



CHAIN VALLEY COLLIERY

INDEPENDENT ENVIRONMENTAL AUDIT REPORT

for
LakeCoal Pty Ltd
July 2016

CHAIN VALLEY COLLIERY

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for:

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EXECUTIVE SUMMARY

Hansen Bailey was commissioned by LakeCoal Pty Limited to conduct an Independent Environmental Audit against Development Consent SSD-5465 (as modified) for Chain Valley Colliery. This audit was undertaken for the Department of Planning & Environment for the period 1 November 2012 to 31 December 2015. The audit also assessed compliance with the conditions of Environment Protection Licence 1770, key mining authorities and other licence documents.

This Independent Environmental Audit was conducted by Daniel Sullivan (Exemplar Global International Certified Auditor 113202) and Dorian Walsh from Hansen Bailey. Additional input was also provided on noise-related conditions of approvals and associated management documents by Mark Bridges of Bridges Acoustics. The field visit component of the audit was completed over the period 2 – 3 May 2016.

The audit consisted of a detailed desktop review of documentation, interviews with key LakeCoal Pty Limited staff and a field inspection of the colliery pit top area and surrounds. The audit was conducted generally consistent with '*ISO 14010 - Guidelines and General Principles for Environmental Auditing*', '*ISO 14011 - Procedures for Environmental Auditing*' and the '*Independent Audit Guideline. Post-approval requirements for State significant developments* (Department of Planning and Environment, 2015)'.

Key actions and recommendations from the previous independent environmental compliance audit completed in 2012 have been responded to, as described in **Section 2**.

This Independent Environmental Audit has concluded that environmental management at Chain Valley Colliery is maintained generally to a high standard. During the audit period, LakeCoal Pty Limited has implemented several improvements to site practices for issues identified to be of higher risk, or in response to issues raised by regulatory agencies. During the audit period, a generally high level of compliance against conditions of Development Consent SSD-5465 and other licences and approvals held for Chain Valley Colliery was also maintained. Document control and management in relation to environmental compliance issues was also noted to be of a high standard and effectively implemented across the site.

The field inspection revealed improvements in a number of areas around the pit top area had been implemented during the audit period for the management of key environmental issues for the site, particularly in relation to water management, hydrocarbon storage and controls, and general housekeeping.

Non-compliances identified during this audit are summarised in **Section 3**. These confirm that the non-compliances that occurred during the audit period were largely administrative or low risk in nature however five medium risk non-compliances were identified. A series of recommendations arising from a review of environmental management documentation, the audit site inspections and identified non-compliances is provided in see **Section 6**.

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LIMITATIONS OF REPORT

In preparing this regulatory compliance audit report, Hansen Bailey has assessed all activities appropriate and necessary to evaluate the environmental status of the site and operations on it. Hansen Bailey has addressed all technical matters which might reasonably be considered to be relevant to such an assessment conducted to standards which apply in NSW. Based on observations of the site, interviews with appropriate staff and a review of available documentation, it is Hansen Bailey's opinion that the potential critical environmental issues associated with the site and operations are those discussed in this report. However, Hansen Bailey can only advise on the basis of the information available to them and therefore cannot dismiss absolutely the possibility that parts of the site, or adjacent properties, may give rise to additional issues.

The conclusions presented in this report are professional opinions based solely upon Hansen Bailey's visual observations of the site and the immediate site vicinity, and upon Hansen Bailey's interpretations of the documentation reviewed, interviews and conversations with personnel knowledgeable about the site and other available information, as referenced in this report. These conclusions are intended exclusively for the purposes stated herein, at the site listed, and for the project indicated.

Opinions presented in this report apply to the site's conditions and features as they existed at the time of Hansen Bailey's site visit on 2 to 3 May 2016, and those reasonably foreseeable. They necessarily cannot apply to conditions and features which Hansen Bailey is unaware of and has not had the opportunity to evaluate.

This report does not, and does not purport to, give legal advice on the actual or potential environmental liabilities of any individual or organisation, or to draw conclusions as to whether any particular circumstances constitute a breach of relevant legislation.

CHAIN VALLEY COLLIERY
INDEPENDENT ENVIRONMENTAL AUDIT
for
LakeCoal Pty Limited

1 INTRODUCTION

1.1 BACKGROUND

Hansen Bailey has been commissioned by LakeCoal Pty Ltd (LC), to conduct an Independent Environmental Audit (IEA) against Development Consent SSD-5465 (as modified) for the Chain Valley Colliery (CVC). The original supporting documentation of SSD-5465 is the *Chain Valley Colliery Mining Extension 1 Project EIS* (EMM, 2013) (CVC EIS) and the *Chain Valley Colliery Mining Extension 1 Project, Response to Submissions* (CVC RTS). Two modifications have subsequently been granted to SSD-5465, with a summary of the key components provided in **Section 1.4**.

The period to which the IEA applies is from 1 November 2012 to 31 December 2015 (the audit period). This IEA was conducted by Daniel Sullivan (DS) (Exemplar Global International Certified Auditor 113202) and Dorian Walsh (DW) from Hansen Bailey. The auditing team was approved by the Department of Planning and Environment (DP&E) on 29 January 2016 (see **Appendix B** for correspondence). Additional input was also provided on noise-related conditions of consent and associated management documents by Mark Bridges (MB) of Bridges Acoustics.

The audit consisted of a detailed desktop review of documentation and interviews with key LC staff (predominantly Wade Covey (WC), LC Environmental and Community Coordinator, and with Ben Johnson (BJ), LDO HSEC Advisor, Michael Callan (MC), LDO Technical Services Manager and Tim Chisholm (TC), LC Surveyor.

The site review component of the Audit was held over the period 2 – 3 May 2016 (see **Appendix C** for the Audit itinerary). This included a field inspection of key surface infrastructure, coal processing and water management areas conducted in accordance with *ISO 14010 - Guidelines and General Principles for Environmental Auditing*, and *ISO 14011 - Procedures for Environmental Auditing*. The field inspection was conducted by DS and DW on 3 May 2016. Significant review of additional documentation and interviews with LC personnel also occurred prior to and following the site component of the audit.

The weather conditions during the site component of this IEA were generally mild and dry (average temperature of 18°C), with moderate humidity. Winds during the audit tended generally north-north-westerly, with speeds of around 8 km/h. In the week preceding the audit conditions were relatively dry, with 6.8 mm of rainfall recorded at the Lake Macquarie BoM monitoring station (site: 061412).

An Opening and Closing Meeting for the Audit was held on site, with LC Environment and Community staff and senior management personnel in attendance.

1.2 DOCUMENTS REFERENCED IN AUDIT

Appendix D provides a list of all information reviewed as part of this IEA.

1.3 SITE DESCRIPTION

CVC is an underground coal mine located at the southern end of Lake Macquarie, approximately 60 km south of Newcastle, which is operated by LakeCoal on behalf of the Wallarah Coal Joint Venture.

Underground mining has occurred at CVC since 1962 extracting coal from three seams (the Wallarah Seam, the Great Northern Seam and the Fassifern Seam), with current mining activities limited to the Fassifern Seam. CVC is located in the Swansea North Entrance Mine Subsidence District. Historically, underground mining was undertaken using the bord and pillar method, however in September 2011 the miniwall (MW) mining method was introduced on site.

CVC operations are approved to extract up to 2.1 Million tonnes (Mt) of Run of Mine (ROM) coal per annum, up to 31 December 2027. Coal is extracted via MW mining methods and product is approved for transportation by truck to:

- Port Waratah Coal Services for export (660,000 t per annum);
- Vales Point Power Station (VPPS); and
- Domestic destinations other than VPPS (180,000 t per annum).

1.4 DEVELOPMENT CONSENT AND SUPPORTING DOCUMENTATION SUMMARY

Development Consent SSD-5465 is held for the operations of CVC. A summary of the CVC consent and its associated modifications are provided below.

The audit focussed on the SSD-5465 approval conditions and supporting documents relevant to the activities undertaken by LC during the audit period. SSD-5465 was modified twice during the audit period, with Modification 1 (MOD1) approved on 27 November 2014 and Modification 2 (MOD2) granted on 23 December 2015. The compliance status of relevant aspects of LC activities at CVC during the audit period were therefore reviewed against the version of the development consent that was in force at the time (see **Section 3**).

1.4.1 SSD-5465 Approval

CVC was approved to operate generally in accordance with SSD-5465 and the supporting CVC EIS (EMM, 2013). The main elements of the activities approved under the CVC EIS included:

- An extension of the currently approved extraction area to allow underground mining to continue within the Fassifern Seam;
- The increase of the approved maximum rate of production to 1.2 Mtpa ROM coal;

- An increase in the approved hours for haulage of coal from the Colliery on private roads to VPPS from 5.30 am to 5.30 pm, Monday to Friday (excluding public holidays) to 24 hours a day, seven days a week. No change to the approved hours of haulage on the public road network was sought;
- Minor upgrades and modifications to existing approved infrastructure; and
- An extension of the approved mining by a period of approximately 14 years, i.e., to around 2027.

1.4.2 SSD-5465 Modification 1

The *Chain Valley Colliery – Modification 1 Statement of Environmental Effects, Section 96 Modification to SSD-5465* (EMM, 2014) supports SSD-5465 (MOD1). The Modification was approved by DP&E in November 2014 for the following activities:

- The development and use of up to four first working headings within the Fassifern Seam to connect CVC and Mannering Colliery;
- The installation and use of an underground conveyor belt system and ancillary services, enabling ROM coal to be transferred between CVC's and the MC's conveyors; and
- The use of existing MC infrastructure to transport coal from the CVC underground workings to the VPPS at a rate not greater than 1.1 Mtpa (as approved under the Mannering Colliery approval MP 06_0311).

1.4.3 SSD-5465 Modification 2

SSD-5465 (MOD2) was undertaken in accordance with the *Chain Valley Colliery – Modification 2 Statement of Environmental Effects, Section 96 Modification to SSD-5465* (EMM, 2015). The Modification was approved in December 2015 for the following:

- Extraction of up to 2.1 Mtpa of ROM coal from the Fassifern Seam until 31 December 2027;
- First and second workings using continuous miner and miniwall mining methods;
- Secondary extraction which is confined to areas under Lake Macquarie and outside of the high water mark subsidence barrier (HWMSB) and seagrass protection barrier (SPB);
- Sizing and crushing coal at the CVC's Coal Preparation Plant;
- Transporting coal by public roads to Port Waratah Coal Services (PWCS) for export; and
- Transporting coal by private roads to VPPS and by public roads to other domestic customers.

1.5 AUDIT REQUIREMENTS

1.5.1 Development Consent

This IEA has been compiled pursuant to Schedule 6, Condition 9 of SSD-5465 (MOD 2). The requirements of Condition 9 of SSD-5465 (MOD 2) are listed below in **Table 1**, along with where each is addressed in this report.

1.5.2 Audit Guidelines

This IEA report has also been prepared in accordance with the *Independent Audit Guideline. Post-approval requirements for State significant developments* (Audit Guidelines) (DP&E, 2015). The primary purpose of the Audit Guidelines is to ensure that independent audits of State significant developments in NSW are undertaken in a consistent manner and meet minimum standards expected by the NSW Government.

Table 2 lists key requirements from the Audit Guidelines, the relevant Section of the Guidelines which references the requirement, and indicates where each is addressed in this report.

Table 3 reproduces the “risk levels” from the Audit Guidelines which were attributed to the non-compliances identified during the audit period.

Table 1
Independent Environmental Audit Requirements

Description	Where Addressed
SSD-5465 (MOD 2) Consolidated Conditions	
Condition 9: By the end of February 2016 (or other such timing as agreed by the Secretary), and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	This IEA
(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Appendix B
(b) include consultation with the relevant agencies;	Section 1.5.3
(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	Section 3, Appendix E
(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	Section 3, 4 and Appendix E
(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.	Section 6
<i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i>	N/A*

* Although not specified by the Secretary Mark Bridges of Bridges Acoustics was commissioned to undertake a noise audit as required by Schedule 3, Condition 8e of the Development Consent

Table 2
Audit Guidelines Requirements

Section	Description	Where Addressed
2	Assess the operator's compliance with the requirements of regulatory approvals, including (as applicable): <ul style="list-style-type: none"> • The Development Consent; • The Environment Protection Licence; • The Mining Lease; and • Water licences and approvals. 	Section 3, Appendix E
2, 3	The scope of the audit and the audit team (including any technical specialists) to be determined by the lead regulator.	Section 1, Appendix B
3.3	The auditor team must be independent of the development being audited and audit findings must be based on verifiable evidence.	Appendix A, Sections 1 - 6 and Appendix E
4.1	The compliance status of each requirement or commitment should be assessed in accordance with the compliance assessment criteria and risk levels in the audit guidelines.	Section 1, 3, Appendix E
4.2	Consultation with key regulatory agencies prior to commencement of the audit site inspection.	Section 1.5.3
5.1	The audit outcomes to be documented in a thorough, accessible and accurate audit report that is written in a neutral tone reflecting facts gathered by the audit team.	This IEA
5.1	The audit report should include the following sections: <ul style="list-style-type: none"> • Introduction, providing a brief overview of the development, audit scope and objectives; • Methodology, describing the audit team, methodology applied, document reviews, site inspections and interviews; • Audit findings, including documentation of consultation, response to actions from the previous audit, assessment of compliance status against the conditions and commitments in relevant documents and a discussion of environmental incidents and performance; and • Recommendations, identifying any opportunities for improvement identified in the audit. 	This IEA
5.2	Audit reports submitted to the lead regulator must be certified by the lead auditor on an attached 'Independent Audit Submission Form'	Appendix A
5.3	Copies of the final audit report to be distributed to regulatory agencies within two weeks of finalisation and placed on the development's website.	LC Responsibility
6	The operator of the development to respond to the lead regulator responding to the audit findings and recommendations with an action plan within four weeks of receiving the final audit report.	LC Responsibility

Table 3
Audit Guidelines Risk Levels for Non-Compliances

Risk Level	Colour Code	Description
High		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium		Non-compliance with: <ul style="list-style-type: none"> potential for serious environmental consequences, but is unlikely to occur; or potential for moderate environmental consequences, but is likely to occur
Low		Non-compliance with: <ul style="list-style-type: none"> potential for moderate environmental consequences, but is unlikely to occur; or potential for low environmental consequences, but is likely to occur
Administrative non-compliance		Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

1.5.3 Consultation with Relevant Agencies

During the preparation for this IEA, input was sought from regulatory agencies to confirm any areas of compliance or environmental management at CVC that should be a particular focus. The following agencies were approached for input as part of the scoping phase of this IEA:

- DP&E;
- Environment Protection Authority (EPA);
- NSW Trade and Investment, Department of Resources and Energy (DRE);
- Office of Environment & Heritage (OEH);
- Department of Primary Industries – Water (DPI – Water);
- WSC; and
- CVC Community Consultative Committee (CCC) Chairperson.

Where issues were raised during consultation, these are listed in **Table 4** along with reference to where each is addressed in this report.

Table 4
Agency Requirements

Ref	Requirement / Comment	Where Addressed
DP&E		
1.	The audit report should provide a detailed, comprehensive and rigorous assessment of all the requirements of the colliery's Development Consent, Environment Protection Licence and Mining Lease.	Section 3, Appendix E
EPA		
2.	No additional requirements	-
DRE		
3.	No additional requirements	-
OEH		
4.	SSD-5465 Schedule 3, Condition 19. The current status of the Biodiversity Enhancement Strategy and whether the Biodiversity Management Plan for the mine has been updated as per the current Statement of Commitments.	Appendix E
5.	SSD-5465 Schedule 3, Condition 20. Assess the effectiveness of the current monitoring programme to determine whether it can answer the questions of the results of current enhancement and restoration measures. For example, how robust is the data collection measurement? Have appropriate statistical measures been used to analyse the results?	Appendix E
6.	SSD-5465 Schedule 3, Cond 20(c). Have timeframes been placed on 'short, medium, and long term measures'? Have any areas with 'remnant vegetation and habitat' outside the Biodiversity Enhancement Area been identified? If so, where are they and can they be shown on a map?	Section 5.4, Appendix E
7.	SSD-5465 Schedule 3, Condition 20A. Has the Biodiversity Management Plan been updated as required by this consent condition? If so, when?	Appendix E
8.	SSD-5465 Schedule 4, Condition 1. Was an ecological monitoring program implemented in relation to unexpected subsidence of seagrass beds?	Appendix E
9.	SSD-5465 Schedule 4, Condition 2. Has the proponent developed more detailed performance indicators for mine subsidence?	Appendix E
10.	SSD-5465 Schedule 4, Condition 3. Has the provision of a biodiversity offset been triggered? If so, when? Where is it located? What are its biodiversity values? How has it been secured for conservation?	Appendix E
11.	Appendix 7. To what extent has the mapped extent of Swamp Oak forest downstream of the Sediment Dam been adversely effected by saline runoff from the colliery put top? What steps have been taken to improve the quality of water flowing over and through the land that supports Swamp Oak and other native vegetation in this area?	Section 5.5, Appendix E
DPI – Water		
12.	Do the relevant management plans adequately describe the water licensing requirements under the <i>Water Management Act 2000</i> / <i>Water Act 1912</i> , and compliance with these requirements?	Section 3, Appendix E

Ref	Requirement / Comment	Where Addressed
13.	Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?	Section 5.5, Appendix E
14.	Is the operation capturing and/or harvesting any clean water?	Section 5.5
15.	Has the proponent calculated its maximum harvestable right under the <i>Water Management Act 2000</i> ?	Section 6
16.	Is the capture of water in excess of the harvestable right?	Section 6
17.	Do any exemptions under the <i>Water Management (General) Regulation 2011</i> or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water?	Section 6
18.	If necessary, does the proponent hold water access licenses in the correct water sources under the relevant water sharing plan (for the take of surface water or alluvial groundwater), or licences under part 5 of the <i>Water Act 1912</i> (for the take of groundwater from non-alluvial aquifers), and do they hold sufficient quantity of entitlement under these licenses?	Section 6
WSC		
19.	No additional requirements	-
CVC CCC Chairperson		
20.	Interest in seeing that the VPA [Voluntary Planning Agreement] is put in place.	Section 3, Section 6

1.6 REPORT STRUCTURE

Section 1 provides an introduction, background, site description and layout of CVC, describes the requirement for this IEA and provides a guide to the structure of this report. This section also provides an overview of approved operations detailed in the EIS and modification documents approved for the development consents held for LC activities;

Section 2 of this report provides a tabular representation of key recommendations made during the previous independent audit and the status of their implementation;

Section 3 outlines the identified non-compliances and the status against CVC approvals and their supporting documents, modifications and other licences / approvals available for review at the time of the audit. This includes ranking of non-compliances risk levels in accordance with the Audit Guidelines;

Section 4 provides a discussion on management plans, programs and strategies available for review at the time of the audit;

Section 5 of this report discusses the effectiveness of the environmental management and mitigation strategies that are currently undertaken at CVC. General environmental performance is also discussed including monitoring results, field inspections performed during the site component of the audit, complaints and incidents; and

Section 6 provides a summary of key recommendations from the audit.

2 PREVIOUS AUDIT RECOMMENDATIONS & STATUS

The key recommendations made to address the non-compliances identified in the *Audit of Compliance to Project Approval 10_0161* (Exis, 2012) (2012 audit) and the status of each as at May 2016 are summarised in **Table 5**.

Table 5
2012 Key Audit Recommendations & Status

Ref	Recommendation	LC Response	Status
PA 10_0161*			
SCHEDULE 2 – ADMINISTRATION CONDITIONS			
COMMUNITY TRUST			
14.	Complete an audit of production figures and community fund calculations for 2012 to determine the source of discrepancy between production figures and the accrued amount in accounts figures. Improvement Observation: Consider developing a documented procedure/flowchart for the calculation of community fund accruals to ensure consistency in determining production figures and fund contributions.	LC had budgeted for the contribution of \$0.035 per tonne of ROM coal produced and accrued costs as required. Following the 2012 audit, LC reviewed the method used for determination of required payments.	LC has continued to accrue the required funding for the VPA in accordance with the approved method, however the required annual payments have not been made by March of each calendar year as the VPA is still to be established. (now S2, C12 of SSD-5465 (see Appendix E).
SUBSIDENCE			
Extraction Plan			
6 (m)	The Spontaneous Combustion Management Plan has been developed. Evidence of consultation with DRE in the development of this plan was not sighted.	The Spontaneous Combustion Management Plan is required as part of the Extraction Plan (Condition 6), however in the notes to Condition 6 it states; “An SMP that is approved by DRE prior to 31 December 2011 is taken to satisfy the requirements of this condition”. LC note that as an approved SMP dated 27/07/11 was in place, it was not considered necessary that this Spontaneous Combustion Management Plan be prepared in consultation with	Complete.

Ref	Recommendation	LC Response	Status
		DRE. LC will however prepare any future Spontaneous Combustion Management Plan in accordance with the requirements of the Extraction Plan in consultation with DRE.	
NOISE			
Noise Impact Assessment Criteria			
9.	Attended noise monitoring must be completed.	LC have commissioned Global Acoustics to undertake the attended monitoring for the Colliery in accordance with the approved Noise Management Plan. This attended noise monitoring is undertaken quarterly.	Complete. Attended noise monitoring undertaken during the audit period as required in accordance with SSD 5465.
Operating Conditions			
10 (b)	CVC should obtain more frequent access to meteorological data to allow for modification of work activities in accordance with this Clause if required.	LC gained access to a nearby weather station at Mannering Colliery, enabling data to be reviewed in real time via a web browser portal.	Complete. LC continue to utilise data from Mannering Colliery met. Station for day to day activities.
10 (c)	<p>The Approval requires CVC to achieve the INP lapse rate assessment and modify the operations when inversion conditions were present.</p> <p>It is the understanding of the auditor that there are very few meteorological stations in NSW which would meet this requirement of the INP due to the height of the mast required for monitoring. In addition, it is considered highly unlikely that local government approval would be granted for a 60m high tower in Chain Valley Bay.</p> <p>CVC should liaise with EPA to seek exemption from the requirement to carry out direct measurement of temperature lapse rate as per the INP. Suitable surrogate criteria should be developed to achieve similar results (AECOM in the EA identifies that this is a relatively frequent occurrence.)</p>	<p>LC has provided comments to the EPA relating to the EPL variation currently occurring. In response to this the EPA has inserted a condition in the draft licence which states "Stability category temperature inversion conditions are to be determined by the sigma theta method referred to in Part E4 of Appendix E of the NSW Industrial Noise Policy (EPA 2000)". LC will be able to comply with this requirement.</p> <p>It is also noted that the real-time noise monitoring system, as currently in place, has alerts set based on a noise level trigger. These alerts are reviewed and actioned if the noise source is determined to be directly attributable to the operation. Just as the noise trigger is applied irrespective of the meteorological conditions, so are the management responses mechanisms. As a consequence, noise impacts are automatically minimised under inversion conditions.</p>	Complete. LC continue to calculate temperature lapse rate and operate a real-time noise monitor.

Ref	Recommendation	LC Response	Status
10 (c)	CVC should complete the planned noise audit to comply with this condition.	LC commissioned the audit. A copy of the final report was provided to the Department on 29 April 2013 following receipt from the consultant.	Complete.
11 (c)	The Approval requires CVC to achieve the INP lapse rate assessment and modify the operations when inversion conditions were present. It is the understanding of the auditor that there are very few meteorological stations in NSW which would meet this requirement of the INP due to the height of the mast required for monitoring. In addition, it is considered highly unlikely that local government approval would be granted for a 60m high tower in Chain Valley Bay. CVC should liaise with EPA to seek exemption from the requirement to carry out direct measurement of temperature lapse rate as per the INP. Suitable surrogate criteria should be developed to achieve similar results (AECOM in the EA identifies that this is a relatively frequent occurrence.)	See above response to Condition 10 (c), Schedule 3.	Complete.
15	Air quality sampling using a volumetric sampler (RTD01) and one depositional dust monitoring point (DDG05) should be installed and made operational.	The fifth depositional dust gauge has been installed and in December 2013, a TEOM air quality monitor (LC reference: RTD001) was installed by LC at the Mannering Park Sewage Treatment Plant site to provide real-time PM10 data representative of the area surrounding CVC.	Complete.
17 (c)	Air quality sampling using a volumetric sampler (RTD01) and one depositional dust monitoring point (DDG05) should be installed and made operational.	See response above to Condition 15, Schedule 3.	Complete.
METEOROLOGICAL MONITORING			
18 (a)	Seek clarification from Mannering Colliery or install a meteorological station that complies with the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales guidelines.	The Mannering Colliery equipment complies with AM2 and AM4 but siting does not comply with AM1 due to proximity of vegetation. AM1 would be extremely difficult for anyone to comply with in the Lake Macquarie region in close proximity to CVC. For example, AM1 would require 100m distance between a 10m tall tree and the	Complete.

Ref	Recommendation	LC Response	Status
		weather station. Given the vegetation in the vicinity of the site, LC consider that it is not practical to comply with AM1.	
18 (b)	<p>The Approval requires CVC to achieve the INP lapse rate assessment and modify the operations when inversion conditions were present.</p> <p>It is the understanding of the auditor that there are very few meteorological stations in NSW which would meet this requirement of the INP due to the height of the mast required for monitoring. In addition, it is considered highly unlikely that local government approval would be granted for a 60m high tower in Chain Valley Bay.</p> <p>CVC should liaise with EPA to seek exemption from the requirement to carry out direct measurement of temperature lapse rate as per the INP. Suitable surrogate criteria should be developed to achieve similar results (AECOM in the EA identifies that this is a relatively frequent occurrence.)</p>	See response to Condition 10 (c), Schedule 3.	Complete.
TRANSPORT			
Maintenance of Ruttleys Road and Scenic Drive			
24	The Road Maintenance Agreement for Ruttleys Road must be completed.	<p>The Ruttleys Road dilapidation report was completed and provided to WSC along with a finalised copy of a recommended road maintenance agreement for review by WSC.</p> <p>WSC provided advice to LC dated 13/2/13 stating that comments had not been received from all internal stakeholders but that the initial comments received had been positive and accordingly finalisation should occur fairly quickly.</p>	<p>Complete.</p> <p>Road Maintenance Agreement between LC and WSC executed on 01/07/13.</p> <p>2014 and 2015 payments were made in February 2016 (see S2, C19 of SSD-5465 in Appendix E).</p>
SOIL AND WATER			
NOTE	The groundwater extraction licence is to be obtained by CVC to ensure compliance with this clause for current dewatering of the mine.	LakeCoal received the groundwater bore licence 20BL173107 from the NOW on 12/03/13 (approximately 17 months after the application was	Complete.

Ref	Recommendation	LC Response	Status
		lodged).	
Surface Water Discharges			
27	CVC should liaise with EPA to agree to changes to the EPL water monitoring point description or water sampling point(s) to ensure compliance with this clause.	LC has undertaken a significant program of works to upgrade and improve the discharge dam arrangements, including the completion of earthworks on the final dam wall and spillway and the installation of new monitoring equipment to more accurately record the volume and quality of water being discharged from site. The completion of these works were reflected in a variation of EPL 1770 approved in May 2015.	Complete. Viewed the completed improvement works during the site inspection component of this IEA.
HERITAGE			
Heritage Management Plan			
35 (b)	CVC should finalise heritage management consultations and submit the Heritage Management Plan for approval of the Director-General.	The Heritage Management Plan (HMP) was finalised based on consultation with Aboriginal stakeholders and submitted to the Director-General for approval on the 20/11/12.	Complete.
VISUAL			
Visual Amenity and Lighting			
36 (c)	The site should to undertake an assessment under AS4282 to ensure external light impacts are consistent with this Clause. Improvement Observation In view of the location adjacent to Vales Point Power Station, this condition seems excessive and CVC may wish to seek exemption from the Director-General.	LakeCoal will engage a suitable person with experience in the area of external lighting to undertake an assessment of compliance with this condition and make recommendations, considering the context of the local lighting environment, for any items determined not to be complying with AS4282.	Complete. During the 2012-13 reporting period, an audit in accordance with AS 4282 was undertaken (see S3, C22 of SSD-5465 in Appendix E).

Note: PA 10_0161 superseded by SSD-5465 (as modified)

3 NON-COMPLIANCES AGAINST APPROVALS & LICENCES

This section provides a discussion on the identified non-compliances and status against SSD-5465 (MOD2) and other licences approvals available for review at the time of the audit.

Table A of **Appendix E** provides a complete tabulated list of conditions of SSD-5465 (MOD 2), noting the compliance status and providing comments against each.

Table B of **Appendix E** provides a list of the other licences and approvals assessed as part of this IEA, with the compliance status and comments against each.

Table C of **Appendix E** provides a list of the management commitments included in approved LC management plans for CVC, with notes against the compliance status of each.

A summary of the identified non-compliances against each document is summarised below in **Table 6**. This includes the non-compliances identified in the review of LC noise management related approval conditions and management performance undertaken by Bridges Acoustics (2016), which is included in full as **Appendix F**. Included in **Table 6** is a ranking of the non-compliances risk levels in accordance with the requirements outlined in Table 2 of the Audit Guidelines. Further context around the identified non-compliances is included in **Appendix E**, with any recommendations arising from the non-compliances included in **Section 6**, if required.

Table 6
Non-Compliances Identified

Ref	Non-Compliance	Risk Level
SSD-5465 (MOD 2)		
Schedule 2, Condition 2A	A number of non-compliances with the conditions of SSD_5465 and two with regard to the statement of commitments have been identified by the IEA.	Low
Schedule 2, Condition 11	VPA not executed with WSC within 12 months of the date of SSD-5465 (i.e. 23/12/14).	Administrative
Schedule 2, Condition 12	Required annual community enhancement payments not made by the end of March of each calendar year during the audit period.	Administrative
Schedule 2, Condition 15	No evidence available at the time of audit to confirm that the new stacker conveyor constructed during the audit period was constructed in accordance with BCA and MSB requirements.	Administrative
Schedule 2, Condition 17	Hydrocarbon containment structures at the CVC pit-top backset shed found to not be maintained in a proper and efficient manner during an EPA inspection on 4 March 2014.	Medium
Schedule 2, Condition 19	Road Maintenance Fee payments to WSC for 2014 and 2015 were made outside of the agreed period required under the Road Maintenance Agreement with WSC.	Administrative
Schedule 3, Condition 2	No evidence of RMS and DP&E approval of the proposed Ruttley's Road/Construction Road intersection upgrade available at the time of audit. Approval from WSC was noted.	Administrative

Ref	Non-Compliance	Risk Level
Schedule 3, Condition 2	Construction works for the Ruttley's Road/Construction Road intersection upgrade were completed on 14/08/14, outside of 6 months of the date of approval of SSD-5465 (i.e. 23/06/14).	Administrative
Schedule 3, Condition 7	Two 1dB noise exceedances were recorded at location ATN007 during attended monitoring in March 2013 and November 2013.	Low
Schedule 3, Condition 8	No evidence available that CVC are using its best endeavours to achieve the long-term noise goals in Table 2 of SSD_5465 with monitoring results showing intermittent exceedances of the long term noise goals during the audit period.	Low
Schedule 3, Condition 16	During the audit period there were two non-compliances related to exceedance of discharge water quality criteria, resulting in non-compliance with the requirements of Section 120 of the POEO Act.	Low
Schedule 3, Condition 17	Evidence not available at the time of audit to confirm that the septic system for the bathhouse is managed to the satisfaction of the EPA. There was also an exceedance of the faecal coliform criteria in April 2014, with a result of 540 CFU recorded (in exceedance of the 200 CFU criteria).	Medium
Schedule 5, Condition 1	The landholder located at R22 was not notified 'as soon as practical' following the receipt of November 2014 attended noise monitoring results showing an exceedance of the relevant noise criteria.	Administrative
Schedule 6, Condition 1	The EMS was prepared following the initial approval and submitted to DPE on 23 July 2013. No evidence was available to confirm that it has been approved as required by this condition or that any follow up has been undertaken. Further it has not been updated or resubmitted following the approval of MOD 1 (approved 24/11/14) or MOD 2 (approved 16/12/15).	Low
Schedule 6, Condition 2	The following exceedances of criteria were recorded: <ul style="list-style-type: none"> Two 1dB noise exceedances were recorded at location ATN007 during attended monitoring in March 2013 and November 2013; and Hydrocarbon containment structures at the CVC pit-top backset shed found to not be maintained in a proper and efficient manner during an EPA inspection. 	Medium
Schedule 6, Condition 4	2013 and 2014 Annual Review reports not submitted by the end of March of the respective reporting periods.	Administrative
Schedule 6, Condition 7	No evidence available at the time of audit to confirm that TSS (water quality) exceedance incident recorded in May 2015 was reported to DP&E within 7 days from the date they occurred.	Low
SSD-5465 Statement of Commitments		
Economic	Payment of annual contributions and execution of the LC VPA with WSC not executed within the required timeframes.	Administrative

Ref	Non-Compliance	Risk Level
EPL 1770		
Condition L2.4	The following exceedances were identified against this condition: <ul style="list-style-type: none"> One exceedance of the faecal coliform criteria was recorded in April 2014 monitoring, with a result of 540 CFU recorded (in exceedance of the EPL criteria of 200 CFU); and Water quality sampling on 12/05/15 at the LDP recorded a TSS result of 114 mg/L (in exceedance of the EPL 1770 criteria of 50 mg/L). 	Medium
Condition L3.1	Exceedances of the daily discharge limit of water from site identified on 27/01/13, 4/04/15 and 21/05/15.	Low
Condition L5	Two 1dB noise exceedances were recorded at location ATN007 during attended monitoring in March 2013 and November 2013.	Low
Condition L5	A comparison of noise criteria in Schedule 3 Condition 7 of SSD-5465 and Conditions L5.1 and L5.2 of EPL 1770 shows a substantial difference in the night noise criteria for Receptor R22.	Low
Condition M4.1	The locations approved for noise monitoring in the NMP are inconsistent with the locations required under the EPL 1770.	Low
Condition M8	Exceedance of daily volume discharge limits from the sites licenced discharge point on 12/06/13, 13/06/13 and 26/06/13 due to a failure to respond to alarms that dewatering pumps should be disabled.	Low
Conditions O.1.1, O2.1	Hydrocarbon containment structures at the CVC pit-top backset shed found to not be maintained in a proper and efficient manner during an EPA inspection.	Medium
Condition R2	LC provided a written incident report to EPA on the 27/05/15 regarding a TSS water quality criteria exceedance on 12/05/15. LC was notified of the exceedance on 19/05/15. The report was submitted outside of the 7 day response period required under the condition.	Administrative
Condition U1.1	LC provided the required PRP4 outcomes report to the EPA after the required submission date of 30/12/14.	Administrative
Water Licence 20BL173107		
Condition 4	No evidence could be found to indicate that NOW approval of water budgets at least one month prior to the commencement of each water year had been obtained at the time of audit.	Low
Condition 5	NOW approval of a Groundwater Monitoring and Contingency Plan within six months of the date of issue of 20BL173107 was not able to be verified at the time of audit.	Low
Condition 12	No evidence available at the time of the audit to confirm NOW approval of the U/G dewatering measurement devices (flow meters) utilised by CVC.	Low
Condition 13	No evidence could be found to indicate that a stand-alone Annual Compliance Report on licenced activities had been completed by LC during the audit period.	Low

4 MANAGEMENT PLANS, PROGRAMS AND STRATEGIES

The approvals for CVC require preparation and implementation of a series of management plans and procedures.

All currently approved management plans and associated procedures developed for CVC in accordance with the requirements of SSD-5465 (MOD 2) were reviewed during this IEA.

LC documents reviewed included the following:

- LC Environmental Policy;
- Environmental Management Strategy;
- Noise Management Plan;
- Air Quality Management Plan;
- Water Management Plan;
- Biodiversity Management Plan;
- Heritage Management Plan;
- Rehabilitation Management Plan;
- Extraction Plan and Subsidence Management Plan (MW 7 to MW 12);
- Benthic Communities Management Plan;
- Seagrass Management Plan;
- Coal Haulage Traffic Management Plan (including Coal Haulage Driver Code of Conduct); and
- Mining Operations Plan (current version dated 13/03/15 for the period 2015 – 2018).

The status of each plan against the requirements of SSD-5465 is provided in **Table A** of **Appendix E**.

Identified non-compliances are discussed in **Section 3**, with any recommendations in relation to each included in **Section 6**.

5 ENVIRONMENTAL MANAGEMENT & MITIGATION EFFECTIVENESS

This section provides a general review of environmental management and mitigation effectiveness at the site. It provides a discussion on the key issues based on the findings of the documentation review and site visit including general environmental management, air quality and noise management, water management, complaints and incidents summary and environmental monitoring.

5.1 SURFACE INFRASTRUCTURE AREAS

The site inspection component of the audit was conducted on 3 May 2016 and included a review of the CVC surface facilities area and surrounds. WC was the main LC representative present during the site inspection. The inspections involved a walk-around of the administration, workshop, hardstand areas and water management system infrastructure.

It also included an inspection of the operational areas where corrective actions were identified by the EPA, DRE and DPE during regulatory inspections that were completed during the audit period. The key operational areas where corrective actions had been made in response to issues identified by the regulators during the audit period included the following:

- Hydrocarbon storage and handling;
- Treatment of material removed from the oil / water separator system;
- Water management at the LDP01 control dams (see **Section 5.5**); and
- General waste management and housekeeping.

During the inspection, the CVC office complex, workshop area and pit top area were found to be generally well maintained. Hydrocarbon management measures were being implemented effectively, with spill and containment kits available for use as required. The pit top fuel storage areas and fill point adjacent to the workshop were appropriately bunded, with minimal accumulation of hydrocarbons within the bunded area (see Plate 1 of **Appendix G**).

Segregation of waste was also observed to be well managed and implemented across the site, including for the waste storage areas adjacent to the workshop. During the audit period, LC has implemented several improvements to the management and storage of hydrocarbons and hydrocarbon-contaminated waste (largely in response to issues raised by regulators inspections), including the construction of an oil storage shed (see Plate 2 of **Appendix G**) and measures for the storage and processing of waste oil cans (see Plate 3 of **Appendix G**).

WC also pointed out the works that have been undertaken in response to the incident identified by the EPA in March 2014 that resulted in hydrocarbon contaminated water flowing from a sump and collection tank at the backset storage shed (see Plate 4 and Plate 5 of **Appendix G**). WC (pers comm) confirmed that the external sump is regularly inspected by the waste contractor and by LC Environmental staff to ensure that there is no build-up of fines in the collection sump.

The status of the oil / water separator bay and sump were also reviewed during the site inspection and were seen to be well maintained (see Plate 6 of **Appendix G**). During the inspection of the wash bay area and oil separator system WC (pers comm) advised that skip bins were being utilised in a trial to dry out contaminated sludge from the washbay sump. The trial involved placing contaminated material into the skip bins (which are located in the wash bay). Water is drained from the material under gravity. Once the material is dry enough it is tested by the sites waste management contractor (Remondis) until it meets the appropriate waste classification before being removed and disposed of offsite. WC (pers comm) confirmed that the trial was initiated in response to a request from DP&E following their inspection of the site in June 2015 that an appropriate procedure is put in place by LC for a strategy to deal with contaminated material from this area. At the time of audit, both skips in place next to the waste oil separator were full and awaiting test results to determine the appropriate offsite disposal to be carried out by the waste management contractor (see Plate 7 of **Appendix G**). It is recommended that LakeCoal investigate onsite bioremediation options for this material to avoid substantial offsite waste costs. LC should also continue to consult with DP&E regarding the findings of the trial and document the preferred procedure for hydrocarbon waste management on site.

In general, a good standard of housekeeping was observed at the pit top area (see Plate 8 of **Appendix G**). WC (pers comm) noted the efforts made by LC to resolve a number of general housekeeping issues noted by regulatory inspections during the audit period. This has included internal auditing of materials stored in the workshop and pit top areas and disposal of surplus or waste materials by the LC waste contractor. Areas of the site where carbonaceous materials are stockpiled near the boundary of the pit top area have also been delineated by concrete blocks to ensure that the material is appropriately stored on site and does not encroach further into the surrounding bushland (see Plate 9 of **Appendix G**). LC should continue the process of regular internal inspections of the pit top area providing actions to relevant personnel to support the positive efforts made during the audit period to improve general housekeeping at the pit top area.

5.2 NOISE

Bridges Acoustics were engaged to complete a noise audit as required by Schedule 3, Condition 8e of the Development Consent which is reproduced below:

8(e) carry out a comprehensive noise audit of the development in conjunction with each independent environmental audit

The noise audit comprised of a desktop review of relevant documents that were supplied for the audit period and is included in full in **Appendix F**.

The noise audit as completed by Bridges Acoustics has indicated compliance with the relevant project approval conditions. Review of supplied data indicates that CVC is generally well managed from an environmental noise compliance perspective (see **Appendix F**)

The noise audit did note however that there were intermittent exceedances of the non-mandatory long term noise goals (noted in Schedule 3 Condition 8d of SSD-5465) that

occurred over the audit period. During this assessment it was identified that additional measures could be undertaken to reduce noise levels from the operation. It was noted that noise levels from the vent fan have actually increased, on average, over the last three years. Attention is required to meet these long term noise goals as required by SSD-5465 Schedule 3, Condition 8d which requires LC to use its “best endeavours” in this regard.

Bridges Acoustics reviewed the CVC noise management plan and noted that it addressed the requirements of SSD-5465 and is considered adequate.

With regard to the review of EPL 1770, Bridges Acoustics identified that the night noise criterion at R22 (EPA Point 23) was incorrectly specified in EPL Condition L5.1 as 36 LAeq,15min rather than 46 LAeq,15min as set by the Project Approval. Measured noise levels at R22 complied with the correct limit of 46 LAeq,15min during all time periods.

A number of recommendations were made by Bridges Acoustics following their review (see **Appendix F**) and these have been included in **Table 7** in **Section 6**.

5.3 AIR QUALITY

The audit inspection of the surface facilities demonstrated that emissions of visible dust are being minimised, with a water cart viewed in operation on unsealed areas adjacent to the site office, the workshop and on the internal coal haulage areas. Water sprays were also seen to be in place on the coal transfer conveyor and the stacker conveyor was also constructed during the audit period to minimise emissions from the stockpiling of product coal prior to loading.

WC (pers comm) also confirmed that a road sweeper is regularly used on the site access road to prevent a build-up of any fine material deposited from trucks leaving the site, which also minimises potential dust emissions from that area. At the time of audit, the access road was seen to be well maintained, and no build-up of coal fines was observed.

In December 2013, a TEOM air quality monitor (LC reference: RTD001) was installed by LC at the Mannering Park Sewage Treatment Plant site to provide real-time PM₁₀ data representative of the area surrounding CVC. Data recorded from this monitoring site is able to be viewed by LC staff and WC demonstrated the web portal where the data is available. WC (pers comm) also confirmed that an automated alarm is generated when PM₁₀ results reach trigger levels. On the trigger level being reached, a review of CVC activities is undertaken to assess if any actions to reduce air quality impacts can be undertaken.

At the time of the audit LC were also investigating the use of a chemical dust suppressant product for the pit top area. WC (pers comm) confirmed that the objective of the trial is to investigate the effectiveness of a dust suppressant product in reducing dust emissions from the pit top area and also in minimising the need to operate a water cart full-time (reducing water usage). It is recommended that the results of any trial are presented in the relevant CVC Annual Review.

5.4 BIODIVERSITY & LAND MANAGEMENT

5.4.1 Biodiversity Enhancement Area

An inspection of the Northern Zone of the CVC Biodiversity Enhancement Area (BEA) confirmed that LC had undertaken weed control works as described in the CVC Biodiversity Management Plan, with the dieback of weed species including lantana, pampas grass, croften weed and bitou bush following treatment evident in the BEA. It was also noted that the BEA was largely free of rubbish following LC clean-up activities undertaken during the audit period. WC (pers comm) noted that following the completion of weed controls and rubbish removal, LC would investigate options for the regeneration of target native species within the BEA consistent with the requirements in the CVC Biodiversity Management Plan. It is recommended that these works be progressed and documented in the sites Annual Review. WC also confirmed that areas with 'remnant vegetation and habitat' outside the Biodiversity Enhancement Area have been identified and are shown on Figure 4 in the Biodiversity Management Plan.

5.4.2 General Weed Management

During the inspection of the surface facilities area, several small areas requiring weed management were observed (see Plate 10 of **Appendix G**). These areas were generally located on berms or temporary stockpiles located on the perimeter of the CVC pit top area. It is recommended that these areas are reviewed by LC as part of the regular Environmental Inspection process and treated to minimise the potential for the spread of weeds from the site into adjacent areas.

5.5 WATER MANAGEMENT

5.5.1 General Water Management

A key component of the water management system on site is the control dams and EPL discharge point (LDP 01) for the water extracted from the underground workings. As part of the pit top area inspection, the dewatering infrastructure, control dams and discharge point infrastructure were reviewed. During the audit period, LC has undertaken a significant program of works to upgrade and improve the discharge dam arrangements, including the completion of earthworks on the final dam wall and spillway and the installation of new monitoring equipment to more accurately record the volume and quality of water being discharged from site. The completion of these works were reflected in a variation of EPL 1770 approved in May 2015.

At the time of audit, the dams and upgraded discharge point were inspected and no evidence of seepage from the final dam wall was observed, with water leaving site only via the approved LDP01 discharge point on the final dam. The upgraded monitoring system for the final dam spillway was also observed in operation (see Plate 11 – Plate 12 of **Appendix G**). With the completion of upgrade works for the final dam, it is recommended that the remaining sections of sediment fencing left in place post-construction (see Plate 13 of **Appendix G**) are removed.

In response to the three incidents that occurred in the audit period where the daily extraction limit from site was exceeded (see **Section 3**), LC have implemented a system to monitor the daily dewatering of the underground in real-time. During the site inspection, the CITECT system available in the Operations Room was seen to be tracking the current and previous day's extraction volumes from the two dewatering pumps in operation (see Plate 14 of **Appendix G**). WC (pers comm) explained that the volume of water discharged from each pump is controlled via the sites Citect system and that the pumps were setup to automatically turn off when discharge volumes reached 10.5ML in a 24 hour period in order to keep dewatering within the approved daily limits.

During the site inspection, WC also indicated a number of diversion berms that have been constructed or enhanced during the audit period to capture water from the pit top area and divert clean water around the site. At the time of audit, the water diversion berms and drains were well maintained and appeared to be working effectively in the containment of water captured from the pit top area in the CVC water management system.

5.5.2 Waste Water Management

One component of the waste water management system on site involves an aerated wastewater treatment system for the administration offices. Under this system (maintained by a LC-appointed contractor), wastewater from the CVC administration building wastewater tank is treated and discharged onto a dedicated irrigation area. At the time of audit, the system was in operation, with the irrigated area delineated and signposted as required (see Plate 15 of **Appendix G**).

WC (pers comm) noted that at the time of audit, the system for the treatment of water from the bathhouse prior to discharge into the site control dams was under review and was subject to a separate pollution reduction program under EPL1770. To address this issue, LC is intending to install a private rising sewer main which will connect to the local council sewer system.

5.6 COMPLAINTS

28 community complaints were received by LC during the audit period, including three in November and December 2012, seven in 2013, seven in 2014 and eleven in 2015. The majority of the complaints were in relation to the haulage of product coal from CVC on public roads and due to noise from coal loading operations at the CVC ROM pad. It was noted that both of these activities will be significantly reduced once the underground link road is constructed between CVC and Mannering (estimated late 2016) and all coal is conveyed underground to Mannering for transport to Vales Point Power station via overland conveyor.

A review of community complaints response procedures during the audit confirmed that LC continue to implement a procedure to record and respond to complaints received. The Annual Review documents prepared during the audit period each include a section that summarises each complaint received and the action(s) taken by LC in response.

A register of community complaints received during the audit period is also maintained on the CVC website, with contact details provided for a 24 hour complaints and enquiries line where concerns regarding site operations can be raised.

5.7 INCIDENTS

During the inspection of the pit top area, it was noted that a series of duty cards are available to all personnel in the CVC Operations Room (see Plate 16 of **Appendix G**) as part of the sites Emergency Management System. Duty Card 15 (dated 15/04/16) provides a response procedure to be followed in the event of a significant environmental and / or pollution incident.

At the time of audit, LC were preparing an internal Bushfire Management Plan to reflect the CVC Asset Protection Zone, in consultation with Delta Electricity (owners of Vales Point Power Station). This is not a requirement of SSD-5465, however it represents an active response from LC toward the management of access and bushfire response surrounding the CVC Asset Protection Zone.

A summary of environmental incidents was also included in the audit period Annual Reviews (2012 – 2015).

5.8 ENVIRONMENTAL TRAINING

During the audit, WC provided an overview of the environmental training provided to LC employees and contractors. As part of this review, HB reviewed examples of training materials and attendance registers, including a '*General Environmental Awareness Training*' package from December 2015. WC (pers comm) confirmed that this training package was delivered to all relevant CVC staff and contractors and the presentation included details on relevant legislation, key environmental management issues, pre-clearance requirements and procedures to respond to incidents and community enquiries. WC (pers comm) also confirmed that the training is supported by a competency review completed by the attendees.

WC and BJ (pers comm) also presented examples of completed LC 'Job Safety Observations', which are required to be completed prior to starting each task on site by the person(s) doing the work. During the audit period, the LC 'Job Safety Observations' and '10 Seconds for Safety' procedures has been amended to include consideration of environmental controls, as well as actions for the management of health and safety. Environmental controls and management infrastructure at the CVC pit top area are also reviewed during regular inspections of the site by LC environmental staff.

During the audit, it was also noted that LC have implemented *POL-D-14926 Coal Haulage Driver Code of Conduct* (Driver Code of Conduct), which applies to all personnel involved in the transport of coal from CVC to domestic destinations via public roads. The policy provides detail on regulatory and behavioural requirements for all CVC coal haulage truck operators, including a designated route to access the PWCS site in Newcastle. WC (pers comm) confirmed that all haulage operators are required to complete a Coal Haulage induction and

briefing, which requires all drivers signing a declaration stating their understanding of the Driver Code of Conduct.

Further, based on a review of site documentation and correspondence records, it was noted that LC generally take a proactive approach to their communications with all key regulatory agencies by keeping them well informed of site performance and in addressing any issues raised in a timely manner.

6 AUDIT RECOMMENDATIONS

Table 7 includes a list of required actions arising from each of the non-compliances from this IEA, along with recommendations related to continuous improvement opportunities identified.

In accordance with the Audit Guidelines, **Table 7** also provides a risk assessment level to assist LC staff in responding to each recommendation.

Table 7
Audit Recommendations

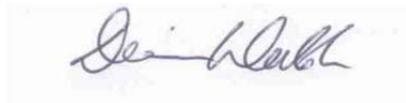
Ref	Recommendation Description	Risk Level
SSD-5465		
Non-Compliances		
Schedule 2, Condition 11	Continue consultation with WSC to finalise the required Voluntary Planning Agreement as soon as possible.	Administrative
Schedule 2, Condition 12	Progress payment of the annual Community Enhancement contributions once the WSC VPA is executed.	Administrative
Schedule 2, Condition 15	Obtain relevant BCA and MSB certification/approvals for the stacker conveyor which was constructed during the audit period.	Administrative
Schedule 2, Condition 19	Ensure that future payments of the required Annual Road Maintenance Contribution are paid within the nominated timeframes required under the agreement.	Administrative
Schedule 3, Condition 2	Consult with RMS and DP&E and gain written confirmation that the Ruttleys Road and Construction Road intersection works are to their satisfaction.	Administrative
Schedule 3, Condition 8	Report progress on achieving the long term noise goals in each Annual Review (as required by SSD-5465 Schedule 3, Condition 8d).	Low
Schedule 6, Condition 1	The EMS should be updated to reflect the current status of CVC activities approved under SSD-5465 (MOD2) and seek to have the revised EMS approved by DPE.	Administrative
Continual Improvement		
Schedule 2, Condition 1, Schedule 3, Condition 17	LC should continue the process of regular internal LC inspections of the pit top area providing actions to relevant personnel to support the positive efforts made during the audit period to maintain a high level housekeeping at the pit top area.	Low
Schedule 3, Condition 8(d)	Investigate the noise levels from the vent fan site which have, on average, over the last three years increased and implement any corrective measures such as replacement or repair of silencers or other noise attenuation components, if required.	Low
Schedule 3, Condition 8(e)	Update this condition at the next Modification of SSD-5465 to include the requirement for a noise review as part of the relevant condition under SSD-5465 for the IEA (currently Schedule 6, Condition 9).	Administrative
Schedule 3, Condition 11	Report on the findings of the proposed chemical dust suppression trial in the Annual Review.	Administrative

Ref	Recommendation Description	Risk Level
Schedule 3, Condition 19	Report on the progress of enhancement works in the Biodiversity Enhancement Area in the Annual Review.	Administrative
Schedule 3, Condition 23	LC should continue its wash bay maintenance regime to ensure that adequate capacity is available for the system to operate effectively. LC should also continue to consult with DP&E regarding the findings of the trial and document the preferred management strategy for the management of hydrocarbon contaminated waste from this area for DP&E Approval.	Low
Schedule 3, Condition 23	LC should regularly review waste minimisation and recycling opportunities to continue improvement towards maintaining and improving the target recycling rate of 60%.	Low
Schedule 6, Condition 4	Include both the attended noise monitoring location (e.g. ATN002) and receptor identification (e.g. R12) in the results tables in the Annual Review to assist readers in interpreting the results.	Low
Schedule 6, Condition 4	Ensure the investigation into noise mitigation options mentioned in the 2015 Annual Review includes noise emissions from the pit top area to Receptors R11-13, as attended noise monitoring indicates noise levels do not always meet the SSD-5465 long term noise goals at these receptors.	Low
Schedule 6, Condition 4	Future ARs should be prepared to meet the requirements of the DPE Annual Review Guidelines.	Administrative
Schedule 6, Condition 6	Consult with DP&E and existing community representatives regarding the consolidation of the two CCC's for CVC and Mannering Colliery into a single body.	Administrative
Schedule 6, Condition 7	Develop a procedure/checklist that outlines the respective regulatory agencies and (if relevant) landholders to be notified in the event of environmental incidents on site.	Administrative
General Observation	It is recommended that the areas found to have weed infestations during the site inspection be added to the Environmental Inspection process and treated to minimise the potential for the spread of weeds from the site into adjacent areas.	Low
General Observation	Calculate the maximum harvestable right for CVC under the <i>Water Management Act 2000</i> to determine if excess water is being captured on site. LC should consult with DPI-Water regarding the findings of this review, once completed.	Low
General Observation	With the completion of upgrade works for the final dam, it is recommended that the remaining sections of sediment fencing left in place post-construction are removed.	Low
EPL 1770		
Condition A2.1	Provide an updated 'EPL Premises Plan' to the EPA, including the addition of a location for LDP27 as approved in 2015.	Administrative
Condition M4.1	Consult with the EPA regarding the noise limits inconsistency at location R22 and vary EPL1770 to be consistent with the NMP to ensure compliance with Condition M4.1.	Low
Condition M4.1	Ensure attended noise surveys are undertaken at least 2 months apart.	Administrative

Ref	Recommendation Description	Risk Level
Condition M4.1	Ensure one noise survey per year complies with Condition M4.1(f, h)	Low
Water Licence 20BL173107		
Conditions 4, 13	Consult with NOW regarding their expectations regarding the annual approval of water budgets and LC compliance reporting against licenced activities	Administrative
Condition 12	Consult with NOW and obtain written advice that the methods used to monitor groundwater extraction from the operation are to their satisfaction.	Low

* * *

for
HANSEN BAILEY



Dorian Walsh
Senior Environmental Scientist



Daniel Sullivan
Senior Environmental Scientist

APPENDIX A
DP&E Certification Form

Independent Audit Certification Form	
Development Name	Chain Valley Colliery
Development Consent No.	SSD-5465 (as modified)
Description of Development	Chain Valley Colliery
Development Address	Construction Road, Vales Point NSW 2333
Independent Audit	
Title of Audit	Independent Environmental Audit, Chain Valley Colliery
<p><i>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> • <i>The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits</i> • <i>The findings of the audit are reported truthfully, accurately and completely;</i> • <i>I have exercised due diligence and professional judgement in conducting the audit;</i> • <i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</i> • <i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</i> • <i>I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i> • <i>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</i> • <i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i> <p>Note.</p> <p>a) <i>The Independent Audit is an ‘environmental audit’ for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead / Principal Auditor	Daniel Sullivan
Address	PO Box 473, Singleton NSW 2330
Email Address	dsullivan@hansenbailey.com.au
Auditor Certification (if relevant)	Exemplar Global International Certified Auditor 113202
Date:	22 July 2016

APPENDIX B
Regulatory Correspondence



Mr Wade Covey
Environmental & Community Coordinator
LakeCoal Pty Ltd
PO BOX 7115
MANNERING PARK NSW 2259


Dear Mr Covey

**Chain Valley Colliery
Independent Environmental Audit**

I refer to your email dated 29 January 2016 seeking approval to commission Hansen Bailey to undertake an independent environmental audit as required by the Chain Valley Colliery Development Consent SSD-5465.

The Department considers that the proposed audit team consists of suitably qualified, experienced and independent experts. In accordance with condition 9 of Schedule 6 of the Development Consent, the Secretary endorses the appointment of Daniel Sullivan and Dorian Walsh of Hansen Bailey to undertake the audit.

The Department expects the audit to be commissioned by 29 February 2016. The audit report should provide a detailed, comprehensive and rigorous assessment of all the requirements of the colliery's Development Consent, Environment Protection Licence and Mining Lease.

Should you have any enquiries in relation to the above, please contact Megan Dawson at the details above.

Yours sincerely



Howard Reed 29.1.16
Director
Resource Assessments
as the Secretary's nominee

APPENDIX C
Audit Itinerary

**Chain Valley Colliery
Department of Planning & Environment (DP&E)
Independent Environmental Audit**

ITINERARY

Site Component to be held Monday, 2 to Tuesday, 3 May 2016

Invitees

Craig Shales (CS)	Chain Valley Colliery	Mine Manager
Michael Callan (MC)	Chain Valley Colliery	Geotechnical Consultant
Tim Chisholm (TC)	Chain Valley Colliery	Surveyor
Wade Covey (WC)	Chain Valley Colliery	Environmental and Community Coordinator
Daniel Sullivan (DS)	Hansen Bailey	Lead Auditor
Dorian Walsh (DW)	Hansen Bailey	Auditor

DAY 1 – Monday, 2 May 2016

Time	Description	Location	Required Attendees
9:00am – 9:30am	Opening Meeting <ul style="list-style-type: none"> • Introductions • Purpose of Audit • Confidentiality Arrangements • Audit Process and Timing • Confirmation of Meetings and Inspection/s 	CVC Boardroom	WC, DS & DW
9:30am – 10:00am	Presentation on Chain Valley Operations in Audit Period <ul style="list-style-type: none"> • Presentation on operations (WC) 	CVC Boardroom	WC, DS & DW
10:00am – 12:00pm	Documentation Compliance Review <ul style="list-style-type: none"> • Review of Development Consent SSD-5465 (MOD2) 	CVC Boardroom	WC, DS & DW
12:00pm – 12:30pm	Lunch	CVC Boardroom	-
12:30pm – 4:00pm	Documentation Compliance Review (cont.) <ul style="list-style-type: none"> • Continue Review of SSD-5465 (MOD2) and Statement of Commitments • Review of key EA Commitments • Review of Activities against EA and MOP • Regulator Issues • Reportable Incidents and complaints • Training and Communications • Regulator Comments and other issues 	CVC Boardroom	WC, DS & DW TC for MOP

Time	Description	Location	Required Attendees
4:00pm – 5:00pm	Auditors Revision Day 1 and Preparation for Day 2	CVC Boardroom	DS & DW

DAY 2 – Tuesday, 3 May 2016

Time	Description	Location	Required Attendees
8:00am – 12:00pm	Documentation Compliance Review (cont.) <ul style="list-style-type: none"> Management Plans commitments review EPL 1770 Mining Authorities Water licences Extraction Plan and Annual Reviews 	CVC Boardroom	WC, DS & DW MC/TC (Extraction Plan, BFMP and MOP)
12:00pm – 12:15pm	Lunch	CVC Boardroom	-
12:15 pm – 2:00pm	Field Inspection <ul style="list-style-type: none"> Operations inspection Rehabilitation areas Main infrastructure areas (workshop, waste segregation, oil, wash-down, storage, etc.) Water & waste systems Aboriginal heritage management sites 	CVC Boardroom	WC, DS & DW
2:00pm – 3:00pm	Auditors Revision and Preparation for Closeout Meeting	CVC Boardroom	Nil
3:00pm – 4:00pm	Close Out Meeting <ul style="list-style-type: none"> Overview of findings (DS) Confirmation of outstanding items or documents required Confirm Audit Review and Completion Process 	CVC Boardroom	All

APPENDIX D
Audited Documentation

- EMM EMGA Mitchell McLennan (2013) *Chain Valley Colliery Mining Extension 1 Project, Environmental Impact Statement*
- EMM EMGA Mitchell McLennan (2013) *Chain Valley Colliery Mining Extension 1 Project, Response to Submissions*
- EMM EMGA Mitchell McLennan (2014) *Chain Valley Colliery Modification 1 Statement of Environmental Effects. Section 96 Modification to SSD-5465*
- EMM EMGA Mitchell McLennan (2014) *Chain Valley Colliery Modification 1 Statement of Environmental Effects, Response to Submissions. Section 96 Modification to SSD-5465*
- EMM EMGA Mitchell McLennan (2015) *Chain Valley Colliery Modification 2 Statement of Environmental Effects, Response to Submissions. Section 96 Modification to SSD-5465*
- Exis Sustainable Systems (2012) *Audit of Compliance to Project Approval 10_0161, EPL 1770 and ML 1051*
- LakeCoal (2012) *Chain Valley Colliery Annual Review 2011-2012 RPT-D-17023*
- LakeCoal (2012) *LakeCoal Policy Coal Haulage Driver Code of Conduct POL-D-14926*
- LakeCoal (2013) *Chain Valley Colliery Annual Review 2012-2013 RPT-D-17896*
- LakeCoal (2013) *Chain Valley Colliery FRM-D-17331 Response to Audit Findings*
- LakeCoal (2013) *Chain Valley Colliery Subsidence Management Plan – End of Year Report*
- LakeCoal (2013) *Environment Protection Licence 1770 Annual Return, 1 April 2012 to 31 March 2013*
- LakeCoal (2014) *Chain Valley Colliery Annual Review 2013 RPT-D-18710*
- LakeCoal (2014) *Chain Valley Colliery Coal Haulage Traffic Management System Plan MSP D-14559*
- LakeCoal (2014) *Chain Valley Colliery Environmental Management Strategy OMP-D-16374*
- LakeCoal (2014) *Chain Valley Colliery Noise Management Plan EMP-D-16370*
- LakeCoal (2014) *Chain Valley Colliery Heritage Management Plan EMP-D-16371*
- LakeCoal (2014) *Chain Valley Colliery Benthic Communities Management Plan EMP-D-16372*
- LakeCoal (2014) *Chain Valley Colliery Seagrass Management Plan EMP-D-16374*
- LakeCoal (2014) *Chain Valley Colliery Rehabilitation Management Plan EMP-D-16373*
- LakeCoal (2014) *Chain Valley Colliery Extraction Plan, MW 7 to MW 12*
- LakeCoal (2014) *Chain Valley Colliery Extraction Plan, MW 7 to MW 12*
- LakeCoal (2014) *Chain Valley Colliery Subsidence Management Plan – End of Year Report*
- LakeCoal (2014) *Complaint Register – 2013, LakeCoal – Chain Valley Colliery*
- LakeCoal (2014) *Environment Protection Licence 1770 Annual Return, 1 April 2013 to 31 March 2014*
- LakeCoal (2015) *Chain Valley Colliery Annual Review 2014 RPT-D-19251*
- LakeCoal (2015) *Chain Valley Colliery Link Road Built Features Management System Plan MSP-19193*
- LakeCoal (2015) *Chain Valley Colliery Mining Operations Plan 2015 – 2018 EMP-D-18187*
- LakeCoal (2015) *Chain Valley Colliery Water Management Plan EMP-D-16368*

- LakeCoal (2015) *Complaint Register – 2014, LakeCoal – Chain Valley Colliery*
- LakeCoal (2015) *LakeCoal Environment and Community Policy POL 00002*
- LakeCoal (2015) *Environment Protection Licence 1770 Annual Return, 1 April 2014 to 31 March 2015*
- LakeCoal (2016) *Chain Valley Colliery Air Quality Management Plan EMP-D-16369*
- LakeCoal (2016) *Chain Valley Colliery Annual Review 2015 REP 00008*
- LakeCoal (2016) *Chain Valley Colliery Biodiversity Management Plan EMP-D-16372*
- LakeCoal (2016) *Complaint Register – 2015, LakeCoal – Chain Valley Colliery*
- LakeCoal (2016) *Chain Valley Colliery Coal Haulage Records REG D-17083*. Accessed reports for the period Q4 2012 – Q1 2016 from the Chain Valley Colliery website.
- LakeCoal (2016) *Chain Valley Colliery, Monthly Environmental Reports*. Accessed reports for the period November 2012 – April 2016 from the Chain Valley Colliery website.
- Remondis (2015) *Total Waste Management Report, LakeCoal Chain Valley, August 2015*
- NSW Department of Planning & Environment (2015) *SSD-5465, as modified in December 2015*
- NSW Department of Planning & Environment (2015) *Independent Audit Guideline, Post-approval requirements for State significant developments*
- NSW Department of Primary Industries (2013) *Mining Lease No. 1632*
- NSW Environment Protection Authority (2016) *Environment Protection Licence 1770*. Licence Version date: 30-Oct-2015
- NSW Office of Water (2013) *Bore Licence 20BL173107*. Bore Licence Certificate under Section 115 of the *Water Act 1912*.
- Wyong Shire Council (2016) *draft Voluntary Planning Agreement, Wyong Shire Council and LakeCoal Pty Ltd*

APPENDIX E
Chain Valley Colliery Compliance Tables

Table A
Development Consent SSD-5465 (MOD 2) Compliance

Key

Red – November 2014 Modification

Blue – December 2015 Modification

Section	Sub-section	Requirement	Status	Comments
SCHEDULE 2				
ADMINISTRATIVE CONDITIONS				
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT	1.0	In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.	Compliant	The LC Environmental Management Strategy (EMS) document provides the framework for environmental management at Chain Valley. It also generally addresses the requirements of this Project Approval. Generally, there were some minor reportable incidents during the period as described below, however no material harm was shown to occur to the environment. Viewed the Lake Coal (LC) Environment and Community Policy (POL 0002) dated 23/09/15, as signed by Managing Director. WC (pers comm) confirmed the documents and procedures that are in place to support the Environment and Community Policy and the development consent. WC provided a copy of the latest CVC General Environmental Awareness Training package and attendance register dated December 2015. This training package was delivered to all relevant CVC staff and contractors and includes details on relevant legislation, key environmental management issues, pre-clearance requirements and procedures to respond to incidents and community enquiries. Viewed CVC Permit to Clear or Disturb Land (FRM D-17696) dated 20/08/14. WC (pers comm) confirmed that the form is required to be completed by the CVC Environment and Community Co-ordinator prior to any disturbance.
TERMS OF CONSENT	2.0	The Applicant shall carry out the development generally in accordance with the: (a) EIS;	Compliant	Operations at LC were undertaken generally in accordance with this document. See Section 1.4 of the main Audit Report which outlines the key components the EIS and

Section	Sub-section	Requirement	Status	Comments
		(b) SEE Mod 1; (c) SEE Mod 2; and (d) Project Layout Plans. <i>Note: The Project Layout Plans of the development are shown in Appendices 2 to 4 and Appendix 7A</i>		LC's operations during the audit period. Further the LC GDP process confirms all approvals in place prior to any works being undertaken on site (viewed example of a GDP dated 20/08/14).
	2.0A	The Applicant shall carry out the development in accordance with the: (a) Statement of Commitments; and (b) conditions of this consent.	Not Compliant	Operations at LC were undertaken generally in accordance with the statement of commitments (SOCs) made in the EIS and reproduced as Appendix 9 of the Development Consent. Compliance against each of the SOCs is provided below in this compliance table with a number of non-compliances identified. This compliance table and audit report addressed compliance against the conditions of this consent.
	3.0	If there is any inconsistency between the documents in condition 2, the more recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over the documents in conditions 2 and 2A(a) to the extent of any inconsistency.	Compliant	WC (pers comm) noted that no inconsistencies occurred during the audit period.
	4.0	The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted by the Applicant in accordance with this consent; and (b) the implementation of any actions or measures contained in these documents.	Compliant	Viewed correspondence from DP&E provided to LC following Annual Review assessment and inspections. These included: <ul style="list-style-type: none"> Letter from DP&E dated 10/06/14 requesting updates to the 2013 CVC Annual Review within 21 days. LC updated the document as requested; and Letter from DP&E dated 26/06/15 following the DP&E assessment of 2014 CVC Annual Review and a site inspection on 18/06/15. The letter requests additional information is included in the 2015 CVC Annual Review a number of actions be undertaken in maintenance of the surface facilities area. A summary of the actions implemented by LC in response to the DP&E inspection was included in the 2015 CVC Annual Review. Consultation between LC and DP&E regarding the management plans required under SSD-5465 is described below under the relevant conditions in Schedule 3 to Schedule 6.

Section	Sub-section	Requirement	Status	Comments
LIMITS CONSENT				
Mining Operations	5.0	The Applicant may carry out mining operations on the site until 31 December 2027. <i>Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or the DRE. Consequently this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.</i>	Compliant	Audit period occurs within the approval period of the consent.
Coal Extraction	6.0	The Applicant shall not extract more than 2.1 million tonnes of ROM coal from the site in any calendar year.	Compliant	ROM coal production during the audit period: <ul style="list-style-type: none"> 2012/13: 788,614 ROM tonnes (Annual Review); 2013: 923,106 ROM tonnes (Annual Review); 2014: 1,368,269 ROM tonnes(Annual Review); and 2015: 1,354,522 ROM tonnes (Annual Review).
Coal Transport – Public Roads	7.0	The Applicant shall ensure that no laden coal trucks are dispatched from the site to public roads outside of the hours of 5:30 am to 5:30 pm, Monday to Friday, and not at all on Saturdays, Sundays or public holidays.	Compliant	Haulage management procedures under Schedule 2, Conditions 7-10 are described in the Chain Valley Colliery (CVC) Coal Haulage Traffic Management System Plan MSP D-14559 dated 18/03/14 and the Coal Haulage Driver Code of Conduct POL-D-14926 dated 4/10/12. Compliance status of the plan is described under Schedule 3, Condition 3 below. WC (pers comm) outlined site weighbridge measures to ensure a minimum two-minute gap in each truck leaving site. Truck weighbridge data is recorded daily by the CVC Logistics Co-ordinator and summarised in the site Haulage Register. Haulage records are made publically available on the CVC website.
	8.0	The Applicant shall not dispatch from the site more than: (a) 660,000 tonnes of product coal in any calendar year to Port Waratah Coal Services for export; (b) 180,000 tonnes of product coal in any calendar year to domestic customers other than Vales Point Power Station; (c) a total of 270 laden coal trucks per day by public roads; (d) a total of 32 laden coal trucks per hour; and (e) an average of 16 laden coal trucks per hour by public roads during peak hour periods, calculated monthly, until the intersection of M1 Motorway and Sparks Road Interchange (East Side - unsignalised with stop sign) is upgraded to a signalised intersection.	Compliant	Coal volumes by destination are presented in each relevant Annual Review for the audit period and in the Quarterly Coal Haulage records available on the CVC website. Haulage to Port Waratah Coal Services (PWCS) and domestic destinations other than Vales Point Power Station (VPPS) were in accordance with maximum allowable volumes. Maximum daily truck movements per day were: <ul style="list-style-type: none"> 2012/13: 198 trucks (Annual Review); 2013: 213 trucks (Annual Review);

Section	Sub-section	Requirement	Status	Comments
				<ul style="list-style-type: none"> 2014: 219 trucks (Annual Review); and 2015: 225 trucks (Annual Review). <p>An independent traffic audit for the period August 2013 – July 2014 was completed by GHD in December 2014. The audit did not identify any major non-compliances. GHD also completed a <i>Fifth Independent Traffic Audit</i> dated February 2016 for the period August 2014 – July 2015. No major non-compliances were identified and toolbox talks were held with CVC haulage contractors to discuss their responsibilities.</p> <p>Reviewed coal haulage records. No haulage to VPPS via public roads occurred during the audit period.</p>
Coal Transport – Vales Point Power Station	9.0	<p>The Applicant shall ensure that only private roads are used for the transport of coal by truck to Vales Point Power Station, except in an emergency. In an emergency, product coal may be transported by public roads, with the prior written approval of the Secretary, and subject to any restrictions that the Secretary may impose.</p> <p>The Applicant shall restrict the transport of coal by truck to the Vales Point Power Station between 10 pm and 5:30 am to:</p> <p>(a) 16 laden trucks per hour for the Spring and Autumn months, and</p> <p>(b) zero during Winter months.</p>	Compliant	Reviewed CVC Quarterly Coal Haulage records for the audit period. All haulage occurred within approved times.
	10.0		Compliant	Viewed draft VPA on the Wyong Shire Council (WSC) website. VPA not executed with WSC within 12 months of the date of SSD-5465 (i.e. 23/12/14) as required.
PLANNING AGREEMENT	11.0	<p>Within 12 months of the date of this consent, unless otherwise agreed by the Secretary, the Applicant shall enter into a planning agreement with the WSC in accordance with Division 6 of Part 4 of the EP&A Act that provides for payment to the WSC for community enhancement purposes. The agreement must include provision for those matters set out in condition 12 below.</p> <p>If there is any dispute between the Applicant and WSC relating to the preparation or implementation of the planning agreement, then either party may refer the matter to the Secretary for resolution.</p>	Administrative Non Compliant	<p>Viewed a letter from LC to DP&E dated 20/10/15 providing a chronological summary of the regular consultation undertaken with WSC since October 2013 in attempting to finalise the VPA. The letter also seeks an extension from DP&E on the timing to finalise the VPA. WSC had previously accepted the proposed extension via a letter dated 20/10/15.</p> <p>WC also provided the latest correspondence between LC and WSC was dated 26/04/16.</p> <p>Viewed response letter from DP&E dated 21/10/15</p>

Section	Sub-section	Requirement	Status	Comments
				approving an extension for LC to finalise the VPA with WSC by 31/12/16.
COMMUNITY ENHANCEMENT	12.0	<p>The Applicant shall pay WSC \$0.035 for each tonne of product coal produced by the development for the purposes of improving public infrastructure and providing community projects for the communities of Summerland Point, Gwandalan, Chain Valley Bay and Mannering Park. Payments from the approval date of project approval 10_0161 must be:</p> <p>(a) made by the end of March, for coal produced in the previous calendar year;</p> <p>(b) made for each year that coal is produced by the colliery; and</p> <p>(c) subject to indexation in accordance with the Australian Bureau of Statistics Consumer Price Index.</p>	Administrative Non Compliant	<p>It is recommended that LC seek to finalise and enter into the VPA with WSC.</p> <p>Required annual payments not made by the end of March of each calendar year during the audit period. The draft VPA conditions (see Schedule 2, Condition 11 above) includes the condition for required monetary contributions.</p> <p>WC (pers comm) confirmed that monetary payments required under the condition have been accrued by LC. Viewed a copy of the accrual register maintained by LC, which shows accruals based on product coal volumes during the audit period.</p> <p>Once the VPA is finalised and signed it is recommended that LC pay all monies accrued to date as required to WSC.</p>
SURRENDER OF EXISTING PROJECT APPROVAL	13.0	<p>Within 12 months of the date of this development consent, unless the Secretary agrees otherwise, the Applicant shall surrender its project approval for the Chain Valley Colliery Domains 1 & 2 Continuation Project (10_0161) to the satisfaction of the Secretary, in accordance with section 75YA of the EP&A Act.</p>	Compliant	<p>Viewed letter from LC to DP&E dated 7/11/14 seeking to surrender Project Approval (PA) 10_0161. DP&E responded via letter dated 16/11/14 accepting the surrender of PA 10_0161.</p>
	14.0	<p>Prior to the surrender of the existing project approval, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of the existing project approval (10_0161).</p>	Compliant	
STRUCTURAL ADEQUACY	15.0	<p>The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structure, that are part of the development are constructed in accordance with:</p> <p>(a) the relevant requirements of the BCA; and</p> <p>(b) any additional requirements of the MSB where the building or structure is located on land within declared Mine Subsidence Districts.</p> <p>Notes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works; <input type="checkbox"/> Part 8 of the EP&A Regulation sets out the requirements for the certification of the development; and <input type="checkbox"/> Under Section 15 of the Mine Subsidence Compensation Act 1961, 	Administrative Non Compliant	<p>No evidence available at the time of audit to confirm that the new stacker conveyor developed during the audit period was constructed in accordance with BCA and MSB requirements.</p> <p>WSC provided approval of proposed intersection upgrades for the Ruttleys Road and Construction Road intersection upgrades (see Schedule 3, Condition 2).</p> <p>It is recommended that LC obtain relevant BCA and MSB certificates/approvals for the stacker conveyor.</p>

Section	Sub-section	Requirement	Status	Comments
		<i>the Applicant is required to obtain the MSB's approval before constructing any improvements in a Mine Subsidence District.</i>		
DEMOLITION	16.0	The Applicant shall ensure that all demolition work is carried out in accordance with <i>Australian Standard AS 2601-2001: The Demolition of Structures</i> , or its latest version.	Not triggered	No demolition works were undertaken during the audit period (WC pers comm). During a site inspection by EPA officers on 4/03/14, EPA officers noted a non-compliance against LC for the not ensuring the proper and efficient operation of the CVC Backset Shed which resulted in a hydrocarbon spill. EPA issued a Show Cause notice dated 11/06/14 for this non-compliance. In response, LC reviewed the hydrocarbon management arrangements on site, including for the Backset Shed area and implemented civil remediation works. A response from LC to the EPA regarding the Show Cause Notice was provided via letter dated 27/06/14. The EPA issued an Official Warning for this incident on 26/09/14.
OPERATION OF PLANT AND EQUIPMENT	17.0	The Applicant shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Not Compliant	During the site inspection the Backset Shed was visited and the corrective actions to address this non-compliance were confirmed to be in place (see Appendix G). Viewed the following documents that address plant and equipment management and maintenance: <ul style="list-style-type: none"> • CV Maintenance Management System SDT-00004 dated 1/04/16; • CV Mechanical Engineering Management System Plan MSP-0002 dated 24/11/10; • Introduction to Site forms for new plant and equipment purchased by LC or brought to site by contractors. WC (pers comm) confirmed the Introduction to Site is used to verify that equipment is well maintained and able to operate effectively while on site. <p>WC (pers comm) noted that the proper use of equipment is also included in the Job Safety Observation (JSO) system</p>

Section	Sub-section	Requirement	Status	Comments
				used on site as a safety and behavioural tool. Viewed examples of JSOs completed by CV contractors for brush cutting maintenance (31/01/16) and a washbay inspection (20/01/16). Findings from maintenance reviews, inspections or other assessments are entered into Pulse and allocated to specific personnel for action.
		The Applicant must regularly review the strategies, plans and programs required under this consent and ensure that these documents are updated to incorporate measures to improve the environmental performance of the development and reflect current best practice in the mining industry. To facilitate these updates, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis. With the agreement of the Secretary, the Applicant may prepare a revision or stage of any strategy, plan or program required under this consent without undertaking consultation with all parties nominated under the applicable condition in this consent.	Compliant	WC (pers comm) confirmed one request from DP&E for change to a CV management document during the audit period was made in relation to the CVC Air Quality Management Plan EMP-D-16396 (AQMP). The AQMP was revised to clarify how TSP results were calculated by applying a factor to CVC PM ₁₀ monitoring data.
UPDATING AND STAGING STRATEGIES, PLANS OR PROGRAMS	18.0	Notes: <input type="checkbox"/> While any strategy, plan or program may be submitted on a staged basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. <input type="checkbox"/> If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.		
ROAD MAINTENANCE CONTRIBUTION	19.0	The Applicant must pay Road Maintenance Fees to WSC in accordance with its Road Maintenance Agreement with WSC.	Administrative Non Compliant	Viewed a copy of the executed Road Maintenance Agreement between LC and WSC dated 1/07/13. Also viewed examples of LC records making required payments to WSC. Road Maintenance Fee payments for 2014 and 2015 were made on 09/02/16 and 17/02/16, respectively. Payments were made outside of the period required under the Road Maintenance Agreement with WSC.
SCHEDULE 3				
ENVIRONMENTAL CONDITIONS – GENERAL				
TRANSPORT				

Section	Sub-section	Requirement	Status	Comments
Monitoring of Coal Transport	1.0	The Applicant shall: (a) keep accurate records of the amount of coal transported from the site (on a weekly basis); and (b) make these records publicly available on its website at the end of each calendar quarter.	Compliant	Reviewed Quarterly reports available on the CVC website for the audit period. Reports include records of product tonnes transported to each destination (PWCS, VPPS or other) by month. WC (pers comm) confirmed that the LC Logistics Coordinator maintains a daily and weekly register of coal transported from site. Viewed examples of CVC weighbridge transactions during the audit period. Viewed the following correspondence on the intersection upgrades, including: <ul style="list-style-type: none"> WSC Civil Design Approval SCC11-2013 dated 1/04/14 and WSC invoice for construction assessment and certificate dated 17/07/13; Email from Lyle Marshall & Associated (LC construction contractor) to WSC dated 21/03/14; and Email from LC to Delta Electricity dated 29/01/14 and response from Delta Electricity dated 11/02/14 confirming approval of the proposed works. No evidence that the required Ruttleys Road and Construction Road intersection upgrade was to the satisfaction of RMS and DP&E. Construction works for the intersection upgrade were completed on 14/08/14, outside of 6 months of the date of approval of SSD-5465 (i.e. 23/06/14).
Road Works	2.0	The Applicant shall upgrade the Ruttleys Road and Construction Road intersection within 6 months of the date of this consent, unless the Secretary directs otherwise, by: (a) installing additional signage on and adjacent to Construction Road prior to the intersection; (b) repainting the surface of Construction Road as required and ensuring the edge seal of the left turn lane is of sufficient width to accommodate coal trucks; (c) installing or replacing "Stop" signs in accordance with Austroads guidelines; (d) repainting road line markings and raised pavements associated with this intersection; and (e) installing barriers to prevent trucks parking on the gravel area adjacent to the intersection and the electricity substation located in the vicinity of this intersection. The design and construction of these works must be undertaken in consultation with, and to the relevant satisfaction of, WSC, RMS and Delta Electricity, and to the satisfaction of the Secretary .	Administrative Non Compliant	
Road Transport Protocol	3.0	The Applicant shall prepare a Road Transport Protocol to the satisfaction of the Secretary . This protocol shall: (a) be prepared in consultation with RMS, NCC, WSC, DRE and CCC and submitted to the Secretary for approval within 6 months of the date of this consent; (b) describe the designated haulage routes to be used (as shown in Appendix 5); the maximum number of road movements proposed and the haulage hours permitted under this consent; (c) include a Traffic Management Plan, which includes: <input type="checkbox"/> procedures to ensure that drivers adhere to the designated haulage routes; <input type="checkbox"/> measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule, especially during the morning peak hour; <input type="checkbox"/> contingency plans to apply when (for example) the designated haulage	Compliant	WC (pers comm) confirmed that the Road Transport Protocol was made up of two documents. Reviewed a copy of the CVC Coal Haulage Traffic Management System Plan MSP D-14559 dated 18/03/14 and Coal Haulage Driver Code of Conduct POL-D-14926 dated 4/10/12. WC (pers comm) noted that the Coal Haulage Driver Code of Conduct was under review at the time of audit. Consultation on the Road Transport Protocol included the following correspondence from LC: <ul style="list-style-type: none"> To RMS, dated 24/03/14; and To NCC, WSC, DRE and the CCC on 24/03/14.

Section	Sub-section	Requirement	Status	Comments
		<p>route is disrupted, including procedures for notifying relevant agencies and affected communities of the need to implement such contingency plans;</p> <ul style="list-style-type: none"> <input type="checkbox"/> procedures to ensure that all haulage vehicles associated with the development are clearly distinguishable as Chain Valley Colliery coal haulage trucks; <input type="checkbox"/> details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site; <input type="checkbox"/> measures to ensure that the provisions of the Traffic Management Plan are implemented, eg driver training in the heavy vehicle driver's Code of Conduct and contractual agreements with heavy vehicle operators; and <input type="checkbox"/> procedures for ensuring compliance with and enforcement of the heavy vehicle driver's Code of Conduct; (d) include a Code of Conduct for heavy vehicle drivers that addresses: <ul style="list-style-type: none"> <input type="checkbox"/> travelling speeds; <input type="checkbox"/> instructions to avoid grouping or conveying of trucks; <input type="checkbox"/> instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; <input type="checkbox"/> instruction to drivers to adhere to the designated haulage routes; <input type="checkbox"/> instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations; and <input type="checkbox"/> appropriate penalties for infringements of the Code. <p>The Applicant shall implement the approved Road Transport Protocol as approved from time to time by the Secretary.</p>		<p>DRE were the only agency to respond (via letter dated 27/03/14) and did not have any comments.</p> <p>During the audit period, LC submitted the revised draft Road Transport Protocol to DP&E for approval on 9/04/14 (within six months of the date of SSD-5465, as required). DP&E responded via letter dated 12/05/14 approving the document.</p>
Independent Traffic Audit	4.0	<p>Prior to 31 March 2014, and every 12 months thereafter, unless the Secretary directs otherwise, the Applicant shall commission a suitably qualified person, whose appointment has been approved by the Secretary, to conduct an Independent Traffic Audit of the development. This audit must:</p> <ul style="list-style-type: none"> (a) be undertaken without prior notice to the Applicant, and in consultation with RMS, NCC, WSC and the CCC; (b) assess the impact of the development on the performance and safety of the road network, including a review of: <ul style="list-style-type: none"> <input type="checkbox"/> haulage records; <input type="checkbox"/> accident records on the haulage route, infringements relating to the code of conduct and any incidents involving haulage vehicles; <input type="checkbox"/> community complaints register; and (c) assess the effectiveness of the Road Transport Protocol; and, if necessary, recommend measures to reduce or mitigate any adverse (or 	Compliant	<p>Viewed email from LC to DP&E dated 15/12/14 seeking approval of GHD as approved Independent Traffic Auditor. DP&E responded on 16/12/14 and approved GHD to complete the audit.</p> <p>Independent traffic audit for the period August 2013 – July 2014 completed by GHD on 18/12/14. The audit did not identify any major non-compliances.</p> <p>Independent traffic audit for the period August 2014 – July 2015 was also completed by GHD and submitted on 26/11/15. DP&E responded on 11/01/16 requesting additional information from GHD on the Road Transport Protocol review. A revised report was submitted by LC to DP&E on 3/02/16.</p>

Section	Sub-section	Requirement	Status	Comments
		potentially adverse) impacts.		No major non-compliances were identified in the 2014/15 audit and toolbox talks were held with CVC haulage contractors to discuss their responsibilities.
	5.0	Within 1 month of receiving the audit report, or as otherwise agreed by the Secretary , the Applicant shall submit a copy of the report to the Secretary , with a detailed response to any of the recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. A summary of the audit report must be included in the Annual Review.	Compliant	LC submitted copies of the final 2014 and 2015 audit reports and their responses to the audit reports to DP&E within one month of receiving a final version (viewed letters to DPE dated 17/12/14 and 26 November 15 respectively). A summary of LC responses to the findings and recommendations of the audit were also presented in Section 3 of the 2014 AR and in Section 3.10 of the 2015 AR.
Alternative Coal Transport Options	6.0	Prior to 31 December 2014, and every three years thereafter, the Applicant shall prepare and submit to the Secretary for approval, a study of the reasonable and feasible options to reduce or eliminate the use of public roads to transport coal from the development. The assessment must include: (a) an analysis of the capital, construction and operating costs of the alternative transport options; and (b) quantified social and environmental impacts associated with road and rail transport.	Compliant	Viewed Gillespie Economics Coal Transport Options Report prepared for LC dated 10/12/14. The Report was submitted to DP&E on 10/12/14. Viewed correspondence from DP&E dated 15/12/14 confirming that the Coal Transport Options Report meets the requirements of this condition.
NOISE				
Noise Impact Assessment Criteria	7.0	The Applicant shall ensure that the noise generated by the development at any residence on privately-owned land does not exceed the criteria for the location in Table 1 nearest to that residence.	Not Compliant	Reviewed Annual Reviews and CVC quarterly attended noise monitoring reports for the audit period undertaken by Global Acoustics. Two 1dB noise exceedances were recorded at location ATN007 during attended monitoring in March 2013 and November 2013. Monitoring site ATN007 is representative of Receiver R22. LC notified the resident of the exceedances on 26/03/13 and 21/01/14, respectively (see Schedule 5, Condition 1). It is noted that the criteria in Table 1 was subsequently amended in MOD 1 (November 2014).

Section	Sub-section	Requirement					Status	Comments																																													
		<p>Table 1: Noise Criteria dB(A)</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Day L_{Aeq}(15 min)</th> <th>Evening L_{Aeq}(15 min)</th> <th>Night L_{Aeq}(15 min)</th> <th>L_{Af}(1 min)</th> </tr> </thead> <tbody> <tr> <td>R8</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R11</td> <td>49</td> <td>49</td> <td>49</td> <td>54</td> </tr> <tr> <td>R12</td> <td>49</td> <td>49</td> <td>49</td> <td>53</td> </tr> <tr> <td>R13</td> <td>43</td> <td>43</td> <td>43</td> <td>49</td> </tr> <tr> <td>R15</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>R19</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>R22</td> <td>46</td> <td>46</td> <td>46</td> <td>46</td> </tr> <tr> <td>all other privately-owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>					Location	Day L _{Aeq} (15 min)	Evening L _{Aeq} (15 min)	Night L _{Aeq} (15 min)	L _{Af} (1 min)	R8	38	38	38	45	R11	49	49	49	54	R12	49	49	49	53	R13	43	43	43	49	R15	36	36	36	45	R19	37	37	37	45	R22	46	46	46	46	all other privately-owned land	35	35	35	45		
Location	Day L _{Aeq} (15 min)	Evening L _{Aeq} (15 min)	Night L _{Aeq} (15 min)	L _{Af} (1 min)																																																	
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R22	46	46	46	46																																																	
all other privately-owned land	35	35	35	45																																																	
		<p>Notes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> To interpret the locations referred to in Table 1, see Appendix 6 and the EIS; and <input type="checkbox"/> Noise generated by the development is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy. Appendix 8 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. <p>However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.</p>																																																			
		<p>The Applicant shall:</p> <ol style="list-style-type: none"> (a) implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the construction, operational and transport noise generated by the development; (b) regularly assess the noise monitoring and meteorological data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this consent; (c) minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 8); (d) use its best endeavours to achieve the long-term noise goals in Table 2, where reasonable and feasible, and report on progress towards achieving these goals in each Annual Review; (e) carry out a comprehensive noise audit of the development in conjunction with each independent environmental audit; and 					Not Triggerred	Reviewed Plant Sound Power Survey dated 22/01/13 prepared by Global Acoustics. Survey reviewed sound power levels (SPLs) for all plant and equipment on site and recommended mitigation actions for noisiest equipment / infrastructure. Viewed letter prepared for LC by EMM dated 21/08/12 that provides SPLs comparison between the existing and upgraded CVC Ventilation Fan Site located at Summerland Point (the upgraded Ventilation Fan Site was upgraded outside of the audit period). New Ventilation Fan Site found to represent a reduction in SPLs of 17 dBA. Also viewed an Acoustic Camera Assessment of the Ventilation Fan Site dated 12/07/13. Assessment was completed to review SPLs of the site against predictions prior to																																													
Operating Conditions	8.0						Not Compliant																																														

Section	Sub-section	Requirement	Status	Comments
		<p>(f) prepare an action plan to implement any additional reasonable and feasible onsite noise mitigation measures identified by each audit; to the satisfaction of the Secretary.</p>		<p>installation of upgrades in 2013.</p> <p>WC (pers comm) confirmed that a Stackler (completed February 2013) and noise bunds at the ROM pad (completed January 2014) had been constructed during the audit period to minimise truck loading noise during the night from the surface facilities site.</p> <p>Two exceedances at residence R22 locations were recorded during audit period attended noise monitoring (see Schedule 3, Condition 7 above).</p> <p>Confirmed attended compliance attended noise monitoring was undertaken during the audit period as required. LC also maintain a real-time noise monitor at the Mine Cottages as a management tool.</p> <p>Verified noise controls from the Noise Management Plan (NMP) are in place, including no night haulage to VPPS during winter months.</p> <p>Bridges Acoustics were commissioned by LC to complete a noise audit in conjunction with this IEA (as required under Condition 8(e)). The Bridges Acoustics report is included as Appendix F and made a number of recommendations which have been incorporated into Section 6.</p> <p>Overall the Bridges review found that Chain Valley Colliery is generally well managed from an environmental noise compliance perspective and is in compliance with the relevant project approval and environment protection licence conditions, with the exception of the night noise criterion at R22 (EPA Point 23) incorrectly specified in EPL Condition L5.1 as 36 LAeq,15min rather than 46 LAeq,15min. Measured noise levels at R22 complied with the correct limit of 46 LAeq,15min during all time periods..</p> <p>Intermittent exceedances of the non-mandatory long term noise goals in Schedule 3 Condition 8 of SSD-5465 occurred over the audit period, with no indication that all practical noise mitigation measures have been implemented in an attempt to meet these goals.</p>

Section	Sub-section	Requirement	Status	Comments																
				Attention is required to meet these long term noise goals as required by SSD-5465 Schedule 3 Condition 8d which requires “best endeavours” in this regard. Further investigation and/or implementation of mitigation measures is required, or alternatively evidence is required that all investigations are complete and all feasible mitigation measures have been implemented.																
		<p>Table 2: Long-term Noise Goals dB(A)</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Day</th> <th>Evening</th> <th>Night</th> </tr> <tr> <td></td> <td><i>L_{Aeq}(15 min)</i></td> <td><i>L_{Aeq}(15 min)</i></td> <td><i>L_{Aeq}(15 min)</i></td> </tr> </thead> <tbody> <tr> <td>R11 – R13</td> <td>41</td> <td>41</td> <td>41</td> </tr> <tr> <td>R22</td> <td>40</td> <td>40</td> <td>40</td> </tr> </tbody> </table>	Location	Day	Evening	Night		<i>L_{Aeq}(15 min)</i>	<i>L_{Aeq}(15 min)</i>	<i>L_{Aeq}(15 min)</i>	R11 – R13	41	41	41	R22	40	40	40		
Location	Day	Evening	Night																	
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Noise Management Plan	9.0		Compliant	<p>Reviewed CVC Noise Management Plan EMP-D-16370 (NMP) dated 12/03/14. Section 4 – Section 9 of the document includes the required information.</p> <p>Viewed letter from LC to the EPA regarding consultation on the draft NMP dated 14/02/14. The EPA provided a response dated 27/02/14/.</p> <p>Viewed letter from LC to DP&E dated 12/03/14. DP&E provided approval for the NMP on 13/05/14.</p>																

Section	Sub-section	Requirement	Status	Comments
AIR QUALITY				
Odour	10.0	The Applicant shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.	Compliant	No incidences of offensive odour emissions from site recorded in the audit period ARs. Reviewed Annual Reviews and CVC monthly environmental reporting for the audit period.
Air Quality Criteria	11.0	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedance of the criteria listed in Tables 3, 4 and 5 at any residence on privately-owned land.	Compliant	No exceedances of SSD-5465 long-term air quality criteria during the audit period due to CVC activities. One elevated result was recorded on 6 May 2015 during the audit period which was directly related to the 2015 Mallee regional dust storm. Verified that reasonable and feasible controls to minimise air quality impacts from CVC were in place during the audit inspection. Air quality controls included: <ul style="list-style-type: none"> Watercart operating on CVC site access road and surface infrastructure area; A real-time air quality monitor (TEOM) installed in December 2013 at location RTD001. No exceedances of TSP or PM₁₀ criteria recorded following installation of the monitor (as a result of CVC's operations); and Road sweeper on site access road and trafficked areas to minimise tracking of coal fines. WC (pers comm) confirmed that a dust suppression chemical trial was being planned at the time of audit to assess the effectiveness of minimising dust emissions from unsealed areas at the surface facilities site.

Section	Sub-section	Requirement	Status	Comments																							
		<p><i>Table 3: Long-term criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 4: Short-term criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 5: Long-term criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table>			Pollutant	Averaging period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month
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		<p>Notes for Tables 3 to 5:</p> <p>^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to other sources);</p> <p>^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);</p> <p>^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and</p> <p>^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the Secretary.</p> <p>The Applicant shall:</p> <p>(a) implement best practice air quality management at the site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the development;</p> <p>(b) implement best practice management to minimise the risk of spontaneous combustion and related emissions;</p>																									
Operating Conditions	12.0		Compliant	Reviewed the AQMP dated 18/07/14. Table 9 in Section 3 of the AQMP includes management practices required to be implemented on site to minimise air quality impacts and the responsibilities for each. Mitigation measures identified during the audit period are outlined above under Schedule 3, Condition 11.																							

Section	Sub-section	Requirement	Status	Comments
		<p>(c) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;</p> <p>(d) operate an air quality management system on site to ensure compliance with the relevant conditions of this consent;</p> <p>(e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 3-5 above);</p> <p>(f) regularly assess the air quality monitoring data, and modify operations on site to ensure compliance with the relevant conditions of this consent, to the satisfaction of the Secretary.</p> <p>The Applicant shall prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval within 6 months of the date of this consent;</p> <p>(b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;</p> <p>(c) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site;</p> <p>(d) describe the proposed on-site air quality management system; and</p> <p>(e) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> <input type="checkbox"/> is capable of evaluating the operating conditions of this consent; <input type="checkbox"/> evaluates and reports on: the effectiveness of the air quality management system; and compliance against the air quality operating conditions; <input type="checkbox"/> defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p>		<p>Reviewed CVC Best Management Practice Air Quality Assessment (EPM D-16591) dated 25/09/08.</p>
Air Quality Management Plan	13.0		Compliant	<p>Reviewed the AQMP. Sections 3 - 11 of the document includes required content.</p> <p>Section 1.4 of the AQMP confirms consultation undertaken with the EPA in 2012; EPA responded on 20/08/12 noting that they do not provide comment on management plans. Viewed a letter from LC to DP&E dated 23/06/14; seeking approval of the revised AQMP.</p> <p>DP&E approved the AQMP in a letter dated 23/07/14.</p> <p>Viewed letter dated 20/01/16 from LC to DP&E submitting a revised AQMP.</p>
METEOROLOGICAL MONITORING	14.0	<p>During the life of the development, the Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:</p> <p>(a) complies with the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline; and</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.</p>	Compliant	<p>Section 7 of the AQMP confirms data for CVC recorded at Mannering Colliery meteorological monitoring station (1.4 km SSW of the CVC pit top facilities). Previous audit confirmed that DP&E and EPA (under revision of EPL 1770) approved use of Mannering Colliery monitor as representative of Chain Valley and ability to calculate temperature lapse rate by use of sigma-theta method.</p> <p>Viewed Weather Station Field Check Sheet completed 14/05/14 and calibration report dated 20/09/14 completed for the Mannering meteorological station by Carbon Based Environmental</p>

Section	Sub-section	Requirement	Status	Comments
SOIL & WATER		<i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.</i>	Compliant	See Table B for review against compliance with these licences.
	15.0	The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Secretary .	Compliant	Reviewed Water Impact Assessments in supporting documents to SSD-5465 and approved CVC Water Management Plan EMP-D-16368 (WMP) dated 21/07/15. Four water licences are currently held for CVC operations. The main active water approval is licence 20BL173107, for dewatering of the underground workings at a rate of up to 4,443 ML per annum. The compliance status of 20BL173107 is provided in Table B .
	16.0	Unless an EPL authorises otherwise, the Applicant shall comply with Section 120 of the POEO Act.	Not Compliant	During the audit period there were two non-compliances related to exceedance of discharge water quality criteria. A summary of non-compliances against the conditions of CVC EPL 1770 is provided in Table B . Sewerage management and disposal on site is described in Section 4.9 of the CVC WMP. Two sources of domestic wastewater are used on site: <ul style="list-style-type: none"> • Aerated wastewater treatment system for the administration offices, managed by Lochinvar Wastewater. Following treatment, this water is used for irrigation; and • Septic system for the bathhouse, discharged to pollution control dams. Evidence not available at the time of audit to confirm that the system is managed to the satisfaction of the EPA.
Sewage Management	17.0	The Applicant shall manage on-site sewage in accordance with NSW <i>Environmental Guidelines: Use of Effluent by Irrigation</i> (DEC 2004) and the <i>National Guidelines for Sewerage Systems - Effluent Management</i> (ANZECC 1997) or its latest version, to the satisfaction of EPA.	Not Compliant	The EPL has criteria for faecal coliforms of 200 CFU/100mL (monitored monthly), with annual effluent stream monitoring undertaken quarterly. Both sewerage systems are monitored and maintained quarterly by a waste management contractor. During the audit period there was an exceedance of the criteria for faecal coliforms: <ul style="list-style-type: none"> • Exceedance of 200 CFU faecal coliform criteria on 15/04/14, with a result of 540 CFU recorded. A CFU result of 180 was measured at the point of discharge from Dam 10, however an exceedance was recorded at LDP001, indicating some potential for contamination impacts during downstream flows between the site and the LDP.

Section	Sub-section	Requirement	Status	Comments
				Viewed EPL Pollution Reduction Program (PRP) 6, which describes potential modifications to existing sewage treatment systems. No issues in relation to on-site sewage management were identified during the audit site inspection. WC (pers comm) confirmed that under EPL 1770, a PRP was sought for approval to connect the site to the Sewage Treatment Plant to the council managed sewer main located at Kingfisher Shores.
Water Management Plan	18.0	<p>The Applicant shall prepare a Water Management Plan for the surface facilities sites to the satisfaction of the Secretary. This plan must be prepared in consultation with DPI Water and EPA, by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary, and submitted to the Secretary for approval within 6 months of the date of this consent. This plan must include:</p> <p>(a) a comprehensive water balance for the development that includes details of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> sources and security of water supply; <input type="checkbox"/> water make in the underground workings; <input type="checkbox"/> water transfers from the underground operations to the surface; <input type="checkbox"/> water use; and <input type="checkbox"/> any water discharges; <p>(b) management plans for the surface facilities sites, that include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a detailed description of water management systems for each site, including: <ul style="list-style-type: none"> clean water diversion systems; erosion and sediment controls; and any water storages; <input type="checkbox"/> measures to minimise potable water use and to reuse and recycle water; <input type="checkbox"/> measures to manage acid sulphate soils, if encountered; <input type="checkbox"/> activities that would involve ground disturbance at the site; and <input type="checkbox"/> monitoring and reporting procedures. <p>(c) a Surface Water Management Plan which:</p> <ul style="list-style-type: none"> <input type="checkbox"/> includes baseline data on surface water flows and quality of Swindles Creek; <input type="checkbox"/> details surface water impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on surface water resources or surface water quality; <input type="checkbox"/> provides a program to monitor; 	Compliant	<p>Section 1.2 of the WMP. Viewed letter dated 30/07/14 from LC to DP&E seeking approval of Niche Environment and Heritage (Niche) as suitable party to prepare the WMP. DP&E approved Niche via letter dated 31/07/14.</p> <p>Viewed correspondence on the draft WMP from LC to EPA and NOW dated 15/12/14 and 13/1/14, respectively. NOW provided comments on the draft plan back to LC via letter dated 5/12/14.</p> <p>DP&E approved the WMP via letter dated 21/07/15.</p> <p>(a) Section 3 of the WMP.</p> <p>(b) Section 4 of the WMP.</p> <p>(c) Section 5 of the WMP.</p> <p>(d) Section 6 and Appendix B of the WMP.</p> <p>(e) Sections 1.5, 4.11 and Appendix A of the WMP.</p>

Section	Sub-section	Requirement	Status	Comments
		<p>surface water discharges; surface water flows and quality; and channel stability;</p> <p>(d) a Ground Water Monitoring Program which includes a program to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> monitor and report groundwater inflows to underground workings; <input type="checkbox"/> predict, manage and monitor impacts to nearby groundwater bores on privately-owned land that may be impacted by the development; and <p>(e) a detailed review of surface water management at the site, with particular reference to the water storages within the dirty water management system, to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> determine whether the capacity, integrity, retention time and management of the dirty water storages (particularly the final Pollution Control Dam) are sufficient to ensure that water discharged from the site meets the EPL limits and surface water impact assessment criteria within the Surface Water Management Plan; and <input type="checkbox"/> propose any appropriate changes to the surface water management system. <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary. Note: The Secretary may require the Applicant to implement upgrades and other changes identified under paragraph (e), in accordance with condition 4 of schedule 2.</p>		
BIODIVERSITY				<p>Section 6 of the approved Biodiversity Management Plan EMP-D-16372 (BMP) dated 16/07/14 describes the Biodiversity Enhancement Strategy (BES) measures. Works implemented during the audit period in the Biodiversity Enhancement Area (BEA) under the BES include:</p> <ul style="list-style-type: none"> • Weed control; • Feral animal control; • Rubbish and litter removal; and • Upgrades to discharge arrangements from CVC for the improvement and enhancement of the swamp oak forest and swamp sclerophyll forest. <p>WC (pers comm) also noted that condition monitoring is also undertaken within the BEA to determine if trigger for re-establishment of understorey species is met.</p>
Biodiversity Enhancement Strategy	19.0	<p>The Applicant shall implement a Biodiversity Enhancement Strategy as described in the EIS and summarised in Table 6, in consultation with OEH, and to the satisfaction of the Secretary.</p>	Compliant	

Section	Sub-section	Requirement	Status	Comments						
		<p><i>Table 6: Summary of the Biodiversity Enhancement Strategy</i></p> <table border="1"> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum Size/Amount</th> </tr> </thead> <tbody> <tr> <td>Biodiversity Enhancement Area</td> <td>Enhancement and restoration measures, including weed and rubbish removal, return of natural hydrological regime and regeneration with native endemic species.</td> <td>3 ha (in total) of Swamp Sclerophyll Floodplain Forest and Swamp Oak Floodplain Forest endangered ecological communities within the surface facilities sites</td> </tr> </tbody> </table> <p><i>Note: To identify the Biodiversity Enhancement Area referred to in Table 6 see the applicable figures in Appendix 7.</i></p>			Area	Offset Type	Minimum Size/Amount	Biodiversity Enhancement Area	Enhancement and restoration measures, including weed and rubbish removal, return of natural hydrological regime and regeneration with native endemic species.	3 ha (in total) of Swamp Sclerophyll Floodplain Forest and Swamp Oak Floodplain Forest endangered ecological communities within the surface facilities sites
Area	Offset Type	Minimum Size/Amount								
Biodiversity Enhancement Area	Enhancement and restoration measures, including weed and rubbish removal, return of natural hydrological regime and regeneration with native endemic species.	3 ha (in total) of Swamp Sclerophyll Floodplain Forest and Swamp Oak Floodplain Forest endangered ecological communities within the surface facilities sites								
		<p>The Applicant shall implement its preferred option of the three options set out in new dot point 1 of the Terrestrial Ecology section of its Statement of Commitments by 1 December 2016, following consultation with OEH and to the satisfaction of the Secretary.</p>	Compliant	<p>Hazard Protection Clearing around surface infrastructure nominated as the preferred option. OEH will confirm funding requirements to LC to meet bio-banking method calculations. Viewed minutes of meeting from 4/12/15 between LC and EMM; EMM to prepare bio-banking calculations for these areas.</p>						
Biodiversity Management Plan	20.0	<p>The Applicant shall prepare a Biodiversity Management Plan for the surface facilities sites, for all areas that are not, or will not, be subject to condition 7 of schedule 4, to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified person approved by the Secretary; in consultation with OEH, and submitted to the Secretary within 6 months of the date of this consent; (b) establish baseline data for the existing habitat in the Biodiversity Enhancement Area and elsewhere on the site; (c) describe the short, medium, and long term measures that would be implemented to: <ul style="list-style-type: none"> <input type="checkbox"/> manage the impacts of clearing vegetation; <input type="checkbox"/> manage the remnant vegetation and habitat in the Biodiversity Enhancement Area and elsewhere on the site; and <input type="checkbox"/> implement the Biodiversity Enhancement Strategy, including detailed performance and completion criteria; (d) include a program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria; (e) identify the potential risks to the successful implementation of the Biodiversity Enhancement Strategy, and the contingency measures that would be implemented to mitigate these risks; and (f) include details of who would be responsible for monitoring, reviewing, and implementing the plan. <p>The Applicant shall implement the approved management plan as</p>	Compliant	<p>(a) Reviewed the CVC BMP dated 16/07/14. Viewed letter from LC to DP&E dated 23/06/14 seeking approval of qualified persons who prepared the BMP. DP&E approved EMM and LC personnel in a letter dated 23/06/14 and approved the BMP document on 23/07/14. WC confirmed a second variation to the BMP had been approved by DP&E in April 2016.</p> <p>Consultation on the plan with OEH was undertaken on 16/06/14. During this discussion, it was noted that OEH encourages the development of such plans but does not approve or endorse these documents. As such, no comments were provided.</p> <p>(b) Section 3.2 of the BMP.</p> <p>(c) Section 4 and Section 5 of the BMP.</p> <p>(d) Section 11 and Section 12 of the BMP.</p> <p>(e) Section 12.2 of the BMP.</p> <p>(f) Section 13 of the BMP.</p>						

Section	Sub-section	Requirement	Status	Comments
	20A	<p>approved from time to time by the Secretary.</p> <p>Within 3 months of the approval of MOD 2, the Applicant shall revise the Biodiversity Management Plan to incorporate the measures required to implement its commitments described in new dot point 2 of the Terrestrial Ecology section of its Statement of Commitments, and submit it to the Secretary for approval.</p>	Not triggered	Timing requirement is outside of the audit period.
HERITAGE		<p>The Applicant shall prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This Plan must:</p> <p>(a) be prepared in consultation with any relevant Aboriginal stakeholders;</p> <p>(b) be submitted to the Secretary for approval within 6 months of the date of this consent;</p> <p>(c) include consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site;</p> <p>(d) detail the responsibilities of all stakeholders; and</p> <p>(e) include programs/procedures and management measures for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the ongoing monitoring of site 45-7-0189 at Summerland Point; <input type="checkbox"/> managing the discovery of any human remains or previously unidentified Aboriginal objects on site, including (in the case of human remains) stop work provisions and notification protocols; <input type="checkbox"/> ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal heritage within the site; (including procedures for keeping records of this); <input type="checkbox"/> appropriate identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site; and <input type="checkbox"/> ensuring relevant workers on site receive suitable heritage inductions prior to carrying out any activities which may disturb Aboriginal sites, and that suitable records are kept of these inductions. <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p>	Compliant	<p>Reviewed the CVC Heritage Management Plan EMP-D-16371 (HMP).</p> <p>(a) Section 4.4 and Section 4.5 of the HMP.</p> <p>(b) Viewed letter from LC to DP&E dated 23/06/14 submitting the draft HMP.</p> <p>(c) Section 4.2 and Section 4.3 of the HMP.</p> <p>(d) Section 11 of the HMP.</p> <p>Sections 4.2, 6.2, 6.3, 7.1, 11 and 13 of the HMP. Viewed an example of a monitoring report prepared for site 45-7-0189 by AECOM dated 20/03/15. The site survey was completed with representatives of three Registered Aboriginal Parties present and documented the condition of the site against the baseline condition from 2013. No issues were identified in the 2015 review.</p>
VISUAL		<p>The Applicant shall:</p> <p>(a) minimise visual impacts, and particularly the off-site lighting impacts, of the Surface facilities sites;</p> <p>(b) take all reasonable and feasible measures to further mitigate off-site lighting impacts from the development; and</p> <p>(c) ensure that all external lighting associated on site complies with <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i>, to the satisfaction of the Secretary.</p>	Complaint	<p>Visual and lighting management and changes to existing infrastructure noted in Section 3.11 of the 2011-12 AR, 2012-13 AR, 2013 AR and 2014 AR.</p> <p>During the 2012-13 reporting period, a lighting audit in accordance with AS 4282:1997 was undertaken at 22 locations on the CVC site boundary representative of residential receivers. The audit found that the visual and lighting impacts of site operations and infrastructure was minimal.</p>
Visual Amenity and Lighting	22.0			

Section	Sub-section	Requirement	Status	Comments
WASTE	23.0	The Applicant shall: (a) minimise and monitor the waste generated by the development; (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and (c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary .	Compliant	Viewed the Lighting Survey, Chain Valley Colliery dated 30/05/13 prepared by Wadco. Reviewed the CVC Complaints Register for the audit period. No complaints were received regarding lighting or visual amenity impacts. Waste volumes and major waste streams are reported in audit period AR's. Viewed examples of waste contractor (Remondis) monthly waste tracking spreadsheet. WC (pers comm) noted that waste inspections are completed weekly (by Remondis) and monthly (by LC Environmental staff). Viewed a completed Waste Management Inspection form dated 3/08/15 and waste component of CVC Environmental Awareness Training.
	24.0	The Applicant shall: (a) ensure that the development is suitably equipped to respond to any fires on site; and (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the Surface facilities sites.	Compliant	Viewed LDO Bushfire Management Standard and draft internal Bushfire Management Plan prepared by EMM to reflect the CVC Asset Protection Zone, in consultation with Delta Electricity. Bushfire risk and management measures in place on site is described in the audit period AR's. A significant bushfire event occurred on 17/10/13 and highlighted potential risks in the RFS accessing the vent shaft site for firefighting (Section 3.15 of the 2014 AR). A risk review was undertaken in response. WC (pers comm) confirmed the trained personnel, infrastructure and equipment on site for bushfire response
REHABILITATION	25.0	The Applicant shall rehabilitate the site to the satisfaction of the DRE . This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS, and comply with the objectives in Table 7.	Not triggered	CVC site not under rehabilitation during the audit period.

Section	Sub-section	Requirement	Status	Comments
<i>Table 7: Rehabilitation Objectives</i>				
Feature		Objective		
Mine site (as a whole)		<ul style="list-style-type: none"> • Safe, stable and non-polluting. • Final land use compatible with surrounding land uses. 		
Rehabilitation materials		<ul style="list-style-type: none"> • Materials (including topsoils, substrates and seeds of the disturbed area) are recovered, appropriately managed and used effectively as resources in rehabilitation. 		
Surface infrastructure		<ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise. 		
Portals and ventilation shafts		<ul style="list-style-type: none"> • To be decommissioned and made safe and stable. • Retain habitat for threatened species (eg bats), where practicable. 		
Other land affected by the development		<ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> - local native plant species (unless the DRE agrees otherwise); and - a landform consistent with the surrounding environment. 		
Built features damaged by mining operations		<ul style="list-style-type: none"> • Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> - the owner agrees otherwise; or - the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>. 		
Community		<ul style="list-style-type: none"> • Ensure public safety. • Minimise the adverse socio-economic effects associated with mine closure. 		
Notes:				
<ul style="list-style-type: none"> <input type="checkbox"/> These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by underground mining taking place after the granting of project approval MP 10_0161, and to all development surface infrastructure that is part of the development, whether constructed prior to or following the date of this consent. <input type="checkbox"/> Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of project approval (MP 10_0161) may be subject to the requirements of other approvals (eg under a mining lease or a Subsidence Management Plan approval). 				

Section	Sub-section	Requirement	Status	Comments
Progressive Rehabilitation	26.0	The Applicant shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance to the satisfaction of the Secretary and DRE.	Not triggered	CVC site not under rehabilitation during the audit period.
Rehabilitation Management Plan	27.0	<p>The Applicant shall prepare a Rehabilitation Management Plan for the development, in consultation with OEH, DPI Water, WSC, LMCC, and the CCC, and to the satisfaction of the DRE. This plan must:</p> <p>(a) be submitted to the Secretary and the DRE for approval within 12 months of the date of approval of this development consent;</p> <p>(b) be prepared in accordance with any relevant DRE guideline and be consistent with the rehabilitation objectives in the EIS and in Table 7;</p> <p>(c) describe how the performance of the rehabilitation would be monitored and assessed against the objectives in Table 7;</p> <p>(d) describe the process whereby additional measures would be identified and implemented to ensure the rehabilitation objectives are achieved;</p> <p>(e) 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; and</p> <p>(f) be integrated with the other management plans required under this consent.</p> <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p> <p>Note: The Rehabilitation Management Plan should address all land impacted by the development whether prior to, or following, the date of this consent.</p>	Compliant	<p>Reviewed the CVC Rehabilitation Management Plan EMP-D-16373 (RMP) dated 5/12/14. Detailed rehabilitation management measures and commitments are also described in the CVC 2015 – 2015 Mining Operations Plan EMP-D-18187 (MOP) dated 13/03/15.</p> <p>Viewed consultation letters for the RMP dated 1/12/13 from LC to DP&E, DRE, WSC, CCC Fisheries NSW. Responses were received from WSC (4/3/13), DP&E (13/02/13) and NSW Fisheries (8/02/13). At the time of drafting the RMP, the conditions of SSD-5465 did not require the plan to be developed in consultation with LMCC, NOW and OEH.</p> <p>Viewed letters from LC to DP&E and DRE dated 8/12/14 submitting the revised RMP for approval. Letters were sent to other parties required under the condition on 13/11/14. Comments were received from:</p> <ul style="list-style-type: none"> NOW (5/12/14); Delta Electricity (1/12/14); and WSC (4/12/14). <p>DRE responded via letter dated 16/03/15 acknowledging that the RMP is consistent with the CVC MOP and requiring the future submission of a consolidated MOP / RMP document.</p>
SCHEDULE 4				
ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING				
SUBSIDENCE	1.0	The Applicant shall ensure that vertical subsidence within the High Water Mark Subsidence Barrier and within seagrass beds is limited to a maximum of 20 millimetres (mm). If at any stage predicted subsidence levels are exceeded within these areas, an ecological monitoring program shall be initiated to assess the impacts to ecological communities and threatened species and if appropriate, offsets are to be provided for any impacts detected.	Compliant	<p>Reviewed CVC mining operations during the audit period and subsidence management documents with WC, Michael Callan (MC) and Tim Chisholm (TC). During the audit period, mining has progressed from MW3 through to MW9 (being extracted at the time of audit).</p> <p>MC and TC outlined the process to conservatively define the angle of draw from secondary workings to the High Water Mark Subsidence Barrier (HWMMSB) and Seagrass</p>

Section	Sub-section	Requirement	Status	Comments
Performance Measures – Natural Environment	2.0	The Applicant shall ensure that the development does not cause any exceedance of the performance measures in Table 8 to the satisfaction of the Secretary .	Compliant	<p>Protection Barrier (SPB). First workings roadways for Miniwalls (MWs) 7-9 are developed within the mapped HWMSB and SPB. Section 3.16 of the 2014 AR notes that an application to mine within the HWMSB was made to DRE on 7/02/14 and approved on 14/03/14.</p> <p>Monitoring is undertaken in accordance with the approved Extraction Plan and associated documents under the RMP and BMP, including the Seagrass Management Plan and Benthic Communities Management Plan (see Schedule 3). Subsidence is monitored via a process of bathymetric surveys and seagrass assessment.</p> <p>No exceedance of performance measures during the audit period. Management and monitoring procedures followed for CVC are included in the BMP, under the appended CVC Seagrass Management Plan EMP-D-16674 dated 9/04/2014 and the CVC Benthic Communities Management Plan EMP-D-16672 dated 07/04/14.</p> <p>Section 3.6 – 3.7 of the audit period AR's summarise the findings of annual benthic community and seagrass monitoring.</p>
		<p>Table 8: Subsidence Impact Performance Measures – Natural and Heritage Features</p> <p>Biodiversity</p> <p>Threatened species or endangered populations</p> <p>Negligible environmental consequences</p> <p>Seagrass beds</p> <p>Negligible environmental consequences including:</p> <ul style="list-style-type: none"> negligible change in the size and distribution of seagrass beds; negligible change in the functioning of seagrass beds; and negligible change to the composition or distribution of seagrass species within seagrass beds. <p>Benthic communities</p> <p>Minor environmental consequences, including minor changes to species composition and/or distribution.</p> <p>Mine workings</p> <p>First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible environmental consequences</p> <p>To remain long-term stable and non-subsiding.</p> <p>Second workings</p> <p>To be carried out only in accordance with an approved Extraction Plan.</p>		

Section	Sub-section	Requirement	Status	Comments
		<p>Notes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this consent (see Condition 7 below). <input type="checkbox"/> Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter. <input type="checkbox"/> The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of approval of this consent. <p>If the Applicant exceeds the performance measures in Table 8 and the Secretary determines that:</p> <ul style="list-style-type: none"> (a) it is not reasonable or feasible to remediate the impact or environmental consequence; or (b) the remediation measures implemented by the Applicant have failed to satisfactorily remediate the impact or environmental consequence; then the Applicant shall provide a suitable offset to compensate for the impact or environmental consequence to the satisfaction of the Secretary. <p>Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.</p> 		
Offsets	3.0		Not triggered	No exceedance of the performance measures during the audit period.
Performance Measures – Built Features	4.0	<p>The Applicant shall ensure that the development does not cause any exceedances of the performance measures in Table 9, to the satisfaction of the Secretary.</p>	Not triggered	<p>No exceedance of the performance measures during the audit period. No mining planned or undertaken in proximity of Trinity Point Marina. HB reviewed the MW design layout plans included in SSD-5465 against the current EP and MOP and confirmed that the north-western extent of approved MWs 10-11 had been shortened. MC (pers comm) confirmed the reduction in the length of the MWs in that area was in response to localised geological issues encountered.</p> <p>MC (pers comm) confirmed that Telstra infrastructure was the only other built feature currently being considered, with mining in MWs 11-12 planned to approach the site of a Telstra cable during 2016. However, mining in proximity to the Telstra infrastructure was not undertaken during the audit period.</p>

Section	Sub-section	Requirement	Status	Comments								
		<p>Table 9: Subsidence Impact Performance Measures – Built Features</p> <table border="1"> <thead> <tr> <th>Built Features</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Trinity Point Marina Development Other built features</td> <td> <ul style="list-style-type: none"> Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired, replaced or fully compensated. </td> </tr> <tr> <td>Public Safety</td> <td></td> </tr> <tr> <td>Public Safety.</td> <td>Negligible additional risk.</td> </tr> </tbody> </table>	Built Features	Performance Measure	Trinity Point Marina Development Other built features	<ul style="list-style-type: none"> Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired, replaced or fully compensated. 	Public Safety		Public Safety.	Negligible additional risk.		
Built Features	Performance Measure											
Trinity Point Marina Development Other built features	<ul style="list-style-type: none"> Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repaired, replaced or fully compensated. 											
Public Safety												
Public Safety.	Negligible additional risk.											
		<p>Notes:</p> <ul style="list-style-type: none"> The Applicant will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or a Public Safety Management Plan (see Condition 7 below). Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter. The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this development consent. Requirements regarding safety or serviceability do not preclude preventative actions or mitigation being taken prior to or during mining in order to achieve or maintain these outcomes. Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961. 										
	5.0	Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the subsidence performance measures in Table 9 is to be settled by the Secretary , following consultation with the MSB and the DRE . Any decision by the Secretary shall be final and not subject to further dispute resolution under this consent.	Not triggered	No disputes between LC and other parties occurred during the audit period.								

Section	Sub-section	Requirement	Status	Comments
Multi-Seam Mining Feasibility Investigation	6.0	<p>Prior to the submission of an Extraction Plan for Miniwalls 41 to 45 in Chain Valley Bay, the Applicant must prepare a detailed Multi-Seam Mining Feasibility Investigation to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with DRE by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p> <p>(b) assess the extent of the soft claystone floor/roof conditions within former workings in the Great Northern and Wallarah Seams;</p> <p>(c) assess the stability of remnant coal pillars within former workings in the Great Northern and Wallarah Seams;</p> <p>(d) give particular consideration to the risks of irregular subsidence, pillar run and long-term subsidence leading to subsidence outside of the predicted angle of draw;</p> <p>(e) include revised multi-seam subsidence predictions for the proposed second workings; and</p> <p>(f) recommend final design of the second workings and any necessary adaptive management measures.</p>	Not triggered	<p>EP for MWs 41-45 not required during the audit period.</p>
	Extraction Plan	<p>The Applicant shall prepare an Extraction Plan for all second workings on site, to the satisfaction of the Secretary. Each Extraction Plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p> <p>(b) be approved by the Secretary before the Applicant carries out any second workings covered by the plan;</p> <p>(c) include detailed plans of existing and proposed first and second workings and any associated surface development; including any applicable adaptive management measures;</p> <p>(d) include detailed performance indicators for each of the performance measures in Tables 8 and 9;</p> <p>(e) 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 consent;</p> <p>(f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 8 and 9, and manage or remediate any impacts and/or environmental consequences;</p>	Compliant	<p>Reviewed the CVC Extraction Plan - MW 7 to MW 12 (EP) dated 28/03/13.</p> <p>Section 1.5 of the EP. Viewed LC letter to DP&E regarding an application for persons to prepare the EP dated 14/02/14. DP&E approved the nominated LC personnel via letter dated 21/02/14.</p> <p>(b) Section 1.2 of the EP. The draft EP was submitted to DP&E by LC on 27/05/14. DP&E provided a letter dated 6/06/14 approving the EP, prior to the commencement of MW7 secondary workings on 18/06/14. MC (pers comm) confirmed that Telstra were consulted regarding their fibre optic cable above MW12 via email dated 6/06/14.</p> <p>(c) Section 1.4 of the EP.</p> <p>(d) Section 3 of the EP.</p> <p>(e) Section 4 of the EP.</p> <p>(f) Section 4 of the EP.</p>

Section	Sub-section	Requirement	Status	Comments
		<p>(g) include a Built Features Management Plan, which has been prepared in consultation with DRE and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which</p> <ul style="list-style-type: none"> <input type="checkbox"/> addresses in appropriate detail all items of public infrastructure and other public infrastructure and all classes of other built features; <input type="checkbox"/> has been prepared following appropriate consultation with the owner/s of potentially affected feature/s; <input type="checkbox"/> recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and; <p>(h) include a Benthic Communities Management Plan, which has been prepared in consultation with OEH, LMCC, and DPI Fisheries, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on benthic communities, and which includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> surveys of the lake bed to enable contours to be produced and changes in depth following subsidence to be accurately measured; <input type="checkbox"/> benthic species surveys within the area subject to second workings, as well as control sites outside the area subject to second workings (at similar depths) to establish baseline data on species number and composition within the communities; <input type="checkbox"/> a program of ongoing seasonal monitoring of benthic species in both control and impact sites; <input type="checkbox"/> 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 monitoring and survey data collected; and <input type="checkbox"/> updating the model every 2 years using the most recent monitoring and survey data; 	Compliant	<p>(g) Section 6 of the EP; the Built Features Management Plan was not initially required for MWS7-12, only for the Link Road between CVC and Manning Colliery an approach justified in Appendix A of the EPA (the Subsidence Management Plan). At the time of audit the site operates in accordance with the CVC Link Road Built Features Management Plan MSP-19193 dated 18/05/15. Consultation regarding the Built Features Management Plan was undertaken with:</p> <ul style="list-style-type: none"> • WSC, • Trinity Point Marina (Johnson Property Group); and • Telstra. Telstra approved the CVC Telstra Fibre Optic Management Plan for the Link Road on 16/02/15. The management plan is now appended to the EP. <p>MC (pers comm) confirmed that consultation with DRE on the Built Features Management Plan occurred as part of the review process for the Extraction Plan and SMP. The Built Features Management Plan was included in both documents and provided to DRE.</p> <p>(h) Appendix 2 of the EP. The site also operates in accordance with the CVC Benthic Communities Management Plan EMP-D-16672 dated 07/04/14. Viewed letters from LC dated 13/03/14 providing the draft Benthic Communities Management Plan to Fisheries NSW, LMCC and OEH as required.</p>
		<p>(i) include a Seagrass Management Plan, which has been prepared in consultation with OEH, LMCC, and DPI Fisheries, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on seagrass beds, and which includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a program of ongoing monitoring of seagrasses in both control and impact sites; and <input type="checkbox"/> a program to predict and manage subsidence impacts and environmental consequences to seagrass beds to ensure the performance measures in Table 8 are met; <p>(j) include a Public Safety Management Plan, which has been prepared</p>	Compliant	<p>Appendix 3 of the EP. The site also operates in accordance with the CVC Seagrass Management Plan EMP-D-16674 dated 9/04/14. Viewed letters from LC dated 12/03/14 providing the draft Seagrass Management Plan to Fisheries NSW, LMCC and OEH as required. OEH provided a response back to LC on the draft plan on 21/03/14.</p> <p>(j) Section 6 of the EP. A Public Safety Management Plan</p>

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		<p>in consultation with DRE, to ensure public safety;</p> <p>(k) include a Subsidence Monitoring Program which has been prepared in consultation with DRE, to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> provide data to assist with the management of the risks associated with subsidence; <input type="checkbox"/> validates the subsidence predictions; <input type="checkbox"/> analyses the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and <input type="checkbox"/> informs the contingency plan and adaptive management process; <p>(l) 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 8 and 9, or where any such exceedance appears likely;</p> <p>(m) include appropriate revisions to the Rehabilitation Management Plan required under Condition 28 of Schedule 3; and</p> <p>(n) include a program to collect sufficient baseline data for future Extraction Plans.</p> <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p> <p>Notes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> To identify the underground mining areas approved under this consent referred to in this condition, see Appendix 3. <input type="checkbox"/> This condition does not limit secondary extraction under a Subsidence Management Plan approved as at the date of this consent. <p>The Applicant shall ensure that the management plans required under conditions 7(g)-(j) above include:</p> <p>(a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this consent; and</p> <p>(b) a detailed description of the measures that would be implemented to remediate predicted impacts.</p>		<p>is not required for the EP.</p> <p>(k) Appendix 4 of the EP. Viewed a letter from LC to DRE dated 27/03/14 providing a copy of the draft Subsidence Monitoring Program. DRE responded via letter dated 13/06/14 approving the program proposed.</p> <p>(l) Section 4.3 of the EP.</p> <p>(m) Section 5 of the EP.</p> <p>(n) Section 4 of the EP.</p>
	8.0		Compliant	<p>(a) Section 3.4 of the EP.</p> <p>(b) Sections 4.2 and 4.4 of the EP.</p>
First Workings	9.0	<p>The Applicant shall not carry out first workings on site that are not generally in accordance with the approved mine plan without written approval of the Secretary.</p>	Not triggered	<p>No first workings undertaken during the audit period that were inconsistent with the approved mine plan. MC and TC provided an update on consultation undertaken during the audit period where adaptive management responses were implemented in response to geological features and constraints. These included LC letters to DP&E and DRE dated 16/10/15 regarding the shortening of MWs 10-12 due to encountering a faulting zone. DP&E responded via letter dated 10/11/15 approving the change to the MW layout proposed by LC.</p>

Section	Sub-section	Requirement	Status	Comments
	9A	Within 3 months of the approval of MOD 1, the Applicant shall produce and subsequently implement a Built Features Management Plan that considers surface infrastructure potentially affected by the first workings of the Underground Linkage between Chain Valley Colliery and Manning Colliery, including WCS's MP01 sewer rising main, TransGrid's electricity transmission assets and infrastructure associated with the Vales Point Power Station, to the satisfaction of the Secretary.	Compliant	Viewed CVC Link Road Built Features Management System Plan MSP-19193 dated 18/05/15. LC sought an extension from DP&E to the date required to submit the Built Features Management System Plan via letter on 11/02/15. Viewed the response letter from DP&E dated 13/02/15 confirming that an extension for submission date to 27/05/15 was approved. Viewed letter from DP&E dated 4/06/15 approving the CVC Link Road Built Features Management System Plan as submitted on 18/05/15. No reviews or assessments were commissioned by DP&E during the audit period.
Payment of Reasonable Costs	10.0	The Applicant shall pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan.	Not triggered	
SCHEDULE 5				
ADDITIONAL PROCEDURES				
NOTIFICATION OF LANDOWNERS	1.0	As soon as practicable after obtaining monitoring results showing: (a) an exceedance of any relevant criteria in Schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and (b) an exceedance of any relevant air quality criteria in Schedule 3, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).	Administrative Non Compliant	(a) Notifications provided to landowner of residence R22 (Salvestro) following two attended noise monitoring exceedances during the audit period in March 2013 and November 2013. Notifications were provided via letters from LC to the landowner dated 26/03/13 (March exceedance) and 22/11/14 (November exceedance). Two months for the November exceedance to be notified to the landowner is not deemed to be "as soon as practicable" . The March 2013 notification letter also notified the landholder of rights under Schedule 5, Condition 2 of SSD-5465. No responses to the notifications were received by LC. (b) Not triggered. No exceedances of air quality criteria at private residences as a result of CVC operations.
INDEPENDENT REVIEW	2.0	If an owner of privately-owned land considers the development to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Applicant shall: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: <input type="checkbox"/> consult with the landowner to determine his/her concerns; <input type="checkbox"/> conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and	Not triggered	No private landowner requests for independent impact review made during the audit period.

Section	Sub-section	Requirement	Status	Comments
SCHEDULE 6				
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING				
ENVIRONMENTAL MANAGEMENT				
Environmental Management Strategy	1.0	<p>The Applicant shall prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> (a) be submitted to the Secretary for approval within 7 months of the date of this consent; (b) provide the strategic framework for environmental management of the development; (c) identify the statutory approvals that apply to the development; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <input type="checkbox"/> keep the local community and relevant agencies informed about the operation and environmental performance of the development; <input type="checkbox"/> receive, handle, respond to, and record complaints; <input type="checkbox"/> resolve any disputes that may arise during the course of the development; <input type="checkbox"/> respond to any non-compliance; <input type="checkbox"/> respond to emergencies; and (f) include: <ul style="list-style-type: none"> <input type="checkbox"/> copies of any strategies, plans and programs approved under the conditions of this consent; and <input type="checkbox"/> a clear plan depicting all the monitoring required to be carried out under the conditions of this consent. <p>The Applicant shall implement the approved management strategy as approved from time to time by the Secretary.</p>		<p>Reviewed CVC Environmental Management Strategy OMP-D-16374 (EMS) dated 12/10/12. The EMS was approved by DP&E via letter dated 6/11/12.</p> <p>Viewed letter dated 23 July 2014 submitting revised EMS to DP&E following the approval of SSD-5465 on 23/12/13. No response was received from DP&E on the revised EMS.</p> <p>No evidence available at the time of the audit to confirm that the EMS is to the satisfaction of the Secretary.</p> <p>The EMS was not revised and resubmitted following the approval of MOD1 or MOD 2.</p> <p>Given the time that has lapsed since the 2014 submission of the EMS it is recommended that LakeCoal update the EMS to reflect the current status of CVC activities approved under SSD-5465 (MOD2) and seek to have the revised EMS approved by DPE.</p>
		Adaptive Management	2.0	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedules 3 and 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.</p>

Section	Sub-section	Requirement	Status	Comments
		<p>Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <p>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</p> <p>(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</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>		<p>minimise noise impacts.</p> <p>During a site inspection by EPA officers on 4/03/14, a number of general housekeeping and hydrocarbon management issues were identified at CVC. This included the leakage of oily fluid material from the Backset Shed. EPA issues a Show Cause notice dated 11/06/14 for this non-compliance. In response, LC reviewed the hydrocarbon management arrangements on site, including for the Backset Shed area and implemented civil remediation works. A response from LC to the EPA regarding the Show Cause Notice was provided via letter dated 27/06/14. The EPA issued an Official Warning for this incident on 26/09/14.</p>
<p>Management Plan Requirements</p>	<p>3.0</p>	<p>The Applicant shall ensure that the management plans required under this consent 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"> <input type="checkbox"/> the relevant statutory requirements (including any relevant approval, licence or lease conditions); <input type="checkbox"/> any relevant limits or performance measures/criteria; <input type="checkbox"/> the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; <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"> <input type="checkbox"/> impacts and environmental performance of the development; <input type="checkbox"/> effectiveness of any management measures (see c above); <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 program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <input type="checkbox"/> incidents; 	<p>Compliant</p>	<p>Reviewed CVC management plans, monitoring programs and procedures. Management documents include reference to relevant legislative requirements, guidelines and policies, monitoring / performance and response measures as required.</p> <p>LC maintain a public telephone contact number for community complaints, which are summarised on the CVC website.</p> <p>During the site inspection, LC Duty Cards were seen to be available in the Operations Room at the pit top area. The Duty Cards includes a response procedure specifically for significant environmental incidents and emergencies.</p>

Section	Sub-section	Requirement	Status	Comments
		<input type="checkbox"/> complaints; <input type="checkbox"/> non-compliances with statutory requirements; and <input type="checkbox"/> exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan. <i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i>		
Annual Review	4.0	<p>By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the past calendar year, which includes a comparison of these results against the:</p> <ul style="list-style-type: none"> <input type="checkbox"/> relevant statutory requirements, limits or performance measures/criteria; <input type="checkbox"/> requirements of any plan or program required under this consent; <input type="checkbox"/> monitoring results of previous years; and <input type="checkbox"/> relevant predictions in the documents listed in condition 2 of Schedule 2; <p>(c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the current financial year to improve the environmental performance of the development.</p>	Administrative Non Compliant	<p>Reviewed AR's prepared for the audit period:</p> <ul style="list-style-type: none"> • 2013 AR, submitted on 9/04/14; • 2014 AR, submitted on 17/04/15; and • 2015 AR. Viewed LC letter to DP&E dated 21/03/16 seeking extension to submission date. DP&E granted an extension of the submission date until 30/04/16 via letter dated 23/03/16. Viewed letter and emails from LC dated 28/04/16 submitting the final 2015 AR to DP&E. <p>WC (pers comm) noted that regulatory comments on the content of the 2013 and 2014 AR's had been incorporated into the 2015 AR document. It was noted that the 2015 AR also includes a table with LC response actions to issues raised during regulatory site inspections during 2015 and review of the 2014 AR document.</p> <p>It was noted that the latest AR for 2015 does not fully adhere to the requirements of the DPE Guidelines (requires non-compliances to be reported and has specific requirements to provide details on major actions and environmental improvements during the year).</p> <p>It is recommended that future ARs should be prepared to meet the requirements of the DPE Annual Review Guidelines.</p>
Revision of Strategies, Plans and Programs	5.0	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under Condition 4 above;</p> <p>(b) the submission of an incident report under Condition 7 below;</p> <p>(c) the submission of an audit report under Condition 9 below; or</p> <p>(d) any modification to the conditions of this consent, (unless the conditions require otherwise), the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary. Where this review</p>	Compliant	<p>HB reviewed revisions of management plans, strategies and programs during the audit period and confirmed internal reviews were completed by LC as required, including amendments in response to MOD 1 and correspondence responding to annual regulatory inspections.</p>

Section	Sub-section	Requirement	Status	Comments
		leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary . <i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i>		
		The Applicant shall continue to operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary . This CCC must be operated in accordance with the <i>Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments</i> (Department of Planning, 2007, or its latest version). <i>Notes:</i> <ul style="list-style-type: none"> <input type="checkbox"/> The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. <input type="checkbox"/> In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community. <input type="checkbox"/> In operating the CCC, the Department will accept the continued representation from existing CCC members. 	Compliant	Reviewed CCC meeting minutes from the audit period. Minutes of meetings are available on the CVC website. It is recommended that LC consult with DP&E and existing community representatives regarding the consolidation of the two CCC's for CVC and Mannering Colliery into a single body.
Community Consultative Committee	6.0			
REPORTING				
Incident Reporting	7.0	The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the development, the Applicant shall notify the Secretary and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Not Compliant	No evidence available at the time of audit to confirm that TSS (water quality) exceedance incident recorded in May 2015 was reported to DP&E within 7 days from the date it occurred. A summary of incidents / exceedances of SSD-5465 criteria was summarised in audit period Annual Reviews provided to DPE. For a summary of EPL non-compliances and reporting during the audit period, see Table B . It is recommended LC develop a procedure that outlines the respective regulatory agencies and (if relevant) landholders to be notified in the event of environmental incidents on site.
Regular Reporting	8.0	The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	Compliant	Reviewed the CVC website. Approved management documents and records of monthly monitoring are made publically available as required.
INDEPENDENT ENVIRONMENT	9.0	By the end of February 2016 (or other such timing as agreed by the Secretary), and every 3 years thereafter, unless the Secretary directs	Compliant	This audit. Viewed letter from DP&E to LC dated 29/01/16 providing approval for HB to be commissioned as

Section	Sub-section	Requirement	Status	Comments
AL AUDIT		<p>otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.</p> <p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i></p> <p>Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.</p>		requested.
	10.0		Compliant	Viewed CVC Form FRM-D-17331 Response to Audit Findings dated 13/03/13. The response was prepared and submitted to DP&E within six weeks of completion of the previous audit report.
ACCESS TO INFORMATION	11.0	<p>The Applicant shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the EIS; <input type="checkbox"/> all current statutory approvals for the development; <input type="checkbox"/> all approved strategies, plans and programs required under the conditions of this consent; <input type="checkbox"/> a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; <input type="checkbox"/> a complaints register (updated monthly); <input type="checkbox"/> minutes of CCC meetings; <input type="checkbox"/> the Annual Reviews of the development; <input type="checkbox"/> any Independent Environmental Audit, and any other audit, and the Applicant's response to the recommendations in these audits; <input type="checkbox"/> any other matter required by the Secretary; and <p>(b) keep this information up-to-date, to the satisfaction of the Secretary.</p>	Compliant	Reviewed the CVC website. Approved documents and records of monthly monitoring are available as required.

Section	Sub-section	Requirement	Status	Comments
Statement of Commitments				
Groundwater		<p>In addition to the management and mitigation measures undertaken at the Colliery for groundwater as described in the WMP, the following commitments specific to the Proposal will be undertaken. Some commitments are already undertaken under the WMP. LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> assess whether abnormal or significant groundwater inflow changes occur in the active panels; <input type="checkbox"/> maintain the water flow monitoring appliances used to measure pumped water volumes to and from the Colliery in good working order; <input type="checkbox"/> maintain and plot records of daily total Colliery water pumping and annually communicate an interpretation of the findings within the Annual Review. A copy of the Annual Review will be supplied to DPI Water; <input type="checkbox"/> measure water levels and quality within private bores, where access is possible, in relevant areas to assess if any adverse effects occur due to subsidence from the Proposal; and <input type="checkbox"/> develop groundwater assessment criteria and triggers, response protocols and contingency measures. <p>Although it is not anticipated that private bore yields would be impacted due to subsidence, should such a situated arise, LakeCoal would provide an alternative water supply until the impacted bore recovers. Any monitored or reported adverse impacts on the yield, saturated thickness or quality of a private registered bore will be investigated by LakeCoal. In the event of a groundwater level drop of over 2 m for a period of two months or more, a notable increase in iron hydroxide, or an adverse change in salinity as a consequence of subsidence, LakeCoal will enter into negotiations with the affected landowners and the Mine Subsidence Board with the intent of formulating an agreement which provides for one, or a combination of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> re-establishment of saturated thickness in the affected bore(s) through bore deepening; <input type="checkbox"/> establishment of additional bores to provide a yield at least equivalent to the affected bore prior to mining; <input type="checkbox"/> provision of access to alternative sources of water; and/or <input type="checkbox"/> compensation to reflect increased water extraction costs (eg. due to lowering pumps or installation of additional or alternative pumping equipment). 	Compliant	<p>Reviewed CVC Water Management Plan and Annual Reviews for the audit period. Annual reviews present groundwater monitoring data and reviews of trends during the audit period.</p> <p>Viewed real-time monitoring and recording of groundwater extraction volumes in CITECT available in the CVC operations room, and confirmed revised trigger levels implemented during the audit period to control daily extraction volumes.</p> <p>Viewed LC correspondence regarding monitoring of private bores dated 24/05/12. Letters were sent to landholders where NOW records indicated a private bore was in place on their property. One landholder responded in October 2012 that a private bore was in place, however, following an inspection by LC personnel, the bore was found to be fully enclosed and unable to be accessed for the purpose of monitoring.</p>
Surface Water		<p>Management and monitoring of surface water will continue to be undertaken in accordance with the Colliery's WMP, which will be reviewed and updated as required to include the commitments made</p>	Compliant	<p>(WC (pers comm) confirmed that the CVC WMP was under review at the time of audit.</p>

Section	Sub-section	Requirement	Status	Comments
		<p>below. LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> update the WMP to include any changes as a result of the proposed modification; <input type="checkbox"/> limit the main underground pumps to a maximum pump out rate of 10.5 ML/day within 12 months of approval; <input type="checkbox"/> request an amendment of EPL1770 to include a condition on the daily discharge volume limit stating that "Exceedance of the volume limit for Point 1 is permitted only if the discharge from Point 1 occurs solely as a result of rainfall at the premises exceeding 10 mm during the 24 hours immediately prior to commencement of the discharge"; <input type="checkbox"/> undertake daily measurements of discharge volumes and report publicly on a monthly basis via LakeCoal's website; <input type="checkbox"/> continue collection of baseline water quality data to aid in the development of appropriate discharge water quality trigger values; <input type="checkbox"/> engage suitably qualified expert to conduct an assessment of the metals contained within discharge water in accordance with the ANZECC water quality guidelines and provide this assessment to the EPA by 31 December 2013; <input type="checkbox"/> investigate water saving measures to minimise the amount of potable water required from WSC for Colliery operations; <input type="checkbox"/> quantify the groundwater storage capacity in the Great Northern and Wallarah Seams; <input type="checkbox"/> continue effluent monitoring regime of receiving soils from the AWTS in accordance with the parameters and testing frequencies identified in the Colliery's WMP. The results of this monitoring program will be reviewed by a suitably qualified expert and used to determine the appropriateness of the existing irrigation area to receive this effluent; <input type="checkbox"/> develop a program to monitor creek line channel stability and the health of riparian vegetation within Swindles Creek. Monitoring will be undertaken in accordance with Section 8.5.2 of the Surface Water Impact Assessment (EIS Appendix E) and incorporated into the Colliery's WMP or Biodiversity Management Plan; and <input type="checkbox"/> record monitoring data in accordance with the Colliery's WMP and EPL 1770. Monitoring data will be interpreted as it is received to ensure appropriate operational guidance on monitoring water quality within desired parameters. Results of water quality monitoring will be reported in the Annual Review and made available to the CCC, as well as Wyoming and Lake Macquarie Councils 		<p>During the audit period, engineering controls had been put in place with the underground pumps, with installation of daily volumetric triggers which automatically stop pumping in advance of the daily extraction limit. Total volumes pumped from the underground workings are also able to be viewed in real-time to assist with tracking and planning of pumping requirements in advance of rainfall events, etc.</p> <p>CVC Monthly Environmental Reporting includes data on the volume of water discharged from site.</p> <p>Viewed a copy Laxton (September, 2013) report on the characterisation of metals within the discharge water. Viewed a letter from LC to EPA dated 17/10/13 in response to the U1 PRP required under EPL 191. This report included a copy of Laxton (2013).</p> <p>Water savings measures on site are described in Section 4.7 of the approved WMP. WC (pers comm) noted that at the time of audit, LC were investigating the use of a dust suppressant to reduce the need to run a water cart at the surface facilities. If implemented, one benefit of the dust suppressant would also be in reducing water usage.</p> <p>Section 4.7 of the approved WMP describes groundwater storage capacity of the coal seams.</p> <p>Viewed ALS annual results report (ES 1304183) dated 7/03/13 for monitoring of effluent in accordance with Section 5.6 of the approved WMP.</p> <p>Viewed an example of completed Creek Stability Health Inspection Proformas, including FRM-D-19094 completed by BJ on 25/08/14.</p> <p>Monitoring is undertaken in accordance with Sections 5-9 of the approved WMP, with results presented in CVC Monthly Environmental Reports, CCC presentations and in the audit period AR's.</p>

Section	Sub-section	Requirement	Status	Comments
<p>Noise</p>		<p>Management and monitoring of noise will continue to be undertaken in accordance with the Colliery's NMP, which will be reviewed and updated as required to include the commitments made below. LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> continue attended compliance monitoring on site which will be used to identify potential hot spots and primary noise sources; <input type="checkbox"/> continue real-time noise monitoring alerts to site personnel to enable implementation of any required rapid noise management initiatives; <input type="checkbox"/> manage potential non-compliance through a noise complaint handling and response system, including the identification of responsible sources to enable targeted remedial action; <input type="checkbox"/> assess if further noise mitigation options for the ventilation fans are reasonable and feasible following the receipt of attenuation proposals; and <input type="checkbox"/> discuss potential management measures or agreement options with the landowner at 275 Cams Boulevard, following receipt of proposals from acoustics specialists. 	<p>Compliant</p>	<p>Quarterly attended noise monitoring during the audit period was undertaken to confirm compliance with SSD-5465 criteria.</p> <p>Real-time noise monitoring data is also available from one monitoring location (RTN0001). The monitor provides alerts to LC staff when trigger levels are met, with audio information also available to assist in identifying the main noise source(s) at the time of the notification. WC (pers comm) confirmed that no notifications from RTN001 occurred during the audit period as a result of CVC operations.</p> <p>Real-time noise management is discussed in the audit period AR's following implementation.</p> <p>The NMP includes a procedure for response to noise complaints. Viewed an example of response to a noise complaint dated 24/02/15 and follow up with the complainant. The CVC website also includes a complaints register, updated monthly.</p> <p>Additional mitigation options assessed during the audit period include a review of the ventilation fan noise in 2012. WC (pers comm) confirmed that LC reviewed the options available, including acoustic barriers, however this was not pursued due to the ability to access the vent fan infrastructure for maintenance or in an emergency situation.</p>
	<p>In addition to the above, LakeCoal is committed to the progressive implementation of feasible measures to target long term noise goals which are designed to reduce noise emissions from the Colliery. Long term options for investigation include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> modification to belt/movement alarms; <input type="checkbox"/> investigation of surface conveyor and coal preparation equipment, to determine if noise reductions are possible; <input type="checkbox"/> identifying sound attenuation options for the surface bulldozer and front end loader; <input type="checkbox"/> strategic placement of acoustic barriers; <input type="checkbox"/> attenuation for the surface screener/shaker; <input type="checkbox"/> installation of quiet rollers for surface conveyor belts; <input type="checkbox"/> acoustic treatments around compressors; and <input type="checkbox"/> the use of a conveyor stacker for product coal stockpiling. 	<p>Compliant</p>	<p>WC (pers comm) confirmed that LC remains committed to meeting the long term noise goals. It was noted that the recent modification to SSD-5464 and Manning Colliery PA 06_0311 would allow CVC coal to be sent to the Manning pit-top for crushing, minimising the need to use the CVC pit-top.</p>	

Section	Sub-section	Requirement	Status	Comments
Air Quality and greenhouse gases		<p>Management and monitoring of air quality and greenhouse gases will continue to be undertaken in accordance with the Colliery's AQCHCMP, which will be reviewed and updated as required to include the commitments made below. LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> investigate the use of a stacker to replace hauling between current conveyor system and stockpiles; <input type="checkbox"/> undertake GHG monitoring comprising measurement of carbon dioxide and methane at the ventilation shaft and fan sites; and <input type="checkbox"/> record and report annual diesel, oil, grease, acetylene and electricity use to fulfil National Greenhouse and Energy Reporting Scheme requirements. 	Compliant	<p>Reviewed the CVC AQGHGMP, NGERs reporting and audit period ARs and confirmed that air quality and greenhouse gas monitoring information is being reported.</p> <p>Confirmed that the stacker had been constructed during the audit period and viewed it in operation during the site inspection.</p>
Traffic and transport		<p>Management and monitoring of traffic and transport will continue to be undertaken in accordance with the Colliery's RTP. In addition, LakeCoal will continue to investigate alternative options for transporting export coal to the PWCS, specifically the preferred rail transport option, requiring the construction of a private haul road to the VPPS coal unloading facility and associated infrastructure upgrades. In addition, LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> provide a detailed feasibility report of rail transport options to DP&I as part of the next coal transport options report to be submitted, by 31 December 2014. Should the report identify that coal transport via rail is feasible, and subject to obtaining necessary agreements, LakeCoal will prepare and lodge an application to modify the relevant approval so as to permit the installation and operation of facilities necessary to undertaken rail transport of coal to PWCS; <input type="checkbox"/> discuss the potential to utilise proposed rail loading facilities associated with the Wallarah 2 Coal Project, following this project receiving approval; and <input type="checkbox"/> investigate options to reduce peak hour traffic would be investigated including potentially limiting the peak hourly volumes of the Colliery truck traffic which would be permitted to travel via this intersection should the Colliery not be using rail transport for export coal by five years from the granting of development consent. Alternatively, a pro rata financial contribution to the cost of installing traffic signals at the southbound intersection of the F3 and Sparks Road interchange could be made commensurate with the percentage of Colliery generated traffic using the intersection. 	Compliant	<p>Viewed the CVC Coal Transport Options Report dated 10/12/14. The document reviews the feasibility of coal transport from CVC by rail and the potential utilisation of the Wallarah 2 infrastructure (if in place).</p> <p>WC (pers comm) noted that during the audit period, a minimum two-minute delay had been set up for the CVC truck weighbridge to minimise the potential for traffic build-up on Ruttleys Road.</p>

Section	Sub-section	Requirement	Status	Comments
Subsidence		<p>Management and monitoring of subsidence will continue to be undertaken in accordance with the Colliery's SMP, which will be reviewed and updated as required to include the commitments made below. LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> provide raw subsidence survey data to OEH within 7 days of completion; <input type="checkbox"/> undertake annual bathymetric surveys of the lake bed to determine actual subsidence and undertake a comparison with predicted levels. Should measured subsidence significantly exceed predicted levels, LakeCoal will review future panel designs to limit future impacts to acceptable levels; <input type="checkbox"/> install a new foreshore survey line above the first and second workings panels where the underground linkage passes beneath them and possibly extending from the foreshore to the point of connection with the MC workings; <input type="checkbox"/> inspect existing conditions in the Fassifern Seam and undertake geotechnical and geological mapping in the roadways proximate to the proposed linkage in both CVC and MC workings; <input type="checkbox"/> complete representative borehole core drilling and sampling of the Fassifern Seam floor at the start and finishing ends of the underground linkage and where the headings pass beneath the SPB. Development below the foreshore will be limited to two headings only until floor conditions can be confirmed; <input type="checkbox"/> develop infrastructure monitoring and management plans in consultation with infrastructure owners and other relevant stakeholders; <input type="checkbox"/> re-establish and re-survey Survey Line 24; <input type="checkbox"/> install a suitable survey line at the starting end above Great Northern Seam first workings to provide early warning monitoring data for the tension towers and switchyard structures; <input type="checkbox"/> monitor tension and suspension towers and switchyard conductor suspension frames directly above the panels, foreshore and adjacent inlet canal wall; <input type="checkbox"/> ensure that a monitoring and management plan for the MP01 sewer rising main is in place prior to commencement of mining that may impact Council's infrastructure; and <input type="checkbox"/> complete an annual subsidence report and make this report publicly available on the Colliery's website. 	Compliant	<p>No raw subsidence survey data had been received during the audit period following the approval of SSD-5465 (MOD2). The requirement for reporting to OEH was not triggered.</p> <p>Bathymetric surveys have been completed annually as required and reported in the audit period ARs. Subsidence remained within predicted levels.</p> <p>The requirement for a new foreshore survey line has not been triggered (MC, pers comm).</p> <p>MC (pers comm) confirmed that the Fassifern Seam conditions had been mapped at both the CVC and Mantering Colliery ends of the proposed roadway.</p> <p>Not triggered.</p> <p>Not triggered</p> <p>Not triggered</p> <p>Not triggered</p> <p>Not triggered</p> <p>Not triggered</p> <p>2013 Subsidence Report available on the CVC website. Annual Subsidence reporting for 2014 and 2015 calendar years was included in the respective AR's.</p>
	Marine ecology		<p>Management and monitoring of marine ecology will continue to be undertaken in accordance with the Colliery's BCMP and SGMP, which will be reviewed and updated as required to include the commitments made below. LakeCoal will</p>	Compliant

Section	Sub-section	Requirement	Status	Comments
		<ul style="list-style-type: none"> <input type="checkbox"/> revise the BCMP to include the sampling locations in the assessment of the Proposal; <input type="checkbox"/> undertake seasonal surveys (spring and autumn) for the Site as required under the BCMP; <input type="checkbox"/> commission additional independent sampling and analysis to validate results obtained during monitoring, and review future panel design if impacts due to subsidence are determined to be moderate or greater; <input type="checkbox"/> revise the SGMP to include the transect locations utilised in the assessment of the Proposal; <input type="checkbox"/> continue annual seagrass surveys/monitoring; <input type="checkbox"/> continue annual subsidence surveys (bathymetric surveys) and land based surveys; <input type="checkbox"/> include results from the BCMP and SGMP within the Colliery's Annual Review; and <input type="checkbox"/> make the Annual Review and annual subsidence surveys available on the Colliery's website. 		<p>Results from benthic organism and seagrass monitoring were included in the audit period AR's, available on the CVC website.</p>
<p>Terrestrial ecology</p>		<p>In addition to the management and mitigation measures undertaken at the Colliery for terrestrial ecology as described in the BMP, the following commitments specific to the Proposal will be undertaken. Some commitments are already undertaken under the BMP LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> investigate one of the following options in consultation with OEH to offset the biodiversity impacts arising from the proposed modification: <ul style="list-style-type: none"> <input type="checkbox"/> provide \$10,000 of funding, which is equivalent to the biodiversity being lost (i.e. 5 credits x \$2,000 per credit) to existing environmental programs at the site which benefits the Swamp Sclerophyll EEC; or <input type="checkbox"/> consult with OEH to identify a suitable conservation program and provide \$10,000 of funding; or <input type="checkbox"/> purchase and retire 5 credits on the Biobanking register. <input type="checkbox"/> update the BMP to include the following: <ul style="list-style-type: none"> <input type="checkbox"/> the completion of pre-disturbance surveys in the survey area for Black-eyed Susan, Leafless Tongue Orchid and Variable Midge Orchid during their flowering periods (July to December, November to February and September to October, respectively); <input type="checkbox"/> pre-disturbance surveys by an ecologist to determine the important components of vegetation communities and fauna habitats that should be preferentially retained in the APZs; <input type="checkbox"/> installation of delineation fencing around threatened flora populations (if found) to ensure their protection during development and maintenance of the APZs; <input type="checkbox"/> condition monitoring for threatened flora populations (if found); <input type="checkbox"/> retention of hollow-bearing trees in the APZs, where possible, with details to be included in a hollow tree register; 	<p>Compliant</p>	<p>WC (pers comm) confirmed that following consultation with OEH over SSD-5465 (MOD2) EMM were commissioned by LC to complete biobanking calculations for terrestrial ecology to determine appropriate offsetting contributions (see above comments on the status of the BMP).</p> <p>Viewed meeting minutes dated 07/12/2015 from a meeting between LC and OEH discussing offsetting options for the site. Commitment's made by LC to undertake biobanking calculations.</p> <p>Not triggered</p>

Section	Sub-section	Requirement	Status	Comments
		<ul style="list-style-type: none"> o installation of nest boxes (or salvaged hollows) within the APZs under the supervision of a suitably qualified ecologist or wildlife carer to replace hollows where hollow-bearing trees cannot be retained; o measures for APZ maintenance that include weed control; o clearing of hollow-bearing trees (if required) under the supervision of a suitably qualified ecologist; o any injured fauna would be taken to the nearest veterinary hospital for treatment before release; and o relocation of suitable hollow-bearing felled trees adjacent to the APZs to create additional fauna habitat; <input type="checkbox"/> undertake the design of the dam embankment and spillway works in consultation with an ecologist to minimise potential impacts on the Swamp Oak Floodplain Forest EEC; <input type="checkbox"/> ensure pre-clearing surveys are undertaken by an ecologist to minimise the potential impact to fauna and significant vegetation prior to clearing works being undertaken within the embankment and spillway area; <input type="checkbox"/> clearly delineate the clearing footprint and cordon off surrounding vegetation as a 'no go' zone during works to the dam embankment and spillway; <input type="checkbox"/> minimise disturbance areas where possible by ensuring all stockpiling of materials, parking of machinery etc, is undertaken in previously cleared areas; <input type="checkbox"/> ensure that, wherever possible, dead standing timber and fallen timber will be avoided by any clearing works, or if required to be removed, be relocated into suitable habitat areas nearby; <input type="checkbox"/> ensure all equipment used for the earthworks associated with the dam embankment and spillway will be cleaned of excess soil potentially containing pathogens and weed seeds prior to entering the Site; <input type="checkbox"/> install sediment fencing surrounding the proposed earthwork areas, in accordance with a site-specific erosion and sediment control plan for the works; <input type="checkbox"/> ensure that in the event that sedimentation dam water is released from Dam 10 prior to the works being undertaken, it will be undertaken in a controlled manner over a number of days to ensure that the release does not result in significant erosion and sedimentation to the Swamp Oak Floodplain Forest; <input type="checkbox"/> continue the management and monitoring of flora and fauna in accordance with the BMP for the life of the mine, including: <ul style="list-style-type: none"> - the condition and composition of the Swamp Oak Floodplain Forest area, - the condition of vegetation adjacent to the ventilation shaft and fans; 		<p>Viewed copy of EMGA ecology report dated November 2014 assessing impacts associated with the CVC dam embankment and spillway improvement works.</p> <p>Viewed copies of photos taken pre-construction and during improvement works, including delineation of area to be cleared to ensure that disturbance was limited to as small an area as possible and that equipment did not operate outside of area approved by the ecologist. Email from EMGA ecologist dated 15/01/15 to LC confirmed that the area have been surveyed with the excavator operator to confirm appropriate access areas and 'no-go zones'.</p> <p>WC (pers comm) confirmed the arrangements put in place by LC for the discharge of water during the dam and spillway improvement works. Viewed an erosion and sediment control plan dated 24/11/14 prepared by Toepfers (LC contractor) confirming sediment fencing, etc to be installed. Viewed February 2015 photos of discharge during the upgrade works via a temporary rock channel.</p>

Section	Sub-section	Requirement	Status	Comments
		<ul style="list-style-type: none"> - the location and distribution of weed infestations; and - the abundance and distribution of feral animal use. <input type="checkbox"/> noxious weeds will be removed and continually controlled from the pit top area, allowing for natural regeneration of vegetation; <input type="checkbox"/> weed invasion will be monitored as part of the Colliery's BMP; and <input type="checkbox"/> the condition of the EEC areas will be monitored through the Colliery's BMP. 		<p>Viewed 2015 calendar year work orders completed and invoices provided to LC by Toepfers (LC contractor) for weed management during the audit period. During the site inspection of the pit top and EEC areas there was evidence of weed management and maintenance work being undertaken.</p> <p>The LC Weekly Environmental Inspection sheet also included a section to identify areas where corrective actions were required for weed management.</p>
Heritage		<p>Management and monitoring of heritage will continue to be undertaken in accordance with the Colliery's HMP, which will be reviewed and updated as required to include the commitments made below. LakeCoal will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> review and revise the HMP to remove site #45-7-0154 and incorporate any other changes as a result of the proposed modification; <input type="checkbox"/> update the HMP following approval of the Proposal to include the extended area to which it relates; <input type="checkbox"/> ensure that should unanticipated Aboriginal or historic heritage artefacts be found during dam embankment and diversion works, work will cease and the site assessed by an archaeologist; and <input type="checkbox"/> ensure that in the unlikely event that skeletal remains are found during dam embankment and diversion works, work will cease immediately in the area and the NSW Police Coroner called to determine if the material is of Aboriginal origin. OEH and relevant Aboriginal community stakeholders will be notified if the remains are positively identified as being of Aboriginal origin to determine their appropriate management prior to works recommencing. 	Compliant	<p>HMP not updated during the audit period following the approval of SSD-5465 (MOD 2). Note that the Modification was approved in December 2015.</p> <p>The approved HMP was updated during the audit period as required (see comments above) and includes procedures for responses to unanticipated finds.</p>
Wastes		<p>Management and monitoring of waste will continue to be undertaken in accordance with the Colliery's Waste Management Standard. In addition, LakeCoal will continue to try and improve its waste volumes and waste management practices in line with its objective for 60% of all wastes generated at the Colliery (excluding wastewater) to be recyclable or reusable.</p>	Compliant	<p>Waste management on site was reported in audit period AR's. WC (pers comm) confirmed LC has appointed Remondis as the CVC Waste Management contractor and noted LC continues to improve waste recycling rates towards 60% target.</p>

Section	Sub-section	Requirement	Status	Comments
Hazards		Management and monitoring of hazards will continue in accordance with the Colliery's existing hazard management measures. Periodic review of the effectiveness of existing measures will occur in accordance with the Colliery's safety management system and additional measures implemented as warranted.	Compliant	WC (pers comm) confirmed hazards assessment and monitoring is undertaken as part of the LC JSO procedures. Viewed examples of JSO's completed during the audit period.
Visual		Management and monitoring of visual impacts will continue to be undertaken in accordance with the Colliery's existing commitment. In addition, LakeCoal will ensure additional surface lighting at the Colliery complies with AS4282 (INT) 1995 – <i>Control of Obtrusive Effects of Outdoor Lighting</i> .	Compliant	Visual and lighting management and changes to existing infrastructure noted in Section 3.11 of the audit period AR's. During the 2012-13 reporting period, a lighting audit in accordance with AS 4282:1997 was undertaken at 22 locations on the CVC site boundary representative of residential receivers. The audit found that the visual and lighting impacts of site operations and infrastructure was minimal. Viewed the Lighting Survey, Chain Valley Colliery dated 30/05/13 prepared by Wadoo.
Soil		Management and monitoring of soils will continue to be undertaken in accordance with the Colliery's WMP, which will be reviewed and updated as required to include the commitments made below. LakeCoal will: <ul style="list-style-type: none"> <input type="checkbox"/> prevent disturbance of ASS where practicable during any construction activities; <input type="checkbox"/> prepare an ASSMP where there is potential that ASS will be disturbed; <input type="checkbox"/> test and handle any ASS disturbed in accordance with the ASSMP and treat or dispose of to an appropriately licensed facility; <input type="checkbox"/> limit the area of any disturbance at the surface infrastructure sites and period of exposure; <input type="checkbox"/> implement site management procedures such as watering of disturbed areas and unsecured stockpiles; <input type="checkbox"/> ensure relevant licences and management plans are in place for the correct storage and handling of hydrocarbons; <input type="checkbox"/> maintain suitable bunding around all hazardous liquid storage areas; <input type="checkbox"/> maintain oil separation facilities on the wash down sump for the treatment of oily water; and <input type="checkbox"/> remove all waste oil from site and dispose via a licensed external waste collection company. 	Compliant	WC noted that a Risk Assessment for Acid Sulphate Soils (ASS) confirmed low risk at CVC for construction during the audit period. The inspection of exposed areas is documented on (at least) a monthly basis as part of the Environmental Inspection process. LC operates a water cart to minimise dust emissions from the accessible areas of the pit-top and stockpile area. WC (pers comm) confirmed that hydrocarbon handling and storages are managed in accordance with the EMS procedures, including <i>STD-0009-D11142 Hazardous Chemicals and Dangerous Goods</i> . The audit period AR's also describe hydrocarbon management measures on site. Hydrocarbon management and storage areas were seen to be in place during the site inspection, with work orders and inspection procedures in place to ensure regular inspection

Section	Sub-section	Requirement	Status	Comments
Rehabilitation and mine closure		Rehabilitation will be undertaken in accordance with the Colliery's RMP and the MOP in force at the time. Detailed management and monitoring proposals for final rehabilitation will be included within a Mine Closure Plan to be prepared at least two years prior to cessation of mining activities.		and maintenance. Remondis (LC waste management contractor) manage the removal and disposal of waste oils and hydrocarbons from site. Not triggered. No rehabilitation required during the audit period.
Economic		LakeCoal will contribute \$0.035/ft of coal from the Colliery into a dedicated community fund to improve public infrastructure and for the provision of community projects in the surrounding communities of Chain Valley Bay, Mannering Park, Summerland Point and Gwandatan.	Compliant	See Schedule 2 Condition 12.
Social		LakeCoal will continue to implement management measures and monitoring programs to prevent or minimise negative impacts and enhance positive impacts in accordance with its Environment and Community Policy. LakeCoal will: <ul style="list-style-type: none"> <input type="checkbox"/> maintain open and constructive communication with affected individuals and groups; <input type="checkbox"/> participate in the CCC; <input type="checkbox"/> provide environmental monitoring data and other relevant information in a timely manner via the LakeCoal website; <input type="checkbox"/> be responsive to community issues and actual and/or perceived impacts from the Colliery's activities; <input type="checkbox"/> work in partnership with stakeholders to address community needs; <input type="checkbox"/> ensure effective management of LakeCoal's social impacts; <input type="checkbox"/> liaise regularly with relevant government agencies and councils; <input type="checkbox"/> provide regular Colliery updates with landowners and local residents through the CCC; <input type="checkbox"/> continue payments, throughout the life of the Proposal, to the community fund established; and <input type="checkbox"/> consider individual sponsorship opportunities throughout the life of the Proposal. 	<p>LC have continued to maintain a number of mechanisms to provide information to the local community during the audit period. These include:</p> <ul style="list-style-type: none"> • Environmental contact hotline; • Public notices; • CCC meetings and publication of minutes; • Publication of approvals and environmental management documents on the CVC website; and • Complaint response procedures. <p>LC also make donations to local community groups, schools and other organisations. Viewed invoices for contributions provided during the audit period and available budget for 2016.</p>	

Table B
Other Licences & Approvals

Instrument	Status	Comments
EPL 1770	Not Compliant	<p>Reviewed Environment Protection Licence (EPL) 1770 conditions and Annual Returns submitted to the EPA during the audit period. The following non-compliances and recommendations were identified:</p> <p>2013</p> <p>L3.1 Volume and mass limits</p> <ul style="list-style-type: none"> Exceedance of 12,161 kL daily discharge limit of water from site on 27/01/13. 13,093 kL was discharged from site via LDP 01 due installation of a new pump with greater capacity on 19/01/13. No adverse impacts were identified in an inspection of downstream areas. In response, CVC implemented an alarm on the site CITECT system which activates on the daily discharge volume reaching 11,000 kL, which allows time for personnel to respond and keep below daily limits. The EPA issued an Official Warning for this incident on 6/09/13. <p>L5 Noise limits</p> <ul style="list-style-type: none"> Two 1dB noise exceedances of noise impact criteria were recorded at location ATN007 during attended monitoring in March 2013 and November 2013. Monitoring site ATN007 (EPL Monitoring ID No. 23) is representative of Receiver R22 (Salvestro). <p>2014</p> <p>L2.4 Water and/or Concentration Limits</p> <ul style="list-style-type: none"> Exceedance of 200 CFU faecal coliform criteria on 15/04/14, with a result of 540 CFU recorded. A CFU result of 180 was measured at the point of discharge from Dam 10, however an exceedance was recorded at LDP001, indicating some potential for contamination impacts during downstream flows between the site and the LDP. In response, CVC sought to revise the approved location of LDP001 following the upgrade of the onsite D10 discharge point once approved upgrade works were completed. <p>M8 Requirement to monitor volume or mass</p> <ul style="list-style-type: none"> Exceedance of daily volume discharge limits on 12/06/13, 13/06/13 and 26/06/13 due to failure to respond to alarm that dewatering pumps should be disabled. No adverse impacts were identified in an inspection of downstream areas. In response, CVC reviewed pump trigger levels and introduced an engineered controlled valve to shut off pumps automatically when approaching volumetric limits. <p>M4.1 Environmental monitoring – Requirement to monitor noise</p> <ul style="list-style-type: none"> Attended noise monitoring undertaken during the reporting period was in accordance with the approved NMP dated 26/05/14. The locations approved for noise monitoring in the NMP are inconsistent with the locations required under the EPL 1770. Attended monitoring at the NMP did not record any exceedances against the relevant criteria and an application was made to update EPL 1770 for consistency with the NMP. <p>O1.1, O2.1 Operating Conditions – Activities must be carried out in a competent manner</p> <ul style="list-style-type: none"> During a site inspection by EPA officers on 4/03/14, a number of general housekeeping and hydrocarbon management issues were identified at CVC. This included the leakage of oily fluid material from the Backset Shed. EPA issues a Show Cause notice dated 11/06/14 for this non-compliance. In response, LC reviewed the hydrocarbon management arrangements on site, including for the Backset Shed area and implemented civil remediation works. A response from LC to the EPA regarding the Show Cause Notice was provided via letter dated 27/06/14. The EPA issued an Official Warning for this incident on 26/09/14.

Instrument	Status	Comments
		<p>U1.1 Pollution Reduction Program 4</p> <ul style="list-style-type: none"> LC provided the required PRP4 outcomes report to the EPA after the required submission date of 30/12/14. It was noted that review and upgrade works required under EPL 1770 Condition U1.1 were completed and implemented by LC prior to the required date under Condition U1.2. <p>2015</p> <p>L3.1 Volume and mass limits</p> <ul style="list-style-type: none"> Discharge volume limits exceeded on 4 April 2015 and 21 April 2015 due to significant rainfall events on 116 and 153 mm, respectively. CVC restricted groundwater pumping volumes on both days to below the EPL daily volumetric discharge limit. <p>L2.4 Water and/or Concentration Limits</p> <ul style="list-style-type: none"> Water quality sampling on 12/05/15 at the LDP recorded a TSS result of 114 mg/L, in exceedance of the EPL 1770 criteria of 50 mg/L. Result was found to have occurred as a result of CVC desilting onsite sediment dams prior to sampling. A remeasure recorded a TSS result of 6 mg/L at the LDP. EPA issued an Official Caution for this incident on 18/02/16. <p>M4.1 Environmental monitoring – Requirement to monitor noise</p> <ul style="list-style-type: none"> Attended noise monitoring undertaken during the reporting period was in accordance with the approved NMP dated 26/05/14. The locations approved for noise monitoring in the NMP are inconsistent with the locations required under the EPL 1770. Attended monitoring at the NMP did not record any exceedances against the relevant criteria and an application was made to update EPL 1770 for consistency with the NMP in 2014. <p>R2 Notification of Environmental Harm</p> <ul style="list-style-type: none"> LC provided a written incident report to EPA on the 12/05/15 TSS water quality criteria exceedance on 27/05/15, outside of the 7 day response period required under the condition. <p>L5 – Noise Limits</p> <ul style="list-style-type: none"> A comparison of noise criteria in Schedule 3 Condition 7 of SSD-5465 and Conditions L5.1 and L5.2 of EPL 1770 shows a significant difference in the night noise criteria for Receptor R22. SSD-5465 specifies a limit of 46 LAeq,15min during all time periods while EPL 1770 specifies a limit of 46 LAeq,15min during the day and evening and 36 LAeq,15min during the night at this receptor. All other noise limits are the same in SSD-5465 and EPL 1770. Due to this inconsistency LC are not able to comply with the lower night noise criteria specified in the EPL for R22. <p>Recommendations</p> <ul style="list-style-type: none"> A2.1. Recommend providing an updated 'EPL Premises Plan' to EPA, including the addition of a location for LDP27 as approved in 2015. M4.1 Recommend the application to the EPA for the EPL monitoring locations to be revised to be consistent with the NMP be urgently followed up to ensure compliance with Condition M4.1. L5. Recommend seeking a variation to Noise limits at location R22 (EPA Point 23) to align noise level criteria with the relevant criteria from the modified conditions of SSD-5465.
CVC Mining Authorities	Compliant	<p>HB reviewed the conditions of Mining Lease (ML) 1632 (as relevant to area subleased from LC Manmering Colliery) and ML1052 and Consolidated Coal Lease (CCL) 721 (as relevant to area subleased from LC Manmering Colliery) and</p>

Instrument	Status	Comments
		<p>associated reporting requirements. Copies of Annual Reports and Annual Exploration Reports for CVC mining authorities submitted by LC during the audit period and emails from DRE in response to lodgement were also viewed. Viewed submission and confirmation correspondence between Centennial Coal and DRE on the Annual Exploration Reporting for ML 1632.</p> <p>No non-compliances were identified.</p>
<p>Water Licence 20BL173107</p>	<p>Not Compliant</p>	<p>Reviewed the Conditions Statement attached to 20BL173107 and identified several non-compliances. Non-compliances included the following:</p> <ul style="list-style-type: none"> • Condition 4. NOW approval of water budgets at least one month prior to the commencement of each water year has not occurred; • Condition 5. NOW approval of a Groundwater Monitoring and Contingency Plan within six months of the date of issue of 20BL173107 not obtained; • Condition 12. No evidence available to confirm NOW approval of extraction measurement from the bore; • Condition 13. Stand-alone Annual Compliance Report on licenced activities not completed by LC during the audit period; <p>It should be noted that groundwater extraction for the dewatering of the underground workings has been reported in the CVC Annual Reviews for the audit period and is undertaken in accordance with the sites approved Water Management Plan. NOW has not requested additional information from LC during the audit period regarding the conditions referred to above.</p>

APPENDIX F
Noise Audit Report

3 June 2016

Ref: J0130-109-L1

Hansen Bailey Pty Ltd
P.O. Box 473
SINGLETON NSW 2330

Attn: Mr Daniel Sullivan

Dear Daniel,

RE: CHAIN VALLEY COLLIERY NOISE AUDIT

INTRODUCTION

LakeCoal Pty Ltd (LakeCoal) operates Chain Valley Colliery, an underground coal mine located near the southern end of Lake Macquarie approximately 60 km south of Newcastle and adjacent to Vales Point Power Station. Chain Valley Colliery is operated according to Development Consent SSD-5465 which was granted in 2013 and subsequently modified in November 2014 and December 2015.

Hansen Bailey was engaged by LakeCoal to complete an Independent Environmental Audit and has also commissioned this noise audit as required by Schedule 3, Condition 8e of the Development Consent which is reproduced below:

8(e) carry out a comprehensive noise audit of the development in conjunction with each independent environmental audit

This audit comprises a desktop review of supplied documents, with no site inspection carried out as part of the audit.

DOCUMENT REVIEW

A number of relevant documents were supplied by LakeCoal and Hansen Bailey or were obtained from LakeCoal's website for review, including:

- SSD-5465 Mod 2 (Department of Planning & Environment, December 2015);
- Environment Protection Licence (EPL) 1770 (EPA, October 2015);
- Chain Valley Colliery Mining Extension 1 Project Environmental Impact Statement (EIS) (EMM, 2013);
- Chain Valley Colliery Modification 1 Statement of Environmental Effects (EMM, April 2014);
- Chain Valley Colliery Modification 2 Statement of Environmental Effects (EMM, June 2015);
- Audit of Compliance to PA 10_0161, EPL 1770 and LM 1051 (Exis, February 2013);
- Response to 2012 Environmental Audit Findings (LakeCoal, February 2013);
- Chain Valley Colliery Noise Management Plan (LakeCoal, March 2014);
- Chain Valley Colliery Annual Reviews 2013, 2014 and 2015 (LakeCoal, various dates);
- A number of audio files recorded by the real time noise monitoring system when triggered;

- Quarterly Attended Noise Monitoring Reports (Global Acoustics, Q1 2013 to Q4 2015);
- Plant Sound Power Survey – Chain Valley Colliery (Global Acoustics, 2013); and
- Chain Valley Colliery Vent Fans - Acoustic Camera Assessment (Global Acoustics, July 2013);

OUTCOMES

Noise Criteria

A review Chain Valley Collieries noise criteria in Schedule 3 Condition 7 of SSD-5465 and Conditions L5.1 and L5.2 of EPL 1770 identified a substantial difference in the night noise criteria for Receptor R22. SSD-5465 specifies a limit of 46 LAeq,15min during all time periods while EPL 1770 specifies a limit of 46 LAeq,15min during the day and evening and 36 LAeq,15min during the night at this receptor. All other noise limits are the same in SSD-5465 and EPL 1770.

Reference to the EIS, particularly Tables 5.1 and 5.2 in the Noise Impact Assessment in Appendix F, indicates the ventilation fan located in the vicinity of R22 currently produces and will continue to produce up to 46 dBA depending on weather conditions (in the absence of subsequent noise mitigation measures), therefore it is clear that EPL Condition L5.1 has not been updated to reflect the findings in the EIS. The noise limit for R22 should be 46 LAeq,15min during all time periods.

RECOMMENDATION – EPL1770 should be varied in consultation with the EPA to correct the night noise limit at R22 in the EPL to ensure all criteria are consistent with SSD-5465.

EPL M4.1 Environmental Monitoring – Requirement to monitor noise

Condition M4.1 of EPL 1770 contains a number of specific conditions that are not reflected in the attended noise surveys. Each condition is considered separately below.

M4.1 To determine compliance with condition L5.1, attended noise monitoring must be undertaken in accordance with conditions L5.7 and L5.8 and

Condition L5.7 requires noise monitoring equipment to be located from 3 m to 30 m from a dwelling façade to determine compliance with the LAeq,15min criteria and within 1 m from a dwelling façade to determine compliance with the LA1,1min criteria, at the most affected point which is typically on the side of the dwelling facing the site. The exact noise monitoring locations in relation to dwellings are not described in the quarterly noise monitoring reports, however it is standard practice to set up noise monitoring equipment on the roadside to minimise disturbance to residents rather than on private property a few metres from a dwelling, particularly for the noise measurements at night. It is also standard practice and more efficient to determine LAeq,15min and LA1,1min noise levels during the same noise measurement period, rather than measure LAeq,15min noise levels from 3 m to 30 m from a dwelling then subsequently measure LA1,1min levels at 1 m from a dwelling. This is particularly relevant as LA1,1min noise levels must be measured at night when disturbance to residents is more critical.

RECOMMENDATION – Either ensure the noise monitoring equipment is set up at the locations specified in EPL condition L5.7 or, preferably, negotiate an amendment to the EPL to nominate practically accessible and acoustically appropriate noise monitoring locations rather than requiring access to private properties for the noise surveys. An application to the EPA for the EPL monitoring locations to be revised to be consistent with the Noise Management Plan was made in 2014. This should be followed up with the EPA to ensure compliance with EPL condition M4.1.

(a) at each one of the locations listed in condition L5.1;

Points 9 to 23 are specified in EPL condition P1.4 and are identical to the monitoring locations described in the quarterly monitoring reports and the Annual Reviews since Q2 2015. Attended noise surveys from

Q1 2013 to Q1 2015 omitted Points 13 (R12) and 14 (R13) from the surveys. As this omission was corrected in 2015, no further recommendation is required.

- (b) occur quarterly within the reporting period of the EPL with at least 2 months between monitoring periods;*

Attended noise surveys occurred during each quarter and were generally more than 2 months apart except for the Q1 2015 survey which occurred less than 2 months after the Q4 2014 survey (16 December 2014 then 3 February 2015).

RECOMMENDATION – Ensure noise survey occur at least 2 months apart.

- (c) occur during the day, evening and night period as defined in the NSW Industrial Noise Policy (EPA, 2000) for a minimum of 15 minutes for three of the quarters;*

Attended noise surveys complied with this condition.

- (d) the night time 15 minute attended monitoring in accordance with (c) must be undertaken between the hours of 1 am and 4 am;*

- (e) the night time LA1,1min attended monitoring in accordance with (c) must be undertaken between the hours of 1 am and 4 am;*

Attended noise surveys from Q1 2013 to Q1 2015 invariably included night noise measurements from 10 pm with very few noise measurements after 1 am, therefore did not comply with these conditions. Attended noise surveys from Q2 2015 to Q4 2015 included night noise measurements starting at 1 am which complied with these conditions. As this issue was corrected in 2015, no further recommendation is required.

- (f) one quarterly monitoring must 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 hour during the night;*

- (h) these monitoring conditions take effect in the 2015 reporting period.*

All attended noise surveys included one 15 minute measurement period in each of the day, evening and night at each location, with no surveys in the 2015 reporting period including the additional measurements that would be required to satisfy this condition.

RECOMMENDATION – Ensure one noise survey per year complies with this condition.

- (g) each quarterly monitoring must be undertaken on a different day(s) of the week not including Saturdays, Sundays and public holidays.*

Analysis of the noise monitoring results indicates monitoring occurred on a variety of days, primarily Monday to Wednesday with a scattering of Thursday and Friday surveys. The noise surveys comply with this condition.

Noise Management Plan

The noise management plan has been reviewed and is considered appropriate.

Attended Noise Monitoring Results

Section 3.10 of the 2013 Annual Review indicates compliance with the SSD-5465 and EPL 1770 noise limits at all receptors, with the exception of the night noise limit at R22 (EPA Point 23) which is incorrectly listed as a 36 LAeq,15min limit instead of 46 LAeq,15min as discussed above. The majority of noise measurements at R22 were above the current 36 LAeq,15min limit, however all complied with the correct limit of 46 LAeq,15min. Three occasions were noted (Q1 evening, Q4 evening and Q4 night) in 2013 where noise levels from the ventilation fan produced 41 LAeq,15min at R22 which complies with the correct 46 LAeq,15min noise limit but exceeded the 40 LAeq,15min criterion that applied at that time. It is noted that the noise limits were changed in the December 2013 modification of SSD-5465 however as noted above were not changed in EPL 1770.

Section 3.10 of the 2014 Annual Review indicates compliance with the SSD-5465 and EPL 1770 noise limits at all receptors, with the exception of the night at R22 (EPA Point 23) due to the incorrect noise limit as discussed above. No comment was included regarding compliance with the long term noise goals at Receptors R11-13 and R22, however a review of the results tables indicates occasional exceedances of the long term goals at both monitoring locations that represent these receptors. Measured noise levels at ATN002 which represents Receptors R11-R13 continue to vary substantially from one noise measurement to the next due to intermittent mobile plant movements. Noise levels at ATN007 which represents R22 also varied and on three occasions (Q2 evening, Q3 day and Q4 day) in 2014 exceeded the long term noise goal for this receptor, with higher noise levels than in 2013 on two of these occasions. No comment was made regarding this unexpected outcome.

Section 3.10 of the 2015 Annual Review indicates compliance with the SSD-5465 and EPL 1770 noise limits at all receptors, with the exception of the night at R22 (EPA Point 23) due to the incorrect noise limit as discussed above. No comment was included regarding compliance with the long term noise goals at Receptors R11-13 and R22, however a review of the results tables indicates occasional exceedances of the long term goals at both monitoring locations that represent these receptors. Measured noise levels at ATN002 which represents Receptors R11-R13 continue to vary substantially from one noise measurement to the next due to intermittent mobile plant movements. Noise levels at ATN007 which represents R22 also varied and on seven occasions (Q2 evening and night, Q3 day evening and night, Q4 evening and night) in 2015 exceeded the long term noise goal for this receptor, with higher noise levels than in 2014 on the majority of these occasions. No comment was made in the 2015 Annual Review regarding this unexpected outcome and there does not appear to be any progress towards achieving the long term noise goals described in SSD-5465 Schedule 3 Condition 8d.

RECOMMENDATION – Include both the attended noise monitoring location (eg ATN002) and receptor identification (eg R12) in the results tables in the Annual Review to assist readers in interpreting the results.

RECOMMENDATION – Investigate the increase in noise emissions from the vent fans over the last three years and implement any corrective measures such as replacement or repair of silencers or other noise attenuation components if required to try and reduce the levels at this location.

It is noted that an investigation into dominant noise sources associated with the vent fans was commissioned in June 2013 and an acoustic camera was used at that time to identify parts of each fan or motor that were primarily responsible for measured noise levels. The 2013 Annual Review mentioned this investigation and that quotations to implement mitigation measures were being sought, however no further mention of this issue has been made in the 2014 Annual Review and no decrease in noise level from the fans was noted. The 2015 Annual Review noted investigations into noise mitigation measures are ongoing and progress will be reported in the 2016 Annual Review.

RECOMMENDATION – Report on progress with these investigations and actions taken on achieving the long term noise goals in each Annual Review as required by SSD-5465 Schedule 3 Condition 8d.

The auditor's experience with other comparable ventilation fans indicates particulates in discharge air from underground mines have the potential to deposit dust in the fan silencers which can coat the sound absorbent material and render it less effective, or in extreme cases completely ineffective. If this is a factor then regular cleaning may be required to maintain the design acoustic performance of the silencers, with care taken to

ensure certain cleaning operations (such as high pressure hosing) are avoided or at least do not damage the relatively fragile sound absorbent material in the silencers.

It is noted that a plant sound power survey was commissioned in May and November 2012 and the consultant's report was prepared in January 2013, however there is no evidence of any further investigation or other outcomes related to pit top noise sources and noise levels during the audit period.

RECOMMENDATION – Ensure the investigation into noise mitigation options mentioned in the 2015 Annual Review includes a review of noise from the CVC pit top area to Receptors R11-13, as attended noise monitoring indicates noise levels do not always meet the long term noise goals at these receptors.

Real Time Noise Monitoring Results

The Annual Reviews for the three year period covered by the audit noted no notifications from the real time noise monitoring system were triggered by noise sources associated with Chain Valley Colliery. Audio files recorded by the real time system when triggered were spot checked as part of this audit which confirms the comments in each Annual Review.

CONCLUSION

This audit of Chain Valley Colliery's environmental noise performance from January 2013 to December 2015 has indicated compliance with the relevant project approval and environment protection licence conditions, with the exception of the night noise criterion at R22 (EPA Point 23) incorrectly specified in EPL Condition L5.1 as 36 LAeq,15min rather than 46 LAeq,15min. Measured noise levels at R22 complied with the correct limit of 46 LAeq,15min during all time periods.

Review of supplied data indicates Chain Valley Colliery is generally well managed from an environmental noise compliance perspective. This was further confirmed by the fact that the operation has only received 3 community complaints (related to noise) associated with surface activities during the audit period. It should also be noted that the site has not received any community complaints regarding noise levels from the ventilation fan site.

Intermittent exceedances of the non-mandatory long term noise goals in Schedule 3 Condition 8 of SSD-5465 occurred over the audit period, with no indication that all practical noise mitigation measures have been implemented in an attempt to meet these goals. Attention is required to meet the long term noise goals as required by SSD-5465 Schedule 3 Condition 8d which requires LakeCoal to use "best endeavours" in this regard. Further investigation and/or implementation of mitigation measures is required, or alternatively evidence is required that all investigations are complete and all feasible mitigation measures have been implemented.

Yours faithfully,



MARK BRIDGES BE (Mech) (Hons) MAAS
Principal Consultant

APPENDIX G
Plates from Site Inspection



Plate 1
CVC main diesel storage tank



Plate 2
Oil storage shed
(constructed during the audit period)



Plate 3
Waste oil storage area



Plate 4
Backset storage shed sump



Plate 5
Backset storage shed drainage improvements
(In response to EPA inspection)



Plate 6
CVC washbay water storage sump



Plate 7
Hydrocarbon waste management trial



Plate 8
CVC pit top area adjacent workshop



Plate 9
Controls to delineate stockpile area at pit-top boundary



Plate 10
Area requiring weed management on the perimeter of the CVC pit top area



Plate 11
Upgraded LDP dam spillway and monitoring site



Plate 12
Upgraded LDP below the discharge dam



Plate 13
Sediment fencing from the dam improvement works



Plate 14
Groundwater extraction monitoring
(screen in CVC operations room)



Plate 15
Signage for effluent irrigation area
(from CVC administration block)



Plate 16
Emergency response duty cards
(available in CVC operations room)