter			Annual	<sup>a</sup> 90 µg/m <sup>3</sup>							
		Particulate matter < 10 µm (PM <sub>10</sub> )			Annual	<sup>a</sup> 30 µg/m <sup>3</sup>							
<i>Table 5: Short-term criteria for particulate matter</i>													
<table><tr><th>Pollutant</th><th>Averaging Period</th><th><sup>d</sup> Criterion</th></tr><tr><td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td><td>24 hour</td><td><sup>a</sup> 50 µg/m<sup>3</sup></td></tr></table>	Pollutant	Averaging Period	<sup>d</sup> Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>							
Pollutant	Averaging Period	<sup>d</sup> Criterion											
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>											
<i>Table 6: Long-term criteria for deposited dust</i>													
<table><tr><th>Pollutant</th><th>Averaging Period</th><th>Maximum Increase In Deposited Dust Level</th><th><sup>d</sup> Criterion</th></tr><tr><td><sup>c</sup> Deposited Dust</td><td>Annual</td><td><sup>b</sup> 2 g/m<sup>2</sup>/month</td><td><sup>a</sup> 4 g/m<sup>2</sup>/month</td></tr></table>	Pollutant	Averaging Period	Maximum Increase In Deposited Dust Level	<sup>d</sup> Criterion	<sup>c</sup> Deposited Dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month					
Pollutant	Averaging Period	Maximum Increase In Deposited Dust Level	<sup>d</sup> Criterion										
<sup>c</sup> Deposited Dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month										
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.18	<b>Operating Conditions</b> The Proponent shall implement best practice air quality management on site, including all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project.	One high volume air sampler was in the process of being installed at the time of the audit. There were no dust generating activities observed at the time of the site inspection for the audit and limited sources of dust were noted. The majority of the pit top was covered with hard stand and most internal roads were sealed. The access road to the emergency stockpile area was unsealed, however; a dust suppression water system was located down one side that was reported to be turned on when the road was in use. Conveyors were enclosed. The AEMR for 2012 (p.32) noted that there were no complaints concerning the site during the reporting period. A Site Specific Particulate Matter Control Best Practice Assessment dated September 2012 was available for URS to review. The report (SLR, 2012, p.28) concluded that ' <i>no additional control measures were identified that could implemented at Myuna Colliery to reduce dust emissions which are not already employed at the site. The top sources identified as emitting 99% of the TSP emissions from the site are already controlled in accordance with current best practice, including:</i> <ul style="list-style-type: none"><li><i>Enclosure of coal processing (breaking, crushing, screening) operations; and</i></li><li><i>Watering of the Emergency Coal Stockpile Area using water carts, and through this, maintaining the travel routes and surface material for the front end loader in a moist condition</i>'.</li></ul>	Compliant									

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.19	<p><b>Air Quality and Greenhouse Gas Management Plan</b></p> <p>The Proponent shall prepare and implement an Air Quality &amp; Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <ol style="list-style-type: none"> <li>be prepared in consultation with OEH, and submitted for approval to the Director-General within 7 months of the date of this approval;</li> <li>describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed air quality management system;</li> <li>include an air quality monitoring program, that: <ul style="list-style-type: none"> <li>uses a combination of volumetric sampling and dust deposition gauges to evaluate the performance of the project;</li> <li>monitors greenhouse gas emissions, particularly methane; and</li> <li>includes a protocol for determining exceedances with the relevant conditions of this approval;</li> </ul> </li> <li>describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site, particularly methane.</li> </ol>	<p><b>Preparation</b></p> <p>URS sighted a letter from the DP&amp;I to Myuna dated 8 August 2012 that approved the Air Quality and Greenhouse Gas Management Plan in accordance with Condition 19 of Schedule 3 of the Myuna Project Approval.</p> <ol style="list-style-type: none"> <li>The auditors sighted an Air Quality and Greenhouse Gas Management Plan consultation letter to OEH dated 23 July 2013. The Air Quality and Greenhouse Gas Management Plan was submitted to the Director-General on 8 August 2012.</li> <li>Section 5 addresses the measures implemented on-site to meet compliance with the relevant conditions of this approval. Measures were noted to include: <ul style="list-style-type: none"> <li>sweeping of hardstand areas by vacuum truck;</li> <li>dust suppression at the emergency coal stockpile;</li> <li>traffic management (speed limits for vehicles and sealed roads); and</li> <li>energy savings action plan.</li> </ul> </li> <li>Section 7 (pp.14-18) described the measures that would be implemented to ensure compliance with relevant condition and included, but was not limited to: dust deposition, high volume air, greenhouse gas monitoring and community and social monitoring. Protocols for dust exceedances and community dust complaints were included in Appendices 1 and 2 respectively.</li> <li>Section 5.6 (p.13) identified that an Energy Savings Action Plan (ESAP) had been implemented and that GHG emissions and energy consumptions is estimated in accordance with the National Greenhouse and Energy Reporting (NGER) Scheme and the Energy Efficiency Opportunities (EEO) Program to ensure the requirements of the plan are met. Section 7.2 (pp.16-17) of the Air Quality and Greenhouse Gas Management Plan detailed the requirements for monitoring GHGs, however, it did not specify the measures that would be implemented to minimise GHG emissions from the site. The 2012 AEMR (p.31) provided details of GHG emissions for diesel, electricity, CO<sub>2</sub> and CH<sub>4</sub> in line with section 7.2 of the Air Quality and Greenhouse Gas Management Plan.</li> </ol> <p><b>Implementation</b></p> <p>High volume air samplers were in the process of being installed at the time of the audit. The auditors observed recently installed power points adjacent to the on-site weather station for two high volume samplers. Methane analysis results were sighted in Greenhouse Data spread sheet.</p> <p>A Site Specific Particulate Matter Control Best Practice Assessment dated September 2012 was available for URS to review. The report (SLR, 2012, p.28) concluded that <i>'no additional control measures were identified that could implemented at Myuna Colliery to reduce dust emissions which are not already employed at the site. The top sources identified as emitting 99% of the TSP emissions from the site are already controlled in accordance with current best practice, including:</i></p> <ul style="list-style-type: none"> <li><i>Enclosure of coal processing (breaking, crushing, screening) operations; and</i></li> </ul> <p><i>Watering of the Emergency Coal Stockpile Area using water carts, and through this, maintaining the travel routes and surface material for the front end loader in a moist condition'.</i></p> <p>A draft Energy Savings Action Plan was available for review; however, the plan indicated the current reporting period to end June 2011. Two actions were identified to replace the air compressors in the oil bay by 2012. There was no link between the Air Quality and Greenhouse Gas Management Plan and the Energy Savings Action Plan.</p>	<p>Preparation - Compliant</p> <p>Implementation – Compliant</p> <p><b>Recommendation</b></p> <p>In accordance with Condition 3.19(d) it is recommended that the measures to minimise Greenhouse Gas Emissions from the site be clearly stated and that there be a link between the Air Quality and Greenhouse Gas Management Plan and the Energy Savings Action Plan so that monitoring and actions can be consolidated.</p>



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.20	<b>Meteorological Monitoring</b> During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the Myuna surface facilities 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 temperature lapse rate in accordance with the <i>INP</i> .	The 2012 AEMR (p.13) stated that ‘in April 2011 Myuna Colliery installed a weather station in accordance with the requirements of Environmental Protection Licence (EPL) 366 condition M7’. a) Weather results and data are available in the monthly environmental monitoring data reports, however, the reports did not specify or reference that the station complies with the requirements of the Approved Methods for Sampling of Air Pollutants in New South Wales guideline. b) A summary of rainfall and temperature data recorded at the onsite meteorological monitoring station was available in the monthly environmental monitoring data reports. The auditors sighted the on-site weather station (MyunaMet) and real-time on-line data for 24 June 2013. An email from Carbon Based Environmental Pty Ltd dated 26 June 2013 indicated that in the air consultants opinion the weather station meets the approved methods for sampling of air pollutants in New South Wales.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.21	<b>Surface Water Discharges</b> The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	EPL 366 specifies a discharge volume/mass of 13,000 kL per day from LDP B. One discharge exceedance from LDP B (formerly LDP001) was notified to the EPA on 5 March 2013. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"> <li>a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>3,676 kL of clean water flowed through LDP B during the event.</li> </ul> Centennial Myuna received an EPL variation on 27 February 2013 that introduced LDP B to the EPL. LDP001 and LDP002 were removed from the EPL. At the time of the volume/mass exceedance on 2 March 2013 LDP B included the flow from a clean water diversion drain that captured clean water run-off from the west of the pit top facilities. Since the EPL variation was received on 27 February 2013 Myuna had realigned the clean water diversion drain so that it no longer flowed into an upstream connection of LDP B. The auditors observed the new clean water diversion drain and discharge point downstream from LDP B during the site inspection in June 2013. Given the above observation the auditors determined that Myuna were aware of the issue and were in the process of diverting the flow of clean water through the LDP and therefore consider the requirement of this condition to be met.	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.22	<b>Water Management Plan</b> The Proponent shall prepare and implement a Water Management Plan for the surface facilities sites to the satisfaction of the Director-General and in consultation with NOW, DRE, and LMCC. This plan must: <ol style="list-style-type: none"> <li>be prepared by suitably qualified and experienced persons whose appointment has been approved by the Director-General;</li> <li>be submitted for approval to the Director-General within 7 months of the date of this approval; and</li> <li>include a:               <ul style="list-style-type: none"> <li>Site Water Balance;</li> <li>Erosion and Sediment Control Plan;</li> <li>Surface Water Monitoring Plan;</li> <li>Groundwater Monitoring Program; and</li> <li>Surface and Ground Water Response Plan.</li> </ul> </li> </ol>	<b>Preparation</b> The site has prepared a draft Water Management Plan (WMP) prepared by GHD Pty Ltd, however, this was yet to be formally approved by the Director-General. A letter dated 17 August 2012 was available for review confirming submission of the Water Management Plans to DP&I for approval. Included for submission were: The Water Management Plan, Site Water and Salt Balance, Erosion and Sediment Control Plan, Surface Water Management Plan, Groundwater Monitoring Program and Surface and Groundwater Response Plan. The auditors sighted an email from DP&I dated 20 June 2013 indicating the plan had still to be reviewed. A second email from the DP&I dated 27 June 2013 was sighted that provided initial comments and questions concerning the draft water management plan following a preliminary review. Further comments were to be provided as the review progressed. In accordance with the requirements of this condition the following was noted: <ol style="list-style-type: none"> <li>The draft WMP was prepared by a suitably qualified and experienced persons whose appointment has been approved by the Director-General;</li> <li>The draft WMP was submitted for approval to the Director-General within seven months of the date of the approval; and</li> <li>The WMP included the following:               <ul style="list-style-type: none"> <li>Site Water and Salt Balance;</li> <li>Erosion and Sediment Control Plan;</li> <li>Surface Water Management Plan;</li> <li>Groundwater Monitoring Program and</li> <li>Surface and Groundwater Response Plan.</li> </ul> </li> </ol> <b>Implementation</b> The draft WMP addresses the requirements of PA 10_0080. The WMP has been written to comply with relevant legislation, PA 80_0010 and SOCs. The technical studies listed in Condition c) are as required by the conditions of consent. Additionally, the WMP addresses the relevant project Statement of Commitments particularly in terms of: <ul style="list-style-type: none"> <li>Construction of a clean water diversion;</li> <li>Groundwater and surface water:               <ul style="list-style-type: none"> <li>variation to EPL to: (i) combine ldp001 and 002 into LDP B;</li> <li>establish LDP A at the ECS dam; and</li> <li>investigate water reuse options.</li> </ul> </li> </ul> The WMP also documents a Failure Modes and Effects Analysis (FMEA) risk assessment which revealed that the most significant environmental risk to the management of water is heavy and prolonged rainfall. A preliminary review of the WMP was conducted by the DP&I on 27 June 2013. Comments provided by the DP&I at the time included: <ul style="list-style-type: none"> <li>Formal response required on the status of application to alter its EPL to replace LDP 001 and LDP 002 with LDP A and LDP B;</li> <li>Clarification sought on apparent re-direction of western and southern clean water catchments to LDP B (comment from URS: <i>(It was observed that the clean water catchments discharge to a location immediately downstream of LDP B and that the Figure presented in the WMP may be misleading due to scale)</i>);</li> </ul>	Preparation - Compliant (pending formal approval by the Director-General) Implementation – Compliant (pending formal approval by the Director-General)

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
Project Approval 10_0080				
	Continued S3.22	Continued	<p><i>Continued</i></p> <ul style="list-style-type: none"> <li>Reasons sought why runoff from work areas such as the Materials Yard and the area around the oil separator have been diverted to a dirty water catchment treatment system (<i>It is understood that Myuna Colliery are presently planning/implementing works to divert all runoff collected from the MIA and other hardstand areas to the CHP dam and ponds for treatment prior to discharge to LDP B</i>);</li> <li>Explanation required on the proposal to pump mine water to underground workings particularly in terms of capacity of the workings. The figures in the WMP seem to suggest a deficit in pumping out versus in suggesting that the underground workings will fill up over time; and</li> <li>Queries on the assumed moisture content of mined coal (being the same as in-situ coal) for the water balance assessment and consequent impacts of this assumption on the mine's dirty water system capacity.</li> </ul>	
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.23	<p>The Site Water Balance must:</p> <p>a) include details of:</p> <ul style="list-style-type: none"> <li>sources and security of water supply;</li> <li>water use on site;</li> <li>water management on site;</li> <li>any off-site water transfers;</li> <li>groundwater transfers from the underground operations to the surface; and</li> </ul> <p>b) investigate and implement all reasonable and feasible measures to minimise potable water use from the town water supply and to reuse and recycle water.</p>	<p><b>Preparation</b></p> <p>The Water and Salt Balance Assessment (WSBA) forms part of the Water Management Plan (that was yet to be formally approved by the Director-General) and included:</p> <p>a)</p> <ul style="list-style-type: none"> <li>Section 2.1.4 (p.16) addressed sources and security of water supply;</li> <li>Section 1.5 (p.3) addressed on-site water use;</li> <li>Section 2 (pp.10-17) addressed water management on-site;</li> <li>Section 2.1.1 (p.10) addressed off-site water transfers; and</li> <li>Section 2.1.2 (p.15), Section 3.1 (pp.18-19) and Section 4 (pp.31-42) addressed groundwater transfers from the underground operations to the surface.</li> </ul> <p><b>Implementation</b></p> <p>b) Section 2.1.5 (p.16) investigated reasonable and feasible measures to minimise potable water use from the town water supply and to reuse and recycle water. It was identified that future opportunities to reuse water more effectively within the Colliery would need to be accompanied by a method of water quality treatment that could reduce the Electrical Conductivity of water from the underground operations. The Water and Salt Balance Assessment (GHD, 2013, p.16) stated that '<i>opportunities are being considered currently with work to be undertaken regarding water management and maximising reuse on a regional scale</i>'.</p> <p>At the time of the audit the WSBA was still to be formally approved by the Director-General (under the Water Management Plan) and implementation of condition 3.23(b) had not commenced. The Site Water and Salt Balance should be updated to reflect the change to the EPL licenced discharge points (LDP A and LDP B).</p>	<p>Preparation – Compliant (pending formal approval by the Director-General)</p> <p>Implementation - Compliant</p> <p><b>Recommendation</b></p> <p>The Site Water and Salt Balance should be updated to reflect the change to the EPL licenced discharge points (LDP A and LDP B).</p>

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.24	<b>Erosion and Sediment Control Plan</b> The Erosion and Sediment Control Plan must: <ol style="list-style-type: none"> <li>be consistent with the requirements of Managing Urban Stormwater: Soils and Construction (Landcom 2004, or its latest version);</li> <li>identify activities that could cause soil erosion and generate sediment particularly in relation to activities near waterways;</li> <li>describe the location, function, capacity of erosion and sediment control structures;</li> <li>describe what measures would be implemented to maintain the structures over time; and</li> <li>describe the sediment and erosion control measures to be implemented for all activities undertaken at the site.</li> </ol>	<b>Preparation</b> The Erosion and Sediment Control Plan (ESCP) forms part of the Water Management Plan (that was yet to be formally approved by the Director-General) and included: <ol style="list-style-type: none"> <li>References to Managing Urban Stormwater: Soils and Construction (Landcom 2004) were included throughout the document including but not limited to - p.18, p.19, p.20, p.28 and Appendix A;</li> <li>Section 2 (pp.5-6) identifies activities that could cause soil erosion and generate sediment (Figure 2-1);</li> <li>Section 3 (pp.7-17) c) describes the location, function, capacity of erosion and sediment control structures;</li> <li>Section 5.5 (maintenance) describes the measures that are implemented to maintain the structures;</li> <li>Sections 3 (pp.7-17) and Section 5 (pp.20-27) describes the sediment and erosion control measures to be implemented for all activities undertaken at the site</li> </ol> <b>Implementation</b> In accordance with condition 3.24(d) the following inspection and maintenance documents were observed by the auditors: <ul style="list-style-type: none"> <li>VG56362 – environmental inspections, weekly contractor environmental monitoring, 20 June 2013</li> <li>VG56363 – weekday mine environmental report, 21 June 2013, conducted by SNK Group Pty Ltd.</li> <li>VG56364 - environmental weekly surface cleaning, 21 June 2013.</li> <li>VG11456 – environmental weekly surface cleaning, 5 April 2013.</li> </ul> Work orders for the year 2012 had been archived and were not available for the auditors to review. Weekly surface cleaning work orders were noted to include management and operation of the coal pad dam water diesel pump, clean out of drive in sump at the Coal Handling Plant dam and maintenance and servicing of water catchment sumps and drains. Weekly surface inspections were noted to address inspections for leaking machinery, evidence of oil on floor in the bulk oil storage area and levels of silt in the sumps in the workshop. Minor soil erosion was observed between the perimeter fence and the settling ponds where the stormwater diversion drain had been installed, however, sediment fences were also observed in the vicinity of the drain outlet indicating that soil and erosion mitigation measures had been considered and installed during the construction works.	Preparation – Compliant (pending formal approval by the Director-General) Implementation - Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.25	<b>Surface Water Management Plan</b> The Surface Water Management Plan must: <ul style="list-style-type: none"> <li>a) include detailed baseline data on surface water flows and quality of Wangi Creek;</li> <li>b) provide a geomorphic description of Wangi Creek up and downstream of the mine water discharge point;</li> <li>c) detail surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts;</li> <li>d) provide a program to monitor: <ul style="list-style-type: none"> <li>• surface water discharges from the surface facilities sites;</li> <li>• stream health, channel stability, water flows and water quality within Wangi Creek; and</li> <li>• water quality of Lake Macquarie;</li> </ul> </li> <li>e) investigate mitigation and management measures to prevent/limit any incision and degradation of the channel of Wangi Creek from mine discharge water;</li> <li>f) include a detailed review of water management at the Myuna Colliery surface facilities site, with particular reference to the water storages within the dirty water management system and in consultation with OEH, to: <ul style="list-style-type: none"> <li>• determine whether the capacity, integrity, retention time and management of the dirty water storages (particularly the CHP Dam) are sufficient to ensure that water discharged from the site meets all relevant ANZECC water quality criteria, including for metals and suspended solids;</li> <li>• assess all reasonable and feasible options for reducing salt load and/or salt concentration for discharges into Wangi Creek;</li> <li>• assess appropriate options to improve storage and retention times in accordance with The Blue Book - Managing Urban Stormwater (MUS): Soils and Construction (Landcom); and</li> <li>• propose upgrades of the dirty water storages sufficient that discharges meet all relevant ANZECC criteria; and</li> <li>• propose any other appropriate changes to the water management system; and</li> </ul> </li> <li>g) identify and assess practical measures to minimise potable water consumption, maximise recycled water use and improve the management of sewage and surface rainfall runoff for the project, including quantifying the abatement potential of identified measures and their related costs and benefits.</li> </ul>	<b>Preparation</b> The Surface Water Management (SWMP) forms part of the Water Management Plan (that was yet to be formally approved by the Director-General) and included: <ul style="list-style-type: none"> <li>a) Section 3.2 (pp.22-25) included baseline data on surface water flows and quality of Wangi Creek.</li> <li>b) Section 3.4 (pp.26-28) provides a geomorphic description of Wangi Creek up and downstream of the mine water discharge point.</li> <li>c) Section 4 (pp.29-30) provided detailed surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts.</li> <li>d) Sections 3 (pp.21-28), 4 (pp.29-30) and 5 (pp.31-34) provided monitoring programs for the required parameters.</li> <li>e) Sections 3.4 and 4.2 provided mitigation and management measures to prevent/limit any incision and degradation of the channel of Wangi Creek from mine discharge water.</li> <li>f) Sections 2 (pp.5-20), in particular Sections 2.4, 2.6 and 2.7 included a detailed review of water management at the Myuna Colliery surface facilities site.</li> <li>g) Section 2.6 (p.18) identified and assessed practical measures to minimise potable water consumption, maximise recycled water use and improve the management of sewage and surface rainfall runoff for the project.</li> </ul> <b>Implementation</b> In accordance with Section 4.5.1 of the WMP and since the EPL variation was received on 27 February 2013 Myuna has realigned the clean water diversion drain so that it no longer flows into an upstream connection of LDP B. The auditors observed the new clean water diversion drain and discharge point downstream from LDP B during the site inspection in June 2013. Section 5.5.1 of the WMP discusses a future management option of an injection bore to manage the CHP dam capacity. An injection bore near the dam would act as a sink for the pumped water from the CHP Dam where settlement of particles can occur on a much larger time frame than with the limitations at the surface (this option was under investigation at the time of SWMP writing, however; construction of the bore was underway at the time of the audit). Clean water diversion drains were observed around the edge of the emergency coal stockpile area in accordance with Section 5.5.2 of the WMP. LDP A and LDP B had been installed and were included on EPL 366, as stated in Section 5.6.1 of the WMP. In addition oil boom(s) as stated in the WMP (p.49) were observed. It was reported that the CHP was due an annual de-silted in accordance with the WMP at the time of the audit. In accordance with the WMP the auditors sighted work orders for weekly inspections including, but not limited to: <ul style="list-style-type: none"> <li>- VG56362 – environmental inspections, weekly contractor environmental monitoring, 20 June 2013</li> <li>- VG56363 – weekday mine environmental report, 21 June 2013, conducted by SNK Group Pty Ltd.</li> <li>- VG56364 - environmental weekly surface cleaning, 21 June 2013.</li> <li>- VG11456 – environmental weekly surface cleaning, 5 April 2013.</li> </ul> Monthly water sampling is conducted by AECOM in accordance with Section 7.2.1 of the WMP. Monthly environmental reports for the period April 2012 to April 2013 were available on the Myuna website. The reports contained monitoring information concerning surface water quality and water volume. Surface water data was available for review on ECD for the audit period.	Preparation – Compliant (pending formal approval by the Director-General) Implementation - Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.26	<b>Groundwater Monitoring Program</b> The groundwater monitoring program must include: a) baseline data of groundwater levels (including alluvial and weathered rock aquifers), yield and quality in the region, and any privately owned groundwater bores that may be affected by mining operations on site; b) groundwater assessment criteria based upon analysis of baseline data for groundwater, surface water, including trigger levels for investigating any potentially adverse groundwater impacts; and c) a program to monitor and/or validate the impacts of the project of alluvial and coal seam aquifers, any groundwater bores.	<b>Preparation</b> The Groundwater Monitoring Program (GMP) forms part of the Water Management Plan (that was yet to be formally approved by the Director-General) and included: a) Section 3 (p.10-12) includes baseline data for groundwater levels (including alluvial and weathered rock aquifers), yield and quality in the region, and any privately owned groundwater bores that may be affected by mining operations on site. b) Section 4 (p.13) provides groundwater assessment criteria. c) Section 5 (pp.14-15) provides a program to monitor and/or validate the impacts of the project of alluvial and coal seam aquifers, any groundwater bores. An Application for Groundwater Licence for dated 7 November 2012 for a proposed bore to a depth of 150 m was available for review. <b>Implementation</b> Water in the underground workings is collected and then transferred to a number of underground storages to allow the settling of fines prior to being pumped to the surface. Underground water quality is assessed once it is transferred to the surface via three pipelines. The captured water from each of the underground workings is pumped to the settling ponds prior to discharge through the licensed discharge points into Wangi Creek. Water from each seam is sampled at the surface from each of the pipelines only when through site inspections, there has been a noticeable change in the water quality present within either a direct sample from a transfer pipeline or the Mine Water Settling Pond 2 water quality. Quarterly monitoring of storage levels is undertaken, where accessible, to determine any significant changes to inflows to the underground system. In addition to this monitoring pump hours and rates correlating to the times of the level monitoring is recommended for recording such that all inflows, outflows and internal transfers of the underground system can be determined. Myuna reported that as the WMP had not been approved, the recording of inflows and outflows and quarterly sampling of TSS and pH at the three seam outlets has not commenced. The proposed groundwater monitoring program for Myuna only includes the monitoring of underground water within the existing workings. The Groundwater Monitoring Program stated that ' <i>since Myuna Colliery extracts coal primarily from under Lake Macquarie, it is not considered necessary to install groundwater bores to monitor the quality and levels of groundwater in overlying strata. Therefore, the proposed groundwater monitoring program for Myuna only includes the monitoring of underground water within the existing workings</i> ' (GHD, August 2012, p.10). A preliminary hydrogeological model was developed by GHD (GHD, 2012) to document the behaviour of underground water and the resulting mine water parameters. This was incorporated into the Water and Salt Balance Assessment (GHD, 2012). The average daily discharge from underground to the surface in 2012 was 6.9 ML (AEMR, 2012, p.12). A water access licence application dated 19 May 2010 was available for review. The letter indicated that the purpose of the application was de-watering of groundwater infiltration from mine works to facilitate mine operations. The volume of water extraction applied for was based on a daily monitoring of extraction volumes from each of the three coal seams since September 2004 and that the annual limit of 1,825 ML was calculated on an average extraction rate of 5 ML per day. The 2012 AEMR (p.7) stated that ' <i>licensing for three existing dewatering bores at the Surface Facilities Area</i> ' was ' <i>currently being sought</i> '. A groundwater licence application for the CHP borehole dated 7 November 2012 was sighted. The application indicated a proposed bore depth of 150 m and an estimated annual use of 0 ML (due to reinjection – not water extraction). The proposed works were described as ' <i>installation of a bore to underground workings to assist in managing water onsite</i> '. Expected completed was stated as February 2013. At the time of the audit the bore has not been installed.	Preparation – Compliant (pending formal approval by the Director-General) Implementation – Compliant  <b>Recommendation:</b> Continue to seek all relevant groundwater licences for water bores at Myuna from NOW.  In anticipation of the Water Management Plan (WMP) being approved, it is recommended that monitoring, as defined by the WMP is undertaken.



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.27	<b>Surface Groundwater Response Plan</b> The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to: <ol style="list-style-type: none"> <li>respond to any exceedances of the surface water, stream health, and groundwater assessment criteria; and</li> <li>mitigate and/or offset any adverse impacts on riparian vegetation located within and adjacent to the site.</li> </ol>	<b>Preparation</b> The Surface and Ground Water Response Plan (SGWRP) forms part of the Water Management Plan (that was yet to be formally approved by the Director-General) and included: <ol style="list-style-type: none"> <li>Section 4 – Actions to Support Specific Responses (pp.18-19) addressed the requirements to               <ul style="list-style-type: none"> <li>respond to any exceedances of the surface water, stream health, and groundwater assessment criteria; and</li> <li>mitigate and/or offset any adverse impacts on riparian vegetation located within and adjacent to the site</li> </ul> </li> </ol> <b>Implementation</b> <ul style="list-style-type: none"> <li>The SGWRP included references to the updated LDP A and LDP B and requirements for reporting non-compliances in the Annual Return. The Annual Return for the period January to December 2012 identified a pH result of 6.16 from LDP002 on 18/04/2012. Condition L2.4 of EPL 366 specifies a pH range of 6.5 to 8.5. The low pH reading was attributed to over floccing of the Coal Handling Dam following a high rain event that had caused elevated turbidity in the dam.</li> <li>Monthly water sampling is conducted by AECOM in accordance with the Plan. Monthly environmental reports for the period April 2012 to April 2013 were available on the Myuna website. The reports contained monitoring information concerning surface water quality and water volume. Surface water data was available for review on ECD for the audit period. Surface water quality assessment criteria specified in the SGWRP (Table 2-1) was noted to be included in the surface water data spread sheet provided by the site. Quarterly Manganese monitoring results for March 2012 were available for review in accordance with the requirements of the SGWRP (Table 2-1).</li> <li>In accordance with Table 3-2 of the SGWRP the auditors sighted work orders for weekly inspections including, but not limited to:               <ul style="list-style-type: none"> <li>VG56362 – environmental inspections, weekly contractor environmental monitoring, 20 June 2013</li> <li>VG56363 – weekday mine environmental report, 21 June 2013, conducted by SNK Group Pty Ltd.</li> <li>VG56364 - environmental weekly surface cleaning, 21 June 2013.</li> <li>VG11456 – environmental weekly surface cleaning, 5 April 2013.</li> </ul>               The weekly inspection sheets sighted by the auditors did not fully match the requirements specified in the SGWRP. For example visual inspections with long term photographic records of the discharge pipe/channel from mine water settling pond 3 are stated in the Plan, however, this requirement was not captured on the inspection sheets. This also applied for visual inspections of the mine water settling ponds for water level height, surface scum and erosion of the embankment. The inspections sheets did not record these requirements.             </li> <li>Annual Returns and monthly environmental reports were available for review as specified in Section 5.3 (p.20) in accordance with Table 3-1 of the SGWRP.</li> </ul>	Preparation – Compliant (pending formal approval by the Director-General) Implementation – Compliant <b>Recommendation</b> Ensure environmental inspection sheets reflect the practices and requirements specified in the Surface and Ground Water Response Plan.

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.28	<b>Biodiversity Management Plan</b> The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must: <ol style="list-style-type: none"> <li>be submitted to the Director-General within 7 months of the date of this approval;</li> <li>be prepared by a suitable qualified ecologist approved by the Director-General;</li> <li>have a particular focus on measures that would be implemented over the life of the mine to protect and enhance the Swamp Sclerophyll Forest on Coastal Floodplains endangered ecological community near Wangi Creek; and</li> <li>include a detailed description of the measures that would be implemented over the life of the mine to ensure that native vegetation and habitat within the surface facilities sites (particularly the Swamp Sclerophyll Forest on Coastal Floodplains endangered ecological community near Wangi Creek) are properly managed, including procedures for:               <ul style="list-style-type: none"> <li>weed management (both control and suppression);</li> <li>protection and enhancement of native vegetation and habitat;</li> <li>feral animal control;</li> <li>fire management (including asset protection zones); and</li> <li>management of public access.</li> </ul> </li> </ol>	<b>Preparation</b> URS sighted a letter from the DP&I to Myuna dated 3 September 2012 that approved the Biodiversity Management Plan in accordance with Condition 28 of Schedule 3 of the Myuna Project Approval. <ol style="list-style-type: none"> <li>A letter dated 8 August 2013 concerning the submission of the Biodiversity Management Plan was available for review.</li> <li>The auditors sighted a letter dated 20 April 2013 from the Director-General approving qualified ecologists to prepare the Biodiversity Management Plan.</li> <li>Section 4.3 (p.11) Section 5 (pp.16-26) of the Plan addressed measures that would be implemented over the life of the mine to protect and enhance the Swamp Sclerophyll Forest on Coastal Floodplains endangered ecological community near Wangi Creek.</li> <li>Section 5 (pp.16-26) of the Plan addressed measures that would be implemented over the life of the mine to ensure that native vegetation and habitat within the surface facilities are properly managed.</li> </ol> <b>Implementation</b> The auditors sighted a Weed Action Plan – Treated Areas 2012 figure that showed weed focus areas for the periods: April to May, June, July and August. A Weed Action Plan for 2013 showed areas for treatment of Lantana for January 2013 and miscellaneous boundary spraying. A Weed Action Plan Component Update for January 2013 identified 58hrs of labour had been spent on weed management along with 20 Litres (L) of herbicide. No spray adjuvants or dye were used. Upcoming works for Autumn/Winter 2013 included spraying of the creekline for Bitou Bush, spraying of emerging fireweed in the adjustment paddock and manual control of Coral trees. A weed survey is planned for Spring 2013. Photographic records were available for January 2013 at monitoring Points 1 and 2 shown on the Weed Action Plan Component Update for January 2013. Hunter Land Management Pty Ltd is engaged to conduct weed management activities. Fluren Pty Ltd are engaged to conduct weed slashing at the site. The auditors sighted job sheets for weed slashing dated 15 October through to the 24 October 2013 (docket no.: 4408 – 4413). A job sheet dated (ref: 5851) 11 June 2013 for slashing was also available for review. Fauna monitoring is to be implemented if subsidence is measured greater than 20 mm. This requirement has not yet been triggered in the Plan.	Preparation - Compliant Implementation - Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.29	<b>Heritage Management Plan</b> The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This Plan must: <ul style="list-style-type: none"> <li>a) be prepared in consultation with OEH and any relevant Aboriginal stakeholders;</li> <li>b) be submitted for approval to the Director-General within 7 months of the date of this approval;</li> <li>c) include consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site;</li> <li>d) detail the responsibilities of all stakeholders; and</li> <li>e) include programs/procedures and management measures for: <ul style="list-style-type: none"> <li>• protection of the section of remnant railway line associated with the decommissioned Wangi Power Station that is located within the site;</li> <li>• dealing with previously unidentified Aboriginal objects (excluding human remains), including any need to halt works in the vicinity, assessment of significance, determination of appropriate mitigation measures (by a qualified archaeologist in consultation with Aboriginal stakeholders), re-commencement of works, notifying OEH, and registering the new site(s) in the OEH AHIMS register;</li> <li>• dealing with any human remains which may be discovered, including halting of works in the vicinity; notifying NSW Police, OEH, the Department and Aboriginal stakeholders; and not recommencing any works in the vicinity unless authorised;</li> <li>• heritage induction for construction personnel (including procedures for keeping records of inductions);</li> <li>• ongoing Aboriginal consultation and involvement (including procedures for keeping records of this);</li> <li>• appropriate identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site; and</li> <li>• dealing with previously unidentified non-Aboriginal heritage items which may be discovered during the project.</li> </ul> </li> </ul>	<b>Preparation</b> The following two heritage plans have been prepared: <ul style="list-style-type: none"> <li>a) Northern Holdings Aboriginal Cultural Heritage Management Plan dated August 2012; and</li> <li>b) Non-Indigenous Cultural Heritage Management Plan dated August 2012</li> </ul> URS sighted a soft copy of the Centennial Coal's Northern Holdings Aboriginal Cultural Heritage Management Plan dated August 2012 prepared by RPS (East Australia) Pty Ltd on behalf of Centennial. The Plan was approved by the Director-General on 26 November 2012 and addressed management of Aboriginal Cultural Heritage at Centennial's northern operations facilities including: <ul style="list-style-type: none"> <li>c) Newstan/Awaba Colliery;</li> <li>d) Myuna Colliery;</li> <li>e) Mannering Colliery; and</li> <li>f) Mandalong Mine.</li> </ul> For Myuna the following site specific issues were addressed in the Northern Holdings Aboriginal Cultural Heritage Management Plan: <ul style="list-style-type: none"> <li>g) Overview of operations</li> <li>h) Registered Aboriginal parties</li> <li>i) Aboriginal heritage commitments and consent conditions</li> <li>j) Myuna Colliery Project Approval conditions (Schedule 3 Condition 29)</li> <li>k) Cultural significance ranking outcomes</li> <li>l) Archaeological significance ranking outcomes</li> <li>m) Site specific management measures</li> </ul> The Non-Indigenous Cultural Heritage Management Plan dated August 2012 for Myuna operations was available for URS to review. URS sighted a letter from the DP&I to Myuna dated 4 September 2013 approving the plan in accordance with Condition 29, Schedule 3 of the Myuna Project Approval. <p>Section 5.1 (p.11) of the Myuna Non-Indigenous Cultural Heritage Management Plan addressed the protection of the section of remnant railway line associated with the decommissioned Wangi Power Station that is located within the site. Figure 3 (p.15) provided a procedure for the railway line should subsidence exceed 20 mm. Sections 4 and 5 provided appropriate identification the requirements for the management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site. Figure 4 (p.16) provided the procedure for actions when unidentified non-indigenous cultural heritage items or sites are identified.</p> <b>Implementation</b> No heritage items were reported to have been identified and/or disturbed during the reporting period. In the event that any major development or change to the existing site infrastructure was planned, or where mining operations would impact the surface appropriate surveys would be conducted. The 2011 and 2012 AEMRs (p.29 and p.30) stated that ' <i>Mine design is such that there is no visible disturbance to the surface due to mine subsidence therefore no impact predicted to natural heritage or the requirement for investigation triggered</i> '.	Preparation - Compliant Implementation – Compliant <b>Recommendation:</b> Prior to commencing any extraction in the vicinity of the remnant railway line, establish subsidence monitoring points to provide a basis for triggering the actions necessary should subsidence exceed 20mm.
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.30	<b>Visual Amenity and Lighting</b> The Proponent shall: <ul style="list-style-type: none"> <li>a) minimise visual impacts, and particularly the off-site lighting impacts, of the Myuna Colliery surface facilities site;</li> <li>b) take all reasonable and feasible measures to mitigate off-site lighting impacts from the project; and</li> <li>c) ensure that all external lighting associated on site complies with Australian Standard AS4282 (INT) 1995 – <i>Control of Obtrusive Effects of Outdoor Lighting</i>, to the satisfaction of the Director-General.</li> </ul>	The visual impact of the project from accessible viewing locations was determined (in the Environmental Assessment, 2011) to be low. <p>The Environmental Risk Assessment included in the 2011 and 2012 AEMRs (p. 30 and p.31) noted that lights are designed to reduce light leaving the site. The External views of the Myuna surface facility are limited due to the surrounding topography and vegetation.</p> <p>The site inspection was conducted during daylight hours. An assessment of night time lighting was not conducted. No complaints had been received concerning outdoor lighting. Lights are left on at night as the mine operates 24hrs a day.</p> <p>URS did not assess if outdoor lighting at Mannering complies with AS4282. Outdoor lighting works are conducted by third party electricians. Myuna were not able to demonstrate that lighting does comply with AS4282.</p>	Compliant <b>Recommendation</b> It is recommended Myuna conduct inspections of outdoor lighting to demonstrate it meets the requirements of AS4282 (INT) 1995 - <i>Control of Obtrusive Effects of Outdoor Lighting</i> .

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.31	<b>Waste</b> The Proponent shall: a) minimise the waste generated by the project; and b) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.	<p>JR Richards Pty Ltd were engaged in 2011 by Myuna to manage and all waste streams at the site. The objective of engaging one contractor was to improve efficiency's concerning reporting and recycling of waste.</p> <p>(a) Myuna operates a recycling waste collection system. Waste is separated into the following streams for recycling: cardboard, ferrous and non-ferrous metals, timber, waste oil, used batteries.</p> <ul style="list-style-type: none"> <li>cardboard is compacted into 50 kg bales.</li> <li>285 T of scrap steel was collected for recycling in 2011 and 167 T of scrap steel was collected for recycling in 2012.</li> <li>timber is collected and mulched on-site into wood chips. The wood chips are used for community requests and on-site rehabilitation works. Pallets are re-used where practicable.</li> <li>waste oil is collected for recycling off-site.</li> <li>Used batteries are collected and disposed of off-site when sufficient quantities allow.</li> </ul> <p>(b) Storage and handling</p> <ul style="list-style-type: none"> <li>the site has a dedicated waste storage area where material is separated into the appropriate receptacles for disposal off-site. The waste area is cleaned and managed once a week by an external contractor.</li> <li>used batteries are stored under cover with secondary containment in a designated storage area prior to disposal off-site by an appropriately licensed waste disposal facility.</li> <li>sighted Mine Site Review (SWPF 0101) dated 11 June 2013 of waste storage and handling areas on-site.</li> <li>sighted disposal dockets for Renewable Oil Services Pty Ltd 16 February 2012 for (ref: 02828) for 600 L of waste oil and 28 March 2012 (ref: 03058) for 800 L of waste oil.</li> <li>the following EPA Transport Certificates were available for review for J100 waste mineral oils for off-site disposal: 2T00334835, 2T00435029 and 2T00281902 for the period 1 August 2011 to 31 July 2012.</li> <li>stores Movement Advice (MY 0074) dated 20 march 2013 for 15 m<sup>3</sup> waste bin.</li> <li>SIMS Metal management Pty Ltd docket (ref: TYS447) dated 14 June 2013 for 17,840 kilograms (kg) of recycled metal.</li> <li>Trade Waste permit issued by Hunter Water Corporation Ltd (ref: D-171027) for disposal or trade wastewater to sewer. Trade wastewater is monitored in accordance with the permit by AECOM. Results for 2012 trade wastewater were available for review.</li> </ul> <p>URS sighted the May 2013 Total Waste Management Report that included a Waste Streams Monthly Summary Report. The monthly report included a breakdown of total tonnage and percentage of waste disposed per month. Waste streams included: general waste, liquid disposal, liquid recycled, paper/cardboard, security and comingled. The Total Waste Management Report included a section concerning opportunities for improvement that provided a timeframe for actioning the issue</p> <p>The AEMR for 2012 was sighted that included reporting on waste management (Section 2.6). The report identified the volumes of bulk general rubbish sent to landfill (tonnes) per month for the reporting period. Data was available for the following: monthly general waste to landfill, monthly liquid and hazardous recyclable waste volume / quantity, production and waste summary and stored water</p> <p>Site management reported that no requests have been made by the Director-General concerning Waste issues. The 2012 AEMR was approved by the Director-General without comment.</p>	



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.31	<i>Continued</i>	<p><i>Continued</i></p> <p>Site management reported that no waste received at the premises during the audit period.</p> <p>A large stockpile of waste was observed on the emergency coal stockpile during the site inspection (approximate dimensions was 15m by 10 m by 4 m high). Site management reported that the material consisted of conveyor waste from the Bradford Beaker and had accumulated over a long period. The waste was observed to include, but not be limited to inert rock and minor coal deposits; however was observed to include, torn sections of conveyor belts, wood, plastic containers, pallet banding and small diameter piping. Site management reported that the waste would be returned underground in the near future.</p> <p>The site's Environmental Protection Licence does not provide an exemption for returning waste material underground. The Mining Operations Rehabilitation Management Plan (January 2013) states that '<i>all wastes generated on site are classified and separated in accordance with DECCW's Waste Classification Guidelines</i>' and that '<i>due to the mining method employed at Myuna Colliery only a small amount of waste rock is produced from the mining process. This is collected and stored on site</i>'.</p> <p>URS considers that the type of waste observed at the emergency coal stockpile would be classed as 'building and demolition waste' as defined by the EPA Waste Classification Guidelines Part 1: Classifying Waste. Further, returning such material back underground may potentially be a breach of Sections 142A and/or 143 of the <i>Protection of the Environment and Operations Act 1997</i> that prohibits the pollution of land and requires waste to be transported to a place that can lawfully accept it. The EPA Waste Classification Guidelines Part 1: Classifying Waste describe building and demolition waste as '<i>bricks, concrete, paper, plastics, glass, metal, and timber, including unsegregated timber, that may contain timber treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP)</i>'. Minor quantities of such waste were reported to be produced per week.</p> <p>As URS cannot provide legal advice, further consideration of the legal status of this activity may be required. On this basis, this Condition has been assessed as Indeterminate.</p>	<p>Indeterminate</p> <p><b>Recommendation</b></p> <p>It is recommended that Myuna seek legal advice concerning the disposal of waste back underground in accordance with the POEO Act 1997.</p> <p>Only natural materials such as dirt, rock and coal deposits should be returned underground. Manmade materials including natural material treated with manmade product(s) (i.e. wood) should be segregated and disposed of off-site at an appropriately licensed waste facility. Waste should be separated at the source to prevent contamination of waste streams.</p>
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.32	<p><b>Bushfire Management</b></p> <p>Proponent shall:</p> <ol style="list-style-type: none"> <li>review its existing bushfire management procedures and fire fighting equipment to ensure that the project is suitably equipped to respond to any fires on site; and</li> <li>assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.</li> </ol>	<p>The site was unable to show evidence the bushfire management procedures had been reviewed. The auditors sighted Bushfire Management Plan dated 1 May 2009 with hand written notes for the contractor engaged to slash the perimeter boundaries.</p> <p>Section 5.6 (pp24-25) of the Biodiversity Management Plan addresses fire management. Actions are identified as maintenance of Asset Protection Zone's (APZ's) including mowing, underscrubbing, edge maintenance, canopy thinning and tree removal around buildings and fence lines. Fluren Pty Ltd are engaged to conduct weed slashing at the site. The auditors sighted job sheets for weed slashing dated 15 October through to the 24 October 2013 (docket no.: 4408 – 4413). A job sheet dated (ref: 5851) 11 June 2013 for slashing was also available for review.</p> <p>Controls identified in the Environmental Risk Assessment appended to the 2012 AEMR list a Bushfire Management Plan, buffer zones between the site and residents and boundary fence slashing.</p> <p>The 2012 AEMR (p.30) state '<i>a fuel loading assessment is performed throughout the site's buffer zones annually by the Wangi Fire Brigade and Environment and Community Coordinator</i>' indicating a working relationship exists with the Rural Fire Service.</p> <p>No bushfire incidents occurred in the audit period.</p> <p>Staff are trained in mine fire fighting (i.e. for underground operations). No records were sighted for fire fighting training.</p> <p>URS are not fire management experts and no adequacy assessment of the site's preparedness for a bushfire has been conducted, nor any other assessment related to bushfire management.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p>Review the Bushfire Management Plan to show the location of existing fire fighting equipment or ensure the existing site service plan shows the location of current fire fighting equipment.</p>

Appendix A - Myuna Independent Environmental Audit												
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations								
Project Approval 10_0080												
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.33	<b>Rehabilitation Objectives</b> The Proponent shall rehabilitate the surface facilities sites to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA, and comply with the objectives in Table 7. <i>Table 7: Rehabilitation Objectives</i>	The 2012 AEMR (p.33) stated ‘surface infrastructure associated with Myuna Colliery’s operations is located at the Surface Facilities Area. The Surface Facilities Area encompasses a footprint of approximately 89 hectares, of which 21 hectares includes the surface infrastructure. This 21 hectares is the total area currently requiring rehabilitation prior to mine closure. The remainder of the Surface Facilities Area is predominantly natural bushland vegetation, the Wangi Creek watercourse and existing cleared easement corridors’.  The current MOP includes a conceptual final land use plan for Surface Facility Areas. Stage 1 of the Rehabilitation Management Plan was prepared and submitted to the Executive Director Mineral Resources in January 2013. URS sighted a letter of submission dated 5 June 2013 for Stage 2 of the Rehabilitation Management Plan. An approval letter for Stage 1 dated 22 January 2013 was received from the Executive Director Mineral Resources. Myuna had yet to receive comment from the Executive Director Mineral Resources concerning the Stage 2 Rehabilitation Management Plan at the time of the audit.  The Mining Operations Plan Rehabilitation Management Plan dated June 2013 was available for review.  The auditors sighted historical rehabilitation adjacent the Eraring Power Station boundary that had good cover and was in good condition.  Rehabilitation of the stormwater diversion drain easement was observed during the site inspection. The cover crop had germinated and had good coverage at the time of the inspection.	Compliant								
		<table><tr><th>Features</th><th>Objective</th></tr><tr><td>Surface facilities sites.</td><td>Safe, stable &amp; non-polluting. Final land use compatible with surrounding land uses.</td></tr><tr><td>Project surface infrastructure.</td><td>To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise.</td></tr><tr><td>Community.</td><td>Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure.</td></tr></table>			Features	Objective	Surface facilities sites.	Safe, stable & non-polluting. Final land use compatible with surrounding land uses.	Project surface infrastructure.	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise.	Community.	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure.
		Features			Objective							
		Surface facilities sites.			Safe, stable & non-polluting. Final land use compatible with surrounding land uses.							
		Project surface infrastructure.			To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise.							
Community.	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure.											
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.34	<b>Progressive Rehabilitation</b> The Proponent shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.	Section 5.2 (p.21) of the Mining Operations Plan Rehabilitation Management Plan dated June 2013 addressed progressive rehabilitation. URS sighted a letter of submission dated 5 June 2013 for Stage 2 of the Rehabilitation Management Plan. Myuna had yet to receive comment from the Executive Director Mineral Resources concerning the Stage 2 Rehabilitation Management Plan at the time of the audit. It is noted that: <ul style="list-style-type: none"><li>No buildings were renovated, removed or rehabilitated during the audit period.</li><li>Rehabilitation to the stormwater diversion drain was observed during the site inspection.</li><li>Rehabilitation of degraded areas caused by environmental weeds was systematically carried out during the reporting period, as part of land management practice.</li><li>No rehabilitation trials, research or initiatives were undertaken during the audit period.</li></ul> Based on the rehabilitation observed during the site inspection, Myuna were considered to be compliant with this Condition.	Compliant								



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S3.35	<b>Rehabilitation Management Plan</b> The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Executive Director Mineral Resources. This plan must: <ol style="list-style-type: none"> <li>be prepared in consultation with the Department, DPI Fisheries, LMCC, WSC and the CCC;</li> <li>be prepared in accordance with any relevant DRE guideline;</li> <li>provide for detailed mine closure planning, including measures to minimise socio-economic effects due to mine closure, to be conducted prior to the site being placed on care and maintenance;</li> <li>build, to the maximum extent practicable, on the other management plans required under this approval; and</li> <li>be submitted to the Executive Director Mineral Resources for approval within 12 months of the date of this approval.</li> </ol>	<b>Preparation</b> The Mining Operations Plan (Rehabilitation Management Plan) dated June 2013 was available for review. A letter dated 18 January 2013 from Myuna to the Executive Director Mineral Resources requested submission of the Plan in a staged approach. A response from DRE dated 22 January 2013 approved the staged approach and approved the plan for the period of January 2013 to June 2013. The current MOP includes a conceptual final land use plan for Surface Facility Areas. Stage 1 of the Rehabilitation Management Plan was prepared and submitted to the Executive Director Mineral Resources in January 2013 to DRE and DOP to clarify the approach was correct. An approval letter for Stage 1 dated 22 January 2013 was received from the Executive Director Mineral Resources. Myuna had yet to receive comment from the Executive Director Mineral Resources concerning the Stage 2 Rehabilitation Management Plan at the time of the audit. The following comments are provided on the MOP: <ol style="list-style-type: none"> <li>The auditors sighted correspondence from Myuna to the Community Consultation Committee, Wyong Shire Council and Lake Macquarie City Council dated 6 June 2013 seeking feedback on Stage 2 of the Mining Operations Plan / Rehabilitation Management Plan.</li> <li>The auditors sighted a letter from DRE dated 22 January 2013 indicating they were satisfied with the plan.</li> <li>Section 5 (pp.20-21) provided detail concerning mine closure planning, including measures to minimise socio-economic effects due to mine closure.</li> <li>Whilst topics such as water management were discussed in the Plan there was not clear reference to other management plans required under this approval.</li> <li>URS sighted a letter of submission dated 5 June 2013 for Stage 2 of the Rehabilitation Management Plan. It is noted that Stage 1 of the Rehabilitation Management Plan was submitted in January 2013 (i.e. within the approval timeframe).</li> </ol> For the Stage 2 Mining Operations Plan (Rehabilitation Management Plan) the period of the plan is from June 2013 to June 2020. The June 2013 plan notes: <ul style="list-style-type: none"> <li>No rehabilitation or removal and renovation of buildings are proposed in the plan period.</li> <li>Myuna will continue to operate infrastructure to support mining throughout the duration of the MOP period from 2013 to 2020.</li> <li>Rehabilitation of exploration drill sites will be undertaken at the completion of these sites during the MOP period in consultation with the landowner.</li> <li>Rehabilitation of water management structures are not planned during the MOP period. Dams and water management structures will be used to manage water on site.</li> </ul> Correspondence with DTIRIS in August 2013 indicated that further work is required to update the MOP prior to DTIRIS approving the Plan. <b>Implementation</b> The approval letter from DRE on 22 January 2013 noted that no rehabilitation activities are proposed in the Stage 1 RMP period and that DRE would assess rehabilitation and criteria in the further staged RMP / MOP submission for the site. It is noted that: <ol style="list-style-type: none"> <li>No buildings were renovated, removed or rehabilitated during the audit period.</li> <li>Rehabilitation to the stormwater drain diversion drain was observed during the site inspection.</li> <li>Rehabilitation of degraded areas caused by environmental weeds was systematically carried out during the reporting period, as part of land management practice.</li> <li>No rehabilitation trials, research or initiatives were undertaken during the audit period.</li> </ol> Implementation was generally observed to be in accordance with the MOP. Given Stage 2 of the Mining Operations Plan Rehabilitation Management Plan has yet to be formally approved this Condition was found to be indeterminate.	Preparation – Indeterminate (at time of site inspection formal approval by the Director-General was pending. Noted formal Approval has since been obtained dated 8 October 2013).  Implementation – Indeterminate (on basis Plan was still to be approved at the time of the site inspection for the audit).

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.1	<p><b>Environmental Management Strategy</b></p> <p>The Proponent shall revise and implement an Environmental Management Strategy for the project to the Satisfaction of the Director-General. This strategy must:</p> <ul style="list-style-type: none"> <li>(a) be submitted for approval to the Director-General within 7 months of the date of this approval;</li> <li>(b) provide the strategic framework for the environmental management of the project;</li> <li>(c) identify the statutory approvals that apply to the project;</li> <li>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</li> <li>(e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>– keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>– receive, handle, respond to, and record complaints;</li> <li>– resolve any disputes that may arise during the course of the project;</li> <li>– respond to any non-compliance; and</li> <li>– respond to emergencies; and</li> </ul> </li> <li>(f) include: <ul style="list-style-type: none"> <li>– copies of any strategies, plans and programs approved under the conditions of this approval; and</li> <li>– a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.</li> </ul> </li> </ul>	<p>Myuna Colliery has developed an Environmental Management Strategy (the Strategy) dated August 2012 in accordance with Condition 5.1, Schedule 5 of DA 10_0080. The following was noted concerning the Strategy:</p> <ul style="list-style-type: none"> <li>a) The Strategy was submitted to the Director-General for approval on 4 September 2013. The Director-General approved the Strategy on 4 September 2012.</li> <li>b) Section 3 of the Strategy provided the strategic framework and included an overview of the Environmental Management System framework that included, but was not limited to the following sections: approvals and licences, roles and responsibilities, incident response and procedures/protocols. URS consider these topics to generally provide the strategic framework for the environmental management of the site.</li> <li>c) Section 1.3.1 sets out the regulatory requirements of the project in accordance with Condition 5.1(c).</li> <li>d) Section 5.0 sets out accountabilities and responsibilities for environmental management of the project.</li> <li>e) Section 4.0 addressed procedures and controls but did not clearly describe the procedures that would be implemented. <ul style="list-style-type: none"> <li>– section 4.1 described the process for managing community issues and information;</li> <li>– section 4.1.3 described how to manage complaints. A protocol was provided in Appendix 2 illustrating how complaints are to be managed;</li> <li>– section 4.1.1 addressed dispute resolution and the process to follow. A protocol was provided in Appendix 3 illustrating how complaints are to be managed;</li> <li>– section 4.2.3 addressed non-compliance reporting. Specific management plans detail further information concerning non-compliances. No reference was made to an overarching incident and/or non-compliance procedure.</li> <li>– section 7.0 referenced that a Pollution Incident Response Management Plan (PIRMP) would be prepared by 1 September 2012. A PIRMP dated August 2012 was available to review, however, the Strategy had not been updated to reflect the PIRMP.</li> </ul> </li> <li>f) <ul style="list-style-type: none"> <li>– copies of strategies, plans and programs were not included in the Strategy. Section 3.0 provided reference to management plans required under Project Approval 10_0080, however, no clear programs and strategies were provided.</li> <li>– a clear plan depicting all the monitoring required to be carried out under the conditions of this approval was available in Appendix 4.</li> </ul> </li> </ul>	<p>Compliant.</p> <p><b>Recommendation</b></p> <p>It is recommended that the Environmental Management Strategy be reviewed and revised to reference the Pollution Incident Response Management Plan.</p> <p>It is recommended that that the Environmental Management Strategy be reviewed and revised to include copies of any strategies, plans and programs approved under the conditions of this approval as required by C5.1(f).</p>

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.2	<p><b>Management Plan Requirements</b></p> <p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>any relevant limits or performance measures/criteria;</li> <li>the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul> <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>impacts and environmental performance of the project;</li> <li>effectiveness of any management measures (see (c) above);</li> </ul> <p>(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;</p> <p>(f) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>incidents;</li> <li>complaints;</li> <li>non-compliances with statutory requirements; and</li> <li>exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> <p>(g) a protocol for periodic review of the plan.</p>	<p>Management plans have been prepared against the requirements of this Condition (S5.2). The following plans required under this approval were available for the audit team to review:</p> <ol style="list-style-type: none"> <li>Noise Management Plan;</li> <li>Air Quality &amp; Greenhouse Gas Management Plan;</li> <li>Water Management Plan which includes: <ul style="list-style-type: none"> <li>Site Water Balance;</li> <li>Erosion &amp; Sediment Control Plan;</li> <li>Surface Water Management Plan;</li> <li>Groundwater Monitoring Program; and</li> <li>Surface &amp; Groundwater Response Plan.</li> </ul> </li> <li>Biodiversity Management Plan;</li> <li>Heritage Management Plan, which has been split into two management plans, including: <ul style="list-style-type: none"> <li>Aboriginal Cultural Heritage Management Plan; and</li> <li>Non-indigenous Cultural Heritage Management Plan.</li> </ul> </li> <li>Mining Operations Plan / Rehabilitation management Plan</li> </ol> <p>a) Where required, plans were observed to include baseline data specific to the issue(s) being addressed, for example the WMP included water balance data.</p> <p>b) The plans were observe to include the following:</p> <ul style="list-style-type: none"> <li>a brief introduction that included a summary of the relevant statutory requirements including Project Approval. The ESCP included reference to the site's EPL and State legislation. Other plans were noted to include, but not be limited to references to the Project Approval and lease requirements;</li> <li>relevant limits or performance measures/criteria were noted to be included in the plans reviewed. For example the ESCP included sediment basin calculations.</li> <li>specific performance indicators were generally included in tables so that it was clear what threshold were and how they would be achieved. The plans appeared to provide sufficient information to understand the implementation of the project and management measures;</li> </ul> <p>c) The plans generally provided a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria. These were described in tables so it was clear for each line item what actions were required and who was responsible for implementing the action;</p> <p>d) Requirements to monitor and report were included the plans. Responsibilities for conducting actions were provided. Reporting requirements were included in the plans.</p> <p>e) Actions and responses due to an exceedance or potential impact were included in the plans along with responsibilities.</p> <p>f) Protocols were available in the plans for issues such as incidents, complaints, non-compliances and exceedances, including but not limited to the Noise Management Plan, Environmental Strategy and Non-Indigenous Cultural Heritage Management Plan.</p> <p>g) Periods of review were provided in the plans, generally this was specified as 'event or 'time' based.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.3	<b>Adaptive Management</b> The Proponent must assess and manage project-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 approval 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 Proponent must, at the earliest opportunity: <ul style="list-style-type: none"> <li>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</li> <li>(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</li> <li>(c) implement remediation measures as directed by the Director-General,</li> </ul> to the satisfaction of the Director-General.	Site management reported that no events have triggered the requirements of this Condition. <ul style="list-style-type: none"> <li>• The Annual Return for the period January to December 2012 identified a pH result of 6.16 from LDP002 on 18/04/2012. Refer to S3.27 for further details.</li> <li>• One discharge exceedance from LDP B (formerly LDP001) was notified to the EPA on 5 March 2013. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"> <li>– a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>– 3,676 kL of clean water flowed through LDP B during the event.</li> </ul> </li> </ul> At the time of the volume/mass exceedance on 2 March 2013 LDP B included the flow from a clean water diversion drain that captured clean water run-off from the west of the pit top facilities. Since the EPL variation was received on 27 February 2013 Myuna has realigned the clean water diversion drain so that it no longer flows into an upstream connection of LDP B. The auditors observed the new clean water diversion drain and discharge point downstream from LDP B during the site inspection in June 2013. It is considered where exceedances or performance criteria have occurred Myuna were either in the process or attempting to correct the issues whether through an immediate response (i.e. flocking) or through longer term plans (i.e. the diversion of clean stormwater from the licenced discharge point) and are therefore compliant with this Condition.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.4	<b>Annual Review</b> By the end of March 2013, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must: <ul style="list-style-type: none"> <li>(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 financial year;</li> <li>(b) include a comprehensive review of the monitoring results and complaints records of the project over the past calendar year, which includes a comparison of these results against the: <ul style="list-style-type: none"> <li>– the relevant statutory requirements, limits or performance measures/criteria;</li> <li>– requirements of any plan or program required under this approval;</li> <li>– the monitoring results of previous years; and</li> <li>– the relevant predictions in the EA and EA (Mod 1);</li> </ul> </li> <li>(c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>(d) identify any trends in the monitoring data over the life of the project;</li> <li>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</li> <li>(f) describe what measures will be implemented over the current financial year to improve the environmental performance of the project.</li> </ul>	Myuna use the Annual Environmental Management Report (AEMR) as the Annual Review. No comments were received from the Director-General concerning the 2012 AEMR. Site management reported that no AEMR inspections have been conducted at the site during the audit period. <ul style="list-style-type: none"> <li>a) The 2012 AEMR included developments during the reporting period (Section 2). Sections 2 and 3 included a review of the monitoring results for the year against the statutory requirements.</li> <li>b) Monitoring results for the calendar year that provided a comparison against statutory requirements were provided in Section 3.</li> <li>c) Non-compliances were addressed in Section 3 of the AEMR. There was one non-compliance against the requirements of the Environmental protection Licence due to a pH exceedance. The Annual Return that contained further details concerning the non-compliance was appended to the AEMR.</li> <li>d) Given the age of the Project Approval identification of trends in monitoring data was only available for the reporting period.</li> <li>e) No discrepancies were noted in the AEMR for the reporting period.</li> <li>f) Measures that will be implemented in the current financial year were included in the AEMR. These included: <ul style="list-style-type: none"> <li>– review and development of management plans as per project approval conditions;</li> <li>– diversion of clean water drain around licenced discharge point – completed; and</li> <li>– installation of borehole to divert dirty water underground.</li> </ul> </li> </ul>	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.5	<b>Revision of Strategies, Plans and Programs</b> Within 3 months of: (a) the submission of an annual review under Condition 4 above; (b) the submission of an incident report under Condition 7 below; (c) the submission of an audit under Condition 9 below; and (d) any modification to the conditions of this approval (unless the conditions require otherwise),  the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	Site management reported that the only plan that has been modified was the Site Services Plan to change LDP 1 and LDP to LDP A and LDP B. The first Annual Review (AEMR) was submitted in February 2012. The following was noted in accordance with this Condition: a) The latest Annual Review/AEMR was submitted to DRE on 28 March 2013 to DRE and DP&I; b) Notification of volumetric exceedence at LDP B on 2 March 2013 was reported to the EPA only. No plans were revised following the exceedence. c) No Independent Environmental Audit has been conducted under the modified approvals (i.e. approved January 2012). d) No modifications have been made to plans since approval in mid to late 2012.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.6	<b>Community Consultative Committee</b> The Proponent shall continue to operate a Community Consultative Committee (CCC) for the project in general accordance with the guidelines for Establishing and <i>Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version)</i> , and to the satisfaction of the Director-General.	Community Consultation Committee (CCC) minutes were available online for the periods February 2013, November 2012 and August 2012. A letter from Myuna to DP&I dated 23 July 2012 was sighted informing of the appointment of a chairperson and nomination of CCC members. Myuna advertised for expressions of interest for the Myuna CCC on 2 July 2012 in the Lakes Mail and on the Centennial Coal Myuna Colliery Website. Expressions of interest closed on 19 July 2012. Myuna received three requests from community members to join the CCC.  The first meeting was conducted in August 2012. Meetings are held at the Myuna site office.  The committee includes three community representatives and representation from Lake Macquarie City Council. Two Myuna colliery representatives and a Centennial Fassifern member complete the CCC.  A copy of the Guideline for <i>Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007)</i> was available on the Centennial Intranet and reportedly provided to members.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.7	<b>Reporting - Incident Reporting</b> The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incidents associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Site management reported that Myuna has not reported any site incidents to the Director-General. One pH exceedence against the site's EPL thresholds was reported to EPA through the EPA Pollution Hotline. The EPL Annual Returns note the details of the exceedence (see Condition 11, Schedule 2 for further information concerning EPL exceedences). Incidents are reported to DP&I in the AEMR at the end of the reporting period. Communications concerning reporting the pH exceedences to the EPA was available for the auditors to review. It is noted that notification of an environmental incident to the Director-General is specified in, but not limited to, the following plans: <ul style="list-style-type: none"> <li>• Environmental Management Strategy (Section 4.2.3);</li> <li>• Water Management Plan (p.54);</li> <li>• Noise Management Plan (p.6); and</li> <li>• Biodiversity Management Plan (p.7).</li> </ul> On the basis that DP&I were not notified of the exceedences, Myuna were considered Non Compliant with this condition.	Non-Compliant <b>Recommendation</b> In accordance with this Condition and Myuna's management plans it is recommended that when the EPA is notified of an environmental incident that has caused, or threatens to cause, material harm to the environment the Director-General and any other agencies be notified at the earliest opportunity.

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.8	<b>Reporting - Regular Reporting</b> The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	The following documents were available on the Myuna website: n) Development and environment approvals; o) Environment management plans; p) Subsidence management plans (where available); q) Environmental assessments; r) Community consultation; s) Environmental management reports; t) Independent environmental audit; and u) Environmental monitoring data.  GHG information was available in the AEMRs available on the Myuna website. A copy of the 2011 and 2012 Myuna Colliery Annual Environmental Management Reports were available on the Mannering website. The documents were uploaded on the 25/05/2012 and 08/04/2013 respectively. Environment Protection Licence Monitoring Data was available on the Myuna website for the period April 2012 through to April 2013.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.9	<b>Independent Environmental Audit</b> By the end of June 2013 and every three years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval 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 project, and/or any assessment, plan or program required under the abovementioned approvals.	URS were engaged to conduct an Independent Environmental Audit of the site 20/03/2013. This audit report and supporting documents address the requirements of Condition 5.9, Schedule 5 of DA 10_0080.  a) Myuna commissioned URS to conduct the 2013 Independent Environmental Audit. The URS audit team was approved by the DP&I to conduct the audit in letters to Myuna Colliery dated 06/05/2013 and 28/05/2013. The site inspection was conducted on the 24, 26, 27 (subsidence expert only) and 28 (water expert only) June 2013. b) The 2013 IEA involved consultation with the following agencies: DP&I, DTIRIS-DRE and EPA. c) The 2013 IEA assessed the environmental performance of the project against the requirements of MCoA 10_0080, EPL 366 the Consolidated Coal Lease 762 and plans and programs required by these approvals. d) The 2013 IEA included appropriate measures and/or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.	Compliant
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.10	<b>Independent Environmental Audit</b> Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.	The site inspection was conducted on the 24, 26, 27 and 28 June 2013 by an approved URS audit team. Myuna will submit the report to the Director-General once completed and finalised.	Not Able to be assessed.



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Project Approval 10_0080</b>				
Myuna Colliery – Mining Project - Project Approval DA 10_0080	S5.11	<p><b>Access To Information</b></p> <p>Within 4 months of the date of this approval the Proponent shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> <li>– the documents referred to in condition 2 of Schedule 2;</li> <li>– all relevant statutory approvals for the project;</li> <li>– all approved strategies, plans and programs required under the conditions of this approval;</li> <li>– a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any approved plans or programs required under the conditions of this or any other approval;</li> <li>– a complaints register, which is to be updated on a monthly basis;</li> <li>– minutes of CCC meetings;</li> <li>– the annual reviews required under this approval;</li> <li>– any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit; and</li> <li>– any other matter required by the Director-General; and</li> </ul> <p>(b) keep this information up-to-date, to the satisfaction of the Director-General.</p>	<p>a) Access to information appears to be in compliance with the requirements of this condition. The Myuna website: <a href="http://centennialcoal.com.au/Operations/OperationsList/Myuna">http://centennialcoal.com.au/Operations/OperationsList/Myuna</a> [Accessed 13 June 2013 @14:30hrs] was reviewed and observed to contain the following information:</p> <ul style="list-style-type: none"> <li>– Development and Environment Approvals</li> <li>– Environment Management Plans</li> <li>– Subsidence Management Plans</li> <li>– Environmental Assessments</li> <li>– Environmental Management Reports</li> <li>– Independent Environmental Audits</li> <li>– Environmental Monitoring Data</li> </ul> <p>The following plans and reports were available:</p> <ul style="list-style-type: none"> <li>– Myuna PRP - Coal Mine Particulate Matter Report (uploaded 03/10/2012)</li> <li>– Non-Indigenous Heritage Management Plan (uploaded 02/10/2012)</li> <li>– Myuna Environmental Management Strategy uploaded (02/10/2012)</li> <li>– Myuna Biodiversity Management Plan (uploaded 02/10/2012)</li> <li>– Myuna Air Quality and Greenhouse Gas Management Plan (uploaded 30/08/2012)</li> <li>– Myuna Noise Management Plan (uploaded 10/08/2012)</li> <li>– Pollution Incident Response Management Plan (uploaded 31/08/2012)</li> </ul> <p>The Water Management Plan was not available on the website as it had not been approved by the Director-General.</p> <p>Community Consultation Committee minutes were available online for the periods February 2013, November and August 2012 as well as the 2012 Complaints Register and a copy of the June 2012 Myuna Community Newsletter.</p> <p>Environment Protection Licence Monitoring Data was available on the Mannering website for the period April 2012 through to April 2013. Environmental Monitoring Data was available on the company's website for quarters one to four of 2012.</p> <p>Myuna has developed a Stakeholder Engagement Plan dated July 2012. The aim of the Plan is to provide a consistent management framework to identify and consult with stakeholders concerning current and proposed activities within the Project Area. The CCC was addressed in Section 6 (p.12) of the Plan and details were provided concerning the Project Approval Conditions for a CCC.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p>It is recommended that the Water Management Plan be uploaded to the Myuna website once approved.</p>

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Statement of Commitments</b>				
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments	6.1	<b>Construction of the clean water diversions at the Surface Facilities Area undertaken in a manner that will minimise impacts to the surrounding environment.</b> <ol style="list-style-type: none"> <li>Construction will be undertaken during the hours 7am to 6pm Monday to Friday, and 8am to 1pm on Saturdays. No construction work will be undertaken on Sundays or Public Holidays.</li> </ol>	<p>The clean water diversion was constructed in February 2013. Rehabilitation to the clean water drain diversion drain was observed during the site inspection.</p> <p>It is noted that the Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period. No evidence was sighted to indicate that these hours were not adhered to. Full verification of the requirement was not able to be performed given it was completed prior to the audit.</p>	Compliant
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments	6.2	<b>Operations undertaken within the approved operating hours.</b> <ol style="list-style-type: none"> <li>Mining and associated operations will be undertaken 24 hours a day, 7 days a week.</li> </ol>	<p>Noted.</p> <p>Myuna operates 24hrs seven days a week.</p>	Compliant
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<b>Subsidence levels managed within predicted maximum levels.</b> <ol style="list-style-type: none"> <li>Mining will be undertaken in accordance with the document titled 'Design Criteria and Mining Methods for Seams' provided as Attachment 1 to the Response to Submissions.</li> <li>An Extraction Plan, or equivalent document, which takes into account the existing information presented in this Environmental Assessment, will be developed for mining within subsidence Zone B, in consultation with the DP&amp;I, prior to secondary workings being undertaken in Zone B.</li> </ol>	<p>Mine plans sighted confirmed that only first workings extraction was carried out during the audit review period. For first workings, the relevant design criteria in Attachment 1 to the Response to Submissions are:</p> <p><i>'Compliance with legislative requirements for pillar size to be 1/10 depth or 10m' – confirmed by mine plans</i></p> <p><i>'Pillars to have a Factor of Safety of at least 2.11 using the University of NSW (UNSW) design methodology'</i></p> <p>examples of Factor of Safety assessments using a software package on licence from UNSW was sighted, and the use of the software was demonstrated. The adopted pillar dimensions are typically significantly larger than the minimum required to provide a Factor of Safety of 2.11.</p> <p>There has been no secondary extraction in subsidence Zone B in the review period, consequently the requirement for preparation of an Extraction Plan has not been triggered.</p>	Compliant
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<b>Operations carried out in a manner that minimises potential impacts to groundwater.</b> <ol style="list-style-type: none"> <li>Within 6 months of Project Approval, a variation to EPL 366 will be lodged with the Office of Environment and Heritage to: <ol style="list-style-type: none"> <li>Combine licensed discharge points LDP001 and LDP002 into a single licensed discharge point, LDP B, with a combined discharge volume of 13 ML/day;</li> <li>Establish a licensed discharge point at the Emergency Coal Stockpile Sediment Dam, LDP A, for event-based discharges where rainfall exceeds 140 millimetres in 24 hours.</li> </ol> </li> <li>The Proponent will undertake an investigation of water reuse options at Myuna Colliery within 6 months of Project Approval.</li> </ol>	<ul style="list-style-type: none"> <li>The EPL was modified on 27 February 2013 to include a single discharge point LDP B with a volume /mass limit of 13,000 kilolitres per day (Condition L3.1 and EPA ID Point 9 of EPL 366).</li> <li>LDP A was established in the same EPL variation (EPA ID point 10) and has an event-based discharge when rainfall exceeds 140mm in any 24 hour period (Condition L2.5 of EPL 366).</li> <li>Site management reported an informal investigation into water use options was conducted. An internal presentation was prepared in April 2013 that identified three potential rainwater catchments with an approximate surface area of 6,500 m<sup>2</sup>. The investigation identified that approximately 70 kL of water is used on the surface daily and that the major uses consist of hosing of hard surfaces, vehicle wash-down and boot wash. The presentation included a two staged approach to conserving water consisting of: <ul style="list-style-type: none"> <li>re-commissioning existing waters utilising the store and workshop catchment area; and</li> <li>commission a new water tank utilising office, bathhouse and Maintenance and Materials portal catchment areas.</li> </ul> </li> </ul> <p>Section 6 of the Water Management Plan (p.52) also discuss water reuse and recirculation at the site.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Statement of Commitments</b>				
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<p><b>Items and areas of Aboriginal sensitivity are not disturbed as a result of the proposed Project, where possible.</b></p> <p>7. If first workings and/or secondary extraction is to occur under the culturally sensitive sites recorded in Addendum A^ and Addendum B~ of the EA*, an archaeological monitoring programme is to be developed for the potentially impacted site(s).</p> <p><i>Note:</i>  ^ = Restricted aboriginal cultural heritage site: information restricted to Centennial, DECCW and Department of Planning.  ~ = Restricted aboriginal cultural heritage site: information restricted to Centennial, DECCW and Department of Planning.  * = Appendix M of the EA Cultural Heritage Assessment (RPS Australia East Pty Ltd, 2011b)</p>	No secondary extractions occurred in the audit period. On this basis, items and areas of Aboriginal sensitivity have not been disturbed as a result of the project.	
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<p><b>Items and areas of Aboriginal sensitivity are not disturbed as a result of the proposed Project, where possible.</b></p> <p>8. If there is evidence of Myuna Colliery mining induced damage to sandstone outcrops and rock overhangs as described in Addendum A and Addendum B of Appendix M to the EA, all mining works affecting qualified archaeologist and the relevant Aboriginal stakeholders will be engaged as required.</p>	This requirement has not been triggered in the audit period. There was no reported damage to items and areas of Aboriginal sensitivity including sandstone outcrops and rock overhangs.	Not Applicable

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Statement of Commitments</b>				
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<p><b>Items and areas of Aboriginal sensitivity are not disturbed as a result of the proposed Project, where possible.</b></p> <p>9. Myuna Colliery will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) for the identified Aboriginal heritage items within the Project Area, as well as, contingency strategies for any additional heritage issues which may arise. The ACHMP will comprise:</p> <ul style="list-style-type: none"> <li>- An assessment of the cultural significance of the Aboriginal heritage sites within the Project Area;</li> <li>- Identification of roles and responsibilities (Centennial, Aboriginal stakeholders, heritage consultant); and</li> <li>- Strategies for: <ul style="list-style-type: none"> <li>o Management of identified Aboriginal heritage sites;</li> <li>o Management of Aboriginal Heritage sites, should subsidence levels exceed the maximum predicted subsidence of 20 mm; and</li> <li>o Management of additional sites, if identified.</li> </ul> </li> </ul> <p>The Myuna Colliery ACHMP will be developed in consultation with the relevant Aboriginal stakeholders and will adequately address Aboriginal cultural values.</p>	<p>The following two heritage plans have been prepared:</p> <p>v) Northern Holdings Aboriginal Cultural Heritage Management Plan dated August 2012; and</p> <p>w) Non-Indigenous Cultural Heritage Management Plan dated August 2012</p> <p>URS sighted a soft copy of the Centennial Coal's Northern Holdings Aboriginal Cultural Heritage Management Plan dated August 2012 prepared by RPS (East Australia) Pty Ltd on behalf of Centennial. The Plan addressed management of Aboriginal Cultural Heritage at Centennial's northern operations facilities including:</p> <p>x) Newstan/Awaba Colliery;</p> <p>y) Myuna Colliery;</p> <p>z) Mannering Colliery; and</p> <p>aa) Mandalong Mine.</p> <p>For Myuna the following site specific issues were addressed in the Northern Holdings Aboriginal Cultural Heritage Management Plan:</p> <p>bb) Overview of operations</p> <p>cc) Registered Aboriginal parties</p> <p>dd) Aboriginal heritage commitments and consent conditions</p> <p>ee) Myuna Colliery Project Approval conditions (Schedule 3 Condition 29)</p> <p>ff) Cultural significance ranking outcomes</p> <p>gg) Archaeological significance ranking outcomes</p> <p>hh) Site specific management measures</p> <p>URS sighted a letter from the DPI to Centennial Coal dated 26 November 2012 that approved the Aboriginal Cultural Heritage Management Plan in accordance with Condition 29 of Schedule 3 of the Myuna Project Approval.</p> <p>The Non-Indigenous Cultural Heritage Management Plan dated August 2012 for Myuna operations was available for URS to review. URS sighted a letter from the DPI to Myuna dated 4 September 2013 approving the plan in accordance with Condition 29, Schedule 3 of the Myuna Project Approval.</p> <p>Section 5.1 (p.11) of the Myuna Non-Indigenous Cultural Heritage Management Plan addressed the protection of the section of remnant railway line associated with the decommissioned Wangi Power Station that is located within the site. Figure 3 (p.15) provided a procedure for the railway line should subsidence exceed 20 mm. Figure 4 (p.16) provided the procedure for actions when unidentified non-indigenous cultural heritage items or sites are identified. To date there has been no mining beneath or in the near vicinity of the remnant railway line.</p>	<p>Compliant.</p> <p><b>Recommendation:</b></p> <p>Prior to commencing any extraction in the vicinity of the remnant railway line, establish subsidence monitoring points to provide a basis for triggering the actions necessary should subsidence exceed 20mm.</p>

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Statement of Commitments</b>				
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<b>Assess potential impacts from subsidence on benthic communities prior to secondary extraction.</b>  10. Prior to undertaking secondary workings in Zone B, Myuna has committed to the development of an Extraction Plan. In relation to the benthic community of the Lake, this plan will include: <ul style="list-style-type: none"> <li>a) Refining the predicted subsidence based on a detailed mine layout and design;</li> <li>b) An assessment of the likely impacts of subsidence related to the detailed mine layout and design (based on prediction) on benthic communities within the proposed mining area;</li> <li>c) An assessment of the consequences of these impacts on the availability of light to the benthic communities, including the proportion of the Lake bed likely to be affected; and</li> <li>d) Management strategies to avoid reducing light availability to the Lake bed where the proportion of the Lake bed likely to be affected is, following consultation with the Office of Environment and Heritage, considered significant.</li> </ul>	This requirement has not been triggered in the audit period.	Not Applicable
Myuna Colliery –Mining Project - Project Approval DA 10_0080 Statement of Commitments		<b>Sufficient planning is undertaken for end of life of mine and rehabilitation.</b>  11. The proponent will develop and implement a Rehabilitation and Environmental Management Plan within 5 years of completion of mining.	This requirement has not been triggered in the audit period.  A Mining Operations Plan - Rehabilitation Management Plan (RMP) dated June 2013 was available for review. A letter dated 18 January from Myuna to the Executive Director Mineral Resources requested submission of the Plan in a staged approach. A response from DRE dated 22 January 2013 approved the staged approach and approved the RMP for the period of January 2013 to June 2013.	Not Applicable

Appendix A - Myuna Independent Environmental Audit								
Title	Condition No.	Condition		Comment / Evidence sighted	Compliance Status & Recommendations			
Environmental Protection Licence 366								
Environmental Protection Licence 366	A1.1	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.		Myuna operates at the address specified in the EPL and undertakes the scheduled activities specified (Mining for coal; Coal Works). These operations are within the fee based activity levels defined (Mining for coal >50,000 to 2,000,000 Tonnes produced; Coal Works 0 - 2,000,000 Tonnes loaded). Myuna production figures for the audit period were sighted. The following ROM coal production was reported: <ul style="list-style-type: none"><li>2012: 1,492,930 tonnes.</li></ul>	Compliant.			
						Scheduled Activity	Fee Based Activity	Scale
						Coal Works	Coal Works	0 – 2,000,000 T handled
						Mining for Coal	Mining for Coal	>50,0000 – 2,000,000 T produced
Environmental Protection Licence 366	P1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.		The plans referenced in the EPL stated plan MY 10773, however, it is noted that the current plan is MY10956 EPA Points 7 and 8 refer to two high volume air samplers that at the time of the site inspection had not been installed. Recently installed power points were observed adjacent to the on-site weather station where the samplers are to be located. The samplers were due to be installed by the end of June 2013 but have been delayed.	Compliant  <b>Recommendation</b>  Update the reference in the Environmental Protection Licence to the current plan number (MY10956). Provide the location of the two high volume air samplers to the EPA for inclusion in the Environmental Protection Licence.			
Environmental Protection Licence 366	P1.1	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.						
Environmental Protection Licence 366	P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.						
Environmental Protection Licence 366	L1	<b>Pollution of Waters</b>  Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> .		The following incidents were recorded concerning water during the audit period: <ul style="list-style-type: none"><li>The Annual Return for the period January to December 2012 identified a pH result of 6.16 from LDP002 on 18/04/2012. Condition L2.4 of EPL 366 specifies a pH range of 6.5 to 8.5. The low pH reading was attributed to over floccing of the Coal Handling Dam following a high rain event that had caused elevated turbidity in the dam. The pH returned to with the EPL pH range criteria on 19/04/2012. Following the event water from the Coal Handling Dam is now pumped to dam two that flows to dam three. Dam three discharges via LDP001. A continuous monitoring device has been installed on LDP001 to monitor for EPL Condition L2.4 criteria including pH levels.</li><li>One volume exceedance from LDP B (formerly LDP001) was notified to the EPA on 5 March 2013. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be:<ul style="list-style-type: none"><li>a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li><li>3,676 kL of clean water flowed through LDP B during the event.</li></ul></li></ul> LDP B was moved downstream to end of pipe to capture discharges from stormwater diversion and the first flush settlement and oil separator located adjacent to the main entrance. The stormwater diversion was installed on 21 February 2013. The previous LDP A (now LDP B) was located at the end of the settlement ponds and did not capture the stormwater diversion or the discharge from the first flush settlement and oil separator.  Upon consideration of the above observations the auditors determined that Myuna were either attempting to or were in the process of minimising the impact of water quality or flow to receiving water.  Monthly Water and Dust reports were available from February 2012 to May 2013. Sampling included surface and trade wastewater in accordance with the Trade Wastewater Agreement. It is noted that the temperature of trade wastewater is not currently measured as required by the agreement.	Compliant  <b>Recommendation</b>  It is recommended that all of the parameters required by Trade Wastewater agreement D-171027 be monitored.			
Environmental Protection Licence 366	L1.1							



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	L2 L2.1	<b>Concentration Limits</b> For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified in the EPL.	The following concentration limit exceedance was noted during the audit period: <ul style="list-style-type: none"> <li>A pH result of 6.16 was recorded at LDP002 on 18 April 2012. The EPL pH range limit is 6.5 to 8.5. The result was attributed to over flocculation of the CHP Dam following a high rain event and high turbidity in the dams. Myuna considered the flocculent changed the pH level of the dams resulting in the low reading. The pH level on the 19 April 2012 was recorded at 7.21.</li> <li>Environmental data indicated that monitoring occurred at the frequency required by the EPL.</li> </ul>	Compliant
Environmental Protection Licence 366	L2.2	<b>Concentration Limits</b> Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	The 2012 AEMR (p.21) indicates that there was one non-compliance concerning pH exceedance in accordance with the EPL 366. A pH result of 6.16 was recorded at LDP002 on 18 April 2012. The EPL pH range limit is 6.5 to 8.5. The result was attributed to over flocculation of the CHP Dam following a high rain event to manage high turbidity in the dams. Myuna considered the flocculent changed the pH level of the dams resulting in the low reading. The pH level on the 19 April 2012 was recorded at 7.21. Based on the one off pH exceedance (0.34 below the lower concentration limit) result Myuna was considered to be Non Compliant with this condition .	Non-Compliant (one minor Non Compliant result for pH during the reporting period) <b>Recommendation</b> Ensure future flocculation events are monitored to ensure pH levels are within the range specified by the EPL prior to discharging to receiving waters.
Environmental Protection Licence 366	L2.3	<b>Concentration Limits</b> To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.	Condition U1 of the EPL requires a Pollution Studies and Reduction Program (PRP 1 – Assessment of Potential Impacts of Metals) at LDP B. This assessment is ongoing until January 2015. Upon completion of 24 months of monitoring for metals (specified in Condition U1) Myuna must conduct an assessment of metals detected in wastewater discharges from the site in accordance with ANZECC water quality guidelines. The report must be provided to the EPA Regional Manager Hunter. Monthly Water and Dust reports were available from February 2012 to May 2013. The May 2013 monthly Water and Dust reports (p.2) states that <i>'in addition to pH, TSS and oil and grease, EPL 366 requires a full suite of analytes to be undertaken on monthly surface water samples collected from LDP B including total and dissolved metals, major ions and cations, turbidity etc. For clarity of reporting, since licence criteria are not stipulated for these analytes, they are not presented'</i> . Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. The spread sheet contains data for pollutants as required by Condition U1.2. Myuna is currently implementing works to direct water from the first flush settlement tank to the CHP dam and/or settling ponds before directed to the proposed bore injection point (to underground workings still to be installed). This is to ensure that 'dirty' runoff undergoes treatment (via the ponds and underground settling) before discharged off-site. On the basis that there is a PRP in place for monitoring of potential metals contamination in discharges, and that there was no evidence of other contaminants sighted, Myuna are considered to be Compliant with this condition.	Compliant

Appendix A - Myuna Independent Environmental Audit										
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations						
Environmental Protection Licence 366										
Environmental Protection Licence 366	L3 L3.1	<b>Volume and Mass Limits</b> For each discharge point or utilisation area specified below (by a point number), the volume/mass of: (a) liquids discharged to water; or (b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area.	One volume exceedance from LDP B (formerly LDP001) was notified to the EPA on 5 March 2013. No further action was taken by the EPA.  The EPA notification reported that on 2 March 2013 the volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"><li>— a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li><li>— 3,676 kL of clean water flowed through LDP B during the event.</li></ul> Centennial Myuna received an EPL variation on 27 February 2013 that introduced LDP B to the EPL. LDP001 and LDP002 were removed from the EPL. At the time of the volume/mass exceedance on 2 March 2013 LDP B included the flow from a clean water diversion drain that captured clean water run-off from the west of the pit top facilities. When the EPL variation was received on 27 February 2013 Myuna was in the process of realigning the clean water diversion drain so that it no longer flowed into an upstream connection of LDP B. The auditors observed the new clean water diversion drain and discharge point in place downstream from LDP B during the site inspection in June 2013. This should result in reduce risk of exceeding the EPL discharge limit for volume at this point. Planned improvements to the dirty water system included the annual maintenance de-silting of the CHP dam and the installation of a bore to re-inject water underground (from the CHP dam) into Great Northern seam to ensure that ‘dirty’ runoff undergoes treatment (via the ponds and underground settling) before discharge off-site.  It is acknowledged that continuous flow monitoring data for LDP B is available and that the clean stormwater drain realignment now bypasses LDP B, however, there was an exceedance against the EPL requirement in the audit period and therefore this Condition has been found to be non-compliant.	Non-Compliant <b>Recommendation</b> Monitor effectiveness of clean water diversion works to reduce discharge flows so as to be within licence volume limits.  Ensure improvements continue to the dirty water treatment system.						
		<table><tr><th>Point</th><th>Unit of Measure</th><th>Volume/Mass of Limit</th></tr><tr><td>9</td><td>Kilolitres per day</td><td>13,000</td></tr></table>			Point	Unit of Measure	Volume/Mass of Limit	9	Kilolitres per day	13,000
		Point			Unit of Measure	Volume/Mass of Limit				
9	Kilolitres per day	13,000								

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	L4 L4.1	<b>Waste</b> The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below. Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below. This condition does not limit any other conditions in this licence.	Site management reported that no waste was received at the premises during the audit period from other sites. Waste collected from the Bradford Breaker was observed to be stored to the southern end of the emergency cola stockpile area. Refer to Condition L4.2 for further information. JR Richards Pty Ltd were engaged in 2011 by Myuna to manage and all waste streams at the site. The objective of engaging one contractor was to improve efficiency's concerning reporting and recycling of waste. (c) Myuna operates a recycling waste collection system. Waste is separated into the following streams for recycling: cardboard, ferrous and non-ferrous metals, timber, waste oil, used batteries. <ul style="list-style-type: none"> <li>cardboard is crushed into 50 kg bales.</li> <li>285 T of scrap steel was collected for recycling in 2011 and 167 T of scrap steel was collected for recycling in 2012.</li> <li>timber is collected and crushed on-site into wood chips. The chip is used for community requests and on-site rehabilitation works. Pallets are re-used where practicable.</li> <li>waste oil is collected for recycling off-site.</li> <li>Used batteries are collected and disposed of off-site when sufficient quantities allow.</li> </ul> (d) Storage and handling <ul style="list-style-type: none"> <li>the site has a dedicated waste storage area where material is separated into the appropriate receptacles for disposal off-site. the waste area is cleaned and managed once a week by an external contractor.</li> <li>used batteries are stored under cover with secondary containment in a designated storage area prior to disposal off-site by an appropriately licensed waste disposal facility.</li> <li>sighted Mine Site Review (SWPF 0101) dated 11 June 2013 of waste storage and handling areas on-site.</li> <li>sighted disposal dockets for Renewable Oil Services Pty Ltd 16 February 2012 for (ref: 02828) for 600 L of waste oil and 28 March 2012 (ref: 03058) for 800 L of waste oil.</li> <li>the following EPA Transport Certificates were available for review for J100 waste mineral oils for off-site disposal: 2T00334835, 2T00435029 and 2T00281902 for the period 1 August 2011 to 31 July 2012.</li> <li>stores Movement Advice (MY 0074) dated 20 march 2013 for 15 m<sup>3</sup> waste bin.</li> <li>SIMS Metal management Pty Ltd docket (ref: TYS447) dated 14 June 2013 for 17,840 kilograms (kg) of recycled metal.</li> <li>Trade Waste permit issued by Hunter Water Corporation Ltd (ref: D-171027) for disposal or trade wastewater to sewer. Trade wastewater is monitored in accordance with the permit by AECOM. Results for 2012 trade wastewater were available for review.</li> </ul> URs sighted the May 2013 a Total Waste Management Report that included a Waste Streams Monthly Summary Report. The monthly report included a breakdown of total tonnage and percentage of waste disposed per month. Waste streams included: general waste, liquid disposal, liquid recycled, paper/cardboard, security and comingled. The Total Waste Management Report included a section concerning opportunities for improvement that provided a timeframe for actioning the issue The AEMR for 2012 was sighted that included reporting on waste management (Section 2.6). The report identified the volumes of bulk general rubbish sent to landfill (tonnes) per month for the reporting period. Data was available for the following: monthly general waste to landfill, monthly liquid and hazardous recyclable waste volume / quantity, production and waste summary and stored water	Compliant
Environmental Protection Licence 366	L4.2	The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.	Site management reported that no waste is received at the premises during the audit period.	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	L4.3	<b>Waste</b> This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence.	<p>Site management reported that no waste is received at the premises during the audit period.</p> <p>A large pile of waste (unknown quantity) was observed on the emergency coal stockpile during the site inspection. Site management reported that the material had been brought up from by conveyor and was separated from coal at the Bradford Beaker. The waste was observed to include, but not be limited to inert rock and minor coal deposits; however, torn sections of conveyor belts, wood, plastic containers, pallet banding and small diameter piping were evident in the waste pile. Site management report that the waste would be returned underground in the near future. The site's Environmental Protection Licence does not provide an exemption for returning waste material underground. The Mining Operations Rehabilitation Management Plan (January 2013) states that '<i>all wastes generated on site are classified and separated in accordance with DECCW's Waste Classification Guidelines</i>' and that '<i>due to the mining method employed at Myuna Colliery only a small amount of waste rock is produced from the mining process. This is collected and stored on site</i>'.</p> <p>It is considered that the type of waste observed at the emergency coal stockpile would be classed as 'building and demolition waste' in accordance with the EPA Waste Classification Guidelines Part 1: Classifying Waste and returning such material back underground may potentially be a breach of Sections 142A and/or 143 of the <i>Protection of the Environment and Operations Act 1997</i> that prohibits the pollution of land and requires waste to be transported to a place that can lawfully accept it. The EPA Waste Classification Guidelines Part 1: Classifying Waste describe building and demolition waste as '<i>bricks, concrete, paper, plastics, glass, metal, and timber, including unsegregated timber, that may contain timber treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP)</i>'. Minor quantities of such waste were reported to be produced per week. The stockpile observed was reported to be built up over time.</p> <p>Given the potential legal implications of returning waste underground, and that URS cannot provide legal advice, this Condition has been assessed as indeterminate.</p>	Indeterminate  <b>Recommendation</b> It is recommended that Myuna seek legal advice concerning the disposal of waste from the Bradford breaker underground in accordance with the POEO Act 1997.

Appendix A - Myuna Independent Environmental Audit																																							
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations																																			
<b>Environmental Protection Licence 366</b>																																							
Environmental Protection Licence 366	L5 L5.1	<p><b>Noise</b></p> <p>The licensee must ensure that noise generated by the activities within the premises, including from emergency stockpiling do not exceed the following criteria measured in dB(A) at any of the following locations or on more than 25% of any privately-owned land.</p> <table border="1"> <thead> <tr> <th>Location</th><th>Day</th><th>Emergency Day</th><th>Evening</th><th>Night</th></tr> <tr> <th></th><th>LAeq(5mins)</th><th>LAeq(5mins)</th><th>LAeq(15 min)</th><th>LAeq (15 min) / LAeq (1 min)</th></tr> </thead> <tbody> <tr> <td>R1: 2 Turrama St Wangi</td><td rowspan="3">35</td><td rowspan="3">40</td><td rowspan="3">35</td><td rowspan="3">35 45</td></tr> <tr> <td>R2: 2 Moani St Wangi</td></tr> <tr> <td>R3: 3 Sunset Cl Wangi</td></tr> <tr> <td>R4: 93 Donnelly Rd Arcadia Vale</td><td>35</td><td>44</td><td>40</td><td>38 49</td></tr> <tr> <td>R5: 83 Donnelly Rd Arcadia Vale</td><td rowspan="4">37</td><td rowspan="4">44</td><td rowspan="4">42</td><td rowspan="4">39 49</td></tr> <tr> <td>R6: 63 Donnelly Rd Arcadia Vale</td></tr> <tr> <td>R7: 53 Donnelly Rd Arcadia Vale</td></tr> <tr> <td>R8: Donnelly Road Arcadia Vale</td></tr> <tr> <td>All other privately owned land</td><td>35</td><td>40</td><td>35</td><td>35 45</td></tr> </tbody> </table> <p>The licensee may provide to the EPA written evidence of any agreement with a landholder which is subject to the above noise limits. The written evidence of any agreement may be submitted with a licence variation to remove the landholder from the above table.</p>	Location	Day	Emergency Day	Evening	Night		LAeq(5mins)	LAeq(5mins)	LAeq(15 min)	LAeq (15 min) / LAeq (1 min)	R1: 2 Turrama St Wangi	35	40	35	35 45	R2: 2 Moani St Wangi	R3: 3 Sunset Cl Wangi	R4: 93 Donnelly Rd Arcadia Vale	35	44	40	38 49	R5: 83 Donnelly Rd Arcadia Vale	37	44	42	39 49	R6: 63 Donnelly Rd Arcadia Vale	R7: 53 Donnelly Rd Arcadia Vale	R8: Donnelly Road Arcadia Vale	All other privately owned land	35	40	35	35 45	<p>The requirement for an annual noise report was not included in the EPL prior to its variation on 27 February 2013. Quarterly noise monitoring is conducted at the site as a requirement of Project Approval 10_0080. The Noise management Plan was approved in 30 July 2012 with the first quarterly monitoring conducted in December 2012. The quarterly attended noise monitoring report for December 2012 conducted by AECOM (Australia) Pty Ltd was available for review. The March 2013 quarterly attended noise monitoring report (also conducted by AECOM) was sighted electronically during the audit. The 2012 report concluded that there was no audible noise from mine operations at the receivers. The attended noise monitoring noted that:</p> <ul style="list-style-type: none"> <li>For daytime criteria the December 2012 Noise report (p.6) stated that '<i>the results [in Table 2] suggest exceedances of the daytime criteria at all receivers of 17-26 dB(A), however based on observations as the measurements were completed this is not the result of operational noise from the mine. It is essential to note that mine noise was not audible at any of the measurement locations during the compliance measurements</i>'.</li> <li>For evening criteria the December 2012 Noise report (p.7) stated that '<i>the results [in Table 3] suggest exceedances of the evening criteria at all receivers of 18-20 dB(A), however based on observations as the measurements were completed this is not the result of operational noise from the mine. It is essential to note that mine noise was not audible at any of the measurement locations during the compliance measurements</i>'.</li> <li>For night time criteria the December 2012 Noise report (p.8) stated that '<i>the results [in Table 4] suggest exceedances of the night time criteria at all receivers. The measured LAeq(15 mins) exceed the criteria by 14-20 dB(A) and the LA1(1min) exceed the criteria by 18-25 dB(A), however based on observations as the measurements were completed this is not the result of operational noise from the mine. It is essential to note that mine noise was not audible at any of the measurement locations during the compliance measurements</i>'.</li> </ul> <p>The December 2012 Noise Monitoring report concluded that '<i>noise levels in exceedance of the Project criteria were measured at each of the designated receivers during the daytime, evening and night time periods. At each receiver location, during each measurement period, there was no audible noise from the mine operations. Mine operations did not contribute significantly to the measured LAeq(15 min) noise levels. The LAeq(15 min) noise levels measured at each of the designated receivers were not a result of noise from mine operations at the Myuna colliery site</i>'. Furthermore it was concluded that '<i>installation of the permanent noise logger at site will assist in quantifying the impact of mine related noise at the designated receivers. It is recommended that the quarterly compliance monitoring methodology be reviewed following the first round of monitoring in conjunction with the permanent noise logging</i>'.</p> <p>Site management reported that as part of the ongoing improvement to the noise management procedures at site, a permanent fulltime noise monitoring location is to be installed to model potential noise impacts. Installation of a permanent fulltime noise monitoring location will provide more data concerning noise arising from site operations and will assist with future attended noise monitoring.</p> <p>It is also noted that the Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site reported (for noise or any other issue) during the audit period.</p>	Compliant
Location	Day	Emergency Day	Evening	Night																																			
	LAeq(5mins)	LAeq(5mins)	LAeq(15 min)	LAeq (15 min) / LAeq (1 min)																																			
R1: 2 Turrama St Wangi	35	40	35	35 45																																			
R2: 2 Moani St Wangi																																							
R3: 3 Sunset Cl Wangi																																							
R4: 93 Donnelly Rd Arcadia Vale	35	44	40	38 49																																			
R5: 83 Donnelly Rd Arcadia Vale	37	44	42	39 49																																			
R6: 63 Donnelly Rd Arcadia Vale																																							
R7: 53 Donnelly Rd Arcadia Vale																																							
R8: Donnelly Road Arcadia Vale																																							
All other privately owned land	35	40	35	35 45																																			



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	L5.2	For the purpose of condition L5.1: (a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and (b) Public Holidays; (c) Evening is defined as the period from 6pm to 10pm; and (d) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.	Noted	Noted
Environmental Protection Licence 366	L5.3	The noise limits set out in condition L5.1 apply under all meteorological conditions except for any one of the following: (a) wind speeds greater than 3 metres/second at 10 metres above ground level; or (b) stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or (c) stability category G temperature inversion conditions.	The noise consultant reported there was no audible noise from mine operations at the receivers and that background noise levels are greater than EPL conditions.  Attended quarterly noise reports for December 2012 and March 2013 conducted by AECOM (Australia) Pty Ltd. Were available for review. Based on a review of these reports, there has been no reason to trigger the use of this clause.	Not Applicable
Environmental Protection Licence 366	L5.4	For the purpose of condition L5.3: (a) the meteorological data to be used for determining meteorological conditions is the data recorded by the Eraring meteorological weather station or a weather station established at this site for the purposes of this Environment Protection Licence; (b) stability category temperature inversion conditions are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the <i>NSW Industrial Noise Policy</i> (EPA 2000).	a) The auditors observed the weather station on site that was installed in April 2011. b) The auditors were able to view weather station information on the Centennial Coal Environmental Monitoring Portal. The display included, but was not limited to temperature, rainfall, sigma theta and vector speed information. The information was available for preceding days (i.e. greater than 24hrs).	Compliant
Environmental Protection Licence 366	L5.5	For the purpose of determining the noise generated at the premises the licensee must use a Class 1 or 2 noise monitoring device as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing.	The December 2012 quarterly noise monitoring report states that ' <i>attended measurements were conducted at six of the monitoring locations using a Bruel &amp; Kjaer Type 2260 Precision Sound Analyser. This instrument has Class 1 characteristics as defined in AS IEC 61672.1-2004 "Electroacoustics - Sound Level Meters". Measurements were conducted over 15-minute intervals. Calibration of the instrument was confirmed with a Bruel &amp; Kjaer Type 4231 Sound Level Calibrator prior to, and at the completion of monitoring. No significant drift in calibration was noted during the measurement period. The sound level meter was programmed to store L1, L10, Leq and L90 noise levels at 0.25 second intervals during each measurement period.</i>	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	L5.6	<p>To determine compliance:</p> <ol style="list-style-type: none"> <li>1. With the LAeq(15 min) noise limits in condition L5.1, the licensee must locate noise monitoring equipment; (a) within 30 metres of a dwelling facade (but not closer than 3 metres) where any dwelling on the property is situated more than 30 metres from the property boundary that is closest to the premises; (b) approximately on the boundary where any dwelling is situated 30 metres or less from the property boundary that is closest to the premises, or, where applicable, (c) within approximately 50 metres if the boundary of a national park or nature reserve.</li> <li>2. With the LA1(1 minute) noise limits in condition L5.1, the noise monitoring equipment must be located within 1 metre of a dwelling facade.</li> <li>3. With the noise limits in condition L5.1, the noise monitoring equipment must be located; (a) at the most affected point at a location where there is no dwelling at the location, or (b) at the most affected point within an area at a location prescribed by conditions L5.6 1(a) or L5.6 1(b).</li> </ol>	<p>The requirements of this Condition have not been triggered.</p> <p>Condition R4.1 requires that a noise compliance assessment be submitted to the EPA at the end of each reporting period in accordance with Condition M4.1. Condition M4.1 requires that to determine compliance with Condition L5.1, attended noise monitoring must be undertaken in accordance with conditions L5.5 and L5.6.</p> <p>Myuna reported that the annual noise report is planned for September 2013.</p>	Not Applicable
Environmental Protection Licence 366	L5.7	<p>A non-compliance of condition L5.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured;</p> <ul style="list-style-type: none"> <li>- at a location other than an area prescribed by conditions L5.6 1(a) and L5.6 1(b), and /or</li> <li>- at a point other than the most affected point at a location.</li> </ul>	The requirements of this Condition have not been triggered.	Not Applicable
Environmental Protection Licence 366	L5.8	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.	Noted	Noted
Environmental Protection Licence 366	L6 L6.1	<p><b>Potentially Offensive Odour</b></p> <p>No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the Protection of <i>the Environment Operations Act 1997</i>.</p>	<p>The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.</p> <p>No odours were noted during the site inspection. Myuna reported that no odour issues or events had occurred during the reporting period.</p>	Compliant
Environmental Protection Licence 366	L6.2	The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.	<p>The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.</p> <p>No odours were noted and no activities likely to cause an offence odour were noted during the site inspection.</p> <p>Waste materials are stored in appropriate receptacles and removed from site on a weekly basis.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
Environmental Protection Licence 366				
Environmental Protection Licence 366	O1 O1.1	<b>Activities must be carried out in a competent manner</b> Licensed activities must be carried out in a competent manner. This includes: (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	<p>Based on the site inspections and review of documents sighted, Myuna appeared to be compliant with this condition. The following discusses the documents and evidence that was the basis of this assessment.</p> <p>Myuna did not receive a Penalty Infringement Notice (PIN) from EPA during the audit period.</p> <p>The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.</p> <ul style="list-style-type: none"> <li>The Annual Return for the period January to December 2012 identified a pH result of 6.16 from LDP002 on 18/04/2012. Condition L2.4 of EPL 366 specifies a pH range of 6.5 to 8.5. The low pH reading was attributed to over flocculation of the Coal Handling Dam following a high rain event that had caused elevated turbidity in the dam. The pH returned to with the EPL pH range criteria on 19/04/2012. Following the event water from the Coal Handling Dam is now pumped to dam two that flows to dam three. Dam three discharges via LDP001. A continuous monitoring device has been installed on LDP001 to monitor for EPL Condition L2.4 criteria including pH levels.</li> <li>One volume exceedence from LDP B (formerly LDP001) was notified to the EPA on 5 March 2013. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedence only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"> <li>a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>3,676 kL of clean water flowed through LDP B during the event</li> </ul> </li> </ul> <p>Upon consideration of the above observations it was determined that Myuna were either attempting to or were in the process of minimising the impact of water quality or flow to receiving waters and therefore consider the requirement of this condition to be met. Changes to licenced discharge point locations and the diversion of surface water also indicate positive steps towards management of pollution control devices and infrastructure at the site.</p> <p>PULSE is used to generate weekly work orders. The auditors sighted work orders for weekly inspections. Work orders for the year 2012 had been archived and were not available for the auditors to review.</p> <p>Weekly surface cleaning work orders were noted to include management and operation of the coal pad dam water diesel pump, clean out of drive in sump at the Coal Handling Plant dam and maintenance and servicing of water catchment sumps and drains. Weekly surface inspections were noted to address inspections for leaking machinery, evidence of oil on floor in the bulk oil storage area and levels of silt in the sumps in the workshop. The weekly contractor environment monitoring checklists included operating pumps. A sweeper truck was observed in operation during the site audit (photo 4.3).</p> <p>Myuna is in the process of installing new equipment including a pump switchboard at the settlement ponds (photo 4.4). A new stormwater diversion drain had also been installed to reduce the flow of water through the settlement ponds (photo 4.12). Materials at the pit top were stored on sealed ground (photo 4.1). Hazardous chemicals were stored in a dedicated store adjacent to a bunded bulk oil storage area.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	<b>O2</b> O2.1	<b>Maintenance of plant and equipment</b> All plant and equipment installed at the premises or used in connection with the licensed activity (a) must be maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Plant and equipment used on site for environmental management included oil separators, discharge water flow meters, sedimentation dams, bunded areas and spill response kits. PULSE is used to generate weekly work orders. The auditors sighted work order for weekly inspections including, but not limited to: <ul style="list-style-type: none"> <li>VG56362 – environmental inspections, weekly contractor environmental monitoring, 20 June 2013</li> <li>VG56363 – weekday mine environmental report, 21 June 2013, conducted by SNK Group Pty Ltd.</li> <li>VG56364 - environmental weekly surface cleaning, 21 June 2013.</li> <li>VG11456 – environmental weekly surface cleaning, 5 April 2013.</li> </ul> Work orders for the year 2012 had been archived and were not available for the auditors to review. Weekly surface cleaning work orders were noted to include management and operation of the coal pad dam water diesel pump, clean out of drive in sump at the Coal Handling Plant dam and maintenance and servicing of water catchment sumps and drains. Weekly surface inspections were noted to address inspections for leaking machinery, evidence of oil on floor in the bulk oil storage area and levels of silt in the sumps in the workshop. The weekly contractor environment monitoring checklists included operating pumps. Other measures included; <ul style="list-style-type: none"> <li>On-line environmental data for water sensor at LDP B was observed by the auditors.</li> <li>Calibration certificate No.: SLM 39054 &amp; FILT 3798 for a sound level meter dated 2 July 2012. The timing of calibration for environmental monitoring equipment was in the process of being arranged at the time of the audit. Myuna was in discussion with Carbon Based Environmental Pty Ltd to determine if a weekly or quarterly calibration of equipment was appropriate. No documents concerning the discussion were available for URS to review.</li> <li>The auditors sighted a daily field sheet dated 21 June 2013 from AECOM Australia Pty Ltd for conduct the daily pH sample.</li> <li>Oil separators and oily water detention tanks, drains are serviced every three months by an external contractor (SNK Group Pty Ltd).</li> <li>Only licensed contractors are used to conduct activities such as maintenance of flow meters.</li> <li>Training – staff are trained to use equipment prior to use. Procedures are printed out and attached to Work Order.</li> </ul> Procedures for environmental maintenance of environmental equipment and infrastructure included, but was not limited to: <ul style="list-style-type: none"> <li>EWP-002 – Cleanout of Workshop Separator;</li> <li>EWP-003 – Cleanout of Diesel Bay Sump;</li> <li>EWP-004 – Procedure for Cleanout of CHP Dam; and</li> <li>EWP-016 – Monthly Cleaning of Continuous Monitoring Equipment.</li> </ul> Work areas around the site were observed to be well ordered and tidy during the site inspection.	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	O3 O3.1	<b>Dust</b> The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	<ul style="list-style-type: none"> <li>Potential dust sources were observed to include: wind blown dust at the emergency stockpile area.</li> <li>Dust from coal and coal fines spills that may occur.</li> </ul> <p>No dust was sighted during the site inspections.</p> <p>Operational and engineering dust controls included the following:</p> <ul style="list-style-type: none"> <li>Sweeper truck (observed in operation during the site audit). Sighted Giacci Bros Pty Ltd (road sweepers) General Work Permit 5089793 dated 19 June 2013;</li> <li>Bobcat for sweeping of spills;</li> <li>Hard standing areas to the pit top and sealed internal roads (with the exception of the emergency stockpile road);</li> <li>Conveyor belts are covered;</li> <li>Piped spray on stockpile road (observed during site inspection);</li> <li>Emergency coal stockpile is sprayed – it is noted that the coal not stockpiled is not used unless coal cannot be received at Eraring Power Station. The emergency coal stockpile was reported not to have been used during the audit period.</li> </ul> <p>Sighted Giacci Bros Pty Ltd (road sweepers), hire dockets dated 24/06/2013, 19/06/2013, 05/03/2013, 20/11/2013 for the sweeping of roads and concrete areas. The road sweeper was observed during the site audit.</p> <p>The local topography lends itself to assisting with the control of airborne dust particles as the site is located in a bowl/hollow.</p> <p>Dust deposition monitoring samples are collected every 30 days (plus or minus two days) at the four locations specified in the EPL. The annual average dust results for the 2012 period were below the Department of Environment, Climate Change and Water (DECCW, now Office of Environment and Heritage) guideline of 4/g/m<sup>2</sup>/month).</p> <p>A high dust reading of 9.9 g/m<sup>2</sup>/month was noted on 18 February 2012. This was attributed to vegetable matter and small percentage of coal dust. Despite the high reading the monthly dust deposition rolling average was not exceeded for the audit period.</p> <p>The April 2013 Environmental Monitoring Data report (p.11) identified that for the period May 2012 through to April 2013 the dust deposition rolling average was less than 4/g/m<sup>2</sup>/month.</p> <p>Monthly Water and Dust reports were available from February 2012 to May 2013.</p>	Compliant
Environmental Protection Licence 366	O3.2	Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	<p>The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.</p> <p>Internal roads were observed to be sealed including the road to the emergency stockpile area. The emergency stockpile area was unsealed, however, was provided with perimeter water spray equipment.</p> <p>Refer to Condition O3.1 for details concerning dust controls.</p>	Compliant
Environmental Protection Licence 366	O3.3	All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	<p>The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.</p> <p>Internal roads were observed to be sealed including the road to the emergency stockpile area.</p> <p>Refer to Condition O3.1 for details concerning dust controls.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	03.4	Coal stockpiles must be maintained in a condition that will minimise the generation and emission of dust on the premises.	Coal is transported directly via overland conveyor to Eraring Power Station. The conveyor is owned and operated by Eraring Power Station. No coal is transported off-site by any other means (i.e. road or rail). The on-site emergency stockpile is used only when Eraring Power Station cannot accept coal via the overhead conveyor. Coal is transported to the emergency stockpile area from the pit top via covered trucks on an internal sealed road. The road to the stockpile area was observed to be lined with a water spray pipeline. The emergency coal stockpile is sprayed if coal is required to be stockpiled, however, the stockpile was reported not to have been used during the audit period. At the time of the site inspection a small amount of coal was being dried out on the stockpile area.	Compliant
Environmental Protection Licence 366	<b>M1</b> M1.1	<b>Monitoring and Recording Conditions</b> The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. Monitoring results for monthly monitoring data were sighted and available for the audit period as well as for preceding years. Environmental reports containing environmental monitoring data prepared by external consultants were available for review. Reports included but were not limited to noise, water and dust emission data.	Compliant
Environmental Protection Licence 366	M1.2	<b>Monitoring and Recording Conditions</b> All records to be kept by this licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. Monitoring results for monthly monitoring data were sighted and available for the audit period as well as preceding years. It is considered that the monitoring records are maintained in compliance with the requirements of this condition and may be made available upon requests of an authorised officer. Records are maintained on the internal Myuna server. ECD is used to store records and data from 2007 to the present. The Regional EPA officer requested information from Myuna following volume discharge exceedance in March 2013. URS sighted an email from the NSW EPA officer dated 19 April 2013 to Myuna that requested water sample results. Myuna replied to the EPA office the same day with required information (sighted email response).	Compliant
Environmental Protection Licence 366	M1.3	<b>Monitoring and Recording Conditions</b> The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.	Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. Monitoring results for monthly monitoring data were sighted and available for the years for the audit period. Monthly water and dust monitoring reports contained chain of custodies, certificates of analysis and water monitoring field sheets. The reports and appendices contained the required information in accordance with this Condition. Monthly Water and Dust reports were available from February 2012 to May 2013. Sampling included surface and trade wastewater. Names, dates, times and points of sampling are included in the environmental monitoring spread sheet.	Compliant



Appendix A - Myuna Independent Environmental Audit																				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations																
Environmental Protection Licence 366																				
Environmental Protection Licence 366	M2	M2.1	Monthly Water and Dust reports prepared by AECOM (Aust) Pty Ltd were available from February 2012 to May 2013. Ambient dust monitoring, using depositional dust gauges was conducted in accordance with the requirements of Approved Method AM-19 (AS/NZS 3580.10.1:2003). Monitoring results for dust are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. Monitoring results for monthly monitoring data were sighted and available from 2011 to 17 June 2013.  Real-time high volume air samplers were due to be installed by the end of June 2013 however, were delayed due to supplier issues. The sampler will collect samples in accordance with AM-15 and AM-18.  In October 2013, Myuna indicated that the HVAS samplers had been installed and were operating.	Compliant																
		M2.2																		
	<b>Requirement to monitor concentration of pollutants discharged</b> For each monitoring/discharge point or utilisation area specified in the table (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns: <b>Points 3, 4, 5, 6 (Dust)</b>																			
	<table><tr><th>Pollutant</th><th>Units</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Monthly</td><td>AM-19</td></tr></table>	Pollutant			Units	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19									
	Pollutant	Units			Frequency	Sampling Method														
	Particulates - Deposited Matter	grams per square metre per month			Monthly	AM-19														
	<b>Points 7 (High Volume Air Sampler)</b>																			
	<table><tr><th>Pollutant</th><th>Units</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>Total suspended solids</td><td>Micrograms per cubic metre</td><td>Every 6 days</td><td>AM-15</td></tr></table>	Pollutant			Units	Frequency	Sampling Method	Total suspended solids	Micrograms per cubic metre	Every 6 days	AM-15									
	Pollutant	Units			Frequency	Sampling Method														
	Total suspended solids	Micrograms per cubic metre			Every 6 days	AM-15														
<b>Points 8 (High Volume Air Sampler)</b>																				
<table><tr><th>Pollutant</th><th>Units</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>PM10</td><td>Micrograms per cubic metre</td><td>Every 6 days</td><td>AM-18</td></tr></table>	Pollutant	Units	Frequency	Sampling Method	PM10	Micrograms per cubic metre	Every 6 days	AM-18												
Pollutant	Units	Frequency	Sampling Method																	
PM10	Micrograms per cubic metre	Every 6 days	AM-18																	
Environmental Protection Licence 366	M2.3	<b>Water and/ or Land Monitoring Requirements</b> <b>Points 9 (LDP B), 10 (LDPA)</b> <table><tr><th>Pollutant</th><th>Units</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>Oil &amp; grease</td><td>Milligrams per litre</td><td>Special Frequency 1</td><td>Grab sample</td></tr><tr><td>pH</td><td>pH</td><td>Special Frequency 1</td><td>Grab sample</td></tr><tr><td>Total suspended solids</td><td>Milligrams per litre</td><td>Special Frequency 1</td><td>Grab sample</td></tr></table>	Pollutant	Units	Frequency	Sampling Method	Oil & grease	Milligrams per litre	Special Frequency 1	Grab sample	pH	pH	Special Frequency 1	Grab sample	Total suspended solids	Milligrams per litre	Special Frequency 1	Grab sample	Monthly Water and Dust reports prepared by AECOM (Aust) Pty Ltd were available from February 2012 to May 2013. Surface water samples, including one duplicate sample, are collected in general accordance with the requirements of Australian Standards AS/NZS 5667.1:1998. Effective from 27 February 2013, daily sampling of licensed discharge point LDP B commenced. As per EPL 366, LDP001 and LDP002 were no longer required to be sampled on a daily basis, however, Myuna requested daily sampling of LDP001 to continue throughout March 2013. Samples collected from LDP B and LDP A are analysed for pH, TSS, Electrical Conductivity (EC), turbidity and oil and grease.  The May 2013 monthly Water and Dust reports (p.2) states that ‘in addition to pH, TSS and oil and grease, EPL 366 requires a full suite of analytes to be undertaken on monthly surface water samples collected from LDP B including total and dissolved metals, major ions and cations, turbidity etc. For clarity of reporting, since licence criteria are not stipulated for these analytes, they are not presented’.  Surface water monitoring at LDP A and LDP B appeared to be completed in compliance with the requirements specified in M2.3 Column 1.	Compliant
Pollutant	Units	Frequency	Sampling Method																	
Oil & grease	Milligrams per litre	Special Frequency 1	Grab sample																	
pH	pH	Special Frequency 1	Grab sample																	
Total suspended solids	Milligrams per litre	Special Frequency 1	Grab sample																	
Environmental Protection Licence 366	M2.4	<b>Special Frequency 1</b> For Special Frequency 1 the licensee must monitor daily during discharge.	For Special Frequency 1 Myuna must monitor daily. Effective from 27 February 2013 daily sampling of licensed discharge point LDP B commenced.  Daily surface water monitoring results for LDP B were available in the May and March 2013 Surface Water and Dust Monitoring reports. Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. Daily monitoring results were sighted and available from 27 February 2013 through to 20 June 2013.	Compliant																



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	<b>M3</b> M3.1	<b>Testing methods - concentration limits</b> Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: (a) any methodology required by or under the Act to be used for the testing of the concentration of the pollutant; or (b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	A review of the Myuna Surface Water and Dust Monitoring Reports (AECOM, April, 2012 and January 2013) indicated that monitoring methods were consistent with the EPA approved methodology Australian Standards. The reports included a summary of results as well as laboratory reports and chain of custody documentation. Ambient dust monitoring, using depositional dust gauges is conducted in accordance with the requirements of Approved Method AM-19 (AS/NZS 3580.10.1:2003).	Compliant
Environmental Protection Licence 366	M3.2	<b>Testing methods - concentration limits</b> Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Site management reported that no other methods approved by EPA for the monitoring of pollutant concentrations discharged to waters apply to the site.	Compliant
Environmental Protection Licence 366	<b>M4</b> M4.1	<b>Environmental Monitoring Requirement to monitor noise</b> To determine compliance with condition L5.1, attended noise monitoring must be undertaken in accordance with conditions L5.5 and L5.6, and (a) at each one of the locations listed in condition L5.1; (b) occur annually within the reporting period of the Environment Protection Licence; (c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy (EPA 2000) for a minimum of 1.5 hours during the day; 30 minutes during the evening; and 1 hours during the night, and (d) occur for three (3) consecutive days.	Myuna is planning to conduct annual noise monitoring in September 2013 in accordance with the requirements of this Condition. The requirement to provide an annual noise report was not included in the EPL prior to the variation on 27 February 2013. Myuna is currently updating their site noise management processes, including the installation of a new permanent noise logger, as part of the site noise management plan and in response to Project Approval conditions. The site operates under this EPL 366 and Project Approval (Application Number 10_0080) dated 18 January 2012. Conditions 11-13 of Schedule 3 of the Project Approval provides operational noise criteria at a number of nearby noise sensitive receivers and a requirement for a noise management plan. As required by the Project Approval and Noise Management Plan, quarterly noise monitoring is conducted at the site. The auditors sighted quarterly attended noise reports for December 2012 and March 2013 conducted by AECOM (Australia) Pty Ltd. The reports concluded that there was no audible noise from mine operations at the receivers. This condition had not been triggered at the time of the audit.	Not Applicable

Appendix A - Myuna Independent Environmental Audit																																							
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations																																			
<b>Environmental Protection Licence 366</b>																																							
Environmental Protection Licence 366	<b>M5</b> M5.1	<b>Weather monitoring</b> For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns. <b>Point W1</b> <table border="1"> <thead> <tr> <th>Parameter</th><th>Units</th><th>Frequency</th><th>Averaging Period</th><th>Sampling Method</th></tr> </thead> <tbody> <tr> <td>Rainfall</td><td>mm</td><td>Continuous</td><td>24 hour</td><td>AM-4</td></tr> <tr> <td>Wind direction</td><td>Degrees</td><td>Continuous</td><td>1 hour</td><td>AM-2 &amp; AM-4</td></tr> <tr> <td>Wind speed</td><td>Metre per second</td><td>Continuous</td><td>1 hour</td><td>AM-2 &amp; AM-4</td></tr> <tr> <td>Air temperature</td><td>Degrees Celsius</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr> <tr> <td>Sigm-theta</td><td>percentage</td><td>Continuous</td><td>15 mins</td><td>AM-2 &amp; AM-4</td></tr> <tr> <td>Relative humidity</td><td>percentage</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr> </tbody> </table>	Parameter	Units	Frequency	Averaging Period	Sampling Method	Rainfall	mm	Continuous	24 hour	AM-4	Wind direction	Degrees	Continuous	1 hour	AM-2 & AM-4	Wind speed	Metre per second	Continuous	1 hour	AM-2 & AM-4	Air temperature	Degrees Celsius	Continuous	1 hour	AM-4	Sigm-theta	percentage	Continuous	15 mins	AM-2 & AM-4	Relative humidity	percentage	Continuous	1 hour	AM-4	The auditors were able to view weather station information on the Centennial Coal Environmental Monitoring Portal. The display included, but was not limited to: rainfall, wind direction, wind speed, air temperature, sigma theta and relative humidity. The April 2013 Environmental Monitoring Report included a summary of rainfall and temperature data recorded at the on-site meteorological monitoring station for the period April 2012 through to April 2013. Data was presented in real-time data via the Myuna weather portal. Myuna's environmental consultants confirmed that the weather station meets the approved methods for sampling air pollutants in NSW.	Compliant
Parameter	Units	Frequency	Averaging Period	Sampling Method																																			
Rainfall	mm	Continuous	24 hour	AM-4																																			
Wind direction	Degrees	Continuous	1 hour	AM-2 & AM-4																																			
Wind speed	Metre per second	Continuous	1 hour	AM-2 & AM-4																																			
Air temperature	Degrees Celsius	Continuous	1 hour	AM-4																																			
Sigm-theta	percentage	Continuous	15 mins	AM-2 & AM-4																																			
Relative humidity	percentage	Continuous	1 hour	AM-4																																			
Environmental Protection Licence 366	M5.2	For the purpose of condition M5.1, Point W1 refers to a meteorological station established on the premises.	The auditors observed the weather station on site. The weather station was installed in April 2011.	Compliant																																			
Environmental Protection Licence 366	M5.3	The licensee may use the meteorological station established at Eraring Power Station provided the licensee has authority from Eraring Energy to access data from the Eraring Power Station at all times. However, if this station is not available at any time then condition M5.2 applies.	Site management reported that the Eraring Power Station meteorological station is not used. The site uses its own meteorological station that was installed in April 2011.	Compliant																																			
Environmental Protection Licence 366	M5.4	The licensee must fully comply with condition M5 by 30 June 2013.	The site uses its own meteorological station that was installed in April 2011.	Compliant																																			
Environmental Protection Licence 366	<b>M6</b> M6.1	<b>Recording of pollution complaints</b> The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	It is noted that the Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period. A Community Complaint procedure EWP-038 Community Complaints is available that describes the process for handling complaints. Complaints are recorded in ECD. Site management reported that refresher training is planned for complaints handling, however no date was provided.	Compliant																																			

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	M6.2	<b>Recording of pollution complaints</b> The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.	Myuna operates an Environment and Community Enquiry Line for the purpose of receiving complaints in accordance with the requirements of this Condition. A Community Complaint procedure EWP-038 Community Complaints is available that describes the process for handling complaints. Complaints are recorded in ECD. Site management reported that refresher training is planned for complaints handling, however no date was provided. Given there were no complaints to review this Condition has been found to be indeterminate.	Indeterminate
Environmental Protection Licence 366	M6.3	<b>Recording of pollution complaints</b> The record of a complaint must be kept for at least 4 years after the complaint was made.	There have been no recorded complaints during the audit period therefore this requirement has not been triggered.	Compliant
Environmental Protection Licence 366	M6.4	<b>Recording of pollution complaints</b> The record must be produced to any authorised officer of the EPA who asks to see them.	There were no complaints recorded by Myuna during the audit period. This requirement has not been triggered.	Compliant
Environmental Protection Licence 366	M7 M7.1	<b>Telephone Complaints Line</b> The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Myuna Colliery operates an Environment and Community Enquiry Line (02) 4970 0270. The telephone number is available on the Centennial website ( <a href="http://centennialcoal.com.au/Contact/Contact-Us.aspx">http://centennialcoal.com.au/Contact/Contact-Us.aspx</a> ), the Myuna website (Community Consultation/Complaints Register) and in the phonebook.	Compliant
Environmental Protection Licence 366	M7.2	<b>Telephone Complaints Line</b> The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Myuna Colliery operates an Environment and Community Enquiry Line (02) 4970 0270. The Complaints and Enquiry Line is advertised via the Centennial and Myuna website and the 2012 Community Complaints Register available on the Myuna website (accessed 20/06/2013 @17:05hrs). It was noted that the telephone number provided in the 2012 Community Complaints Register (02 4970 0263) was not the same as the one advertised on the Centennial or Myuna websites. A copy of the 2010 Myuna Colliery newsletter available on the Myuna website also stated the 02 4970 0263 phone number. Company Newsletter. Newsletters were available on the Centennial website from October 2012 through to April 2013) [Available at: <a href="http://centennialcoal.com.au/News/Centennials-News-Column.aspx">http://centennialcoal.com.au/News/Centennials-News-Column.aspx</a> ] The telephone complaints number is advertised on Centennial's website, the White Pages and in the Lakes Mail (newspaper).	Compliant <b>Recommendation</b> Ensure the telephone complaints line advertised in the Community Complaints Register and on the Centennial website are the same.
Environmental Protection Licence 366	M7.3	<b>Telephone Complaints Line</b> The preceding two conditions do not apply until 3 months after: (a) the date of the issue of this licence or (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	Noted.	Noted.

Appendix A - Myuna Independent Environmental Audit										
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations						
Environmental Protection Licence 366										
Environmental Protection Licence 366	M8 M8.1	<p><b>Requirement to monitor volume or mass</b></p> <p>For each discharge point or utilisation area specified below, the licensee must monitor:</p> <p>(a) the volume of liquids discharged to water or applied to the area;</p> <p>(b) the mass of solids applied to the area;</p> <p>(c) the mass of pollutants emitted to the air;</p> <p>at the frequency and using the method and units of measure, specified below.</p> <p><b>Point 9</b></p> <table><tr><th>Frequency</th><th>Unit of Measure</th><th>Sampling Method</th></tr><tr><td>Daily during any discharge</td><td>Kilolitres per day</td><td>Continuously</td></tr></table>	Frequency	Unit of Measure	Sampling Method	Daily during any discharge	Kilolitres per day	Continuously	The Centennial Weather Portal provides real-time data for volume of liquids discharged to water at LDP B Continuous flow monitoring data for LDP B showing the water sensor flow was available for review.	Compliant
Frequency	Unit of Measure	Sampling Method								
Daily during any discharge	Kilolitres per day	Continuously								
Environmental Protection Licence 366	R1 R1.1	<p><b>Annual return documents</b></p> <p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <p>(a) a Statement of Compliance; and</p> <p>(b) a Monitoring and Complaints Summary.</p> <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	Annual Return documents have been prepared and submitted by Myuna Colliery as required by this Condition R1.1. Sighted signed Annual Returns dated 24/02/2012 (2011 AR) and 19/02/2013 (2012 AR). Both Annual Returns contained a Statement of Compliance and Monitoring and Complaints Summary.	Compliant.						
Environmental Protection Licence 366	R1.2	<p><b>Annual return documents</b></p> <p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p>	Annual Return documents are completed for the reporting period (annually to December of the current year). Sighted Annual Returns dated for the periods 2011 and 2012.	Compliant.						
Environmental Protection Licence 366	R1.3	<p><b>Annual return documents</b></p> <p>Where this licence is transferred from the licensee to a new licensee:</p> <p>(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</p> <p>(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</p>	Noted. This requirement has not been triggered.	Noted						
Environmental Protection Licence 366	R1.4	<p><b>Annual return documents</b></p> <p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <p>(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</p> <p>(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.</p>	Noted. This requirement has not been triggered.	Noted						

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	R1.5	<b>Annual return documents</b> The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	The Annual Return deadline is the 2 March of the current year. It was reported that the Annual Return had been submitted to the EPA no later than 60 days after the end of the reporting period. The Annual Return 2011 had been completed and signed (24/02/2012) by the Director and Company Secretary before the due date. The Annual Return 2012 had been completed and signed (19/02/2013) by the Chief Operating Officer and Company Secretary before the due date.	Compliant
Environmental Protection Licence 366	R1.6	<b>Annual return documents</b> The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Annual Return documents for the periods 2011 and 2012 were available on site for the auditors to review. Sighted Annual Returns dated 24/02/2012 (2011 AR) and 19/02/2013 (2012 AR).	Compliant.
Environmental Protection Licence 366	R1.7	<b>Annual return documents</b> Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: (a) the licence holder; or (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	The Annual Return 2011 had been completed and signed (24/02/2012) by the Director and Company Secretary before the due date. The Annual Return 2012 had been completed and signed (19/02/2013) by the Chief Operating Officer and Company Secretary before the due date.	Compliant
Environmental Protection Licence 366	R1.8	<b>Annual return documents</b> A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	Noted.	Noted
Environmental Protection Licence 366	R2 R2.1	<b>Notification of environmental harm</b> Notifications must be made by telephoning the Environment Line service on 131 555.	One discharge exceedance from LDP B (formerly LDP001) was notified by telephone to the EPA's Regional Officer on 5 March 2013. The notification was not made via the EPA's environmental line as the site was unsure of the exceedance on the day due to the lag time in confirmation the calibration of the continuous flow monitor. The exceedance occurred on a weekend when the Myuna Environment and Community Coordinator was not on-site. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDP B. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDP B. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"> <li>a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>3,676 kL of clean water flowed through LDP B during the event.</li> </ul> The following documents were available for URS to review concerning the written notification: <ul style="list-style-type: none"> <li>Report - notification of discharge from Licenced Discharge Point B - Myuna Colliery – 8 March 2013</li> <li>Cover letter – written notification of environmental incident at Newstan Colliery 6 March 2012. It is noted that the subject header of the letter stated Newstan Colliery and not Myuna, however, the letter stated 'please find attached a written report outlining the circumstances associated with a discharge event from LDP B at the Myuna Colliery on Saturday 2 March 2013 in accordance with condition R2.2 of Environmental Protection Licence 366'.</li> </ul> Although Myuna did not report the exceedance to the EPA's environment line it was reported verbally to an EPA Officer in the first instance. As such this condition has been found compliant as sufficient information concerning the incident was provided the Regional EPA officer. The Regional EPA officer also requested information from Myuna following the volume discharge. URS sighted an email from the NSW EPA officer dated 19 April 2013 to Myuna that requested water sample results and Myuna's response to the EPA officer the same day with the required information.	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	R2.2	<b>Notification of environmental harm</b> The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	The following documents were available for URS to review concerning written notification of the 2 March discharge volume exceedence: <ul style="list-style-type: none"> <li>Report - notification of discharge from Licenced Discharge Point B - Myuna Colliery – 8 March 2013</li> <li>Cover letter – written notification of environmental incident at Newstan Colliery 6 March 2012. It is noted that the subject header of the letter stated Newstan Colliery and not Myuna, however, the letter stated <i>'please find attached a written report outlining the circumstances associated with a discharge event from LDP B at the Myuna Colliery on Saturday 2 March 2013 in accordance with condition R2.2 of Environmental Protection Licence 366'.</i></li> </ul> Written notification of the exceedence was provided within seven days.	Compliant
Environmental Protection Licence 366	R3 R3.1	<b>Written report</b> Where an authorised officer of the EPA suspects on reasonable grounds that: <ol style="list-style-type: none"> <li>where this licence applies to premises, an event has occurred at the premises; or</li> <li>where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,</li> <li>and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.</li> </ol>	The following documents were available for URS to review concerning written notification of the 2 March 2013 discharge volume exceedence: <ul style="list-style-type: none"> <li>Report - notification of discharge from Licenced Discharge Point B - Myuna Colliery – 8 March 2013</li> <li>Cover letter – written notification of environmental incident at Newstan Colliery 6 March 2012. It is noted that the subject header of the letter stated Newstan Colliery and not Myuna, however, the letter stated <i>'please find attached a written report outlining the circumstances associated with a discharge event from LDP B at the Myuna Colliery on Saturday 2 March 2013 in accordance with condition R2.2 of Environmental Protection Licence 366'.</i></li> </ul>	Compliant
Environmental Protection Licence 366	R3.2	<b>Written report</b> The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	The following documents were available for URS to review concerning written notification of the 2 March discharge volume exceedence: <ul style="list-style-type: none"> <li>Report - notification of discharge from Licenced Discharge Point B - Myuna Colliery – 8 March 2013</li> <li>Cover letter – written notification of environmental incident at Newstan Colliery 6 March 2012. It is noted that the subject header of the letter stated Newstan Colliery and not Myuna, however, the letter stated <i>'please find attached a written report outlining the circumstances associated with a discharge event from LDP B at the Myuna Colliery on Saturday 2 March 2013 in accordance with condition R2.2 of Environmental Protection Licence 366'.</i></li> </ul> Written notification of the exceedence was provided within seven days of the incident. The Regional EPA officer requested information from Myuna following volume discharge exceedence in March 2013. URS sighted an email from the NSW EPA officer dated 19 April 2013 to Myuna that requested water sample results. Myuna replied to the EPA office the same day with required information (sighted email response).	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Environmental Protection Licence 366</b>				
Environmental Protection Licence 366	R3.3	<b>Written report</b> The request may require a report which includes any or all of the following information: (a) the cause, time and duration of the event; (b) the type, volume and concentration of every pollutant discharged as a result of the event; (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; (f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and (g) any other relevant matters.	The written report submitted to the EPA on 8 March 2013 provided the following information: <ul style="list-style-type: none"> <li>Discharge details;</li> <li>Time, date, nature, duration and location of the discharge;</li> <li>Location of the place where the discharge occurred;</li> <li>Nature, the estimated quantity or volume and the concentration of any pollutants involved;</li> <li>Circumstances in which the discharge occurred (including the cause of the discharge, if known); and</li> <li>Action taken to minimise the discharge.</li> </ul>	Compliant
Environmental Protection Licence 366	R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	The Regional EPA officer requested information from Myuna following volume discharge exceedence in March 2013. URS sighted an email from the NSW EPA officer dated 19 April 2013 to Myuna that requested water sample results. Myuna replied to the EPA office the same day with required information (sighted email response).	Compliant.
Environmental Protection Licence 366	R4	<b>Other reporting conditions</b> <b>Noise monitoring report</b> The licensee must submit to the EPA a noise compliance assessment report at the end of each reporting period. The report must be submitted with the Environment Protection Licence Annual Return. The report must be prepared by a suitably qualified and experienced acoustical consultant which: (a) details the noise monitoring undertaken in accordance with condition M4; (b) assess compliance with noise limits presented in condition L5.1, and (c) outlines any management actions taken within the monitoring period to address any exceedences of limits contained in condition L5.1.	The yearly noise compliance assessment report is planned for September 2013 in accordance with the requirements of this Condition. As such this Condition was not triggered at the time of the audit and therefore considered Not Applicable.	Not Applicable  (at time of audit)
Environmental Protection Licence 366	G1.1	<b>General Conditions</b> A copy of this licence must be kept at the premises to which the licence applies.	A copy of the licence was available within the site office.	Compliant
Environmental Protection Licence 366	G1.2	<b>General Conditions</b> The licence must be produced to any authorised officer of the EPA who asks to see it.	Copies of the licence were observed to be available on site and able to be provided to an authorised officer of the EPA upon request.	Compliant
Environmental Protection Licence 366	G1.3	<b>General Conditions</b> The licence must be available for inspection by any employee or agent of the licensee working at the premises.	A copy of the licence was available within the site office.	Compliant

Appendix A - Myuna Independent Environmental Audit								
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations				
Environmental Protection Licence 366								
Environmental Protection Licence 366	U1 U1.1	PRP 1 - Assessment of Potential Impacts of Metals  At Point 9 (previously known as Points 1 and 2) the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.	Site management reported that the requirements of this Condition are ongoing. AECOM (Aust) Pty Ltd are conducting surface water sampling on an annual, quarterly, monthly and daily basis. Monthly Water and Dust reports were available from February 2012 to May 2013. The May 2013 monthly Water and Dust reports (p.2) states that ' <i>in addition to pH, TSS and oil and grease, EPL 366 requires a full suite of analytes to be undertaken on monthly surface water samples collected from LDP B including total and dissolved metals, major ions and cations, turbidity etc. For clarity of reporting, since licence criteria are not stipulated for these analytes, they are not presented</i> '. Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. The spread sheet contains data for the following pollutants are required by Condition U1.2:	Compliant				
			Aluminium (Total)                      Aluminium                      Antimony					
			Arsenic (Dissolved)                      Arsenic (Total)                      Arsenic					
			Barium                      Beryllium (Dissolved)                      Beryllium (Total)					
			Boron                      Cadmium (Dissolved)                      Cadmium (Total)                      Cadmium					
			Calcium    Chromium (Dissolved)                      Chromium (Total)                      Chromium					
			Chloride    Cobalt (Dissolved)                      Cobalt (Total)                      Cobalt					
			Copper (Dissolved)                      Copper (Total)                      Copper					
			Iron (Dissolved)                      Iron (Total)                      Lead (Total)					
			Lead                      Lithium                      Magnesium (Dissolved)					
			Magnesium                      Manganese (Dissolved)                      Manganese (Total)					
			Mercury                      Molybdemon (Dissolved)                      Molybdeemon (Total)					
			Nickel (Dissolved)                      Nickel (Total)                      Nickel					
			Potassium                      Selenium (Dissolved)                      Selenium (Total)					
			Selenium                      Silica                      Silver					
			Sodium                      Sulphur (Total)                      Sulphur Sulphate (Total)					
			Sulphide    Tin                      Titanium                      Uranium					
			Vanadium (Dissolved)                      Vanadium (Total)                      Zinc (Dissolved)					
			Zinc (Total)					
			Environmental Protection Licence 366		U1.2	Upon completion of 24 months of monitoring for metals the licensee must within (two) 2 months conduct an assessment of metals detected in wastewater discharges from the mine in accordance with ANZECC water quality guidelines and provide this assessment to EPA regional Manager Hunter within (one) 1 month.	Site management reported that this requirement is planned for January 2015.	Compliant

Appendix A - Myuna Independent Environmental Audit								
Title	Condition No.	Condition			Comment / Evidence sighted	Compliance Status & Recommendations		
Environmental Protection Licence 366								
Environmental Protection Licence 366	E1 E1.1	<b>Additional Monitoring</b> The licensee must undertake a surface -water monitoring program in Wangi Bay as detailed in Table A.				The 2012 AEMR (p.22) provided quarterly monitoring results for Wangi Bay. Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet. The spread sheet contains data for Manganese in accordance with the requirements of this Condition.	Compliant	
		Pollutant/Unit of Measure	Filtration	Sample Location	No. of Samples			Frequency
		Manganese (filterable)/mg/L	0.45um	At T2-5m and T2-10m as defined in Hydrobiology Pty Ltd, 2004*	Two (2) samples collected each at T2-5m and at T2-10m			Quarterly
		Note: * *as described in Appendix E of the report titled ' <i>Manganese Discharge from the Myuna Colliery ANZECC/ARMCANZ Study</i> ' prepared by Hydrobiology Pty Ltd, dated March 2004.						
Environmental Protection Licence 366	E1.2	The licensee must submit a quarterly report to the Regional Manager, Hunter, detailing the results collected during the surface-water monitoring program detailed in condition E1.1 Environment				Letter reports from Myuna to the Regional Manager, Hunter were available for the following dates; 12 July 2013 (outside audit period) and 29 March 2012.	Compliant	

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	1	<p><b>Notice to Landholders</b></p> <p>Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	<p>Myuna provided a draft Notice within the Herald. The date of issue could not be confirmed by Myuna.</p> <p>The draft notice contained relevant information as required by this Lease condition, including a plan outlining the boundaries of the Lease.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	2	<p><b>Mining, Rehabilitation, Environmental Management Process and (MREMP) and Mining Operations Plan (MOP)</b></p> <ol style="list-style-type: none"> <li>Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- <ol style="list-style-type: none"> <li>ongoing mining operations and environmental management; and</li> <li>ongoing monitoring of the project.</li> </ol> </li> <li>The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgment.</li> <li>A Plan must be lodged with the Director-General:- <ol style="list-style-type: none"> <li>prior to the commencement of mining operations, (including mining purposes);</li> <li>subsequently as appropriate prior to the expiry of any current Plan; and</li> <li>in accordance with any direction issued by the Director-General.</li> </ol> </li> <li>The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- <ol style="list-style-type: none"> <li>area(s) proposed to be disturbed under the Plan;</li> <li>mining and rehabilitation method(s) to be used and their sequence;</li> <li>areas to be used for disposal of tailings/waste;</li> <li>existing and proposed surface infrastructure;</li> <li>existing flora and fauna on the site;</li> <li>progressive rehabilitation schedules;</li> <li>areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas;</li> <li>water management systems (including erosion and sediment controls);</li> <li>proposed resource recovery; and</li> <li>where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining land use/vegetation:</li> </ol> </li> <li>The Plan when lodged will be reviewed by the Department.</li> <li>The Director-General may within two (2) months of the lodgment of a Plan, require modification and re-lodgment.</li> <li>If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgment of a Plan, the lease holder may proceed with implementation of the Plan.</li> <li>During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.</li> </ol>	<p>The Mining Operations Plan Rehabilitation Management Plan (RMP) dated June 2013 was available for review. A letter dated 18 January from Myuna to the Executive Director Mineral Resources requested submission of the Plan in a staged approach. A response from DRE dated 22 January 2013 approved the staged approach and approved the RMP for the period of January 2013 to June 2013.</p> <p>The current MOP includes a conceptual final land use plan for Surface Facility Areas. Stage 1 of the Rehabilitation Management Plan was prepared and submitted to the Executive Director Mineral Resources in January 2013 to DRE and DOP to clarify approach was correct. An approval letter for Stage 1 dated 22 January 2013 was received from the Executive Director Mineral Resources. Myuna were yet to receive comment from the Executive Director Mineral Resources concerning the Stage 2 Rehabilitation Management Plan at the time of the audit.</p> <ul style="list-style-type: none"> <li>The auditors sighted correspondence from Myuna to the Community Consultation Committee, Wyong Shire Council and Lake Macquarie City Council dated 6 June 2013 seeking feedback on Stage 2 of the Mining Operations Plan / Rehabilitation Management Plan.</li> <li>The auditors sighted a letter from DRE dated 22 January 2013 indicating they were satisfied with the plan.</li> <li>Section 5 (pp.20-21) provided detail concerning mine closure planning, including measures to minimise socio-economic effects due to mine closure.</li> <li>Whilst topics such as water management were discussed in the Plan there was not clear reference to other management plans required under this approval.</li> <li>URS sighted a letter of submission dated 5 June 2013 for Stage 2 of the Rehabilitation Management Plan. It is noted that Stage 1 of the Rehabilitation Management Plan was submitted in January 2013 (i.e. within the approval timeframe).</li> <li>Myuna provided an Approval letter for the MOP from DRE dated 8 October 2013.</li> </ul> <p><b>Implementation</b></p> <p>The approval letter from DRE on 22 January 2013 noted that no rehabilitation activities are proposed in the Stage 1 RMP period and that DRE would assess rehabilitation and criteria in the further staged RMP / MOP submission for the site.</p> <p>It is noted that:</p> <ul style="list-style-type: none"> <li>No buildings were renovated, removed or rehabilitated during the audit period.</li> <li>Rehabilitation to the stormwater diversion drain was observed during the site inspection.</li> <li>Rehabilitation of degraded areas caused by environmental weeds was systematically carried out during the reporting period, as part of land management practice.</li> <li>No rehabilitation trials, research or initiatives were undertaken during the audit period.</li> </ul> <p>Given Stage 2 of the Mining Operations Plan Rehabilitation Management Plan had yet to be formally approved at the time of the site inspection for the audit, this Condition was found to be indeterminate.</p>	<p>Preparation – Indeterminate (at time of site inspection formal approval by the Director-General was pending.</p> <p>Noted formal Approval has since been obtained dated 8 October 2013).</p> <p>Implementation - Indeterminate</p>

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	3	<p><b>(AEMR) Annual Environmental Management Report</b></p> <ol style="list-style-type: none"> <li>Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General,</li> <li>The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of: <ol style="list-style-type: none"> <li>the accepted Mining Operations Plan;</li> <li>development consent requirements and conditions;</li> <li>Department of Environment and Conservation and Department of Planning licences and approvals;</li> <li>any other statutory environmental requirements;</li> <li>details of any variations to environmental approvals applicable to the lease area; and</li> <li>where relevant, progress towards final rehabilitation objectives.</li> </ol> </li> <li>After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.</li> <li>The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.</li> </ol>	<p>The Annual Environmental Management Report (AEMR) was observed to have been written and submitted to the Director-General for the audit period. No comments were received from the Director-General concerning the 2012 AEMR.</p> <p>Site management reported that no AEMR inspections have been conducted at the site during the audit period. The following observations concerning the AEMR were made;</p> <ul style="list-style-type: none"> <li>The 2012 AEMR included developments during the reporting period (Section 2). Sections 2 and 3 included a review of the monitoring results for the year against the statutory requirements.</li> <li>Monitoring results for the calendar year that provided a comparison against statutory requirements were provided in Section 3.</li> <li>Non-compliances were addressed in Section 3 of the AEMR. There was one non-compliance against the requirements of the Environmental protection Licence due to a pH exceedance. The Annual Return that contained further details concerning the non-compliance was appended to the AEMR.</li> <li>Monitoring data was only available for the reporting period.</li> <li>No discrepancies were noted in the AEMR for the reporting period.</li> <li>Measures that will be implemented in the current financial year were included in the AEMR. These included: <ul style="list-style-type: none"> <li>review and development of management plans as per project approval conditions;</li> <li>diversion of clean water drain around licenced discharge point – completed; and</li> <li>installation of borehole to divert dirty water underground.</li> </ul> </li> </ul>	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	4	<b>Subsidence Management</b> <p>a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to the subsidence of land.</p> <p>b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as long walls or miniwalls, associated first workings (gate-roads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDGI 7).</p> <p>c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than In accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mines Regulation Act 1982, or the document New Subsidence Management Plan Approval Process - Transitional Provisions (EDPOO).</p> <p>d) Subsidence Management Plans are to be prepared In accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.</p>	Extraction during the audit rperiod was limited to first workings, with no potential to lead to significant subsidence, and hence the requirement for a formal Subsidence Management Plan had not been triggered.	Not Applicable
Consolidated Coal Lease 762	5	<b>Working Requirement</b> <p>The lease holder must:</p> <p>a) ensure that at least 433 competent people are efficiently employed on the lease area on each week day except Sunday or any week day that Is a public holiday,</p> <p>OR</p> <p>b) Expend on operations carried out In the course of prospecting or mining the lease area, an amount of not less than \$7,577,500 per annum whilst the lease is in force.</p> <p>The Minister may at any time or times, by instrument in writing served on the lease holder, Increase or decrease the expenditure required or the number of people to be employed.</p>	<p>a) Myuna Colliery is a 24 hour a day, seven day a week operation that currently employs 221 staff.</p> <p>b) Site management reported that it would cost greater than \$7 million to operate the site under its current operating requirements.</p> <p>The Minister has not issued any directions regarding an increase or decrease in required expenditure.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	6	<b>Control of Operations</b>  a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:- <ul style="list-style-type: none"> <li>i. Cease working the lease; or</li> <li>ii. cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer, the situation is rectified.</li> </ul> b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction. c) A direction referred to in this condition may be served on the Mine Manager.	Myuna reported that there have been no directions from an Environmental Officer of the Department in relation to the Act or any condition of the lease therefore this Condition is not triggered.	Not Applicable
Consolidated Coal Lease 762	7	<b>Reports</b>  The lease holder must provide an exploration report, within a period of twenty eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following: <ul style="list-style-type: none"> <li>a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;</li> <li>b) Details of expenditure incurred in conducting that exploration;</li> <li>c) A summary of all geological findings acquired through mining or development evaluation activities;</li> <li>d) Particulars of exploration proposed to be conducted in the next twelve months period;</li> <li>e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.</li> </ul>	Myuna reported that no exploration activities have occurred within the audit period therefore this Condition is not triggered.	Not Applicable
Consolidated Coal Lease 762	8	<b>Licence to Use Reports</b>  a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright. b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the <i>Mining Act 1992</i> .	Myuna reported that there have been no directions from an Environmental Officer of the Department in relation to the Act or any condition of the lease therefore this Condition is not triggered.	Not Applicable

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	9	<b>Confidentiality</b>  a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where: <ul style="list-style-type: none"> <li>i. the lease holder has agreed that specified reports may be made non-confidential.</li> <li>ii. reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.</li> </ul> b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease, the confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated. c) The Director-General may extend the period of confidentiality.	Myuna reported that there have been no directions from an Environmental Officer of the Department in relation to the Act or any condition of the lease therefore this Condition is not triggered.	Not Applicable
Consolidated Coal Lease 762	10	<b>Terms of the Non-Exclusive Licence</b>  The terms of the non-exclusive copyright licence granted under condition 8 (a) are: <ul style="list-style-type: none"> <li>a) The Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</li> <li>b) The Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.</li> <li>c) The lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</li> <li>d) There is no royalty payable by the Minister for the licence.</li> <li>e) If the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder that licence is revocable on the giving of a period of not less than three months' notice.</li> </ul>	Myuna reported that there have been no directions from an Environmental Officer of the Department in relation to the Act or any condition of the lease therefore this Condition is not triggered.	Not Applicable

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	11	<b>Blasting</b>  a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Conservation.  b) Blast Over-pressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.	Site management reported that latest shot blasting event occurred on 23 and 24 August 2013 and that this was the first occurrence in 13 months. The Noise Management Plan indicates that underground shot blasting has a negligible impact on the surface and is below levels of human hearing perception.  The Complaints Register and the 2012 AEMR 2012 (p.32) identified that there were no complaints concerning the site during the audit period.	Compliant
Consolidated Coal Lease 762	12	<b>Safety</b>  Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.	Surface operations at the site are surrounded by security fencing including barbed wire to prevent unauthorised access and to ensure the safety of persons within the vicinity of operations. The site operates 24hrs a day so is always occupied with Myuna staff. Visitors are required to sign in at the main site office upon entry.  It was observed during the audit that there is no livestock kept within the vicinity to the surface operations. There are no surface operations outside of the fenced surface operations area.  The disused Wangi Wangi Power Station is located adjacent to the main entrance to the site. The power station is fenced and security of the buildings and land is the responsibility of the owner. Myuna are not responsible for the Wangi Wangi Power Station.	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	13	<p><b>Rehabilitation</b></p> <p>a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:-</p> <ul style="list-style-type: none"> <li>* there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion.</li> <li>* the state of the land is compatible with the surrounding' land and land use requirements.</li> <li>* the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land.</li> <li>* in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included In the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to tile area and at an acceptable density.</li> <li>* the land does not pose a threat to public safety.</li> </ul> <p>b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.</p>	<p><b>Preparation</b></p> <p>The Mining Operations Plan Rehabilitation Management Plan (RMP) dated June 2013 was available for review. A letter dated 18 January from Myuna to the Executive Director Mineral Resources requested submission of the Plan in a staged approach. A response from DRE dated 22 January 2013 approved the staged approach and approved the RMP for the period of January 2013 to June 2013.</p> <p>The current MOP includes a conceptual final land use plan for Surface Facility Areas. Stage 1 of the Rehabilitation Management Plan was prepared and submitted to the Executive Director Mineral Resources in January 2013 to DRE and DOP to clarify approach was correct. An approval letter for Stage 1 dated 22 January 2013 was received from the Executive Director Mineral Resources. Myuna have yet to receive comment from the Executive Director Mineral Resources concerning the Stage 2 Rehabilitation Management Plan at the time of the audit.</p> <ul style="list-style-type: none"> <li>• The auditors sighted correspondence from Myuna to the Community Consultation Committee, Wyong Shire Council and Lake Macquarie City Council dated 6 June 2013 seeking feedback on Stage 2 of the Mining Operations Plan / Rehabilitation Management Plan.</li> <li>• The auditors sighted a letter from DRE dated 22 January 2013 indicating they were satisfied with the plan.</li> <li>• Section 5 (pp.20-21) provided detail concerning mine closure planning, including measures to minimise socio-economic effects due to mine closure.</li> <li>• Whilst topics such as water management were discussed in the Plan there was not clear reference to other management plans required under this approval.</li> <li>• URS sighted a letter of submission dated 5 June 2013 for Stage 2 of the Rehabilitation Management Plan. It is noted that Stage 1 of the Rehabilitation Management Plan was submitted in January 2013 (i.e. within the approval timeframe).</li> </ul> <p>For the Stage 2 Mining Operations Plan (Rehabilitation Management Plan) the period of the plan is from June 2013 to June 2020. The June 2013 plan notes:</p> <ul style="list-style-type: none"> <li>• No rehabilitation or removal and renovation of buildings are proposed in the plan period.</li> <li>• Myuna will continue to operate infrastructure to support mining throughout the duration of the MOP period from 2013 to 2020.</li> <li>• Rehabilitation of exploration drill sites will be undertaken at the completion of these sites during the MOP period in consultation with the landowner.</li> <li>• Rehabilitation of water management structures are not planned during the MOP period. Dams and water management structures will be used to manage water on site.</li> </ul> <p>The approval letter from DRE on 22 January 2013 noted that no rehabilitation activities are proposed in the Stage 1 RMP period and that DRE would assess rehabilitation and criteria in the further staged RMP / MOP submission for the site.</p> <p>It is noted that:</p> <ul style="list-style-type: none"> <li>• No buildings were renovated, removed or rehabilitated during the audit period.</li> <li>• Rehabilitation to the stormwater drain diversion drain was observed during the site inspection.</li> <li>• Rehabilitation of degraded areas caused by environmental weeds was systematically carried out during the reporting period, as part of land management practice.</li> <li>• No rehabilitation trials, research or initiatives were undertaken during the audit period.</li> </ul> <p>Given Stage 2 of the Mining Operations Plan Rehabilitation Management Plan has yet to be formally approved this Condition was found to be indeterminate.</p>	Compliant – (pending formal approval by the Director-General)
Consolidated Coal Lease 762	14	<p><b>Rehabilitation</b></p> <p>The lease holder must comply with any direction given by the Director-General regarding the stabilisation and re-vegetation of any mine residues, tailings or overburden dumps situated on the lease area.</p>	Myuna reported that there have been no directions from an Environmental Officer of the Department in relation to the stabilisation and re-vegetation of any mine residues, tailings or overburden dumps situated on the lease area therefore this Condition is not triggered.	Not Applicable

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	15	<b>Exploratory Drilling</b> <ol style="list-style-type: none"> <li>1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Natural Resources regional hydro-geologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</li> <li>2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:- <ol style="list-style-type: none"> <li>a. all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</li> <li>b. all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</li> <li>c. all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;</li> <li>d. if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</li> <li>e. if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</li> <li>f. once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</li> <li>g. once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</li> </ol> </li> </ol>	The Annual Exploration Report for Exploration Licence 4444 dated October 2012 (p.1) stated that ' <i>during the reporting period there was no surface exploration undertaken within EL4444</i> '.	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	16	<b>Prevention of Soil Erosion and Pollution</b>  Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, water body or ground waters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Myuna operate under an EPL for the site that regulates levels of pollution in water discharges. A review of the EPL is provided in this report. The review found overall compliance with the EPL. Notwithstanding this, the following incidents were recorded concerning water during the audit period: <ul style="list-style-type: none"> <li>The Annual Return for the period January to December 2012 identified a pH result of 6.16 from LDP002 on 18/04/2012. Condition L2.4 of EPL 366 specifies a pH range of 6.5 to 8.5. The low pH reading was attributed to over flocculation of the Coal Handling Dam following a high rain event that had caused elevated turbidity in the dam. The pH returned to with the EPL pH range criteria on 19/04/2012. Following the event water from the Coal Handling Dam is now pumped to dam two that flows to dam three. Dam three discharges via LDP001. A continuous monitoring device has been installed on LDP001 to monitor for EPL Condition L2.4 criteria including pH levels.</li> <li>One volume exceedance from LDPB (formerly LDP001) was notified to the EPA on 5 March 2013. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDPB. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDPB. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"> <li>a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>3,676 kL of clean water flowed through LDPB during the event.</li> </ul> </li> </ul> LDP B was moved downstream to end of pipe to capture discharges from stormwater diversion and the first flush settlement and oil separator located adjacent to the main entrance. The stormwater diversion was installed on 21 February 2013. The previous LDP A (now LDP B) was located at the end of the settlement ponds and did not capture the stormwater diversion or the discharge from the first flush settlement and oil separator.  Monthly Water and Dust reports were available from February 2012 to May 2013. Sampling included surface and trade wastewater in accordance with the Trade Wastewater Agreement. It is noted that the temperature of trade wastewater is not currently measured as required by the agreement.	Compliant  See recommendations in the main report regarding measuring trade wastewater temperature.
Consolidated Coal Lease 762	17	<b>Transmission lines, Communication lines and Pipelines</b>  Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	The Myuna Colliery operates on a subsidence limit of less than 20mm as the PA 80_0010, Condition 1 of Schedule 3. Subsidence data was reviewed for lines along the east and west shorelines of Point Wolstoncroft. In one part of the western shoreline over a length of about 500m the measured subsidence as at December 2012 was in the range 15-20mm, with one point registering 20mm subsidence. Movements along the corresponding stretch of the eastern shoreline were mostly 10 – 15mm, while movements on both shorelines to the north of these sections were typically 5 – 10mm. There has been no extraction in this area during the review period, but in the past there has been extraction in both the Wallarah and Fassifern seams, including an area in the Wallarah beneath Point Wolstoncroft where the pillars were smaller than usual for Myuna (about 23m centres rather than 30m centres). No interference, impairment or stability issues of utilities were reported by site management.	Compliant
Consolidated Coal Lease 762	18	<b>Fences, Gates</b>  a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate. b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.	Myuna reported that there are no fences outside of the surface operations under their control. The auditors considered this requirement not to be triggered by the Myuna operations.	Noted

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	19	<b>Roads and Tracks</b>  a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate. b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	There are no operations outside the surface operations that affect roads, or that may cause damage to roads. The auditors considered this requirement is not triggered by the Myuna operations.	Compliant
Consolidated Coal Lease 762	20	<b>Roads and Tracks</b>  Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, top soiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Natural Resources.	There are no operations outside the surface operations that affect roads, or that may cause damage to roads. The auditors considered this requirement is not triggered by the Myuna operations.	Compliant
Consolidated Coal Lease 762	21	<b>Trees and Timber</b>  a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003. c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	Site management reported that there has been no felling of trees on site that would require authority of the Landholder. As there is no surface disturbance from the coal mine outside to the surface operations area, the impact of vegetation is minimal and hence this requirement has not been triggered.	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	23	<b>Resource Recovery</b> <p>a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.</p> <p>b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.</p> <p>c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.</p> <p>d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.</p> <p>e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.</p> <p>f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.</p>	Site management reported that there has been no relevant request from the Director-General within the audit period and as such this requirement has not been triggered.	Compliant
Consolidated Coal Lease 762	24	<b>Indemnity</b> <p>The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.</p>	Site management reported that there have been no claims, actions, suits or demands brought against the lease holder and as such this requirement has not been triggered.	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	26	<b>Single Security (extended)</b>  a) The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Mining Purposes Lease 191 (Act 1973), Mining Purposes Lease 329 (Act 1973), Mining Lease 1431 (Act 1992), Mining Lease 1443 (Act 1992), Mining Lease 1543 (Act 1992) and Mining Lease 1553 (Act 1992) is extended to apply to this lease.  b) If the lease holder falls to fulfil any one or more of the obligations under this lease, then the security held may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made there under or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.	Noted. Security under Mining Purposes Lease is discussed in the Compliance Checklist for the Lease in this report.	Noted

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	27	<p><b>Prescribed Dam</b></p> <p>a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the Eraring Ash and Dora Creek Effluent Pond Dams without the prior written approval of the Minister and subject to any conditions he may stipulate.</p> <p>b) Where the lease holder desires to mine within the notification area he must:</p> <ul style="list-style-type: none"> <li>i. at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and</li> <li>ii. provide such information as the Minister may direct.</li> </ul> <p>c) The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with. (i) This sub-paragraph is complied with if:</p> <ul style="list-style-type: none"> <li>i. the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (B).</li> <li>ii. the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined.</li> <li>iii. the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal.</li> <li>iv. the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and</li> <li>v. where the Dams Safety Committee has made recommendations the approval is in terms that are: <ul style="list-style-type: none"> <li>- in accordance with those recommendations; or</li> <li>- where the Minister does not accept those recommendations or any of them – in accordance with a determination under sub-paragraph (ii) of this paragraph.</li> <li>- Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam:</li> </ul> </li> </ul>	There has been no mining within the Notification Areas of Eraring Ash Dam and Dora Creek Effluent Pond, and hence this requirement has not been triggered.	Not Applicable

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
Consolidated Coal Lease 762				
		<ul style="list-style-type: none"> <li>vi. as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or in the event of failure to reach such agreement - as determined by the Premier.</li> <li>vii. (D) The Minister, on notice from the Dams Safety Committee, may at any time or times: <ul style="list-style-type: none"> <li>- cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given.</li> <li>- suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.</li> </ul> </li> </ul>		
Consolidated Coal Lease 762	28	<p><b>Special Conditions</b></p> <p>a) Before commencing to win or work any coal within the marginal zone/s defined in paragraph (b) of this condition or under:-</p> <ul style="list-style-type: none"> <li>i. the multiple storey buildings, and the printing press building and grain silos owned by the Sanitarium Health Food Company;</li> <li>ii. any freeway;</li> <li>iii. any pipeline licence granted under the Pipelines Act, 1967; and</li> <li>iv. any water reservoirs, pumping stations and waste water treatment works owned by the Hunter District Water Board</li> </ul> <p>the lease holder shall notify the Chief Inspector of Coal Mines of his intention to do so and shall submit a plan of the system whereby such coal is proposed to be won or worked and shall obtain the written approval of the Chief inspector of Coal Mines to such system. No such coal shall be won or worked except in accordance with the system approved in writing by the Chief inspector of Coal Mines as altered added to or omitted from as hereinafter provided. In connection with every such submission the lease holder shall do such acts and furnish such information as the Chief inspector of Coal Mines may require. The Chief inspector of Coal Mines may at any time cancel any approval to a system and may from time to time alter, omit from or add to any system approved by him.</p> <p>b) For the purposes of paragraph (a) of this condition the marginal zone is the area contained by an angle of draw of 35° measured outwards from:-</p> <ul style="list-style-type: none"> <li>i. the external boundaries of the easements for any freeway and pipeline;</li> <li>ii. the external walls of the buildings and silos and any reservoirs, pumping stations and treatment works, to the floor of the coal seam in which mining operations are being carried out.</li> </ul>	As advised by Myuna and confirmed from the available mine plans, there has been no working within the marginal zones or beneath any surface infrastructure covered by this condition	Not Applicable



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	29	<b>Special Conditions</b>  The lease holder unless with the consent of the Minister and subject to such conditions as the Minister may impose shall not mine for, work, win or remove any coal from those parts of the subject area:  a) Beneath the main buildings of the Wangi Wangi Power Station and Eraring Power Station constructed on the excepted surface of the subject area; and b) Within the marginal zone which is the area contained by an angle of draw of 35° measured outwards from the external walls of such buildings to the floor of the seam.	During the audit period there has been no extraction beneath or within the marginal zones surrounding the main buildings of Wangi Wangi and Eraring Power Stations, and consequently this condition has not been triggered.	Not Applicable
Consolidated Coal Lease 762	30	<b>Special Conditions</b>  Any approval or consent previously given by the Minister to the effect that the lease holder may mine for, work, win or remove coal from any part of the subject area, including any approval or consent given pursuant to any barrier condition contained in leases consolidated into this lease, shall be deemed to be a consent given subject to the same conditions of that approval or consent under this lease.	The auditors considered this Condition not to be an environmental issue concerning the Consolidated Coal Lease 762. The Condition was therefore not audited.	Not Assessed
Consolidated Coal Lease 762	31	<b>DETAILS OF LANDS, PURPOSES AND ADDITIONAL CONDITIONS</b>  The lease holder shall be limited to the following operations and conditions within the specified areas described on the plan annexed hereto and marked "B"	The auditors considered this Condition not to be an environmental issue concerning the Consolidated Coal Lease 762. The Condition was therefore not audited.	Not Assessed
Consolidated Coal Lease 762	32	<b>DETAILS OF LANDS, PURPOSES AND ADDITIONAL CONDITIONS</b>  With regard to Condition No. 31 and the plan annexed hereto and marked "B", the registered holder:  a) Shall not transport any coal from the subject area by public road, unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose, b) Shall use the shaft to be constructed on the subject area for ventilation purposes only, unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose.	The auditors considered this Condition not to be an environmental issue concerning the Consolidated Coal Lease 762. The Condition was therefore not audited.	Not Assessed
Consolidated Coal Lease 762	33	<b>DETAILS OF LANDS, PURPOSES AND ADDITIONAL CONDITIONS</b>  Any approval or consent previously given by the Minister in terms of Condition N. 32 of this schedule, including any approval or consent given pursuant to any such condition contained in leases consolidated into this lease, shall be deemed to be a consent given subject to the same conditions of that approval or consent under this lease.	The auditors considered this Condition not to be an environmental issue concerning the Consolidated Coal Lease 762. The Condition was therefore not audited.	Not Assessed

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Consolidated Coal Lease 762</b>				
Consolidated Coal Lease 762	34	<p><b>Amended Conditions</b></p> <p>Unless with the prior consent of the Minister, and subject to such conditions as he may impose, the lease holder shall not carry out any mining within the highwater level subsidence control zone defined:</p> <ul style="list-style-type: none"> <li>a) On the surface by the highwater level of Dora Creek and Lake Macquarie and a point 2.44 metres in elevation above that highwater level;</li> <li>b) In the seam by a line defined by an angle of draw of 35o drawn landwards from the line drawn vertically beneath a point 2.44 metres in elevation above the highwater level of Dora Creek and Lake Macquarie;</li> <li>c) In the seam by a line defined by an angle of draw of 35o drawn waterwards from the line drawn vertically beneath the highwater level of Dora Creek and Lake Macquarie.</li> </ul>	In the period under review, Wallarah Seam extraction took place within the High Water Level Subsidence Control Zone barrier under the Wangi Peninsula. Sighted approval letter from Director Mine Safety Operations and Chief Inspector dated 22 February 2010, and associated Approved Plan.	Compliant
Consolidated Coal Lease 762	35	<p><b>Amended Conditions</b></p> <p>The lease holder shall not work any seam of coal within the consolidated coal lease area without leaving, if the Minister, by order, given in writing to the lease holder, so directs, a barrier of such width or a protective pillar or pillars of such size or sizes as specified in the order, against any surface improvements or any feature whether natural or artificial.</p>	The auditors considered this Condition not to be an environmental issue concerning the Consolidated Coal Lease 762. The Condition was therefore not audited.	Not Assessed
Consolidated Coal Lease 762	36	<p><b>Amended Conditions</b></p> <p>Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the lease holder shall not work any seam of coal by underground methods within the consolidated coal lease area within the barrier defined as follows:</p> <p>The land within the zone beneath and adjacent to the Main Northern Railway enclosed by an angle of draw of 35o from the vertical plane of the boundary parallel to and thirty (30) metres horizontally distant from the outermost rails of the railway track(s), such angle of draw being measured outwards from the point on the vertical plane of the said boundary at the surface or at the level of the horizontal plane of the railway track, whichever may be the higher, to the floor of the coal seam in which mining operations are being carried out.</p>	The auditors considered this Condition not to be an environmental issue concerning the Consolidated Coal Lease 762. The Condition was therefore not audited.	Not Assessed

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	1	The registered holder shall not prospect or mine for coal within the subject area of the lease	The auditors considered this Condition not to be an environmental issue concerning the Mining Purposes Lease 334. The Condition was therefore not audited.	Noted
Myuna Colliery – Mining Purposes Lease 334	2	<b>Shafts, Drifts, Adits</b>  a) Any ventilation shaft on the subject area, shall be used for ventilation purposes only. b) The Minister may consent, subject to such conditions as the Minister may impose to the use of any such shaft for other than ventilation purposes.	Site management reported that ventilation shafts are solely used for ventilation purposes.	Compliant
Myuna Colliery – Mining Purposes Lease 334	3	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	URS conducted a site walkover and noted that the perimeter of the pit top was fenced. The perimeter of the lease area along Summerhill Drive and adjacent to Wangi Wangi Power Station was also observed to be fenced. Fences have been constructed to keep people out of shafts and drifts. No new shafts or drifts had been constructed during the audit period.	Compliant
Myuna Colliery – Mining Purposes Lease 334	4	<b>Dumps and Coal Preparation Plant</b>  The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area.	The Inspector has not issued any directions regarding stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area.  Coal produced during the audit period was transported by overland conveyor to Earing Power Station. Coal that cannot be conveyed to or received at Earing Power Station is stockpiled on-site. Earing Power Station own and operate the conveyor from the colliery to Earing Power Station.	Compliant
Myuna Colliery – Mining Purposes Lease 334	5	The registered holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the property.	Not triggered for the main pit top area.  The Minister has not provided any direction regarding the spraying of coal dumps on the property.  No coal dumps were observed during the site inspection.	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	6	<b>Dams and Escape of Water</b>  Settling dams or other dams constructed or to be constructed on the subject area shall be constructed, maintained and sealed to the satisfaction of the Inspector.	Small settling dams for water treatment are located in the lease area. The construction of the dams was not reviewed as part of the audit. No evidence of whether these dams were constructed to the satisfaction of the Director was sighted. Based on this, compliance with the condition is Indeterminate.	Noted

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	7	The registered holder shall provide and maintain efficient means to prevent contaminated waters discharging or escaping from the subject area onto surrounding areas.	<p>Myuna operates under an Environmental protection Licence 366 that specifies a discharge volume/mass of 13,000 kL per day from LDPB.</p> <p>The following incidents were recorded concerning water during the audit period:</p> <ul style="list-style-type: none"> <li>The Annual Return for the period January to December 2012 identified a pH result of 6.16 from LDP002 on 18/04/2012. Condition L2.4 of EPL 366 specifies a pH range of 6.5 to 8.5. The low pH reading was attributed to over floccing of the Coal Handling Dam following a high rain event that had caused elevated turbidity in the dam. The pH returned to with the EPL pH range criteria on 19/04/2012. Following the event water from the Coal Handling Dam is now pumped to dam two that flows to dam three. Dam three discharges via LDP001. A continuous monitoring device has been installed on LDP001 to monitor for EPL Condition L2.4 criteria including pH levels.</li> <li>One volume exceedance from LDPB (formerly LDP001) was notified to the EPA on 5 March 2013. On 2 March 2013 volume/mass limits exceeded those set out in Condition L3 of EPL 366 for LDPB. Volumetric flow was recorded a discharge of 13,356 kilolitres (kL) from LDPB. This flow was determined to be 356 kL above the EPL limit of 13,000 kL. The exceedance only occurred on 2 March 2013 and no concentration limits were exceeded during the event. Contributing factors were determined to be: <ul style="list-style-type: none"> <li>a rainfall of 115.2 millimetres (mm) occurred on 2 March 2013; and</li> <li>3,676 kL of clean water flowed through LDPB during the event.</li> </ul> </li> </ul> <p>LDP B was moved downstream to end of pipe to capture discharges from stormwater diversion and the first flush settlement and oil separator located adjacent to the main entrance. The stormwater diversion was installed on 21 February 2013. The previous LDP A (now LDP B) was located at the end of the settlement ponds and did not capture the stormwater diversion or the discharge from the first flush settlement and oil separator.</p> <p>Upon consideration of the above observations the auditors determined that Myuna were either attempting to or were in the process of minimising the impact of water quality or flow to receiving water.</p>	<p>Complaint</p> <p>See recommendations in the main report regarding measuring trade wastewater temperature.</p>
Myuna Colliery – Mining Purposes Lease 334	8	<p><b>Dust and Conveyor Systems</b></p> <p>The registered holder shall take such precautions as are necessary to abate any dust nuisance.</p>	<p>Dust monitoring results are collected monthly at the locations specified in the EPL.</p> <p>Operational engineering dust controls include the following:</p> <ul style="list-style-type: none"> <li>Sweeper truck (observed in operation during the site audit). Sighted Giacci Bros Pty Ltd (road sweepers) General Work Permit 5089793 dated 19 June 2013;</li> <li>Bobcat for sweeping of spills;</li> <li>Hard standing areas to the pit top and sealed internal roads (with the exception of the emergency stockpile road);</li> <li>Conveyor belts are covered;</li> <li>Piped spray on stockpile road (observed during site inspection);</li> <li>Emergency coal stockpile is sprayed – it is noted that the coal not stockpiled is not used unless coal cannot be received at Eraring Power Station. The emergency coal stockpile was reported not to have been used during the audit period.</li> </ul> <p>High volume air samplers were in the process of being installed at the time of the audit. The auditors observed recently installed power points adjacent to the on-site weather station for two high volume samplers. A high dust reading of 9.9 g/m<sup>2</sup>/month was noted on 18 February 2012. This was attributed to vegetable matter and small percentage of coal dust. Despite the high reading the monthly dust deposition rolling average was not exceeded for the audit period.</p> <p>Monthly dust gauge results and the rolling average are reported in Environmental Monthly Reports. Results of dust monitoring from January 2012 through to 16 June 2013 were available for review and indicated that dust levels were below the limits specified in Table 2 of DA 10-0080 for the audit period.</p> <p>The AEMR for 2012 (p.32) noted that there were no complaints concerning the site during the reporting period.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	9	The registered holder shall carry out regular inspections of above-ground conveyor systems and shall promptly remove any spillages.	<p>Coal produced during the audit period was transported by overland conveyor to Earing Power Station. Coal that cannot be conveyed to or received at Earing Power Station is stockpiled on-site. Earing Power Station own and operate the conveyor from the colliery to Earing Power Station.</p> <p>Observations during the site inspection were that pit top areas were generally clean and orderly, with minimal evidence of spills.</p> <p>PULSE is used to generate week work orders. The auditors sighted work orders for weekly inspections including, but not limited to:</p> <ul style="list-style-type: none"> <li>VG56362 – environmental inspections, weekly contractor environmental monitoring, 20 June 2013</li> <li>VG56363 – weekday mine environmental report, 21 June 2013, conducted by SNK Group Pty Ltd.</li> <li>VG56364 - environmental weekly surface cleaning, 21 June 2013.</li> <li>VG11456 – environmental weekly surface cleaning, 5 April 2013.</li> </ul> <p>Weekly surface cleaning work orders were noted to include spot sweeping of any coal spills, dust or sorb and requirements for cleaning of conveyors and gantries.</p>	Compliant
Myuna Colliery – Mining Purposes Lease 334	10	<p><b>Management and Rehabilitation of Lands</b></p> <p>The registered holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.</p>	<p>During the site inspection there was no sighting of fences that had been interfered with, however, not all fences were observed during the site walkover.</p> <p>No complaints had been received during the audit period concerning fences.</p>	Compliant
Myuna Colliery – Mining Purposes Lease 334	11	The registered holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	No directions have been issued by the Minister.	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	12	<p>Subject to any specific condition of this authority providing for rehabilitation of any particular part of the subject area affected by mining or activities associated therewith, the registered holder shall:</p> <p>a) Shape and revegetate to the satisfaction of the Minister, any part of the subject area, in the opinion of the Minister have been damage or deleteriously affected by mining operations and ensure such areas are permanently stabilised; and</p> <p>b) Reinstate and make safe, including sealing and/or fencing any excavation within the subject area.</p>	<p>Not triggered for the main pit top area as the mine is operational and rehabilitation efforts are yet to commence..</p> <p>The Minister has not required any shaping or revegetation of the subject area in the audit period.</p> <p>Excavations of the clean stormwater diversion drain were completed by the time of the audit.</p>	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	13	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Surveys have been conducted as part of the SMP process. Compliance with subsidence requirements are discussed in other sections of this report.	Compliant



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	14	a) The registered holder shall each year once operations have commenced, submit for the Minister's approval an 'Annual Environmental Management Report' relating to the operations of the lease holder on the subject area.	<p>The 2012 Annual Environmental Management Report (AEMR) was available for review and was available on the Myuna website. No comments were received from the Director- General concerning the 2012 AEMR. Site management reported that no AEMR inspections had been conducted at the site during the audit period.</p> <p>g) The 2012 AEMR included developments during the reporting period (Section 2). Sections 2 and 3 included a review of the monitoring results for the year against the statutory requirements.</p> <p>h) Monitoring results for the calendar year that provided a comparison against statutory requirements were provided in Section 3.</p> <p>i) Non-compliances were addressed in Section 3 of the AEMR. There was one non-compliance against the requirements of the Environmental protection Licence due to a pH exceedance. The Annual Return that contained further details concerning the non-compliance was appended to the AEMR.</p> <p>j) Given the age of the Project Approval identification of trends in monitoring data was only available for the reporting period.</p> <p>k) No discrepancies were noted in the AEMR for the reporting period.</p> <p>l) Measures that will be implemented in the current financial year were included in the AEMR. These included:</p> <ul style="list-style-type: none"> <li>– review and development of management plans as per project approval conditions;</li> <li>– diversion of clean water drain around licenced discharge point – completed; and installation of borehole to divert dirty water underground.</li> </ul>	Compliant
Myuna Colliery – Mining Purposes Lease 334	14	b) The date by which the report must be submitted will be determined by the Minister after consulting the registered holder.	The first Annual Review (AEMR) was submitted in February 2012.	Compliant
Myuna Colliery – Mining Purposes Lease 334	14	<p>c) The report shall comprise:</p> <ol style="list-style-type: none"> <li>A plan showing short, medium and long-term mining plans;</li> <li>A rehabilitation report (in respect of open cut operations) and/or a surface environmental management report (in respect of underground operations).</li> <li>A review performance in terms of Environment Protection Authority and department of Water Resources Licence and approval conditions (related to the Clean Air Act 1961, the Clean Waters Act 1970, the Noise Control Act 1975, the Environmentally Hazardous Chemical Act 1985, the Pollution Control Act 1970 and the Water Act 1912) applicable to the subject area.</li> <li>A review of performance in terms of Development Consent conditions for the subject area.</li> <li>A listing of any variations obtained to approvals applicable to the subject area during the previous year.</li> </ol>	<p>a) Mining plans for the reporting period were outlined in Section 2.4 of the AEMR. Section 6 addressed activities for the next reporting year but did not clearly address medium and long-term mining plans.</p> <p>b) Rehabilitation was addressed in Section 5 of the AEMR.</p> <p>c) Compliance with current regulatory requirements were addressed throughout the AEMR, in particular in Section 3.</p> <p>d) Development consent conditions were addressed throughout the AEMR, in particular in Section 3.</p> <p>e) Section 1.1 addressed approvals applicable to the subject area during the previous year.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p>Include medium and long-term mining plans in the AEMR.</p>
Myuna Colliery – Mining Purposes Lease 334	14	d) The Minister, may by notice in writing, direct the registered holder to undertake any operations or remedial actions in such manner and within such period as may be specific in that notice so as to ensure that operations on the subject area conform to the requirements of relevant statutory approvals or licences.	No directions have been issued by the Minister.	Noted



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	15	If so directed by the Minister the registered holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any leans within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the registered holder.	No directions have been issued by the Minister to rehabilitate lands.	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	16	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the registered holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not triggered for the main pit top area.	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	17	If so directed by the Minister the registered holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any leans within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the registered holder.	No directions have been issued by the Minister to rehabilitate lands.	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	18	The registered holder shall maintain the subject area in a clean and tidy condition at all times.	<p>The pit top area was sealed and cleaned on a regular basis. The following concerning tidiness were noted:</p> <ul style="list-style-type: none"> <li>• The site has a dedicated waste storage area where material is separated into the appropriate receptacles for disposal off-site. The waste area is cleaned and managed once a week by an external contractor.</li> <li>• Used batteries are stored under cover with secondary containment in a designated storage area prior to disposal off-site by an appropriately licensed waste disposal facility.</li> <li>• Sighted mine site review (SWPF 0101) dated 11 June 2013 of waste storage and handling areas on-site.</li> <li>• Sighted disposal dockets for renewable oil services Pty Ltd 16 February 2012 for (ref: 02828) for 600 l of waste oil and 28 march 2012 (ref: 03058) for 800 l of waste oil.</li> <li>• The following EPA transport certificates were available for review for J100 waste mineral oils for off-site disposal: 2T00334835, 2T00435029 and 2T00281902 for the period 1 august 2011 to 31 July 2012.</li> <li>• Stores movement advice (my 0074) dated 20 Marche 2013 for av 15 m<sup>3</sup> waste bin.</li> <li>• SIMS Metal Management Pty Ltd docket (ref: tys447) dated 14 June 2013 for 17,840 kilograms (kg) of recycled metal.</li> <li>• Trade waste permit issued by Hunter Water corporation ltd (ref: d-171027) for disposal or trade wastewater to sewer. Trade wastewater is monitored in accordance with the permit by AECOM. Results for 2012 trade wastewater were available for review.</li> <li>• Sweeper truck (observed in operation during the site audit). Sighted Giacci Bros Pty Ltd (road sweepers) General Work Permit 5089793 dated 19 June 2013.</li> </ul> <p>The site was observed to be generally clean and tidy during audit inspections.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	19	The registered holder shall take all precautions against causing outbreak of fire on the subject area.	<p>Precautions in place at the mine site include:</p> <ul style="list-style-type: none"> <li>• Site is fully fenced to restrict access;</li> <li>• Buffer zones;</li> <li>• No smoking allowed on site;</li> <li>• Spraying of emerging fireweed in the adjustment paddock;</li> <li>• Hot work procedures have reportedly been implemented and have precautions to reduce risk of fire;</li> <li>• Full ring main fire hydrant system implemented as per Coal Mine Regulations;</li> </ul> <p>No bushfire incidents occurred during the audit period. The site was unable to show evidence the bushfire management procedures had been reviewed. The auditors sighted Bushfire Management Plan dated 1 May 2009 with hand written notes for the contractor engaged to slash the perimeter boundaries.</p> <p>URS auditors were not fire experts and this condition has not been assessed in detail, except for the noting of the above information.</p>	Compliant See recommendations in the main report concerning bushfire management.
Myuna Colliery – Mining Purposes Lease 334	20	Where the registered intends to conduct operations in or adjacent to any river, stream, creek, tributary, lake, dam or reservoir the subject of a proclamation under the Fisheries and Oyster Farms Act 1935, relating to or prohibiting the taking of species of fish, the registered holder shall, not less than seven days before commencement of such operations give notice in writing to the District Inspector of Fisheries setting out details of such operations and the river, stream, creek, tributary, lake, dam or reservoir that shall or may be affected nearby.	No operations in or adjacent to any river, stream, creek, tributary, lake, dam or reservoir the subject of a proclamation under the Fisheries and Oyster Farms Act 1935, relating to or prohibiting the taking of species of fish have been conducted in the audit period.	Not Applicable
Myuna Colliery – Mining Purposes Lease 334	21	Where the registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area, or any undue interference to fish or their environment.	<p>It was reported that no directions had been given by the Minister relating to this requirement.</p> <p>The site has prepared a draft Water Management Plan (WMP) prepared by GHD Pty Ltd, however, this was yet to be formally approved by the Director-General at the time of the audit. A letter dated 17 August 2012 was available for review confirming submission of the Water Management Plans to DPI for approval. Included for submission were: The Water Management Plan, Site Water and Salt Balance, Erosion and Sediment Control Plan, Surface Water Management Plan, Groundwater Monitoring Program and Surface and Groundwater Response Plan.</p> <p>The auditors sighted an email from DPI dated 20 June 2013 indicating the plan had still to be reviewed. A second email from the DPI dated 27 June 2013 was sighted that provided initial comments and questions concerning the draft water management plan following a preliminary review. Further comments were to be provided as the review progressed.</p> <p>For further discussion, see CoA 3.22.</p> <p>The adequacy of the Water Management Plan and sub plans is considered in the main report.</p> <p>Myuna conducts monitoring of pH, TSS, EC and oil and grease against concentrations set in its EPL. Additionally, Myuna conducts monthly monitoring of metals as per its EPL conditions. URS assessed Myuna as overall compliant with its EPL conditions, but noted two non-compliances had occurred, relating to an exceedences of PH and a volume/mass discharge. Overall, URS found Myuna to have generally complied with this condition over the audit period.</p> <p>Discussion of compliance with the EPL and associated water related issues is provided in the EPL compliance assessment.</p>	Compliant

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	22	The registered holder shall carry out operations in such a manner as to interfere as little as possible with flora and fauna and shall not cut or damage any tree, shrub or other vegetative cover except such as may directly obstruct or prevent the carrying out of the operations.	<p>Observations during site inspections indicated that works were being conducted generally within the existing operational footprint and that no new vegetation clearing had been conducted in the audit period. One exception to this was clearing required for the stormwater diversion. The clearing appeared to be limited to the direct footprint of the works and were not considered excessive.</p> <p>Weed management is considered a key management control for protection of flora and fauna. The auditors sighted a Weed Action Plan – Treated Areas 2012 figure that showed weed focus areas for the periods: April to May, June, July and August. A Weed Action Plan for 2013 showed areas for treatment of Lantana for January 2013 and miscellaneous boundary spraying.</p> <p>A Weed Action Plan Component Update for January 2013 identified 58hrs of labour had been spent on weed management along with 20 Litres (L) of herbicide. No spray adjuvants or dye were used. Upcoming works for Autumn/Winter 2013 included spraying of the creekline for Bitou Bush, sparying of emerging fireweed in the adjustment paddock and manual control of Coral trees. A weed survey is planned for Spring 2013. Photographic records were available for January 2013 at monitoring Points 1 and 2 shown on the Weed Action Plan Component Update for January 2013.</p> <p>Hunter Land Management Pty Ltd is engaged to conduct weed management activities.</p> <p>Fluren Pty Ltd are engaged to conduct weed slashing at the site. The auditors sighted job sheets for weed slashing dated 15 October through to the 24 October 2013 (docket no.: 4408 – 4413). A job sheet dated (ref: 5851) 11 June 2013 for slashing was also available for review.</p> <p>Fauna monitoring is to be implemented if subsidence is measured greater than 20 mm. This requirement had not yet been triggered in the Plan.</p>	Compliant
Myuna Colliery – Mining Purposes Lease 334	23	The registered holder shall plant such grasses, trees or shrubs or such other vegetation as may be required by the Minister and care of same during the currency of this authority or any renewal thereof, to the satisfaction of the Minister.	<p>No directions had been received by the Minister during the audit period.</p> <p>The auditors sighted evidence of rehabilitation that commenced prior to the audit period at the Eraring Power Station end of the site. Rehabilitation to the stormwater drain diversion drain was observed during the site inspection and included re-grassing of excavated areas.</p>	Compliant
Myuna Colliery – Mining Purposes Lease 334	24	The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.	It is understood that no trees were felled for the installation of the stormwater diversion drain or for other activities conducted during the audit period..	Compliant
Myuna Colliery – Mining Purposes Lease 334	25	The registered holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	<p>No directions had been received by the Minister during the audit period.</p> <p>The pit top is screened from Summerhill Drive through a combination of the topography and surrounding bushland.</p>	Compliant
Myuna Colliery – Mining Purposes Lease 334	26	The registered holder shall cover the top dressing material, to the Minister's satisfaction, such parts of the subject area as may be stipulated by the Minister and shall plant and maintain, to the Minister's satisfaction such grasses, trees or shrubs or such other vegetation as may be required by the Minister.	No directions had been received by the Minister during the audit period.	Compliant
Myuna Colliery – Mining Purposes Lease 334	27	<p><b>Soil Erosion</b></p> <p>The registered holder shall conduct operations in such a manner as to not cause or aggravate soil erosion and the registered holder shall observe and perform any instructions given of which may be given by the Minister with a view to minimising or preventing soil erosion.</p>	<p>No directions had been received by the Minister during the audit period. No areas of significant erosion or sedimentation from mining activities were observed.</p> <p>Sediment control fences at the waste storage area were observed to require attention.</p>	<p>Compliant</p> <p>See recommendations in the main report regarding sediment control fences.</p>

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	28	The registered holder shall ensure that any topsoil or other material suitable for topdressing purposes which may be distributed during operations shall be removed separately for replacement as far as may be practicable and the registered holder shall plant or sow such grasses, shrubs or trees in the replaced surface material as may be considered necessary by the Minister to control or prevent soil erosion.	No directions had been received by the Minister during the audit period. Topsoil disturbed during the installation of the stormwater diversion drain was re-used where practicable. Rehabilitation of the stormwater drain was observed by the auditors.	Compliant
Myuna Colliery – Mining Purposes Lease 334	29	In the event of any excavations being made the registered holder shall ensure that such are refilled and the topsoil previously removed is replaced and levelled. All such refilling and levelling shall be done to the satisfaction of the Minister.	Topsoil disturbed during the installation of the stormwater diversion drain was re-used where practicable. Rehabilitation of the stormwater drain was observed by the auditors.	Compliant
Myuna Colliery – Mining Purposes Lease 334	30	The registered holder shall ensure that the run off from any disturbed areas including the overflow from any depression of ponded area is discharged in such a manner that it will not cause erosion.	LDP A is located at the Emergency Coal Stockpile Sediment Dam, LDP A, for event based discharges from a small diameter pipe into an unlined drainage channel. No erosion control devices were observed at the outlet of LDP A to minimise erosion to the base and/or bank or the receiving channel.	Compliant <b>Recommendation</b> Ensure discharge from LDP A is discharged in such a manner that it will not cause erosion.
Myuna Colliery – Mining Purposes Lease 334	31	<b>Roads</b>  The registered holder shall pay to Lake Macquarie City Council, Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the registered holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.	The AEMR for 2012 (p.8) stated that ‘ <i>results of subsidence monitoring programs in areas of Point Wolstoncroft and Pulbah Island continue to show negligible subsidence of &lt;20mm with this trend expected to continue</i> ’. Furthermore ‘ <i>a monitoring program has been implemented to collect data on surface movement. The formation of pillars is effectively managed to ensure headings and cut-throughs are formed to design dimensions. A Panel inspection/audit system has been implemented to monitor and report any deviation from the plan and the corrective action taken</i> ’ (AEMRs 2011 and 2012, p.29).  Mine plans sighted confirm that all extraction in the review period has been first workings only, in all Zones.  Subsidence monitoring results were viewed for the sections of the Wangi Peninsula shoreline where Wallarah seam extraction has been carried out during the review period, with measured subsidence in the range $\pm$ 10mm.  No subsidence impacts were reported to have occurred by Myuna. As such no damage to roads occurred due to subsidence and therefore no payments were required.	Compliant
Myuna Colliery – Mining Purposes Lease 334	32	PROVIDED HOWEVER that the amount paid by the registered holder as aforesaid shall be reduced by sum of money if any as may be paid to the said Council the Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act 1961, in settlement of a claim for compensation for the same damage.	Noted	Noted

Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	33	<b>Catchment Areas</b>  a) Operations shall be carried out in such a way as not to cause any pollution of the Lake Macquarie Catchment Area.	<p>Myuna operate under an EPL for the site that regulates levels of pollution in water discharges. A review of the EPL is provided in this report.</p> <p>Weekly surface cleaning work orders were noted to include management and operation of the coal pad dam water diesel pump, clean out of drive in sump at the Coal Handling Plant dam and maintenance and servicing of water catchment sumps and drains. Weekly surface inspections were noted to address inspections for leaking machinery, evidence of oil on floor in the bulk oil storage area and levels of silt in the sumps in the workshop.</p> <p>In addition the daily monitoring of discharges from LDP B Condition U1.1 of the site's EPL requires Myuna to monitor metals from site discharges. Site management reported that the requirements of Condition U1.1 are ongoing. AECOM (Aust) Pty Ltd are conducting surface water sampling on an annual, quarterly, monthly and daily basis. Monthly Water and Dust reports were available from February 2012 to May 2013. The May 2013 monthly Water and Dust reports (p.2) states that <i>'in addition to pH, TSS and oil and grease, EPL 366 requires a full suite of analytes to be undertaken on monthly surface water samples collected from LDPB including total and dissolved metals, major ions and cations, turbidity etc. For clarity of reporting, since licence criteria are not stipulated for these analytes, they are not presented'</i>. Monitoring results are compiled and stored on a spread sheet within the Centennial Lotus Notes Intranet.</p> <p>Hazardous and dangerous goods are stored in bunded and covered storage areas.</p>	Compliant
Myuna Colliery – Mining Purposes Lease 334	33	b) If the registered holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the water of the said Catchment Area the registered holder shall refrain from using or cease using as the case may require such process within twenty-four hours of the receipt by the registered holder of a notice in writing under the hand of the Minister requiring the lease to do so.	No directions had been received by the Minister during the audit period.	Noted
Myuna Colliery – Mining Purposes Lease 334	33	c) The registered holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.	Noted	Noted
Myuna Colliery – Mining Purposes Lease 334	34	<p>Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow the registered holder shall serve on each owner and occupier of the private land and on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.</p> <p>If there are ten or more owners or occupiers affected the registered holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.</p>	<p>This requirement was initiated well before operations were managed by Centennial Coal. As such, this requirement was assumed to have been addressed at the time of the ML 334 being issued and was not assessed as part of this audit.</p> <p>For this reason, this condition was assessed as indeterminate.</p>	Indeterminate (Historical requirement)



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
<b>Mining Purposes Lease 334 (Covering Pit Top area only)</b>				
Myuna Colliery – Mining Purposes Lease 334	35	<p>a) Where the Inspector is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act 1992, relating to operations within the subject area, are not being complied with by the registered holder, the Inspector may serve on the registered holder a notice stating that and give particulars of the reason why, and may in such notice direct the registered holder:</p> <ul style="list-style-type: none"> <li>i. to cease operations within the subject area in contravention of that condition or act; and</li> <li>ii. to carry out within the specified time works necessary to rectify or remedy the situation.</li> </ul> <p>b) The registered holder shall comply with the directions contained in any notice served pursuant to sub-paragraph (a) of this condition. The Director-General may confirm, vary or revoke any such direction.</p> <p>c) A notice referred to in this condition may be served on Colliery Manager.</p>	No notices have been issued to Myuna by the Inspector to cease work or carry out specific works.	Not applicable
Myuna Colliery – Mining Purposes Lease 334	36	The registered holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Noted	Noted
Myuna Colliery – Mining Purposes Lease 334	37	The registered holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Noted	Noted



Appendix A - Myuna Independent Environmental Audit				
Title	Condition No.	Condition	Comment / Evidence sighted	Compliance Status & Recommendations
Mining Purposes Lease 334 (Covering Pit Top area only)				
Myuna Colliery – Mining Purposes Lease 334	38	<p><b>Security Deposit</b></p> <p>a) The lease holder shall, upon request from the Director General, lodge with the Minister the sum of \$10,000 in accordance with Instructions for Manner of Lodgement of Security Deposits as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of the lease holder's obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfil the lease holder's obligations under this authority, if the lease holder fails to comply with any condition or provision of this authority, any provision of the Act or regulations made there under or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act of regulations made thereunder.</p> <p>b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition.</p> <p>c) Where the amount of security has been increased pursuant to Clause (b) hereof the lease holder shall, within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.</p> <p><b>Endorsement Schedule</b></p> <p><i>In accordance with the provisions of Section 79(4) of the Mining Act 1992, the Minister amended Mining Purposes Lease 334 (Act 1973) and Mining Lease 1370 (Act 1992) so as to require a single security in the amount of \$3,110,000 to be given and maintained.</i></p> <p><i>The amendment takes effect on and from 11 April 2008.</i></p>	Myuna demonstrated a Security is held for ML 334 to the amount of \$3,110,000 - Certificate No. 230408.	Complaint





URS Australia Pty Ltd  
Level 4, 407 Pacific Highway  
Artarmon NSW 2064  
Australia  
T: 61 2 8925 5500  
F: 61 2 8925 5555

[www.ap.urscorp.com](http://www.ap.urscorp.com)