

# TAHMOOR COKING COAL OPERATIONS INDEPENDENT ENVIRONMENTAL AUDIT

**Prepared for:**

Tahmoor Coal Pty Ltd  
PO Box 100  
Tahmoor NSW 2573

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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Tahmoor Coal Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
630.12144-R03-v0.2	12 June 2018	Chris Jones	Chris Jones	Chris Jones
630.12144-R03-v0.2	7 June 2018	Chris Jones	Chris Jones	Chris Jones
630.12144-R03-v0.1	25 May 2018	Chris Jones and Tracey Ball	Chris Jones	Chris Jones

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# 1 Introduction

## 1.1 Background to Site

Tahmoor Coking Coal Operations is located on of the foothills of the Southern Highlands of New South Wales. The mine surface operations are located south of the village of Tahmoor, which is within the greater Sydney Basin - approximately 80 km south west of Sydney. Tahmoor Coking Coal Operations is within the Wollondilly Shire Council (WSC) Local Government Area (LGA).

Development of the site commenced in 1975, with board and pillar coal extraction taking place from 1979. The Coal Handling & Preparation Plant (CHPP) and Reject Emplacement Area (REA) was established during 1980, and longwall mining activities being introduced in 1986. Longwall activities occur at depths of between 385 and 500 metres in the Bulli coal seam within three lease areas. Based on known reserves, the current Life of Mine (LOM) is approximately 2020 based on current production rates. Coking Coal Operations workings extend north under the town of Tahmoor with two ventilation shafts being located on the outskirts of town.

The sites surface facilities are situated to the south of the Bargo River and adjacent to Remembrance Drive on land owned by Tahmoor Coking Coal Operations with mining conducted under both crown and freehold. Surface facilities at Tahmoor Coking Coal Operations include administration buildings and offices, a materials store, diesel tanks, electrical workshop, mechanical workshop, bathhouse, ventilation fan, CHPP, storage areas and run of mine and product stockpiles. A third party owned power station is also located on-site, and utilises methane from the mine's gas drainage system to produce electricity. Extracted coal is processed on site prior to transportation via rail to the Port Kembla Coal Loader. Approximately 350 people are employed at Tahmoor Coking Coal Operations.

The operations at Tahmoor Coking Coal Operations are generally undertaken under 3 Consents; Development Consent (DC) 1975, Development Application (DA) 57/93 and DA 67/98.

## 1.2 Audit Scope

This Independent Environmental Audit covers the period from 1 October 2014 (end date of previous period) to 11 October 2017 (third day of the site component for this audit).

Schedule 2 Condition 50 and 51 of the DA 67/98 outlines the requirement to complete the Independent Environmental Audit (Audit).

### AUDITING

#### *Independent Environmental Audit*

*50. By 30 September 2011 and every 3 years following, the Applicants shall commission and pay the full cost of an Independent Environmental Audit of the Tahmoor Mine. This audit must:*

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

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

*(c) assess the environmental performance of the Tahmoor Mine and assess whether it is complying with the requirements in all relevant development consents and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);*

*(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and*

*(e) recommend appropriate measures or actions to improve the environmental performance of the Tahmoor Mine, and/or any assessment, plan or program required under the abovementioned approvals.*

*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.*

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

The Audit has assessed the key approvals and documentation outlined in **Section 4**, including:

- Development Applications – DC 1975, DA 57/93 and DA 67/98 (including management plans);
- Statement of Commitments for Redbank Tunnel Subsidence Management Project - DA 67/98;
- Environment Protection Licence (EPL) – EPL1389; and
- Mining Leases (MLs) (ML 1376, ML 1539 and ML 1642) and Consolidated Coal Lease (CCL 716); and

The physical boundaries of the audit are defined by the Development Consent Approval area, which is outlined in **Figure 1**.

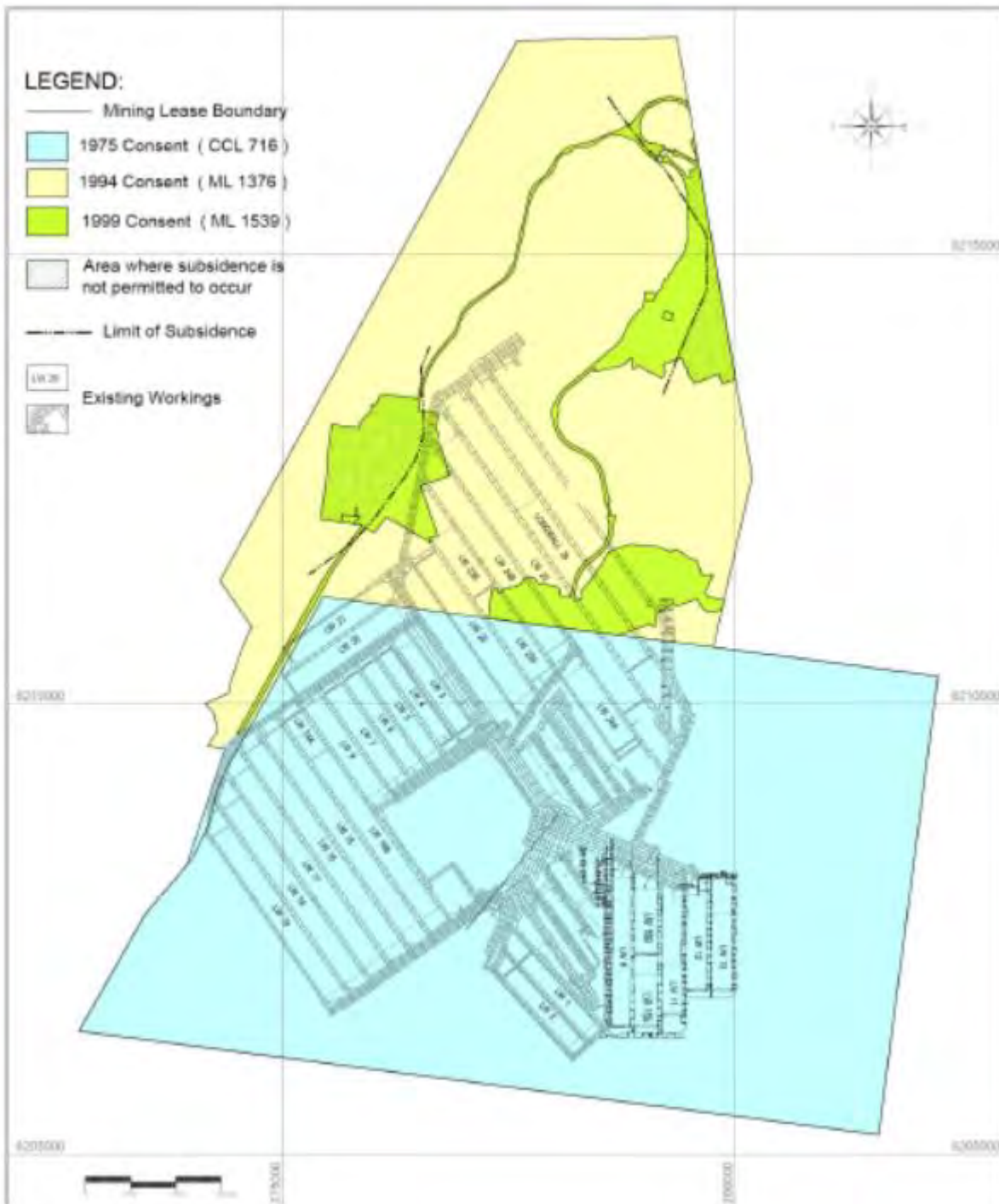


Figure 1 Project Approval Areas (Source: DA 67/98)



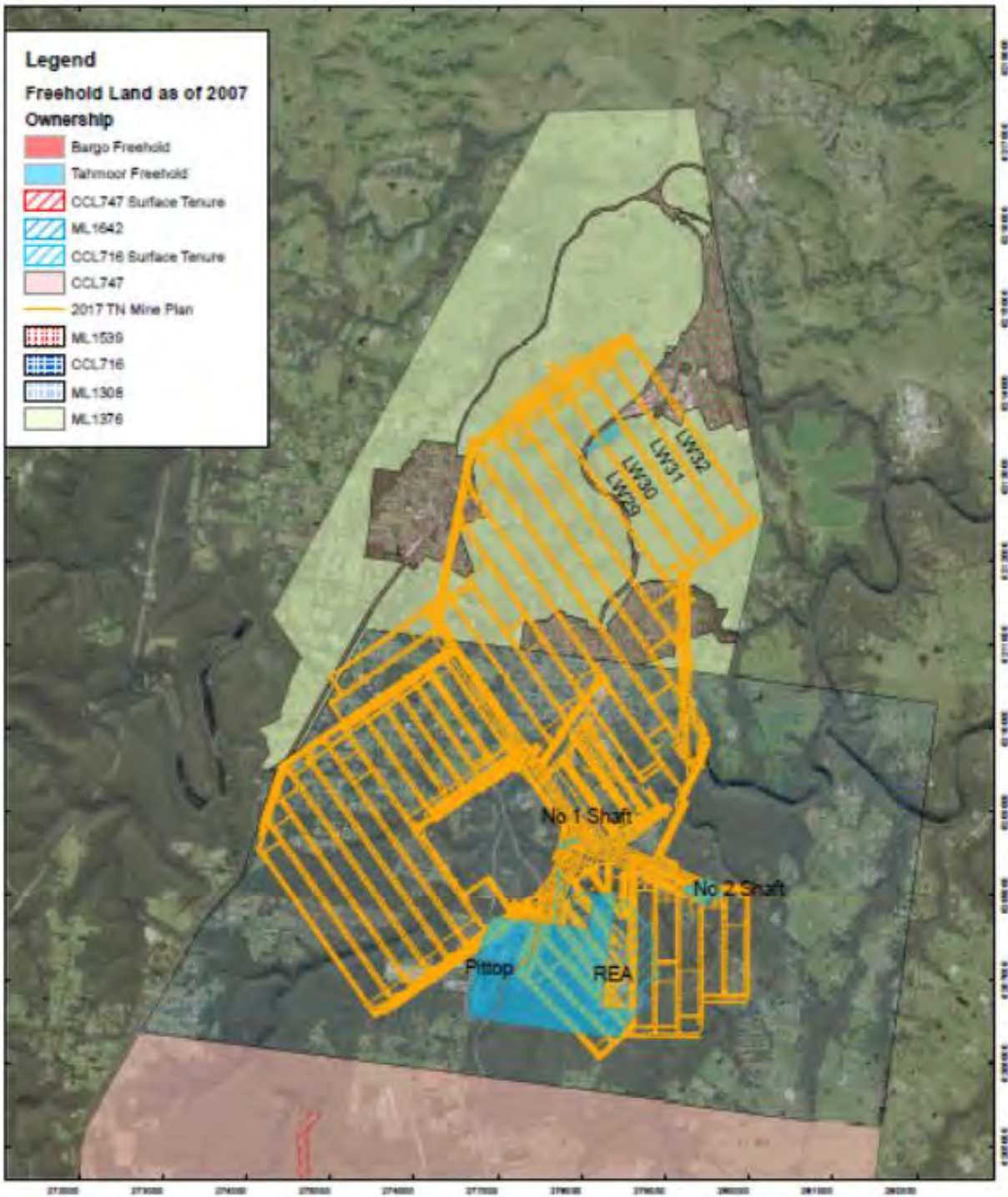


Figure 2 Mining Lease Areas (Source: Glencore)



## 1.3 Key Site Contacts

Contact details for key personnel at Tahmoor Coking Coal Operations are provided in **Table 1** below:

**Table 1 Contact Details for Key Mine Personnel**

Name	Role	Telephone	Email
Fiona Robinson	Environment Coordinator	(02) 46400048	<a href="mailto:Fiona.Robinson@glencore.com.au">Fiona.Robinson@glencore.com.au</a>
Belinda Clayton	Community Coordinator	(02) 4640 0133	<a href="mailto:Belinda.Clayton@glencore.com.au">Belinda.Clayton@glencore.com.au</a>
Ron Bush	Environment and Community Manager	(02) 46 400 100	<a href="mailto:Ron.Bush@glencore.com.au">Ron.Bush@glencore.com.au</a>
Samantha Beresford	Community Coordinator	(02) 46 400 100	<a href="mailto:Sam.Beresford@glencore.com.au">Sam.Beresford@glencore.com.au</a>

## 1.4 Audit Methodology

The Independent Environmental Audit was undertaken on site by Chris Jones (Lead Auditor) and Tracey Ball (Assistant Auditor) of SLR, with the site component completed on 9, 10 and 11 October 2017. SLR also used Steve Ditton (Ditton Geotechnical Services Pty Ltd (DgS) Subsidence Specialist) to provide specialist input into the audit. Steve Ditton also attended the site for the second day of the audit (10 October 2017). The SLR audit team are independent of Tahmoor Coking Coal Operations as defined under Section 3.3 of the NSW Government's (2015) *Independent Audit Guideline*.

Information was provided by Tahmoor Coking Coal Operations prior to the audit, during the audit and following the audit. SLR also sourced a large amount of information from the Tahmoor Coking Coal Operations website.

The methodology for the Independent Environmental Audit consisted of the following key steps:

- Introductory and close out meetings;
- Reviewing key documents provided by Tahmoor Coking Coal Operations prior to the audit;
- Consultation with relevant government agencies as per the audit requirements prior to the site component;
- Preparation of draft Audit Protocol's provided to Tahmoor Coking Coal Operations prior to the site audit;
- Site component of the audit from 9 to 11 October 2017 – including inspections and discussions with key Tahmoor Coking Coal Operations personnel;
- Review of additional relevant documentation obtained while on site during the inspection or provided by Tahmoor Coking Coal Operations after the site inspection; and
- Client review and comment on the draft audit report.

Photographs taken during the site inspections are included in **Appendix A**. A large amount of evidence was viewed and collected as part of the audit, including monitoring records, reports, and correspondence. While this key evidence has been referenced in **Section 2**, it has not been attached to this audit report.

The audit has been completed as per the *Independent Environmental Audit Guidelines* (DP&E, October 2015).

The audit team assessed the approvals and documentation outlined in **Section 4**.

### 1.4.1 Introductory and Closeout Meetings

Introductory and close out meetings were held for the audit. At the opening meeting introductions were made by each of the meeting attendees and Tahmoor Coking Coal Operations provided background details regarding the site to SLR. During the close-out meeting a general discussion about compliance and areas for improvement was undertaken. **Table 2** lists those present at these meetings.

**Table 2 Meeting Attendees**

Name	Role	Comment
Fiona Robinson	Environment Coordinator	Present at both meetings and all site inspections.
Belinda Clayton	Community Coordinator	Present at the opening and close out meeting.
Andrew Reid	Environment and Community Manager (Note no longer at Tahmoor Coking Coal Operations)	Present at both meetings.
Sam Beresford	Environment and Community Officer	Present at both meetings.
Dakota Brown	Glencore Graduate	Present at both meetings and all site inspections.
Peter Vale	Operations Manager	Present at opening meeting.
Mel Morrison	Acting CHPP Manager	Present at both meetings.
Chris Jones	SLR Lead Auditor	Present at both meetings and all site inspections.
Tracey Ball	SLR Assistant Auditor	Present at both meetings and all site inspections.

## 1.5 Consultation Requirements

**Table 3** outlines the stakeholder consultation completed for Tahmoor Coking Coal Operations, undertaken in accordance with the Audit Guidelines.

**Table 3 Stakeholder Consultation for the Audit**

Regulatory Authority	Contact Details	Comment
Crown Lands and Water Division (formerly DPI Water)	Irene Zinger Manager Regulatory Operations - Metro Water Regulation <a href="mailto:water.referrals@dpi.nsw.gov.au">water.referrals@dpi.nsw.gov.au</a>	Email from SLR on 5 September 2017. See comments in Table 5 relating to Crown Lands and Water Division.
Department of Planning and Environment (DPE)	Georgia Dragicevic Senior Compliance Officer 02 6575 3401 <a href="mailto:georgia.dragicevic@planning.nsw.gov.au">georgia.dragicevic@planning.nsw.gov.au</a>	Email from SLR on 5 September 2017. No specific comments provided, however general instructions into the audit were outlined within the DPE endorsement letter on 18 August 2017.
Environment Protection Authority (EPA)	Andrew Couldridge Head Regional Operations Unit (02) 67737000 <a href="mailto:andrew.couldridge@epa.nsw.gov.au">andrew.couldridge@epa.nsw.gov.au</a>	Email from SLR on 5 September 2017. No comments provided.
Division of Resources and Geosciences (DRG)	Will Mitry Acting Senior Inspector Environment (02) 4931 6553 <a href="mailto:will.mitry@industry.nsw.gov.au">will.mitry@industry.nsw.gov.au</a>	Comments provided. See Section 1.5.3 below. Email from SLR on 5 September 2017. No response provided.
Wollondilly Shire Council	Justin Nyholm Manager Works P.O. Box 21 Picton, NSW, 2571 <a href="mailto:Justin.Nyholm@wollondilly.nsw.gov.au">Justin.Nyholm@wollondilly.nsw.gov.au</a>	Email from SLR on 5 September 2017. A return email was provided on 5 September 2017 stating no specific issues.
CCC	Michael Muston Muston & Associates <a href="mailto:gem@1earth.net">gem@1earth.net</a>	Email from SLR on 5 September 2017. No comments provided.

### 1.5.1 Crown Lands and Water Division Comments

**Table 4** outlines the Crown Lands and Water Division comments relating to the Audit.

**Table 4 Crown Lands and Water Division Comments Relating to the Tahmoor Coking Coal Operations Audit**

Aspect	Comment
Assessment as to whether the project holds the required water entitlements and licences under the <i>Water Management Act 2000</i> or <i>Water Act 1912</i> (as applicable);	A copy of the current licences are outlined in the Annual Review.
Compliance with the conditions of any water licences/approvals held.	SLR has assessed compliance against extraction limits.
Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.	There is little mention of licencing status (in terms of dam safety) and harvestable rights. This information should be added to the next update of the Soil and Water Management Plan (internal document).
Quantification of both active and passive take by the project from each relevant water source and a comparison against previously modelled predictions.	This is covered within Section 7 of the Annual Reviews.
Does the proponent have enough licensed water entitlement to cater for active and passive take of water?	Yes the site has been within the criteria.
Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?	Groundwater monitoring is completed by a specialist. Annual Groundwater report.
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?	No exemptions.

Crown Lands and Water Division also noted that it understood that the scope of the assessment as outlined under the development consent extends at least to compliance with:

- The conditions of consent;
- The statements of commitments as appended to the consent;
- Any reporting or requirements within any relevant management plans prepared under the consent; and
- All trigger action response plans for surface and groundwater impacts.

## 2 Documents Reviewed and Referenced

Key documentation reviewed as part of the audit includes:

- Development Application - DA 67/98;
- Development Application - DA 57/93;
- Development Consent – DC 1975;
- Environment Protection Licence – EPL 1389;
- Water Access Licences (WAL36442);
- Mining Lease (ML1376);
- Mining Lease (ML1539);
- Mining Lease (CL716);
- Mining Lease (ML1642);
- Statement of Commitments for Redbank Tunnel Subsidence Management Project (Attached to DA 67/98);
- Previous Independent Environmental Audit – Hansen Bailey (July 2015);
- Environmental Management Plans, including:
  - *Air Quality and Greenhouse Gas Management Plan (AQGHGMP) (July 2009);*
  - *Air Quality Monitoring Plan (May 2013);*
  - *Biodiversity and Land Management Plan (December 2015);*
  - *Cultural Heritage Plan (January 2016);*
  - *Environmental Monitoring Program (April 2016);*
  - *Groundwater Management Plan (January 2016);*
  - *Noise Management Plan (July 2017);*
  - *Bushfire Management Plan (March 2014);*
  - *Rehabilitation and Topsoil Management Procedure (December 2015);*
  - *Soil and Water Management Plan (December 2015);*
  - *Pollution Incident Response Management Plan (September 2017);*
  - *Environmental Management System & Framework Document (August 2017);*
  - *Subsidence Management Plan LW 27-30 (August 2009);*
  - *Subsidence Management Plan LW 31-37 (December 2014);*
- Mining Operations Plan – 2012 – 2019 (October 2015);
- Annual Returns – across the audit period;
- Community Consultative Committee Meeting Minutes – across the audit period;
- Key consultation with government – including consultation and approval letters;

- Complaints Register; and
- Environmental monitoring reports and data – air, noise and water.

### 3 Assessment of Compliance

The terms used in the audit to describe the level of compliance of the site with the relevant approval documentation are outlined in **Table 5** and **Table 6**. These are requirements of the DPE *Independent Environmental Audit Guidelines* (October 2015).

**Table 5 Compliance Assessment Criteria**

Assessment	Criteria
<b>Compliant</b>	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit.
<b>Not verified</b>	Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the auditor could note in the report that they have no reasons to believe that the operation is non-compliant with that requirement.
<b>Non-compliant</b>	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the audit.
<b>Administrative non-compliance</b>	A technical non-compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
<b>Not triggered</b>	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection; therefore a determination of compliance could not be made.
<b>Observation</b>	Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where performance may be improved.
<b>Note</b>	A statement or fact, where no assessment of compliance is required.



**Table 6 Risk Levels for Non-Compliances**

Risk Level	Colour Code	Description
<b>High</b>		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.
<b>Medium</b>		Non-compliance with: <ul style="list-style-type: none"> <li>• potential for serious environmental consequences, but is unlikely to occur; or</li> <li>• potential for moderate environmental consequences, but is likely to occur.</li> </ul>
<b>Low</b>		Non-compliance with: <ul style="list-style-type: none"> <li>• potential for moderate environmental consequences, but is unlikely to occur; or</li> <li>• potential for low environmental consequences, but is likely to occur.</li> </ul>
<b>Administrative Non-Compliance</b>		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).

## 4 Approvals and Documentation Assessed

### 4.1 Previous Audit Recommendations

The previous audit was completed by Hansen Bailey, with the audit dated July 2015.

<http://www.tahmoorcoal.com.au/en/publications/IndependentEnvironmentalAudits/20150701-Report-Hansen-Bailey-Tahmoor-Development-Consent-Environmental-Audit.pdf>

The audit covered the period of 1 October 2014 to 30 September 2017. Actions were reviewed as part of this audit and appear to have been completed. Recommendations covered some of the following aspects:

- Document review and update;
- Rehabilitation;
- Records keeping;
- Finalisation of Management Plans;
- Regulator consultation;
- Track progress against the Conceptual Closure Plan;
- Hydrocarbon management;
- Waste management;
- Housekeeping; and
- Dangerous Goods audit.

An update on the status of audit actions has been provided in previous Annual Review documents.

### 4.2 Project Approval

**Appendix B** lists the conditions imposed by the Development Applications and Development Consent and indicates the compliance status of each condition, along with recommended actions in response to non-compliances.

Tahmoor Coking Coal Operations operates under one DC and two DA's Project Approvals:

- DC 1975 covering CCL 716 and the surface facilities and Coking Coal Operations mine;
- DA 57/93 dated 7 September 1994 covering ML 1376 and Coking Coal Operations mine areas; and
- DA 67/98 dated 25 February 2016 covering ML 1539 and Coking Coal Operations mine areas.

DA 67/98 has been modified 3 times:

- DA Modification 1 dated 30 November 2006, covering changes to mine plan, the number of structures permitted to be subject to subsidence impacts and conditions of consent controlling heritage impact assessment;
- DA Modification 2 dated March 2012, covering the Redbank tunnel Deviation; and

- DA Modification 3 dated November 2012, Redbank tunnel subdivision, lot consolidation and land ownership transfer.

Non-compliances relating to the Development Applications and Development Consent are outlined in **Section 6** and further recommendations outlined within **Section 7**. The Development Applications and Development Consent includes specific reference to each of the conditions within the following key areas of the consent:

**DC 1975:**

Covers a series of environmental aspects for the Bargo area, including:

- Fencing;
- Noise;
- Traffic;
- Water management;
- Dust; and
- Bushfire management.

**DA 57/93:**

**Annexure A:**

- General Conditions;
- Bridge Street Site Construction;
- Bridge Street Site Operation;
- Roadworks;
- Reject Emplacement;
- Subsidence; and
- Acoustics.

**DA 67/98:**

**Schedule 2:**

- General Conditions;
- Limit of approval;
- Statutory requirements;
- Environmental Management;
- Subsidence predictions;
- Subsidence monitoring;
- Water Quality;

- Notifications and pre-mining structural inspections;
- Management, compensation and acquisition;
- Heritage;
- Noise;
- Air Quality & Greenhouse Gases;
- Environmental Strategies, Plans, Programs and Reporting;
- Community Consultative Committee;
- Independent Environmental Audit; and
- Access to information.

### 4.3 Environmental Assessment – Statement of Commitments

**Appendix B** lists the conditions imposed by the Statement of Commitments for Redbank Tunnel Subsidence Management Project (DA 67/98) and indicates the compliance status of each condition, along with recommended actions in response to non-compliances. Non-compliances relating to the EA Statement of Commitments are outlined in **Section 6**.

Key aspects for the Statement of Commitments include:

- Biodiversity;
- Construction Planning;
- Visual Amenity;
- Traffic;
- Noise and Vibration;
- Traffic;
- Noise and Vibration;
- Aboriginal Heritage;
- Non-Aboriginal Heritage;
- Air Quality;
- Contamination;
- Surface water;
- Greenhouse Gas Emissions; and
- Waste Management.

## 4.4 Management Plans and Programs

The following Management Plans were assessed as part of the Independent Environmental Audit. All the management plans reviewed are required according to DA and DC conditions. Other management plans have been developed for the site to meet Glencore internal requirements. These particular management plans were reviewed for context, however compliance was not assessed during the audit as these are internal plans.

**Table 7 Management Plans**

Management Plan	Development Approval/Development Consent	Comment
<i>Reject Emplacement Area Management, Rehabilitation and Water Monitoring Plan (January 1995)</i>	DA 57/93 Condition 41	<p>The most recent approved <i>Reject Emplacement Area Management, Rehabilitation and Water monitoring Plan</i> is dated January 1995.</p> <p>This plan is currently under review by Tahmoor Coking Coal Operations. SLR has recommended that this review is completed and the Plan updated, as required.</p> <p>There was evidence of implementation of mitigation measures and monitoring from a review of the Annual Review's and the field inspection.</p> <p>SLR has made several recommendations in relation to the implementation of the Plan, including:</p> <ul style="list-style-type: none"> <li>• Monitoring of trials;</li> <li>• Construction of water management structures; and</li> <li>• Topsoil stockpiles.</li> </ul>
<i>Soil and Water Management Plan (December 2015)</i>		<p>The most recent approved <i>Soil and Water Management Plan</i> is dated December 2015. There was evidence of monitoring and mitigation measures from a review of Annual Reviews and the field inspection.</p> <p>SLR has made several recommendations relating to water management, with these outlined within <b>Section 6</b>.</p>
<i>Subsidence Management Plan for LW 27-30 (August 2009)</i>	DA 67/98 Condition 23	<p>The preparation and implementation to the SMP has been assessed as part of this audit. There have been recommendations relating to implementing the SMP, with these outlined within <b>Section 7.2</b> and <b>Appendix E</b>.</p>
<i>Subsidence Management Plan for LW 31-37 (December 2014)</i>	DA 67/98 Condition 23	<p>The preparation and implementation to the SMP has been assessed as part of this audit. There have been recommendations relating to implementing the SMP, with these outlined within <b>Section 7.2</b> and <b>Appendix E</b>.</p>
<i>Air Quality and Greenhouse Gas Management Plan (July 2017)</i>	DA 67/98 Condition 39	<p>The most recent <i>Air Quality and Greenhouse Gas Management Plan</i> (AQGHGMP) is dated July 2017.</p> <p>There was evidence of monitoring and mitigation measures from a review of Annual Reviews and the field inspection.</p> <p>There were some minor recommendations by the SLR audit team for the next update to this management plan.</p>

Management Plan	Development Approval/Development Consent	Comment
<i>Noise Management Plan (May 2016)</i>	DA 67/98 Condition 33	The most recent <i>Noise Management Plan</i> is dated May 2016. It is noted that noise management has generally been effectively managed at site. There however has been some further recommendations relating to administrative updates within the <i>Noise Management Plan</i> .

## 4.5 Environment Protection Licence

**Appendix B** lists the conditions imposed by EPL and indicates the compliance status of each condition, along with recommended actions in response to non-compliances. Non-compliances relating to the EPL are outlined in **Section 6**. The EPL includes specific reference to each of the following aspects:

- Administrative Conditions;
- Discharges to Air and Water and Applications to Land;
- Limits Conditions;
- Operating Conditions;
- Monitoring and Recording Conditions;
- Reporting Conditions;
- General Conditions; and
- Pollution Studies and Reduction Programs.

## 4.6 Mining Leases

There are three Mine Leases (MLs) and one Consolidated Coal Leases (CCL) relating to the Tahmoor Coking Coal Operations; ML 1376, ML 1539, ML 1642 and CCL 716.

**Appendix B** lists the conditions imposed by the MLs and the CCL and indicates the compliance status of each condition, along with recommended actions in response to non-compliances. The MLs and CCL include specific reference to each of the following aspects:

### **ML 1376:**

- Methods of Operation;
- Barriers;
- Escape of Water;
- Dust;
- Management and Rehabilitation of Lands (General);



- 
- Blasting;
  - Trees (Planting and Protection of) Flora and Fauna and Arboreal Screens;
  - Soil Erosion;
  - Roads;
  - Catchment Areas;
  - Transmission Lines, Communication Lines and Pipelines;
  - Aboriginal Place or Relic;
  - Labour/Expenditure;
  - Additional Information;
  - Service of Notices;
  - Inspectors;
  - Indemnities;
  - Prospecting (General);
  - Security Deposit;
  - Recovery of Public Monies Expended; and
  - Special Conditions.

**ML 1539:**

- Extraction of Coal;
- Mining, Rehabilitation, Environmental Management Process (MREMP) Mining Operations Plan (MOP);
- Annual Environmental Management Report (AEMR);
- Barriers;
- Management & Rehabilitation of Lands (General);
- Trees (Planning and Protection of) Flora and Fauna and Arboreal Screens;
- Roads;
- Catchment Areas;
- Transmission Lines, Communication Lines and Pipelines;
- Aboriginal Place or Relic;
- Labour/Expenditure;
- Additional information;
- Services of Notices;
- Inspectors;
- Indemnities;
- Prospecting (General);

- 
- Security Deposit;
  - Condition Required By The Report Dated December 1998 On The Commission Of Inquiry - Tahmoor North Coking Coal Operations Extension Project; and
  - Special Condition.

**ML 1642:**

- Notice of Landholders;
- Environmental Harm;
- Mining Operations Plan;
- Environmental Management Reporting;
- Rehabilitation;
- Control of Operations;
- Blasting;
- Safety;
- Exploratory Drilling;
- Prevention of Soil Erosion and Pollution;
- Transmission lines, Communication Lines and Pipelines;
- Fences and Gates;
- Road and Tracks;
- Trees and Timber;
- Indemnity;
- Single Security (extended); and
- Cooperation Agreement.

**CCL 716:**

- Extraction of Coal;
- Mining, Rehabilitation, Environmental Management Process (MREMP);
- Mining Operations Plan (MOP);
- Annual Environmental Management Report (AEMR);
- Barriers;
- Shafts, Drifts and Adits;
- Dumps;
- Management and Rehabilitation of Lands (General);
- Trees (Planting and Protection of) Flora and Fauna and Arboreal Screens;

- Soil Erosion;
- Roads;
- Catchment Areas;
- Reserves;
- Transmission Lines, Communication Lines and Pipelines;
- Aboriginal Place or Relic;
- Labour/Expenditure;
- Additional Information;
- Service of Notices;
- Inspectors;
- Indemnities;
- Prospecting (General); and
- Security Deposit.

## 4.7 Water Licences

Tahmoor Coking Coal Operations has one Water Access Licence (WAL); WAL36442. The WAL allows Tahmoor Coking Coal Operations to extract 1642 ML from the Sydney Basin Nepean groundwater source. The 2014, 2015 and 2016 Annual Reviews reported water take was within the licence entitlement.

## 4.8 Complaints

Complaints are outlined within the Annual Reviews, with the documents providing a breakdown of the complaints across a one year period. The site receives most complaints relating to noise. The 2014 and 2015 Annual Reviews illustrate the lowest number of complaints in the audit period, with both periods recording 16 complaints. The highest number of complaints was recorded in 2016 with 21 complaints. From 1 January 2017 to 30 September 2017 there were 2 complaints, both relating to noise.

## 4.9 Incident/Non Compliance Management

Incidents and non-compliances are outlined in the Annual Reviews and Annual Return documents. Non-compliances are related to subsidence and water quality. Incidents relate to water quality, subsidence, noise, ground disturbance, hydrocarbon spills and water storage.

## 5 Environmental Management – Specialists Assessments

The DPE requested specialists in experts in subsidence and surface water to assist with the Independent Environmental Audit, with these specialists endorsed by the DPE on 18 August 2017.

### 5.1 Subsidence

#### 5.1.1 Background to Subsidence

DGS reviewed subsidence impacts for this audit. The scope included a site meeting, inspection and a review of documentation. A list of the key information reviewed relating to subsidence is outlined with Section 2 of the DGS report (**Appendix E**).

#### 5.1.2 Key Findings – Subsidence

A series of recommendations are outlined within **Appendix E** and summarised in **Section 7.2**. Key aspects identified as part of the audit:

- Subsidence management is required under the SMP's for LW 27-30 and LW31;
- Evidence of subsidence impacts were identified during field inspection and in correspondence with the DRG. This included impacts associated with Redbank and Myrtle Creek. A Notice under Section 240 of the Mining Act (1992) was issued to Tahmoor Coking Coal Operations on 5 December 2016 to prepare a CMA Plan to address exceedances of impact assessment criteria or predictions in relation to surface water TARP's specified in the Tahmoor Coking Coal Operations Longwall 27-30 EMP. Following detailed consultation a Revised CMA Plan was sent to DRG from Tahmoor Coking Coal Operations in June 2017 (Rev 1 report dated 16 June 2017).
- The audit team has noted in the CMA Plan that 'minor' environmental consequences are defined as 'relatively small in quantity, size and degree given the relative context'. The impacts noted in Redbank Creek and Myrtle Creek seen during the site inspection and in other documentation (including CMA Plan) appear to be greater than minor impacts.
- It is also noted that in the letter to Tahmoor Coking Coal Operations from DRG dated May 23, 2017 that:  
*'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator. The notice required provision of the CMA Plan by 31 March 2017 however this timeframe was extended to 28 April 20-17 at the request of Tahmoor.*  
*The inadequacy of the CMA Plan, required to be prepared in accordance with a statutory notice under the Mining Act raises serious concerns regarding Tahmoor's commitment to obligations under the Longwall 27-30 EMP and management of the adverse impacts on the environment as a result of its activities authorised under Consolidate Coal Lease (CCL) 716'.*
- SLR understands Tahmoor Coking Coal Operations received a PIN for \$2,500 relating to this subsidence issue from the DPE on 4/5/2018.

## 5.2 Surface Water Management

### 5.2.1 Background to Surface Water Management

The water management system for Tahmoor Coking Coal Operations is outlined within the approved *Soil and Water Management Plan*. Water monitoring at the mine includes monitoring licensed discharge and overflow points. Water quality is monitored on a monthly basis, including at the sites only licenced discharge point 1 (LDP1). Discharge volume is also monitored at this point. Key water mitigation measures are outlined within the *Soil and Water Management Plan*, including erosion and sediment control. A Trigger Action Response Plan (TARP) has also been developed for surface water management.

### 5.2.2 SLRs Findings – Surface Water

Key Findings from the SLR audit include:

- The site has received non-compliances during the audit relating to water quality, including a TSS exceedance that occurred at LDP1 on 1 April 2016. TSS and EC also reached their upper limits in samples taken from LDP1 on 9 January 2015;
- Discharge volumes from the site remained within EPL limits;
- No complaints relating to water were received;
- A water treatment plant was installed and commenced operation on 17 July 2015 to reduce the impact of the mine discharge on the receiving waters of the Bargo River. The plant is not currently working as shortly after commissioning there was build-up of scale in the ultrafiltration cells, reducing plant throughput, and there was difficulties maintaining effective operation of the dissolved air flotation section of the plant. There is additional work planned by Tahmoor Coking Coal Operations to re-commission the water treatment plant;
- Tahmoor Coking Coal Operations received notification from DRG relating to inadequate construction of drains and missing drains at the Rejects Emplacement Area (REA), causing erosion to occur at the site. The site received an Enforceable Undertaking regarding this;
- There are some recommendations relating to water quality, with these outlined within **Section 6 and 7** of this report.

## 6 Audit Findings – Summary of Non Compliances

**Table 8** outlines the summary of non - compliances relating to the statutory conditions for Tahmoor Coking Coal Operations.

**Table 8 Summary of Non-Compliance**

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
<b>Development Application – DA 67/98</b>				
Condition 44	<p>The Applicant shall ensure that the management plans required under conditions of consent for the Tahmoor Mine are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>any relevant limits or performance measures/criteria;</li> <li>the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Tahmoor Mine or any management measures;</li> </ul> <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>impacts and environmental performance of the Tahmoor Mine;</li> <li>effectiveness of any management measures (see c above);</li> </ul>	Administrative Non Compliance	<p><u>Preparation:</u></p> <p>a) - Some baseline data included in the NMP and the AQGHGMP. It's noted that the Annual Review provides an update on baseline data.</p> <p>b) <u>Admin NC</u> - NMP missing NMP statutory requirements and NMP, AQMP and AQGHGMP missing MP statutory requirement.</p> <ul style="list-style-type: none"> <li>Section 3.1 of the NMP includes noise criteria and Section 4 of the AQGHGMP includes criteria.</li> <li>Section 3.5 of the NMP and Section 5 of the AQGHGMP includes monitoring protocol.</li> </ul> <p>c) Section 4 of the NMP includes controls and Section 4 of the AQGHGMP includes management measures.</p> <p>d) Section 3.5 of the NMP includes monitoring protocol and Section 5 of the AQGHGMP.</p> <ul style="list-style-type: none"> <li>Section 4 of the AQGHGMP provides measures to monitor effectiveness of management measures;</li> <li>Sections within NMP and AQGHGMP that discuss mitigation measures and monitoring controls.</li> </ul>	<p><b>REC 1</b></p> <p>b) Recommend including NMP statutory requirements in NMP, and including MP requirement in the NMP and the AQGHGMP. Also recommend including measures to monitor and report on the effectiveness of management measures in the NMP.</p> <p>e) Recommend TARP is attached the NMP &amp; AQGHGMP, instead of being separate.</p> <p>g) Recommend including protocol for incidents, non-compliances and exceedances of criteria in the NMP. Also recommend on expanding on incidents, non-compliances and exceedances in the AQGHGMP.</p> <p>The entire Air Quality Monitoring Plan should be attached to the AQGHGMP.</p>



Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
	<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 Tahmoor Mine over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints;</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> <p>(h) a protocol for periodic review of the plan.</p> <p>Note: The Director-General may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</p>		<p>e) <u>Admin NC</u>. The Surface Noise TARP should be attached to the NMP. The Air Quality TARP is not mentioned in the AQGHGMP or attached to it;</p> <p>f) Section 7 &amp; 8 of the NMP and Section 2 of the AQGHGMP.</p> <p>g) The NMP provides a protocol for managing and reporting complaints.</p> <ul style="list-style-type: none"> <li>• <u>Admin NC</u> - The NMP doesn't include a protocol for incidents, non-compliances and exceedances of criteria.</li> <li>• The AQGHGMP refers to the Environmental Management System Framework for the management of incidents, non-compliances and exceedances.</li> </ul> <p>h) Section 7 of the NMP and Section 6 of the AQGHGMP.</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> <li>• There have been numerous Pollution Reduction Plans with regard to noise undertaken and implemented at the site between 2007 and 2011.; and</li> <li>• According to Events Report dated 11/9/2017 noise and dust incidents investigated per noise and air quality TARPs.</li> </ul>	
45	<p>By 31 March of each year, the Applicant shall prepare an Annual Review of the environmental performance of the Tahmoor Mine to the satisfaction of the Director-General. This review must:</p>	Administrative Non Compliance	<p>a) 2014, 2015 &amp; 2016 Annual Reviews describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next year.</p>	<p><b>REC 2</b></p> <ul style="list-style-type: none"> <li>• Include water quality results from previous years in future Annual Reviews.</li> </ul>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
	<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 next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the Tahmoor Mine over the past calendar year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> <li>• the relevant statutory requirements, limits or performance measures/criteria;</li> <li>• the monitoring results of previous years; and</li> <li>• the relevant predictions in the EA;</li> </ul> <p>(c) identify any non-compliance over the past 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 Tahmoor Mine;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the Tahmoor Mine, and analyse the potential cause of any significant discrepancies;</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the Tahmoor Mine; and</p> <p>(g) assess the performance of the mine against the conditions of the consents and other licences and approvals relating to the mine.</p> <p>Note: the first Annual Review shall be prepared by 31 March 2013.</p>		<p>b) The 2014, 2015, 2016 Annual Reviews include relevant statutory requirements, limits and/or performance measures/criteria;</p> <ul style="list-style-type: none"> <li>• The 2014 Annual Review is missing noise monitoring results for previous years, and the 2014, 2015 and 2016 Annual Reviews are missing water quality monitoring results for previous years. 2014 Annual Review missing groundwater data.</li> <li>• The 2014 didn't include relevant predictions of the Environmental Assessment. The 2015 &amp; 2016 reports included these except for water quality.</li> </ul> <p>c) the 2014, 2015 and 2016 Annual Reviews identify non-compliances over the past year, and describe what actions were (or are being) taken to ensure compliance.</p> <p>(d) Trends identified in the monitoring data over the life of the Tahmoor Coking Coal Operations;</p> <ul style="list-style-type: none"> <li>• Noise: 3 years of data provided in the 2016 Annual Review, and 2015 provided 2 years of data. 2014 Annual Review only provides 1 year of data.</li> <li>• Historic groundwater data included in 2015 &amp; 2016 Annual Review. Missing historic groundwater data from 2014 Annual Review.</li> <li>• Water quality data from previous years is missing and no trends are described in the Annual Reviews.</li> </ul>	<ul style="list-style-type: none"> <li>• Include comparisons against predictions of the EA for water quality in future Annual Reviews.</li> <li>• Provide trends for all data, not just dust, in future Annual Reviews.</li> <li>• Identify discrepancies between the predicted and actual impacts for water quality, in future Annual Reviews.</li> <li>• Progress in respect of rehabilitation completion criteria needs to be reported in future Annual Reviews.</li> <li>• Future Annual Reviews should report discharge volumes in accordance with Section 7 of the Annual Review Guideline, dated October 2015.</li> <li>• Future Annual Reviews should include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP in accordance with Section 8 of the Annual Review Guideline, dated October 2015</li> <li>• Future Annual Reviews should include a summary of non-compliances in Section 11, in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</li> </ul>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<ul style="list-style-type: none"> <li>Trends are described for dust.</li> </ul> <p>(e) The 2014 Annual Review doesn't identify any discrepancies between the predicted and actual impacts of the Tahmoor Coking Coal Operations. The 2015 &amp; 2016 Annual Reviews identify such discrepancies for all aspects except for water quality.</p> <p>(f) The 2014, 2015, 2016 Annual Reviews describe what measures will be implemented over the next year to improve the environmental performance of the Tahmoor Mine.</p> <p>(g) The 2015 and 2016 Annual Reviews provide a Statement of Compliance. The 2014 Annual Review doesn't provide such a statement.</p>	<ul style="list-style-type: none"> <li>Future Annual Reviews should include in Section 12 a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</li> <li>Additional subsidence reporting as per recommendations from DGS Report (<b>Section 7.2</b>)</li> </ul>
46	<p>Within 3 months of:</p> <p>(a) the submission of an Annual Review under Condition 47;</p> <p>(b) the submission of an incident report under Condition 49;</p> <p>(c) the submission of an audit under Condition 52; and</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 Director- General.</p> <p><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 Tahmoor Mine.</i></p>	Administrative Non Compliance	<p>a) Correspondence from Tahmoor Coking Coal Operations to DPE is dated 6 April 2016 and 30 June 2017. The email stated:</p> <p>The 6 April 2016 email stated: to date, when the condition has been triggered, Tahmoor Coking Coal Operations has internally reviewed the management plans and notified D&amp;E that changes have been made. They have also provided the track changes when requested.</p> <p>b) <u>Admin NC</u>: Directive regarding rehabilitation of Myrtle Creek and Redbank Creek received from DRG dated Oct 2016. SMP for LW 31 - 37 dated December 2014. Tahmoor Coking Coal Operations received a PIN on 4 May 2018.</p> <p>c) <u>Admin NC</u>: Audit report dated 1 July 2015 and submitted to DPE on 6 July 2015. NMP revised on May 2016, therefore not revised within 3 months of an audit.</p>	<p><b>REC 3</b></p> <ul style="list-style-type: none"> <li>Ensure that relevant Management Plans are revised after an audit report is submitted.</li> <li>Ensure relevant Management Plans are revised after receiving a directive (incident report) from DRG.</li> </ul>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<p>AQGHGMP revised 25 May 2016, therefore non-compliant.</p> <p>d) The latest MOD to DA 67/98 was MOD 3 in 2012. This consent included 2 figures; Figure 1: Tahmoor North Coking Coal Operations Extension and Figure 2: Map of Tahmoor Mine showing where subsidence is not permitted. NMP and AQGHGMP doesn't include any of these figures, therefore they did not need to be updated.</p>	
50	<p>By 30 September 2011 and every 3 years following, the Applicants shall commission and pay the full cost of an Independent Environmental Audit of the Tahmoor Mine. 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 Director- General;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the Tahmoor Mine and assess whether it is complying with the requirements in all relevant development consents 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 Tahmoor Mine, and/or any assessment, plan or program required under the abovementioned approvals.</p>	Administrative Non Compliance	<p>a) The last Independent Auditor was commissioned on the 5/9/2014 as per Tahmoor Coal Pty Ltd Purchase Order (PO). Audit completed by Hanson Bailey.</p> <p>b) SLR Consulted with DRE, EPA and NOW. 2017 audit consultation completed as per the DPE guidelines. Hansen Bailey conducted audit in consultation with other agencies.</p> <p>c) <u>Admin NC</u> - The 2014 audit did not assess the 1975 consent which is still relevant to the Tahmoor Coking Coal Operations. It is noted that the scope that was sent to the auditor for the 2014 audit stating that all relevant consents should be audited. This consent has been assessed for this audit, therefore no recommendation.</p> <p>d) The previous 2014 Audit and the 2017 audit reviewed the strategies, plans and programs at the site; and</p> <p>e) The 2014 and 2017 audit provided recommendations.</p>	No further recommendation. SLR has assessed relevant consents as part of this audit.

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
	Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.			
<b>Development Application – DA 57/93</b>				
Condition 41	<p>Submission of an integrated site management plan for the Reject emplacement within 4 months of the date of consent detailing:</p> <ul style="list-style-type: none"> <li>Design criteria such as storm intensity, time of concentration, co-efficient of runoff calculated peak discharges, the catchment area and a nominated storm return period.</li> <li>Dimensions such as batter grades, outlet and pipe sizes, wall heights, wall thickness, freeboard and slope grades for all sediment traps, settling ponds, fill trenches and diversion banks.</li> <li>Information in relation to the outletting of both clean and dirty water into Teatree Hollow Creek, including information on outlet size and placement and pipe sizes and placement. Provision shall be made for treatment of dirty water to be outlet into Teatree Hollow Creek.</li> <li>The upgrading of the haul road from the mine site, including information on drainage upgrading and no tree destruction in the area of Teatree Hollow Creek. (This area is Protected Land and the Department of conservation and Land Management must be consulted before any tree destruction occurs).</li> <li>The length of time that the topsoil is to be stockpiled, and what cover crops will be used to decrease erosion of these stockpiles.</li> </ul>	<p><b>Non – Compliant (Low Risk)</b></p>	<p><u>Preparation:</u></p> <ul style="list-style-type: none"> <li>Site Management Plan (Reject Emplacement Area Management, Rehabilitation and Water monitoring Plan dated January 1995) sent to council and EPA on 19 January 1995.</li> <li>Based on discussions with Tahmoor, the site Management Plan are currently under review. Other documents have been prepared for this area; Mine Operations Plan (MOP), Topsoil and Rehabilitation Management Procedure (dated 2015). The site management plans also cover this area.</li> </ul> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> <li>SLR viewed evidence of rehabilitation during the site visit. The rehabilitation is generally stable, however there are some areas sparsely covered by groundcover which require additional rehabilitation work. The groundcover in the older rehabilitation areas is better than the new areas. Climatic conditions in the area over the past couple of years have not been favourable for rehabilitation.</li> </ul>	<p><b>REC 4</b></p> <ul style="list-style-type: none"> <li>Continue to monitor grass planting trials at the Reject Emplacement Area where the survival and growth of planted grass species in areas where the existing vegetation (within revegetation areas) was sparse.</li> <li>Undertake a grass seed mix trial, looking at increasing the diversity of grass seed mix in areas where groundcover is sparse.</li> <li>The review of the Reject Emplacement Area Management Plan should be completed and the Plan updated as required. The plan is now potentially out of date due to the age.</li> <li>Topsoil stockpiles resulting from future disturbance should be 3m high and be seeded with a temporary vegetation cover.</li> <li>Ensure future contour drains and other water management structures at the REA are constructed in accordance with approved designs.</li> </ul>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
	<ul style="list-style-type: none"> <li>Maintenance of erosion control structures and drainage systems.</li> </ul>		<ul style="list-style-type: none"> <li>Topsoil stockpiles at the Reject Emplacement Area appear to be higher than 3m (general guideline) and have not been seeded with a temporary vegetation cover.</li> <li>Based on verbal communications with Tahmoor, no fine has been issued - currently the investigation is being finalised. Issued a notice and this has led to an enforceable undertaking being agreed and currently being finalised relating to the Reject Emplacement Area. Directive issued to Tahmoor on 25 February 2016 regarding the construction of miss-aligned contour drains and construction of no contour drains in the newest section of the landform, and resultant erosion. Non - compliance relating to implementation. There was also a report prepared by Cardno 'Reject Emplacement Area Contour Drains Review, December 2015' which stated that there are inadequacies with the current drains constructed onsite. Works relating to contour drains have since been completed.</li> <li>Non - compliant for the implementation of surface water management controls within the Reject Emplacement Area.</li> </ul>	
Condition 46	<p>Within 4 months of the date of this consent, a detailed refuse emplacement site rehabilitation and revegetation plan of management is to be submitted to council for approval. This is to include all existing works and embankments and proposed extensions and details are to include :</p>	Non – Compliant (Low Risk)	<ul style="list-style-type: none"> <li>Reject Emplacement Area Management Plan, Rehabilitation and Water Monitoring Plan approval dated 19 January 1995.</li> </ul>	As per <b>REC 4</b>



Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
	<p>(a) Topsoil depths and material to be placed upon the refuse and method of retention.</p> <p>(b) List of proposed species and planting densities.</p> <p>(c) Identification of each stage and species area.</p> <p>(d) A report describing the method of preparation of planting beds including planting methods, fertilising, mulching, staking etc and an outline of the provisions on to be made to maintenance. The rehabilitation plan is to give regard to species types indigenous to the native area.</p> <p>(e) Details of final finished levels relative to depth of refuse and the stated EIS objective of an average of 12 m depth of emplaced refuse.</p>		<ul style="list-style-type: none"> <li>• Other documents have been prepared to cover the Reject Emplacement Area including the MOP, Topsoil and Rehabilitation Management Procedure and site environmental management plans.</li> <li>• Reject Emplacement Area to be rehabilitated to woodland environment. It noted that the previous 2014 audit recommended that the Reject Emplacement Area Management Plan is updated. This has not been completed.</li> </ul> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> <li>• Viewed evidence of rehabilitation during site visit. The rehabilitation is generally stable, however there are some areas sparsely covered by groundcover which require additional rehabilitation work. The groundcover in the older rehabilitation areas is better than the new areas.</li> <li>• Topsoil stockpile at Reject Emplacement Area appeared to be very high (well over 3m). The Reject Emplacement Area Management, Rehabilitation and Water Monitoring Plan doesn't include a topsoil storage height but the maximum height of 3 meters is included in the Soil and Water Management Plan (Section 4.3.4).</li> <li>• Water monitoring program being undertaken and results are being reported in Annual Reviews and Annual Returns.</li> </ul>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<ul style="list-style-type: none"> <li>Based on verbal communications with Tahmoor, no fine has been issued - currently the investigation is being finalised. Issued a notice and this has led to an enforceable undertaking being agreed and currently being finalised relating to the Reject Emplacement Area. Directive issued to Tahmoor on 25 February 2016 regarding the construction of miss-aligned contour drains and construction of no contour drains in the newest section of the landform, and resultant erosion. Non - compliance relating to implementation. There was also a report prepared by Cardno 'Reject Emplacement Area Contour Drains Review, December 2015' which stated that there are inadequacies with the current drains constructed onsite. Works relating to contour drains have since been completed.</li> <li>Non - compliant for the implementation of surface water management controls within the Reject Emplacement Area.</li> </ul>	
<b>Development Application – DC 1975</b>				
Nil non - compliances				
<b>Statement of Commitments for Redbank Tunnel Subsidence Management Project</b>				
Nil non - compliances				
<b>Environment Protection Licence</b>				

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation																																																						
Condition L2	<table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of Measure</th> <th>50 percentile concentration limit</th> <th>90 percentile concentration limit</th> <th>3DGM concentration limit</th> <th>100 percentile concentration limit</th> </tr> </thead> <tbody> <tr> <td>Arsenic</td> <td>micrograms per litre</td> <td></td> <td></td> <td></td> <td>200</td> </tr> <tr> <td>Electrical conductivity</td> <td>microsiemens per centimetre</td> <td></td> <td></td> <td></td> <td>2600</td> </tr> <tr> <td>Nickel</td> <td>micrograms per litre</td> <td></td> <td></td> <td></td> <td>200</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>10</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5-9.0</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>30</td> </tr> <tr> <td>Turbidity</td> <td>nephelometric turbidity units</td> <td></td> <td></td> <td></td> <td>150</td> </tr> <tr> <td>Zinc</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>300</td> </tr> </tbody> </table>	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Arsenic	micrograms per litre				200	Electrical conductivity	microsiemens per centimetre				2600	Nickel	micrograms per litre				200	Oil and Grease	milligrams per litre				10	pH	pH				6.5-9.0	Total suspended solids	milligrams per litre				30	Turbidity	nephelometric turbidity units				150	Zinc	milligrams per litre				300	Non – Compliant (Low Risk)	<ul style="list-style-type: none"> <li>Based on monitoring and reporting no exceedances except for 1 x TSS exceedance.</li> <li>TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Reading considered an anomaly. Flocculation was increased to decrease level of solids in water.</li> <li>According to monitoring results posted on the website EC and TSS reached their upper limits in samples taken from LDP1 on 9 January 2015. These readings were 2600 µS/cm and 30 mg/L, respectively.</li> <li>Limits are provided in the monitoring data table.</li> <li>Monitoring outlined in the Annual Review and Annual Return.</li> </ul>	<p><b>REC 5</b></p> <p>Recommend testing in two locations at the dam (M4), with this being the last dam prior to discharging to LDP 1. Recommend testing for a period of six months at a monitoring location close to the discharge point and one adjacent to the flocculation area. This will determine if the flocculent is fully mixing across the dam.</p>
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<b>LW 27 – 30 Subsidence Management Plan</b>																																																										
2	<p>The Leaseholder must carry out the activity generally in accordance with the SMP; subject to the conditions of this Approval.</p> <p>In the event of any inconsistency between the conditions of this Approval and the SMP, the conditions of this Approval prevail to the extent of any inconsistency.</p>	Non – Compliance (Medium Risk)	<p><u>Preparation:</u></p> <p>Approved Environmental and Infrastructure Management Plans prepared by Tahmoor prior to mine subsidence development and consequential impacts. Interim SMP approvals required by DRG during undermining of Main Southern Railway above LW28 to 30.</p> <p><u>Implementation:</u></p>	<p><b>REC 6</b></p> <ul style="list-style-type: none"> <li>Ensure CMA Plan is implemented when required in the future.</li> <li>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback.</li> <li>For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.</li> </ul>																																																						

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<p>Evidence of subsidence impacts identified during field inspection and in correspondence with the DRG. This included impacts associated with Redbank and Myrtle Creek. A Notice under Section 240 of the Mining Act (1992) was issued to Tahmoor Colliery on 5 December 2016 to prepare a CMA Plan to address exceedances of impact assessment criteria or predictions in relation to surface water TARP's specified in the Tahmoor Colliery Longwall 27-30 EMP. Following detailed consultation a Revised CMA Plan was sent to DRG in June 2017 (Rev 1 report dated 16 June 2017). SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.</p> <p>The audit team has noted in the CMA Plan that 'minor' environmental consequences are defined as 'relatively small in quantity, size and degree given the relative context'. The impacts noted in Redbank Creek and Myrtle Creek seen during the site inspection and in other documentation (including CMA Plan) appear to be greater than minor impacts.</p> <p>It is also noted that in the letter to Tahmoor from DRG dated May 23, 2017 that:</p> <p><i>'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator. The notice required provision of the CMA Plan by 31 March 2017 however this timeframe was extended to 28 April 20-17 at the request of Tahmoor.'</i></p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<p><i>The inadequacy of the CMA Plan, required to be prepared in accordance with a statutory notice under the Mining Act raises serious concerns regarding Tahmoor's commitment to obligations under the Longwall 27-30 EMP and management of the adverse impacts on the environment as a result of its activities authorised under Consolidate Coal Lease (CCL) 716'.</i></p> <p>As the SMP has not been fully implemented and impacts have been above minor, this condition is a NC.</p>	
6	<p>The Leaseholder must implement the SMP (as amended by the conditions of this Approval) and carry out any additional practicable measures necessary to prevent any harm to the environment that may result from the construction, operation, or rehabilitation of the activity. Where prevention can not be achieved the leaseholder is to demonstrate minimisation of harm to the environment that may result from the construction, operation, or rehabilitation of the activity.</p>	<p>Non – Compliance (Medium Risk)</p>	<p>Evidence of subsidence impacts identified during field inspection and in through Tahmoor Coking Coal Operations correspondence with the DRG.</p> <p>Tahmoor Coking Coal Operations is seeking approval from DRG in response to a Section 240 Notice to undertake a staged program of grouting works to reinstate Myrtle and Redbank Creek surface flows and drained pools above LW28 to 30. There was an effort to prevent subsidence impacts through mine design and the SMP process.</p> <p>The SMP/EMP has not been fully implemented. Letter from DRG May 23, 2017 stated - <i>'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator'.</i> By not completing this CMA Plan earlier this is a not compliance with implementing the SMP.</p> <p>Tahmoor Coking Coal Operations provided an update on the status of the CMA Plan in writing on 1 May 2018. <i>Tahmoor Colliery have consulted with DRG Environmental Inspectors and both agreed to wait until the undermining of Myrtle Creek is complete to begin remediation. This decision was due to photographic</i></p>	<p>As per <b>REC 6</b></p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<p><i>records demonstrating some pools in Myrtle Creek naturally remediating post rain events in Myrtle Creek. DRG inspectors Will Mitry and Greg Kininmonth have agreed to 'wait and watch natural remediation until the undermining of Myrtle Creek is complete'.</i></p> <p>SLR agrees with this approach. However we have still provided a comment regarding implementation of the CMA Plan when required in the future. SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.</p>	
9	<p>The Leaseholder must implement any plan, programme or strategy required and approved pursuant to this Approval.</p> <p><i>Note: The Leaseholder may, at any time, submit an amended plan, programme or strategy for approval. Once approved, the amended plan, programme or strategy must be implemented, however, up until the date of approval, the Leaseholder must continue to implement the previously approved plan, programme or strategy.</i></p>	<p>Non – Compliance (Medium Risk)</p>	<p>CMA Plan for reinstating surface flows and ponds during period of low flow along Myrtle and Redbank Creeks has been submitted to DRG and pending approval.</p> <p>The SMP has not been fully implemented. Letter from DRG May 23, 2017 stated - <i>'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator'</i>. By not completing this CMA Plan until requested this is a non-compliance with implementing the SMP.</p> <p>Tahmoor provided an update on the status of the CMA Plan in writing on 1 May 2018.</p> <p><i>'Tahmoor Colliery have consulted with DRG Environmental Inspectors and both agreed to wait until the undermining of Myrtle Creek is complete to begin remediation. This decision was due to photographic records demonstrating some pools in Myrtle Creek naturally remediating post rain events in Myrtle Creek. DRG inspectors Will Mitry and Greg Kininmonth have agreed to 'wait and watch natural remediation until the undermining of Myrtle Creek is complete'.</i></p>	<p>As per <b>REC 6</b></p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			SLR agrees with this approach. However we have still provided a comment regarding implementation of the CMAP when required in the future. SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.	
Condition 13	<p>The Leaseholder must submit to the Director Environmental Sustainability &amp; Land Use for approval an Environmental Management Plan (EMP) for the panels which are the subject of this Approval. This plan must address subsidence impacts on:</p> <ul style="list-style-type: none"> <li>a) surface and groundwater (quality and quantity) , including Myrtle and Redbank Creeks;</li> <li>b) flora and fauna;</li> <li>c) heritage sites including Aboriginal heritage sites;</li> <li>d) geomorphology, including rock bars and cliff lines; and</li> <li>e) surface and groundwater (quality and quantity); including groundwater bores on privately owned land within a 3 kilometre radius of the limit of mining.</li> </ul> <p>The leaseholder must not operate other than in accordance with an Environmental Management Plan (EMP) approved by the Director Environmental Sustainability &amp; Land Use. This plan must address subsidence impacts above and must include:</p> <ul style="list-style-type: none"> <li>a) a detailed monitoring programme;</li> <li>b) trigger levels for subsidence impacts that require actions and responses;</li> <li>c) the procedures that would be followed in the event that the monitoring indicates an exceedance of trigger levels;</li> </ul>	Non – Compliance (Medium Risk)	<p><u>Preparation:</u>                      Refer to Environmental Management Plan (Rev D) for LW27 to 30 (dated 6/1213). Meets the requirements of a) to e).</p> <p><u>Implementation:</u>                      Tahmoor did not implement the EMP effectively. Letter from DRG May 23, 2017 stated - <i>'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator'</i>. By not completing this CMA Plan earlier this is a non - compliance with implementing the EMP/overall SMP.</p> <p>Tahmoor Coking Coal Operations provided an update on the status of the CMA Plan in writing on 1 May 2018. <i>'Tahmoor Colliery have consulted with DRG Environmental Inspectors and both agreed to wait until the undermining of Myrtle Creek is complete to begin remediation. This decision was due to photographic records demonstrating some pools in Myrtle Creek naturally remediating post rain events in Myrtle Creek. DRG inspectors Will Mitry and Greg Kininmonth have agreed to 'wait and watch natural remediation until the undermining of Myrtle Creek is complete'.</i></p> <p>SLR agrees with this approach. However we have still provided a comment regarding implementation of the</p>	As per REC 6

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation																						
	d) measures to mitigate, remediate and/or compensate any identified impacts; e) a protocol for the notification of identified exceedances of the trigger levels; and f) a contingency plan. The leaseholder shall ensure that Coking Coal Operations mining does not cause the performance outcomes in Table 1 to be exceeded.		CMA Plan when required in the future. SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.																							
Condition 13	<table border="1"> <thead> <tr> <th>Watercourses</th> <th></th> </tr> </thead> <tbody> <tr> <td>Myrtle and Redbank Creeks</td> <td>Minor environmental consequences</td> </tr> <tr> <td>Other watercourses</td> <td>No greater subsidence impact or environmental consequence than predicted in the SMP</td> </tr> <tr> <th>Land</th> <th></th> </tr> <tr> <td>Cliffs flanking Redbank Creek</td> <td>Minor environmental consequences</td> </tr> <tr> <td>Other cliffs</td> <td>Minor environmental consequences</td> </tr> <tr> <th>Biodiversity</th> <th></th> </tr> <tr> <td>Threatened species, threatened populations, or endangered ecological communities</td> <td>Negligible environmental consequences</td> </tr> <tr> <th>Aboriginal and other heritage features</th> <th></th> </tr> <tr> <td>Sites that may be determined to hold "special significance"</td> <td>Negligible alteration or damage to the feature or site.</td> </tr> <tr> <td>Other heritage sites</td> <td>Minor alteration or damage to the feature or site</td> </tr> </tbody> </table>	Watercourses		Myrtle and Redbank Creeks	Minor environmental consequences	Other watercourses	No greater subsidence impact or environmental consequence than predicted in the SMP	Land		Cliffs flanking Redbank Creek	Minor environmental consequences	Other cliffs	Minor environmental consequences	Biodiversity		Threatened species, threatened populations, or endangered ecological communities	Negligible environmental consequences	Aboriginal and other heritage features		Sites that may be determined to hold "special significance"	Negligible alteration or damage to the feature or site.	Other heritage sites	Minor alteration or damage to the feature or site	Non – Compliance (Medium Risk)	Minor Environmental Consequences and TARPs developed in EMP for LW27-30 exceeded for Myrtle & Redbank Creeks. Section 240 Issued to the mine by DRG on 5/12/16. The audit team has noted in the CMA Plan that 'minor' environmental consequences are defined as 'relatively small in quantity, size and degree given the relative context'. The impacts noted in Redbank Creek and Myrtle Creek seen during the site inspection and other documentation (including CMA Plan) appear to be above minor impacts. A comparison of results against predictions and triggers from the SMP (including the Natural Features Management Plan) is outlined within the End of Panel Reports. A key trigger is the 'Redirection of surface water flows and pool level / flow decline of >20% during mining compared to baseline for > 2 months, considering rainfall / runoff variability'. It was noted in the LW 29 End of Panel Report that for Redbank Creek, Trigger exceeded during mining of LW29 at Sites 26A and RC2/37 above LWs 28 and 29, Sites RR2 and RB5 above LW29, and Site RR9 above LW30.	As per REC 6
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Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			The end of panel reports do not specifically compare impacts observed against the performance outcomes in this condition.	
<b>LW 31 Subsidence Management Plan</b>				
Nil non - compliances				
<b>ML 1376</b>				
Condition 47	Prior to the commencement of "second working" extraction lease holder shall give three (3) months written notice of intention to carry out such mining to the owners of overlying land on which there are substantial improvements.	Administrative Non - Compliance	<ul style="list-style-type: none"> <li>See letters dated 1 June 2017 to council, government and property owners.</li> <li>Outlines mining will occur for Longwall 31 within properties, with residents sent a 'Resident Information Pack'.</li> <li>Proposed timing for Longwall 31 commencement was 30 June 2017 - less than three months notice.</li> <li>Notified after 1 month of getting approval for the SMP.</li> </ul>	<b>REC 7</b> Tahmoor Coking Coal Operations must ensure that prior to the commencement of "second working" extraction they give three (3) months written notice to landowners.
<b>ML 1539</b>				
Condition 57	Prior to the commencement of "second working" extraction the lease holder shall give three (3) months written notice of the intention to carry out such mining to the owners of all overlying land on which there are substantial improvements.	Administrative Non - Compliance	<ul style="list-style-type: none"> <li>See letters dated 1 June 2017 to council, government and property owners.</li> <li>Outlines mining will occur for Longwall 31 within properties, with residents sent a 'Resident Information Pack'.</li> </ul>	As per <b>REC 7</b>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<ul style="list-style-type: none"> <li>Proposed timing for Longwall 31 commencement was 30 June 2017 - less than three months notice.</li> <li>Notified after 1 month of getting approval for the SMP.</li> </ul>	
<b>CCL 716</b>				
Condition 30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Non – Compliance (Low Risk)	<ul style="list-style-type: none"> <li>Historical subsidence repair completed in this lease area. Based on site communications this has not been triggered.</li> <li>Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Low risk non - compliance relating to the REA drainage.</li> <li>It is also noted that some topsoil stockpiles are greater than 3m in height. Large topsoil stockpiles can be less effective in future rehabilitation.</li> </ul>	<p><b>REC 8</b></p> <p>For any future topsoil stockpiles, they should be shaped to be less than 3m in height.</p>
<b>ML 1642</b>				

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
Condition 2	The leaseholder shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	Non – Compliance (Low Risk)	<ul style="list-style-type: none"> <li>Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Low risk non - compliance relating to the REA drainage.</li> <li>TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Flocculation was increased to decrease level of solids in water. Exceedance reported in Annual Review and Annual Return. Although there was the minor non - compliance relating to the TSS sample, steps were undertaken prior to the post exceedance to reduce TSS.</li> </ul>	As per <b>REC 5</b>
Condition 5	The EMR must: <ol style="list-style-type: none"> <li>report against compliance with the MOP;</li> <li>report on progress in respect of rehabilitation completion criteria;</li> <li>report on the extent of compliance with regulatory requirements; and</li> <li>have regard to any relevant guidelines adopted by the Director-General;</li> </ol>	Administrative Non-Compliance	(a) 2014, 2015 and 2016 Annual Reviews provide comparisons with what the MOP had proposed. b) <u>Admin NC</u> - 2014, 2015 and 2016 Annual Reviews do not report on progress in respect of rehabilitation completion criteria. There is an ecological report attached to the Annual Review, but it does not satisfy the requirement of this condition. c) Statement of compliance against regulatory requirements is included in Table 1 and Table 2 of the 2015 and 2016 Annual Reviews. <ul style="list-style-type: none"> <li><u>Admin NC</u> - Compliance against regulatory requirements tables are not included in the 2014 Annual Review.</li> </ul>	As per <b>REC 2</b>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
			<p>d) The 2016 Annual Review doesn't report discharge volumes.</p> <ul style="list-style-type: none"> <li>• The 2016 Annual Review doesn't include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP.</li> <li>• The 2016 Annual Review A.17 Rehabilitated and Target Areas plan doesn't include surface contours or rehabilitation vegetation type.</li> <li>• The 2016 Annual Review doesn't identify any variations in activities undertaken to those proposed in the MOP.</li> <li>• Section 12 (Activities to be Completed in the Next Reporting Period) of the 2016 Annual Review doesn't include a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period.</li> </ul>	
Condition 10	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-</p> <p>(l) cease working the lease; or</p>	Non – Compliant (Low Risk)	<ul style="list-style-type: none"> <li>• No directive to cease activities, however there was directive to relating to erosion and sediment control at the REA.</li> </ul>	No further recommendations.

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
	<p>(ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>		<ul style="list-style-type: none"> <li>Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Maintenance to continue. As works have been completed in consultation with the DRG, the site is compliant with this condition.</li> </ul>	
Condition 18	<p>Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.</p>	Non – Compliant (Low Risk)	<ul style="list-style-type: none"> <li>Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Low risk non - compliance relating to the REA drainage.</li> <li>TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Flocculation was increased to decrease level of solids in water. Exceedance reported in Annual Review and Annual Return.</li> </ul>	As per <b>REC 5</b>

## 7 Additional Recommended Actions

### 7.1 Other recommendations

Additional recommendations relating to compliant conditions are outlined within **Table 9**

**Table 9 Additional Recommendations for Tahmoor Coking Coal Operations**

Aspect	Recommendation
Website	<p><b>REC 9:</b></p> <ul style="list-style-type: none"> <li>• Add MOP to the website as it is an approved plan. It is important document as it can easily be determined where mining will be in the community.</li> <li>• The Heritage Management Plans developed for the different SMP's should be included on the website.</li> <li>• The SMP Written Report should be included on the website as it gives a good summary of proposed mining operations.</li> <li>• Any specific Environmental Management Plans that were developed for the SMP's should be on the website.</li> <li>• Include latest version of the AQGHGMP on the website.</li> </ul>
Noise Management	<p><b>REC 10</b></p> <ul style="list-style-type: none"> <li>• Discuss the statutory requirements relating to the Noise Management Plan. Including this condition and any other relevant noise conditions consents.</li> <li>• Prepare a cross referencing table.</li> </ul>
Incident Recording	<p><b>REC 11</b></p> <p>Separate the classification of incidents versus areas of identified improvement at site. Some of the areas classified within the Glencore database as an incident are just areas of improvement (eg. removal of tree from a road). It should be clearly defined within the Glencore database about which incidents are reportable versus non-reportable incidents.</p>
Sewage Treatment and Water Treatment	<p><b>REC 12</b></p> <ul style="list-style-type: none"> <li>• There needs to be a mechanism on the sewerage treatment system to measure discharge. SLR recommends an accurate a meter system.</li> <li>• Current system is potentially inaccurate and likely overestimates usage.</li> <li>• Recommend that remedial works are continued on the WWTP by the supplier to bring the plant back into full operation.</li> </ul>

Aspect	Recommendation
Figure Preparation	<b>REC 13</b> Include a figure in the Annual Review outlining the consent boundaries, mining lease boundaries and the EPL boundary. The current figure in the Annual Review only outlines the mining lease boundaries.
Discharge Volumes	<b>REC 14</b> Recommend reporting discharge volumes in Annual Reviews in accordance with Section 7 of the Oct 2015 Annual Review Guidelines.
Waste removal	<b>REC 15</b> Recommend that plans are developed to remove/recycle waste material (old parts etc) from the site.
Mining Operations Plan	Next version of the MOP document needs to be revised to reflect latest version of the guidelines (ESG3: Mining Operations Plan (MOP) Guidelines, dated September 2013)

## 7.2 Subsidence Recommendations

Recommendations relating to subsidence are outlined below. These recommendations have been provided a specific recommendation number.

### **Subsidence REC 1: Definitions in End of Panel Reporting**

Prepare a set of a clear set of definitions in the reports and then applying them consistently in the text. These definitions will include “systematic”, “non-systematic”, “conventional” and “nonconventional”.

### **Subsidence REC 2: Trigger Levels**

The review and assessment of the impacts to natural features could be improved by including an assessed TARP level in the summary tables. It would also probably help if the Triggers were given a simple numbering system that would reduce repetition as follows:

Level 1 = Normal or no mining impact (no change to monitoring program)

Level 2 = Mining Impact Within Predictions (no change to monitoring program or notifications required unless subsidence effect predictions exceeded)

Level 3 = Mining Impact Exceeds Predictions (Notification to stakeholders, review of monitoring program and consideration of corrective management actions).

It is considered that while the TARPs prepared in the approved SMP documents are satisfactory in regard to meeting the ‘minor’ impact consequence required by the SMP Approval, the lack of recognition that the predicted impacts had been exceeded meant that the mine did not acknowledge the review of the impact and possible requirement for a CMA Plan effectively. This issue however, appears to be resolved with the proposed creek reinstatement works plan that is pending approval.

The description of damage to the houses could also be made clearer by defining what reference the Category mentioned is based on.

**Subsidence REC 3: Update to AEMR**

Based on a review of the AEMR the section titled “Future Improvements” is mistitled. This section only discuss future mining activities and not improvements. It is suggested that the section title be amended to “Future Mining and SMP Activities” or something similar if no SMP improvements are mentioned.

**Subsidence REC 4: General Compliance with Consent Conditions**

Based on a review of the AEMRs and EoP Reports for the Oct 2014-Sep 2017 Audit Period documentation, it is assessed that the Tahmoor Coking Coal Operations has satisfactorily complied with the DA Conditions of Consent and SMP Approval Conditions for mine subsidence impact management except for SMP Approval Condition 13. Environmental Management in regard to Myrtle and Redbank Creeks. The condition states:

“The leaseholder shall ensure that Tahmoor Coking Coal Operations mining does not cause the performance outcomes in Table 1 to be exceeded.

*Table 1 - Subsidence Impact Performance Outcomes*

Myrtle and Redbank Creeks	Minor environmental consequences
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In Schedule 2 on the conditions ‘Environmental Consequences’ are defined as, but not limited to “loss of surface flows to the subsurface, loss of standing pools, adverse water quality impacts; development of iron bacterial mats, impacts on aquatic ecology” and ‘Minor’ is given as “Relatively small in quantity, size and degree given in the relative context”.

It is noted that the mine has adopted DRG-approved TARP trigger levels that define clear definitions of what constitutes a minor creek impact exceedance (i.e. > 20% of the creek pool levels and stream levels decline due to rock bar cracking and water quality baseline concentrations are exceeded by more than 2 standard deviations for more than 2 months).

The exceedance of the Stream Flow / Water Level and Stream Water Quality TARP triggers therefore represent an Administrative Exceedance only at this stage as Corrective Management Action Plans are being considered to rehabilitate the creek ponds as close as practicable to pre-mining conditions such that impact exceedances to < 20% of the creeks are achieved (as was approved by DRG in the EMP TARPs).

It is also noted that no loss of diverted surface flow from the catchment, with normal stream flows measured downstream of the subsidence affected reaches.

As discussed earlier, the exceedance of the minor impact TARP for Myrtle and Redbank creeks should have triggered a stronger response in the AEMR and therefore is a medium non-compliance. A further administrative non-compliance is identified in regard to the lack of TARP trigger levels and compliance summaries presented in the AEMRs generally. It is clearly noted in the TARP that a CMAP may be required to rehabilitate the creeks through grouting after mine subsidence impacts had ceased.

Although the CMAP preparation is mentioned in the 2016 AEMR the mine stated that “the observed impacts are within predictions” and only referred to Condition 12 Subsidence Monitoring. Condition 13 Environmental Management, which discusses the Performance Outcomes for the creeks. The EMP TARP triggers are not mentioned. The relevant TARP exceedances are mentioned in the End of Panel Reports for LW28 - 30 and the Subsidence Management Status Reports for LW30 only.



The majority of required documentation specified in Condition 19 of the SMP Approval have been placed on the Tahmoor Coal website. However, it was difficult to find the Environmental Management Plan Report for LW27 - 30 until it was noticed that it was in with the Infrastructure Management Plans. The Natural Feature Management Plans for each longwall did not appear to be on the website, although the main EMP Report was adequate as it provided the relevant TARPs.

***It is recommended that these issues should be addressed in the AEMR and EMS Non - compliance system updated during the next audit period if not already done.***

## 8 Conclusion

### ***Good Performance***

The following areas of good performance were noted during the audit:

- Subsidence Management Plans (SMPs) have been prepared to a high quality standard;
- Good community consultation is undertaken by Tahmoor Coking Coal Operations;
- There were no discharge events during the audit period;
- Few complaints were made during the audit period, in particular during 2017 with only 2 complaints recorded;
- Established rehabilitation is of a good standard with there being diversity of target species identified through the site inspection and rehabilitation monitoring. Additional activities to be undertaken to improve rehabilitation include weed control and monitoring of rehabilitation trials;
- Ongoing dam inspections;
- 50% of gas extracted from Tahmoor Coking Coal Operations is used for electricity generation;
- Monthly spraying of weeds undertaken around the site;
- Real-time sensors are installed at infrastructure potentially affected by subsidence, including the railway line and sewer lines;
- The site was generally compliant for environmental monitoring, including discharge volumes and dust levels; and
- Good performance in terms of air quality management, with such controls as a water truck, chemical dust suppression, water sprayers used at the coal stockpile area, covered conveyor belts and AQGHGMP Trigger Action Response Plan (TARP) implemented.

### ***General Areas of Improvement***

- Additional rehabilitation trials are recommended that assesses different seed mixes;
- Minimising topsoil stockpiles to a 3m height and rehabilitate them with a temporary vegetative cover;
- Ensure drains at the REA are built to plan in the future to avoid additional notifications from DRG;
- Review of flocculant practices at Dam M4;
- Weed management could be improved in a number of sections of the site;
- Small improvements relating to hydrocarbon management and waste;
- Recommendations for subsidence based on the DgS report (**Appendix E**);
- General updates to environmental management plans
- Issues with the water treatment plant need to be resolved and the facility re-commissioned;
- Information to be updated on the website;
- Separate out incidents from non-compliances when reporting these; and
- Additional information to be provided in Annual Reviews.



# APPENDIX A

## Photographs



**Photo 1 – Self bunded chemical containers**



**Photo 2 – Mixed waste not sorted out into recyclables and waste**





Photo 3 – Recycle bin



Photo 4 – ROM and product stockpile area





**Photo 5 – Mine water dams (S2 and S3) near ROM and product stockpile area**



**Photo 6 – Unbanded drum near workshop**





Photo 7 – Drums should not be stacked



Photo 8 – Spill kit and banded drums.





**Photo 9 – Flocculant being sprayed into Dam M4**



**Photo 10 – Weeds present at site**





**Photo 11 – Rejects Emplacement Area**



**Photo 12 – Rehabilitation at the REA**





**Photo 13 – Topsoil stockpile at REA over 3m in height**



**Photo 14 – Cracks in stone located in creek bed**





**Photo 15 – Filled in and rehabilitated Farrell Dam area**



**Photo 16 – Cracks in building caused by subsidence**



**Photo 17 – Cracks in concrete caused by subsidence**

# APPENDIX B

## Compliance Spreadsheet



## MOD 3 Consolidated Consent (DA67/98)

For the Following: Extension to underground coal mining as part of Tahmoor North Coal Mine ("the Development").

Development Application: DA 67/98 lodged with Wollondilly Shire Council on 30 March 1998 accompanied by an Environmental Impact Statement ("EIS") prepared by Olsen Environmental Consulting Pty Ltd dated 11 March, 1998

### 1999 Consent

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>General Conditions</b>				
1	<p>The Applicant shall carry out the development generally in accordance with the:</p> <ul style="list-style-type: none"> <li>(i) DA 67/98;</li> <li>(ii) accompanying EIS titled Tahmoor North Underground Extension Underground Coal Mining to Extend Life of Tahmoor Mine, dated March 1998 and prepared for Austral Coal by Olsen Environmental Consulting Pty Ltd;</li> <li>(iii) application dated 19 May 2006 to modify a development consent 67-5-2006;</li> <li>(iv) accompanying document Tahmoor Colliery Proposed Consent Modification - Statement of Environmental Effects, dated May 2006 and prepared by Centennial Coal;</li> <li>(v) the letter from Ms Donna Dryden representing Centennial Coal, dated 19 July 2006 and headed Tahmoor Colliery – Proposed Modification to Development Consent (DA 67/98);</li> <li>(vi) application dated 21 December 2010 to modify a development consent (DA 67/98 – MOD 2);</li> <li>(vii) accompanying EA titled Redbank Tunnel Subsidence Management – Modification of Project Approval – Environmental Assessment, dated September 2011 and prepared by GHD, including the associated Submissions Report;</li> <li>(viii) application dated 18 September 2012 to modify a development consent (DA 67/98 – MOD 3);</li> <li>(ix) accompanying EA titled Redbank Tunnel Rail Deviation – Subdivision of Land, dated September 2012 and prepared by</li> </ul> <p>Cardno, including the associated Submission Response letter dated 12 November 2012 and prepared by Cardno;</p> <ul style="list-style-type: none"> <li>(x) Statement of Commitments (see Appendix 1); and</li> <li>(xi) conditions of this consent.</li> </ul> <p>1A. If there is any inconsistency between the above documents, the more recent document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.</p>	Compliant	<p>* Directive regarding rehabilitation of Myrtle Creek and Redbank Creek dated Oct 2016. Submitted Corrective Action Plan in June 2017.. Tahmoor Coal recieved a Penalty Infringement Notice (PIN) on 4 May 2018.</p> <p>That issue related to implementing a SMP, not the Environmental Assessments listed in this condition.</p>	
<b>Limit of approval</b>				
2	<ul style="list-style-type: none"> <li>(i) No second workings shall be undertaken under land which was zoned Residential 2(a) in Redbank or South Picton at the date of lodgement of the DA with Council.</li> <li>(ii) Second workings shall not be undertaken under land which was zoned Industrial 4(a) at the date of lodgement of the DA with Council unless the Applicant has a binding compensation agreement with the landowner to the satisfaction of the Director-General in consultation with DRE.</li> </ul>	Compliant	<ul style="list-style-type: none"> <li>(i) Tahmoor Coking Coal Operations have not mined under any zone 2(a) areas. Compensation agreements are in place and have been sent to DPE. DPE hasn't responded yet regarding these agreements.</li> <li>(ii) There are some compensation agreements in place, therefore mining may occur in Zone 4A area in the future. See letter dated 8 Sept 2017.</li> </ul>	
3	The Applicant shall submit a revised mine plan to the Director-General and Council within three months from the date of granting of a mining lease pursuant to this consent.	Not Triggered	Not triggered. Not in audit period.	
4	The approval for mining is for a period of 21 years from the date of granting of a mining lease pursuant to this consent. If, at any time, the Director-General is aware of environmental impacts from the proposal that pose serious environmental concerns due to the failure of existing environmental management measures to ameliorate the impacts, the Applicant shall comply with any order by the Director-General to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.	Compliant	Granting of mining leases, including ML 1539 dated 16 June 2003. Based on site communication no orders have been issued.	
5	The Applicant shall notify the Director-General and the Council in writing of the intended date of commencement of the first second workings in the area covered by this DA (DA 67/98) fourteen days prior to the commencement of such workings.	Not Triggered	Notified Council on 10 September 2003 and General Manager of DPE on 8 Sept 2003.	
6	<p>The Applicant shall not:</p> <ul style="list-style-type: none"> <li>(i) cause subsidence within the two areas shown in black crosshatching in Figure 2; or</li> <li>(ii) cause moderate, severe or very severe structural damage to houses, sheds or pools within the DA area in excess of the percentages of such structures shown in the relevant column of Figure 3 without obtaining either an approval under Part 4 of the Act or a modification of consent under Part 4 of the Act.</li> </ul> <p>Note: In this condition, "percentage of such structures" means the percentage of such structures as may exist from time to time, ie allowing for new buildings and demolition within the area affected by subsidence caused by mining within the DA area.</p>	Not Triggered	No mining in the area.	
7	Mining is not to occur so as to result in the subsidence of any habitable floors to below the 1:100 year flood level (1% flood level).	Compliant	<p>Flood Study Report by Calibre Consulting dated 29 May 2015, in response to the 2014 non-compliance audit finding (during the audit evidence was not provided to demonstrate whether floor levels have actually remained above the 1:100 year flood level after subsidence). This report is titled Myrtle Creek and Southern Railway Culvert Crossing - Hydrology and Hydraulic Assessment. The report stated that:</p> <p><i>The studies found that floor levels for most properties in the catchment have more than 500mm of freeboard above the design 100 year Average Recurrence Interval (ARI) flood levels through the floodplain.</i></p> <p><i>Flood modelling demonstrates that all building floor levels are more than 500mm higher than the 100 year flood level. This includes an allowance for recent subsidence of approximately 20mm across the study area. Mine subsidence within the area has had no tangible impact on the flood immunity of these properties up to and including the 100 year ARI event.</i></p>	
<b>Statutory requirements</b>				
8	The Applicant shall ensure that all statutory requirements, including all relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions and Directions of the Council and relevant government agencies are met and approvals obtained.	Compliant	Directive regarding rehabilitation of Myrtle Creek and Redbank Creek dated Oct 2016. Submitted the revised CMA Plan in June 2017. Tahmoor Coking Coal Operations recieved a Penalty Infringement Notice (PIN) on 4 May 2018.. Despite the subsidence impacts relating to Myrtle Creek and Redbank Creek, Tahmoor Coking Coal Operations has continued to liaise with the DRG, DPE and other agencies.	
<b>Environmental Management Services</b>				
9	<p>The Applicant shall engage recognised Environmental Management Services throughout the life of the mine. The Environmental Management Services shall:</p> <ul style="list-style-type: none"> <li>(i) provide for the preparation of environmental management plans;</li> <li>(ii) provide for considering and advising on matters specified in the conditions of this consent and compliance with such matters;</li> <li>(iii) provide for receiving and responding to complaints in accordance with Condition 43;</li> <li>(iv) be involved in the induction and training program for all persons involved with construction activities, mining and remedial activities (including surface drainage mitigation works);</li> <li>(v) have the authority and independence to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts. Failing the effectiveness of such steps immediately advise Senior Management of the mine of environmental implications and of any need to stop work; and</li> <li>(vi) provide a representative to be a member of the Community Consultative Committee (Condition 47).</li> </ul>	Compliant	<p>Evidence of recognised Environmental Manager and team throughout the operations life.</p> <p>Copy of Environment Management Strategy provided. This includes roles and responsibilities.</p> <p>Other key site documentation viewed as part of the audit includes:</p> <ul style="list-style-type: none"> <li>* Training Procedure;</li> <li>* Complaints Record;</li> <li>* Weekly Environment Management Committee (EMC) meeting; and</li> <li>* Consultative Community Committee (CCC) minutes.</li> </ul>	
10	The Applicant shall notify the Director-General, EPA, NOW, DRE, Council, the Community Consultative Committee of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the name and contact details of the principal person responsible for overseeing environmental management of the mine. This principal person shall be a person who has the authority to stop work if an adverse impact on the environment is likely to occur.	Compliant	<ul style="list-style-type: none"> <li>* Annual Review has the relevant staff list including environmental representatives;</li> <li>* Evidence of emails to key government authorities dated 26 September 2017, introducing the current Environment and Community Manager; and</li> <li>* Tahmoor personnel present at the CCC.</li> </ul>	
<b>Revision of subsidence predictions.</b>				
11	<p>As part of any application to DRE for approval of a Subsidence Management Plan:</p> <ul style="list-style-type: none"> <li>(i) the Applicant shall revise subsidence predictions and the impacts on bridge structures, culverts and embankments based on the final mine plan and prepare management plans in consultation with the relevant authorities;</li> <li>(ii) the Applicant shall revise subsidence predictions and the impacts on mains and overhead cables based on the final mine plan and prepare management plans in consultation with the relevant authorities; and</li> <li>(iii) for mining that may change drainage patterns of flood prone land, the Applicant shall revise subsidence predictions and prepare management plans for those lands in consultation with Council and relevant landowners.</li> </ul> <p>Any such revisions of subsidence predictions shall be reported in the Annual Review (Condition 45).</p>	Compliant	<p>Tahmoor Coking Coal Operations has engaged specialist subsidence consultant (MSEC) to prepare subsidence effect predictions in SMP Reports and review these in End of Panel Reports (which are referred to in AEMRs). Relevant Reports that address items (i),(ii) &amp; (iii) for the audit period include:</p> <ul style="list-style-type: none"> <li>* Tahmoor EMP Report (Rev D) for LW27 to 30 (6/2/13).</li> <li>* Tahmoor SMP Report for LW31 to 37 (Sep 2017).</li> <li>* End of Panel Reports for LW27, 28, 29 and 30.</li> <li>* AEMRs for 2014, 2015, 2016.</li> </ul> <p>A pre and post mining flood study for Myrtle and Redbank creeks by Hughes Truman Pty Ltd was completed for the SMP Application Report. SMP's assess potential impacts on manmade structures and natural features. Subsidence predictions reviewed for each SMP application by specialist subsidence consultant.</p>	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Subsidence monitoring</b>				
12	<p>The Applicant shall undertake a detailed and ongoing monitoring program of subsidence resulting from mining to the satisfaction of the Director-General and in consultation with DRE and Council from the date of commencement (Condition 5) and for a period of at least three years after the completion of mining, or other such period as determined by the Director-General in consultation with DRE and Council. Monitoring shall include the following:</p> <p>(i) impacts on dams that may be affected by subsidence occurring in the DA area;</p> <p>(ii) a survey of the stream channel system;</p> <p>(iii) monitoring of groundwater levels and quality;</p> <p>(iv) monitoring of remedial measures;</p> <p>(v) a comparison of predicted impacts with actual impacts, including mapping of subsidence profiles in residential areas and of anomalous events;</p> <p>(vi) strains and impacts in the vicinity of the Nepean Fault Zone; and</p> <p>(vii) the angle of draw</p> <p>The applicant shall include information on monitoring conducted and the interpreted results in the Annual Review (Condition 45).</p>	Compliant	<p>Tahmoor Coking Coal Operations has engaged specialist subsidence consultant (MSEC) to prepare subsidence effect predictions in SMP Reports and review these in End of Panel Reports (which are referred to in AEMRs). Relevant Reports that address items (i),(ii) &amp; (iii) for the audit period include:</p> <p>* Tahmoor EMP Report (Rev D) for LW27 to 30 (6/2/13).</p> <p>* Tahmoor SMP Report for LW31 to 37 (Sep 2017).</p> <p>* End of Panel Reports for LW27, 28, 29 and 30.</p> <p>* AEMRs for 2014, 2015, 2016.</p> <p>A pre and post mining flood study for Myrtle and Redbank creeks by Hughes Truman Pty Ltd was completed for the SMP Application Report. SMP's assess potential impacts on manmade structures and natural features. Specific Subsidence Monitoring Programs developed for each panel.</p>	
13	<p>If determined necessary by the Director-General in consultation with Council and NOW, the Applicant shall carry out works in accordance with an Erosion and Sediment Control Plan, prepared to the requirements of NOW, to restore any damage to watercourses (including the banks) resulting from the mining operations, subject to any other necessary approvals.</p>	Compliant	<p>* There is a Soil and Water Management Plan for the site.</p> <p>* CMA Plan prepared for Myrtle Creek and Redbank Creek as per directive and sent to DPE (therefore compliant with directive). Tahmoor Coking Coal Operations received a Penalty Infringement Notice (PIN) on 4 May 2018. Testing program relating to grouting is proposed to be undertaken.</p> <p>* ESCP not yet required, however a plan will be required prior to completing the grouting. To be triggered when implementing the CMA.</p>	
<b>Water Quality</b>				
14	<p>The Applicant shall prepare and implement a plan to monitor and manage any subsidence impacts on septic tanks or package sewage treatment plants. The plan shall be prepared to the satisfaction of the Director-General and in consultation with Council.</p>	Compliant	<p>Septic tank impact management plans due to mining were provided in the Structures Management Plan for LW27 and LW28-30. Evidence of rehabilitation of a septic system damage claim noted, with sub-contractor quotes requested by Tahmoor to decommission a septic system and install a tertiary treatment system at a rural lot on Brundah Road, Tahmoor (11/9/17). The septic system was located above LW24a.</p>	
<b>Notifications and pre-mining structural inspections</b>				
15	<p>(i) The Applicant shall notify each relevant landowner/occupier under whose property it intends to commence first workings at least one (1) month prior to commencement of such workings; and</p> <p>(ii) The Applicant shall notify in writing each landowner/occupier within a 35 degree angle of draw of its intentions to proceed with second workings at least three (3) months prior to making an application to DRE for approval of a Subsidence Management Plan.</p> <p>Notification of second workings shall include:</p> <p>(a) pre-mining inspection rights including a copy of consent conditions 15 to 26 inclusive;</p> <p>(b) revised subsidence predictions using updated monitoring data;</p> <p>(c) identification of potential damage to improvements;</p> <p>(d) owner's obligation of disclosure under insurance policies and mortgage agreements;</p> <p>(e) rights of claiming consequential loss under the Mining Act; and</p> <p>(f) advice as to where an unabridged copy of these conditions of consent are available for public inspection.</p>	Compliant	<p>* Letter to landowners dated 1 June 2017 provides notification of SMP approval and notification of planned start date of LW31 of 30 June 2017.</p>	
16	<p>If determined necessary by DRE, the Applicant shall cause a pre-mining structural inspection to be carried out on substantial improvements on land identified by the DRE at least one month prior to commencement of second workings taking place that may cause subsidence impacts on the relevant property. These inspections shall:</p> <p>(i) be conducted with the consent of the landowner/occupier and in consultation with MSB;</p> <p>(ii) include a report prepared on the structural integrity of all buildings in their entirety (including roofs, ceilings, openings, foundations and household sewage treatment and disposal systems);</p> <p>(iii) be conducted by an independent and technically qualified person;</p> <p>(iv) include permanent reference marks on each corner of all substantial improvements with level tied to Australian Height Datum to a stable point in the area; and</p> <p>(v) include soil sampling for moisture content and soil type as appropriate.</p> <p>A copy of the inspection report shall be provided to the landowner/occupier upon completion.</p>	Not Triggered	<p>No structural inspections requested by the DRG according to site communications.</p>	
17	<p>Where a pre-mining structural inspection under Condition 16 involves a building identified in the Wollondilly Heritage Study the report shall be prepared with the assistance of a qualified heritage expert. The Director-General may also require such a report on a building which is not identified in the Wollondilly Heritage Study be prepared with the assistance of a qualified heritage expert if the Director-General is satisfied, on the basis of available information, that the building may be older than 50 years and have heritage significance. Prior notice of such inspections shall be provided to the Director-General by the Applicant to enable a decision to be made.</p> <p>Note: Structural inspections by the Applicant are in addition to any pre-mining surveys conducted by the Mine Subsidence Board.</p>	Not Triggered	<p>No pre-mining structural inspection under Condition 16. No further structural inspections requested by the DRG according to site communications.</p>	
<b>Management, compensation and acquisition</b>				
18	<p>Where a dwelling within the DA area is, or is likely to be, subject to damage as a result of the development, upon receipt of notification under Condition 15(ii) the landowner may request the Applicant in writing to:</p> <p>(i) carry out such works as agreed by the landowner to remedy or mitigate any damage or compensate the landowner for such effects in accordance with the Mine Subsidence Compensation Act 1961 and/or the Mining Act 1992 (except where such works are the responsibility of the Mine Subsidence Board); or</p> <p>(ii) where damage is, or is likely to be, severe, very severe or unrepairable (as defined in the EIS referred to in condition 1), acquire the whole of the property, or such part of the property requested by the landowner if subdivision is approved, except where purchase is agreed by the Mine Subsidence Board.</p> <p>The Applicant shall comply with any such request for acquisition in accordance with Conditions 20-22. If necessary to confirm the impact, the Applicant shall, at the request of the landowner in writing, conduct a follow-up structural inspection to one carried out under Conditions 16-17. Any inspection or assessment under this Condition shall be conducted as if it were conducted under Conditions 16-17.</p>	Compliant	<p>File note from Tahmoor Coking Coal Operations Environment and Community Manager dated 4 May 2017 outlines the purchase of 5 Struan Street, Tahmoor, in accordance with this condition. This note outlines the history of the consultation process.</p>	
19	<p>The Applicant shall, if requested by the Mine Subsidence Board, ensure that any substantial improvements, including homes, sheds and pools, which are subject to residual tilts in the range of 4 mm/m to 7 mm/m as a result of mining or mining related activities, are relevelled within six months of receipt of a written request from the landowner.</p> <p>Note: Releveling of residual tilt of greater than 7 mm/m is the responsibility of the Mine Subsidence Board.</p>	Compliant	<p>* Based on site communications Tahmoor Coking Coal Operations have not been contacted by the MSB (now Subsidence Advisory) regarding this specific aspect. There is however regular consultation with Subsidence Advisory NSW.</p> <p>* 2016 Annual Review indicated that Consultation has occurred with the Subsidence Advisory NSW regarding community information services. Further consultation will also occur regarding the Resident Information Pack.</p>	



Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Acquisition Procedure</b>				
20	<p>Upon receipt of a written request to purchase property in accordance with any Condition 18(ii), unless mining proposals are altered to avoid this property purchase mechanism, the Applicant shall negotiate and purchase the whole of the property (unless the request specifically requests acquisition of only part of the property and subdivision has already been approved) within six months of receipt of the request. The Applicant shall pay the landowner an acquisition price resulting from proper consideration of:</p> <p>(i) a sum not less than the current market value of the owner's interest in the land, whosoever is the occupier, having regard to:</p> <ul style="list-style-type: none"> <li>the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and</li> <li>the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of the request is completed subsequent to that date, as if the land was unaffected by the development proposal;</li> </ul> <p>(ii) the owner's reasonable compensation for disturbance allowance and relocation within the Wollondilly local government area, or within such other location as may be determined by the Director-General in exceptional circumstances;</p> <p>(iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price for the land and the terms upon which it is to be acquired; and</p> <p>(iv) the purchase price determined by reference to points (i), (ii) and (iii) shall be reduced by the amount of any compensation awarded to a landowner pursuant to the Mining Act, 1992 or other legislation providing for compensation in relation to coal mining but limited to compensation for dwellings, structures and other fixed improvements on the land, unless otherwise determined by the Director-General in consultation with the DRE or MSB.</p>	Compliant	<p>* One request for house acquisition - 5 Struan Street Tahmoor.;</p> <p>* Date of Request - 3 February 2014 (outside audit period);</p> <p>* Date of ownership (based on title search) - 31 July 2015. Email confirming settlement 27 July 2015; and</p> <p>* Area inspected by SLR and DGS as part of subsidence inspection for this audit. The property is uninhabited at the time of the audit. There were clear signs of subsidence impacts identified as part of the inspection.</p>	Tahmoor Coking Coal Operations should liaise with the Subsidence Advisory regarding the longterm future of the 5 Struan Street property.
21	An offer by the Applicant to purchase a property under Conditions 18(ii) and 20 shall remain open to the landowner three years after completion of mining of longwall panels that affect the property.	Compliant		
22	Notwithstanding any other condition of this consent, the landowner and the Applicant may enter into any other agreed arrangement regarding compensation; or the Applicant may, upon request of the landowner, acquire any property affected by the Tahmoor Mine during the course of this consent on terms agreed to between the Applicant and the landowner.	Compliant		
<b>Independent Valuation</b>				
23	In the event that the Applicant and the landowner cannot agree within three months upon the acquisition price of the land and/or the terms upon which it is to be acquired under the terms of this consent, then either party may refer the matter to the Director-General who shall request an independent valuation to determine the acquisition price. The independent valuer shall consider any submissions from the landowner and the Applicant in determining the acquisition price.	Not Triggered	The 5 Struan Street Tahmoor property purchase was negotiated, agreed and purchase made in accordance with a specific agreement completed in accordance with Condition 22. This agreement was executed after substantial negotiation and review. Final acquisition of the property was completed on Monday, 27 July 2015, which is within the audit period.	
24	<p>If the independent valuer requires guidance on any contentious legal, planning or other issues, the independent valuer shall refer the matter to the Director-General, who, if satisfied that there is a need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of:</p> <p>(i) the appointed independent valuer;</p> <p>(ii) the Director-General; and/or</p> <p>(iii) the President of the Law Society of NSW or nominee.</p> <p>The qualified panel shall, on the advice of the valuer, determine the issue referred to it and advise the valuer.</p>	Not Triggered	Not triggered during the audit period.	
25	The Applicant shall bear the costs of any independent valuation or survey assessment requested by the Director-General.	Not Triggered	Not triggered during the audit period.	
26	The Applicant shall, within fourteen days of receipt of a valuation by the independent valuer, offer in writing to acquire the relevant land at a price not less than the said valuation.	Not Triggered	Not triggered during the audit period.	
<b>Heritage Items</b>				
27	<p>The Applicant shall not cause damage to any building or structure which is a Heritage Item without the prior approval of Council. The application for such approval shall include a detailed report assessing:</p> <p>(i) likely subsidence and the potential damage to the item arising from subsidence;</p> <p>(ii) impacts of expected damage on the historical significance of the Item (prepared by a qualified heritage expert endorsed by Council); and</p> <p>(iii) appropriate mitigation, management or restoration measures.</p> <p>Note: In this condition, "Heritage Item" means an item either listed in Schedule 1 of the Wollondilly Local Environmental Plan 1991 or identified in the Wollondilly Heritage Study 1993. The power for Council to issue an "approval" is established under this condition, and should not be read as establishing any requirement for the application for and grant of development consent under the Act.</p>	Compliant	<p>* Only 1 applicable heritage item (Koorana House). Letter to Council (dated 28 August 2017) forwarding a copy of the 'Tahmoor Colliery - Longwall 31 Management Plan for Potential Impacts to the Koorana Homestead Complex' &amp; approval letter from Council (dated 4 Oct 2017). Undermining of the heritage item (homestead) will occur prior to this audit report being finalised.</p> <p>* Consultation undertaken with the Manager of the Koorana House. This consultation included a meeting on 21 August 2017, where the key aspects of the LW 31 Management Plan for Potential Impacts to the Koorana Homestead Complex was discussed.</p>	
28	When applying for the approval of Council under condition 27, the Applicant shall provide a copy of the application and detailed report to the owner or owners of affected buildings or structures and to the Community Consultative Committee.	Compliant	<p>* Consultation undertaken with local groups was completed in a meeting on 21 August 2017. Consultation meeting notes were provided to SLR as part of this audit.</p> <p>The LW 31 Management Plan for Potential Impacts to the Koorana Homestead Complex was provided to the CCC on 7 September 2017.</p>	
29	Prior to commencement of mining the Applicant shall comply with the statutory requirements of NPWS in relation to works affecting Aboriginal sites.	Compliant	<p>The 2016 Annual Review states:</p> <p>An Aboriginal Heritage Impact Permit (AHIP) search is completed prior to the extraction of each longwall to confirm if new Aboriginal cultural or historical heritage sites have been identified. This process is outlined in Tahmoor Coking Coal Operations's, internal management plans and managed effectively on-site through the implementation of Tahmoor Coking Coal Operations's Ground Disturbance Permit.</p> <p>A sandstone rock shelter that contains Aboriginal Art was identified in Redbank Creek as an Aboriginal object. The rock shelter is referred to as Redbank Creek 1. It is in the active subsidence zone of Longwalls 28, 29 and 30. Longwall mining will subside the shelter and potentially cause harm. An Aboriginal Cultural Heritage Assessment Report and Archaeological Report were prepared and submitted to the Office of Environment &amp; Heritage (OEH) and AHIP approval was received on 19 December 2014.</p>	The Heritage Management Plans developed for the different SMP's should be included on the Tahmoor website.
30	If the Applicant becomes aware of any heritage or archaeological material that may be affected by mining or subsidence, all work likely to affect the material shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, the Heritage Office, and the Local Aboriginal Land Council. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.	Compliant	<p>* An AHIP search is completed prior to the extraction of each longwall to confirm if new Aboriginal cultural or historical heritage sites have been identified. This process is outlined in Tahmoor Coking Coal Operations internal management plans and managed effectively on-site through the implementation of Tahmoor Coking Coal Operations's Ground Disturbance Permit.</p> <p>* Section 7 of the Cultural Heritage MP (dated 6/1/2016) provides protocol for discovery of Aboriginal heritage items.</p>	
<b>Counselling Services</b>				
31	The Applicant shall provide funding to Council for independent counselling services for landowners who may request support on stress-related matters resulting from the development. These counselling services shall be available to landowners from two years prior to mining of longwall panels that affect the landowner's property and until three years after completion of mining of longwall panels that affect the landowner's property.	Compliant	<p>Sighted letter from independent counsellor dated 6 October 2017. The letter from CareInsight Pty Ltd stated:</p> <p>Further to our discussions today I confirm that I have visited and counselled a number of residents living in Tahmoor since June 2008 who have experienced damage to their homes and/or environment and property due to subsidence from underground long wall mining within their local area. These residents were counselled as part of an EAP service provided for Glencore Tahmoor Coking Coal Operations – formerly Xstrata Coal Tahmoor by CareInsight Pty Ltd.</p>	
<b>Modification to the Court's consent</b>				
32	Prior to commencement of mining under this consent, the Applicant shall obtain any necessary modifications to the 1994 approval by the Land and Environment Court arising out of this consent. The Applicant shall supply copies of any such application for modification to the Department, Council and the Community Consultative Committee upon lodgement with the Court.	Not Triggered	<p>* Not triggered during the audit period.</p> <p>* Tahmoor Coking Coal Operations is currently completing a modification to mine a new area - however outside of audit scope.</p>	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action																							
<b>Noise Management Plan</b>																											
33	The Applicant shall prepare and implement a Noise Management Plan for the Tahmoor Mine to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with EPA, and submitted for approval to the Director-General by 31 October 2012; (b) describe the noise mitigation measures that would be implemented to ensure compliance with all relevant conditions of consent for the Tahmoor Mine; (c) outline procedures to manage responses to any complaints or issues raised by the owners of affected residences; and (d) include a noise monitoring program that includes a protocol for determining exceedances of all relevant conditions of consent for the Tahmoor Mine.	Compliant	Preparation: a) Current approved Noise Management Plan (NMP) dated May 2016. Sighted letter from EPA regarding consultation about the NMP. Original NMP submitted 26 Oct 2012 to DPE. b) NMP Section 4 provides noise sources and controls. c) Covered by NMP Section 5. d) Covered by NMP Section 3.5.  Implementation: * Noise attenuation (sound power level testing) is being completed. Refer to Tahmoor Coal Environmental Noise Audit, dated May 2017. * Few noise complaints as the site is an underground mine. * According to the Section 3.4 of the NMP real-time noise monitoring is undertaken at two locations. Also there is one monitor which can be moved. * There have been numerous Pollution Reduction Plans with regard to noise undertaken and implemented at the site between 2007 and 2011. * The EPA assessment of noise levels from Tahmoor Coking Coal Operations (dated February 2013) acknowledged that "further significant noise reductions at Tahmoor Colliery are not likely to be feasible with the present location and configurations of plant and equipment on site. Tahmoor Coking Coal Operations has committed to examine opportunities for reconfiguration (or relocation on site) of noisy equipment during planning for retrofits and major plant upgrades as they arise." * According to Events Report dated 11/9/2017 noise incidents were investigated through the TARP process.	* Discuss the statutory requirements relating to the Noise Management Plan. Including this condition and any other relevant noise conditions consents. * Prepare a cross referencing table.																							
<b>Redbank Tunnel Rail Deviation</b>																											
34	The Applicant shall ensure that construction work for the Redbank Tunnel rail deviation is carried out from 7 am to 6 pm Monday to Friday (inclusive) and 8 am to 1 pm on Saturday, unless at the request or direction of the ARTC.  If construction may result in exceedances of the Interim Construction Noise Guidelines (DECCW, 2009), the Applicant shall undertake community consultation and implement associated mitigation measures in accordance with the 'Additional Mitigation Measures Matrix' in the Construction Noise Strategy (Transport Construction Authority, 2010).	Not Triggered	Works outside audit period.																								
35	The Applicant shall prepare and implement a Construction Noise Management Plan for the Redbank Tunnel rail deviation to the satisfaction of the Director-General. This plan must: (a) be prepared in accordance with the Construction Noise Strategy; (b) be submitted for approval to the Director-General prior to the commencement of construction work; (c) describe the noise mitigation measures that would be implemented to minimise the noise impacts from construction activities; (d) describe the proposed noise monitoring program; and (e) outline procedures to manage responses to any complaints or issues raised by the owners of affected residences.  Note: construction work in Conditions 34 and 35 does not include surveys, acquisitions, fencing, investigative drilling or excavation, minor clearing, minor access roads, minor adjustments to services/utilities, works which allow isolation of the site so that access for construction can be provided (including service relocations) and establishing temporary facilities for construction (including for example an office and amenities compound, construction compound, materials storage compound, maintenance workshop, testing laboratory or material stockpile areas).	Not Triggered	Works outside audit period.																								
<b>Greenhouse Gas Emissions</b>																											
36	The Applicant shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the Tahmoor Mine, to the satisfaction of the Director-General.	Compliant	Preparation: * Air Quality Greenhouse Gas Management Plan (AQGHGMP) approved by DPE on 6 December 2012. A separate document was developed for the Air Quality Monitoring Program, with this an appendix to the AQGHGMP.  Implementation: * Monitoring and reporting is completed; According to 2014, 2015 and 2016 the site was compliant in regards to dust emissions. * Greenhouse gas emissions calculated monthly for Glencore sites. According to 2014 Annual Review GHG emissions were compliant. 2015 & 2016 Annual Reviews do not report on greenhouse gas (GHG) emissions. * 2014-2015 & 2015-2016 National Greenhouse and Energy Reporting (NGERS) reports.																								
<b>Air Quality Assessment Criteria</b>																											
37	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Tahmoor Mine do not exceed the criteria listed in Tables 1, 2 or 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.	Compliant	* Dust monitoring program consists of 1 X TOEM, 2 x HVAS & 8 x depositional dust monitors. According to 2014, 2015 and 2016 Annual Reviews and the Annual Returns for these same years, the site was compliant for dust levels.																								
<p><i>Table 1: Long-term criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>d</sup> Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td><sup>a</sup> 90 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td><sup>a</sup> 30 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 2: Short-term criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th><sup>d</sup> Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td><sup>a</sup> 50 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 3: 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><sup>c</sup> Deposited dust</td> <td>Annual</td> <td><sup>b</sup> 2 g/m<sup>2</sup>/month</td> <td><sup>a</sup> 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table>				Pollutant	Averaging Period	<sup>d</sup> Criterion	Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	Pollutant	Averaging Period	<sup>d</sup> Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month	
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<p>Notes to tables 1-3  <sup>a</sup> - Total impact (i.e. incremental increase in concentrations due to the Tahmoor Mine plus background concentrations due to all sources);  <sup>b</sup> - Incremental impact (i.e. incremental increase in concentrations due to the Tahmoor Mine on its own);  <sup>c</sup> - Deposited dust to be assessed as insoluble solids as defined by Standards Australia AS/NZS 3580.10.1:2003:Methods of Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and  <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General.</p>																											
<b>Operating Conditions</b>																											
38	The Applicant shall: (a) implement best practice air quality management at the Tahmoor Mine, including all reasonable and feasible measures to minimise the off-site odour and dust emissions including those generated by any spontaneous combustion; (b) minimise any visible air pollution generated by the Tahmoor Mine; (c) regularly assess the air quality monitoring and meteorological forecasting data, and modify and/or suspend operations on site to ensure compliance with all relevant conditions of consents for the Tahmoor Mine, to the satisfaction of the Director-General.	Compliant	a) Evidence of dust suppression; water haul road, sprinklers at the ROM and product stockpiles and conveyor belts are covered. Completed maximum amount of rehabilitation. b) Air quality controls included in AQGHGMP. c) Tahmoor Coking Coal Operations regularly assess the air quality monitoring and meteorological forecasting data and report this data on-line and in the Annual Review. Note: During the previous audit there was no meteorological system. This has since been rectified.																								

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Air Quality &amp; Greenhouse Gas Management Plan</b>				
39	The Applicant shall prepare and implement an Air Quality & Greenhouse Gas Management Plan for the Tahmoor Mine to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with EPA, and submitted for approval to the Director-General by 31 October 2012; (b) describe the measures that would be implemented to ensure compliance with all relevant conditions of consents for the Tahmoor Mine; (c) describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the Tahmoor Mine; and (d) include an air quality monitoring program, that includes a protocol for determining exceedances with all relevant conditions of consents for the Tahmoor Mine.	Compliant	Preparation: (a) The AQGHGMP was prepared in consultation with EPA. Sighted consultation letters. The Management Plan was submitted to DPE to meet the timing of this condition. (b) Air Quality Monitoring Plan (AQMP) is an appendix of the AQGHGMP (dated 3 May 2013) states that measures are included within the Pollution Reduction Plan. Section 4.1 of the Tahmoor Coking Coal Operations AQGHGMP (dated 28/7/2017) provides actual mitigation measures. (c) AQGHGMP document (dated 28 July 2017) describes measures in Section 5.6 that would be implemented to minimise the release of greenhouse gas emissions from the Tahmoor Coking Coal Operations; including capturing and directing pre-mining and post-mining goaf gas to the gas extraction plant and then to a third party owned on-site power station. (d) Section 4.2 of the AQMP (dated 3 May 2013) Includes an air quality monitoring program, that includes Assessment Criteria for determining exceedances.  Implementation * Evidence of watering of roads at the pit top and Rejects emplacement area (REA). * Disturbed areas have been kept to a minimum around the pit top. * Progressive rehabilitation completed at the REA. * Covered conveyor system. * Product area sprayed.	
<b>Notification of Landowners</b>				
40	Within 2 weeks of obtaining monitoring results showing an exceedance of the relevant criteria in Tables 1-3, the Applicant shall notify the affected landowner and tenants in writing of the exceedance, and provide monitoring results to each of these parties until the Tahmoor Mine is complying with the relevant criteria again.	Compliant	No exceedances of air quality criteria during the audit period. 2014, 2015 & 2016 Annual Reviews confirm finding.	
<b>Independent Review</b>				
41	If an owner of privately-owned land considers the Tahmoor Mine to be exceeding the relevant criteria in Tables 1-3, then he/she may ask the Director-General in writing for an independent review of the impacts of the Tahmoor Mine on his/her land.  If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Applicant shall: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to: • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the Tahmoor Mine is complying with the relevant criteria in Tables 1-3; and • if the Tahmoor Mine is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Director-General and landowner a copy of the independent review.	Not Triggered	No owner of privately-owned land has asked the Director-General in writing for an independent review of the impacts of the Tahmoor Underground on his/her land during the audit period.	
42	If the independent review determines that the Tahmoor Mine is complying with the relevant criteria in Tables 1-3, then the Applicant may discontinue the independent review with the approval of the Director-General.  If the independent review determines that the Tahmoor Mine is not complying with the relevant criteria in Tables 1-3 and that the project is primarily responsible for this non-compliance, then the Applicant shall: (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the Tahmoor Mine complies with the relevant criteria to the satisfaction of the Director-General; or (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria.	Not Triggered	No such independent review during the audit period.	
<b>Environmental Management Strategy</b>				
43	The Applicant shall prepare and implement an Environmental Management Strategy for the Tahmoor Mine to the satisfaction of the Director-General. This strategy must: (a) be submitted for approval to the Director-General by 31 October 2012; (b) provide the strategic framework for the environmental management of the Tahmoor Mine; (c) identify the statutory approvals that apply to the Tahmoor Mine; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Tahmoor Mine; (e) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the Tahmoor Mine, including a 24-hour contact telephone number • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the Tahmoor Mine; • respond to any non-compliance; • respond to emergencies; and (f) include: • copies of any strategies, plans and programs approved under the conditions of consent for the Tahmoor Mine; and • a clear plan depicting all the monitoring required to be carried out under the conditions of consent for the Tahmoor Mine.	Compliant	Preparation: (a) EMS submitted for approval to the Director-General before 31 October 2012; sighted letter. (b) EMS provides framework based on statutory and corporate requirements, and outlines Plans that achieve environmental management of the mine. Draft version of EMS on website. (c) EMS Section 2.3 identifies the statutory approvals that apply to the Tahmoor Underground. (d) EMS Section 6 describes the role & accountability of all key personnel involved in the environmental management of the Tahmoor Underground. (e) EMS describes the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the Tahmoor Underground, including a 24-hour contact telephone number. Number included on website as well as in the white pages. • Receive, handle, respond to, and record complaints (in Section 3.7.2 of the EMS). Also sighted complaint records and complaints log. Records now down to 3 this year (2017). • Resolve any disputes that may arise during the course of the Tahmoor Underground (Section 3.7.3 of the EMS). • Respond to any non-compliance (EMS Section 4.6). Site has incidents register. No incidents required reporting to DPE, except for those incidents associated with subsidence. • Respond to emergencies (EMS Section 3.12). (f) The EMS includes: • Copies of strategies, plans and programs approved under the conditions of consent for the Tahmoor Underground. Overview of these included in Appendix A. • A clear plan depicting all the monitoring required to be carried out under the conditions of consent for the Tahmoor Underground (Section 3.2 & Section 4.1 of the EMS).  Implementation: * Evidence of complaints, incident response and inspections. * No clear delineation between incidents versus areas of improvement (sometimes only housekeeping issues) within the Glencore database provided to SLR. * Evidence of reporting in Annual Reviews and Annual Returns.	Separate the classification of incidents versus areas of identified improvement at site. Some of the areas classified within the Glencore database as an incident are just areas of improvement (eg. removal of tree from a road). It should be clearly defined within the Glencore database about which incidents are reportable versus non-reportable incidents.
<b>Management Plan Requirements</b>				
44	The Applicant shall ensure that the management plans required under conditions of consent for the Tahmoor Mine are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; (b) a description of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Tahmoor Mine or any management measures; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: • impacts and environmental performance of the Tahmoor Mine; • effectiveness of any management measures (see c above); (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (f) a program to investigate and implement ways to improve the environmental performance of the Tahmoor Mine over time; (g) a protocol for managing and reporting any: • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan.  Note: The Director-General may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	Administrative Non-compliance	Preparation: a) - Some baseline data included in the NMP and the AQGHGMP. Its noted that the Annual Review provides an update on baseline data. b) Admin NC - NMP missing NMP statutory requirements and NMP, AQMP and AQGHGMP missing MP statutory requirement. * Section 3.1 of the NMP includes noise criteria and Section 4 of the AQGHGMP includes criteria. * Section 3.5 of the NMP and Section 5 of the AQGHGMP includes monitoring protocol. c) Section 4 of the NMP includes controls and Section 4 of the AQGHGMP includes management measures. d) Section 3.5 of the NMP includes monitoring protocol and Section 5 of the AQGHGMP. * Section 4 of the AQGHGMP provides measures to monitor effectiveness of management measures; * Sections within NMP and AQGHGMP that discuss mitigation measures and monitoring controls. e) Admin NC - The Surface Noise TARP should be attached to the NMP. The Air Quality TARP is not mentioned in the AQGHGMP or attached to it; f) Section 7 & 8 of the NMP and Section 2 of the AQGHGMP. g) The NMP provides a protocol for managing and reporting complaints. * Admin NC - The NMP doesn't include a protocol for incidents, non-compliances and exceedances of criteria. * The AQGHGMP refers to the Environmental Management System Framework for the management of incidents, non-compliances and exceedances. h) Section 7 of the NMP and Section 6 of the AQGHGMP.  Implementation: * There have been numerous Pollution Reduction Plans with regard to noise undertaken and implemented at the site between 2007 and 2011.; and * According to Events Report dated 11/9/2017 noise and dust incidents investigated per noise and air quality TARPs.	b) Recommend including NMP statutory requirements in NMP, and including MP requirement in the NMP and the AQGHGMP. Also recommend including measures to monitor and report on the effectiveness of management measures in the NMP. e) Recommend TARP is attached the NMP & AQGHGMP, instead of being separate. g) Recommend including protocol for incidents, non-compliances and exceedances of criteria in the NMP. Also recommend on expanding on incidents, non-compliances and exceedances in the AQGHGMP.  The entire Air Quality Monitoring Plan should be attached to the AQGHGMP.

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Annual Review</b>				
45	<p>By 31 March of each year, the Applicant shall prepare an Annual Review of the environmental performance of the Tahmoor Mine to the satisfaction of the Director-General. 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 next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the Tahmoor Mine over the past calendar year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> <li>the relevant statutory requirements, limits or performance measures/criteria;</li> <li>the monitoring results of previous years; and</li> <li>the relevant predictions in the EA;</li> </ul> <p>(c) identify any non-compliance over the past 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 Tahmoor Mine;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the Tahmoor Mine, and analyse the potential cause of any significant discrepancies;</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the Tahmoor Mine; and</p> <p>(g) assess the performance of the mine against the conditions of the consents and other licences and approvals relating to the mine.</p> <p>Note: the first Annual Review shall be prepared by 31 March 2013.</p>	Administrative Non-compliance	<p>a) 2014, 2015 &amp; 2016 Annual Reviews describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next year.</p> <p>b) The 2014, 2015, 2016 Annual Reviews include relevant statutory requirements, limits and/or performance measures/criteria;</p> <ul style="list-style-type: none"> <li>The 2014 Annual Review is missing noise monitoring results for previous years, and the 2014, 2015 and 2016 Annual Reviews are missing water quality monitoring results for previous years. 2014 Annual Review missing groundwater data.</li> <li>The 2014 didn't include relevant predictions of the Environmental Assessment. The 2015 &amp; 2016 reports included these except for water quality.</li> </ul> <p>c) the 2014, 2015 and 2016 Annual Reviews identify non-compliances over the past year, and describe what actions were (or are being) taken to ensure compliance.</p> <p>(d) Trends identified in the monitoring data over the life of the Tahmoor Underground:</p> <ul style="list-style-type: none"> <li>Noise: 3 years of data provided in the 2016 Annual Review, and 2015 provided 2 years of data. 2014 Annual Review only provides 1 year of data.</li> <li>Historic groundwater data included in 2015 &amp; 2016 Annual Review. Missing historic groundwater data from 2014 Annual Review.</li> <li>Water quality data from previous years is missing and no trends are described in the Annual Reviews.</li> <li>Trends are described for dust.</li> </ul> <p>(e) The 2014 Annual Review doesn't identify any discrepancies between the predicted and actual impacts of the Tahmoor Underground. The 2015 &amp; 2016 Annual Reviews identify such discrepancies for all aspects except for water quality.</p> <p>(f) The 2014, 2015, 2016 Annual Reviews describe what measures will be implemented over the next year to improve the environmental performance of the Tahmoor Mine.</p> <p>(g) The 2015 and 2016 Annual Reviews provide a Statement of compliance. The 2014 Annual Review doesn't provide such a statement.</p>	<ul style="list-style-type: none"> <li>Include water quality results from previous years in future Annual Reviews.</li> <li>Include comparisons against predictions of the EA for water quality in future Annual Reviews.</li> <li>Provide trends for all data, not just dust, in future Annual Reviews.</li> <li>Identify discrepancies between the predicted and actual impacts for water quality, in future Annual Reviews.</li> <li>Progress in respect of rehabilitation completion criteria needs to be reported in future Annual Reviews.</li> <li>Future Annual Reviews should report discharge volumes in accordance with Section 7 of the Annual Review Guideline, dated October 2015.</li> <li>Future Annual Reviews should include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</li> <li>Future Annual Reviews should include a summary of non-compliances in Section 11, in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</li> <li>Future Annual Reviews should include in Section 12 a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</li> <li>Additional subsidence reporting as per recommendations from DGS Report (Section 6)</li> </ul>
<b>Revision of Strategies, Plans and Programs</b>				
46	<p>Within 3 months of:</p> <p>(a) the submission of an Annual Review under Condition 47;</p> <p>(b) the submission of an incident report under Condition 49;</p> <p>(c) the submission of an audit under Condition 52; and</p> <p>(d) any modification to the conditions of this consent (unless the conditions require otherwise),</p> <p>the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Director-General.</p> <p>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 Tahmoor Mine.</p>	Administrative Non-compliance	<p>a) Correspondence from Tahmoor Underground to DPE is dated 6 April 2016 and 30 June 2017. The email stated:</p> <p>The 6 April 2016 email stated: <i>to date, when the condition has been triggered, Tahmoor Underground has internally reviewed the management plans and notified DP&amp;E that changes have been made. They have also provided the track changes when requested.</i></p> <p>b) <b>Admin NC:</b> Directive regarding rehabilitation of Myrtle Creek and Redbank Creek received from DRG dated Oct 2016. SMP for LW 31 - 37 dated December 2014. Tahmoor Underground received a Penalty Infringement Notice (PIN) on 4 May 2018.</p> <p>c) <b>Admin NC:</b> Audit report dated 1 July 2015 and submitted to DPE on 6 July 2015. NMP revised on May 2016, therefore not revised within 3 months of an audit. AQGHGMP revised 25 May 2016, therefore non-compliant.</p> <p>d) The latest MOD to DA 67/98 was MOD 3 in 2012. This consent included 2 figures; Figure 1: Tahmoor Nth Underground Extension and Figure 2: Map of Tahmoor mine showing where subsidence is not permitted. NMP and AQGHGMP doesn't include any of these figures, therefore they did not need to be updated.</p>	<ul style="list-style-type: none"> <li>Ensure that relevant Management Plans are revised after an audit report is submitted.</li> <li>Ensure relevant Management Plans are revised after receiving a directive (incident report) from DRG.</li> </ul>
<b>Community Consultative Committee</b>				
47	<p>The Applicant shall establish and operate a Community Consultative Committee (CCC) for the Tahmoor Mine in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), to the satisfaction of the Director-General.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.</li> <li>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.</li> <li>This condition does not require the re-constitution of any CCC established under previous conditions of consent.</li> </ul>	Compliant	<ul style="list-style-type: none"> <li>Consultative Community Committee (CCC) meets on average every quarter. CCC minutes included on website. Minutes also sent to attendees.</li> <li>In 2012 consulted DPE regarding CCC.</li> <li>According to site communications follow-up actions undertaken by a certain date/time.</li> <li>Dedicated community resource at Tahmoor.</li> <li>CCC meetings have sometimes included a field component.</li> <li>CCC minutes are sent to the members.</li> </ul>	
<b>Incident Reporting</b>				
48	<p>The Applicant shall notify the Director-General and any other relevant agencies of any incident that has caused, or has the potential to cause, significant risk of material harm to the environment, at the earliest opportunity. For any other incident associated with the Tahmoor Mine, the Applicant shall notify the Director-General and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	Compliant	<ul style="list-style-type: none"> <li>No activation of Pollution Incident Response Management Plan (PIRMP).</li> <li>Advised DPE of subsidence (approximately 20 subsidence incidents reported).</li> <li>According to the Surface Water TARP incident investigation and reporting is to be undertaken. According to Air Quality TARP incidents must be reported within 24 hours.</li> <li>According to the Events Report dated 11/9/2017 TSS exceedance incident on 1/4/2016 reported to EPA on 19/4/2016, 4 days after the site received monthly water monitoring results.</li> <li>Only other reporting was in the Annual Review and Annual Return, reporting of exceedance of TSS.</li> </ul>	<p>Separate the classification of incidents versus areas of identified improvement at site. Some of the areas classified within the Glencore database as an incident are just areas of improvement (eg. removal of tree from a road). It should be clearly defined within the Glencore database about which incidents are reportable versus non-reportable incidents.</p>
<b>Regular Reporting</b>				
49	<p>The Applicant shall provide regular reporting on the environmental performance of the Tahmoor Mine on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent, and to the satisfaction of the Director-General.</p>	Compliant	<ul style="list-style-type: none"> <li>EPL monitoring data (water, dust) included on website every 14 days.</li> <li>Annual reviews on included Tahmoor website.</li> <li>End of panel reports included on website.</li> </ul>	
<b>Independent Environmental Audit</b>				
50	<p>By 30 September 2011 and every 3 years following, the Applicants shall commission and pay the full cost of an Independent Environmental Audit of the Tahmoor Mine. 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 Director-General;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the Tahmoor Mine and assess whether it is complying with the requirements in all relevant development consents 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 Tahmoor Mine, and/or any assessment, plan or program required under the abovementioned approvals.</p> <p>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.</p>	Administrative Non-compliance	<p>a) The last Independent Auditor was commissioned on the 5/9/2014 as per Tahmoor Coal Pty Ltd Purchase Order (PO). Audit completed by Hanson Bailey.;</p> <p>b) SLR Consulted with DRE, EPA and NOW. 2017 audit consultation completed as per the DPE guidelines.</p> <ul style="list-style-type: none"> <li>Hansen &amp; Bailey conducted audit in consultation with other agencies.</li> </ul> <p>c) Admin NC - The 2014 audit did not assess the 1975 consent which is still relevant to the Tahmoor Coking Coal Operations. It is noted that the scope that was sent to the auditor for the 2014 audit stating that all relevant consents should be audited. This consent has been assessed for this audit, therefore no recommendation.</p> <p>d) The previous 2014 Audit and the 2017 audit reviewed the strategies, plans and programs at the site.;</p> <p>e) The 2014 and 2017 audit provided recommendations.</p>	<p>No further recommendation. SLR has assessed relevant consents as part of this audit.</p>
51	<p>Within 6 weeks of the completion of this audit, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.</p>	Compliant	<p>On 6 July 2015 Tahmoor Coking Coal Operations submitted audit report to DPE. Audit report submitted as well as the proposed action plan. The Audit report was received from Hansen Bailey on 1 July 2015.</p>	
<b>Access to information</b>				
52	<p>From 31 October 2012, the Applicant shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> <li>all relevant statutory approvals for the Tahmoor Mine;</li> <li>all approved strategies, plans and programs required under the conditions of this consent;</li> <li>a comprehensive summary of the monitoring results of the Tahmoor Mine, reported in accordance with the specifications in any approved plans or programs required under the conditions of this or any other approval;</li> <li>a complaints register, which is to be updated on a monthly basis;</li> <li>minutes of CCC meetings;</li> <li>the annual reviews required under this consent;</li> <li>any independent environmental audit of the Tahmoor Mine, and the Applicant's response to the recommendations in any audit;</li> <li>any other matter required by the Director-General; and</li> </ul> <p>(b) keep this information up-to-date, to the satisfaction of the Director-General.</p>	Compliant	<ul style="list-style-type: none"> <li>All relevant statutory approvals for the Tahmoor Coking Coal Operations are on the website.</li> <li>All approved strategies and plans required under the conditions of this consent on the website. Draft version of AQGHGMP on website.</li> <li>A comprehensive summary of the monitoring results of the Tahmoor Mine on the website. Data goes back to 2012.</li> <li>A complaints register on the website. Last complaint reported on 1 September 2017.</li> <li>Minutes of CCC meetings on website, that go back to 2007.</li> <li>The Annual Reviews (including those for 2014, 2015 &amp; 2016) are included on the website.</li> <li>Independent Environmental Audits are included in audit reports, and the Applicant's response to the recommendations of these audits are included in Annual Reviews.</li> </ul>	<ul style="list-style-type: none"> <li>Add MOP to the website as it is an approved plan. It is important document as it can easily be determined where mining will be in the community.</li> <li>The Heritage Management Plans developed for the different SMP's should be included on the website.</li> <li>The SMP Written Report should be included on the website as it gives a good summary of proposed mining operations.</li> <li>Any specific Environmental Management Plans that were developed for the SMP's should be on the website.</li> <li>Include latest version of the AQGHGMP on the website.</li> </ul>



**MATTER NO. 10172 OF 1993**

**1994 Consent**

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>General Conditions</b>				
1	No development shall take place in land within Zone 2(a) - Residential A; Zone 4(a) - Industrial General A; Zone S(a) Special Use "A"; Zone S(b) Special Uses "B" (Railways); Zone 6(a) Open Space "A" (Recreation); Zone 7(a) Environmental Protection "A"; Zone 9(d) - Open Space Reservation. Otherwise, the development shall be carried out substantially in accordance with Environmental Impact Statement ("EIS") received by council on 23 February 1993 except where amended by the conditions of consent.	Not Triggered	Much of this consent relates to the 'Bridge Street' site entry, with this never being constructed. The 1999 consent allows for mining under railway zone 6(a)-consent have been superseded.	
2	The submission of a formal building application which must comply with the requirements of the Building - Code of Australia for a Class 5 and ancillary buildings.	Not Triggered	Bridge Street site never completed.	
3	Details of effluent disposal in the form of a septic tank application to be submitted with the building application.	Not Triggered	Bridge Street site never completed.	
4	An area being set aside for the collection of waste material awaiting removal. Such area is to be shown on the building plans and reserved for the specific purpose and is to be maintained in a clean, tidy and hygienic manner. The area is to be exclusive of parking and manoeuvring areas and shall be suitably screened.	Not Triggered	Bridge Street site never completed.	
5	Upon completion of the Picton, Tahmoor, Thirlmere Sewerage Scheme the proposed bathhouse and facilities are to be connected to such scheme within six months of such scheme becoming available	Not Triggered	Bridge Street site never completed.	
6	Compliance with the provisions of Council's Tree Preservation Order . Under the Order a consent of council wilfully destroy any person shall not, except with the ringbark, cut down, top, lop or tree which : (a) Is greater than 3 m in height; (b) Has a girth greater than 45 cm at a height of 1 m from the ground; (c) Has a branch spread greater than 3 m. In particular consent under Council's Tree Preservation Order must be obtained in respect of any tree situated more than 3 m from any proposed building.	Not Triggered	Bridge Street site never completed.	
7	The applicant is to obtain the written concurrence of the Water Board and submit this to council prior to release of the Building Application. Details from the Board are to be submitted stating that the development can be supplied with water without it reducing the current level of service to the residents of the area.	Not Triggered	Bridge Street site never completed.	
<b>Bridge Street Site Construction Conditions</b>				
8	During construction temporary pump-out facilities are to be provided for amenity facilities provided for the construction of the proposal. Details in the form of a septic tank application to be submitted to council for approval prior to the commencement of any works .	Not Triggered	Bridge Street site never completed.	
9	The company is to provide written confirmation from the EPA that the proposal to remove effluent during the construction period to the existing effluent disposal facility at Tahmoor Colliery is permissible under the terms of the existing pollution control licence issued for the site.	Not Triggered	Bridge Street site never completed.	
10	Removal of effluent from the construction site (and the operation site if effluent removal by tanker is required) is to occur during the hours of 7.00 am - 6.00 pm by a dedicated effluent tanker on weekdays only.	Not Triggered	Bridge Street site never completed.	
11	Submission of a copy of approval granted by the Commissioner of Soil Conservation service for the undertaking or works adjacent to a prescribed stream as described in the Soil Conservation Act, 1938 prior to the commencement of any works at the access shaft site.	Not Triggered	Bridge Street site never completed.	
12	Submission of a copy of approval granted by the Department of Water Resources for the undertaking or works within protected riverland as described in the Rivers and Foreshores Improvement Act, 1948, prior to the commencement of any works at the access shaft site.	Not Triggered	Bridge Street site never completed.	
13	A submission prior to the commencement of any works of a Soil and Water Management Plan outlining sediment and erosion control measures for the works to be carried out at the Bridge Street site. The plan is to be prepared generally in accordance with Sinclair -Knight Merz report annexed hereto and marked "B" and in accordance with the Department of Conservation and Land Management Guidelines.	Not Triggered	Bridge Street site never completed.	
14	The approved soil and water management plans for the Bridge Street site being under the control of a nominated Soil Conservationist appointed by the company at its expense, and approved by the council, whose duties will include: * Control and responsibility of employees required to maintain soil and water management devices . * Control and management of all measure approved within the soil and water management plans. * Completion of a written report to be submitted to council every two (2) weeks certifying compliance with the approved soil and water management plans for the duration of construction works .	Not Triggered	Bridge Street site never completed.	
15	Before any shaft sinking commences provision of details of groundwater's composition including chemical composition and estimates as to the volumes of groundwaters to be disposed within one month of the completion of the preliminary borehole excavation.	Not Triggered	Bridge Street site never completed.	
16	There being nil discharge of groundwaters to Redbank Creek unless discharge satisfies EPA licence conditions as notified to council. Any results of water quality testing shall be submitted to council as soon as practicable after the test.	Not Triggered	Bridge Street site never completed.	
17	1. The company is to provide details for proposed monitoring of blasting activities including vibration and blast over pressure for approval by council prior to the commencement of any blasting at the site. The monitoring proposal is to provide methods of ensuring meteorological conditions including temperature inversions will not result in exceedances of specified noise criteria as stated in this consent. 2. Monitoring of all blasting is to include noise levels and both speed of vibration and lateral and horizontal displacement of ground at the two closest residences.	Not Triggered	Bridge Street site never completed.	
18	Removal of spoil from the site and delivery of concrete to the site between the hours of 7.00 am and 6.00 pm Monday to Friday only	Not Triggered	Bridge Street site never completed.	
19	(a) There being no hatching plant being located upon the site by virtue of this approval. (b) There being no storage of explosives, as prescribed under the Dangerous Goods Act, on site. Blasting material must be brought to the site on a daily basis.	Not Triggered	Bridge Street site never completed.	
20	The company is to notify council of the completion of all construction works to council's satisfaction as confirmed in writing prior to the commencement of normal post construction operations at the site.	Not Triggered	Bridge Street site never completed.	
21	Mine entry site spoil disposal is to be a site approved by council. Depending upon the number of loads, the proposal to use the Tahmoor Mine refuse emplacement for shaft spoil disposal may require upgrading works for Rockford Road and Charles Point Road. Such works are to be carried out at no cost to the council.	Not Triggered	Bridge Street site never completed.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
22	There being no encroachment onto adjoining lands by fill placed near boundaries	Not Triggered	Bridge Street site never completed.	
23	In order to ensure minimal impact of construction activities upon the creek gully vegetation a chain wire fence (or similar) a minimum of 1.8 metres high is to be erected at the immediate rear of the construction area continuing to the eastern extremity of the construction area then continuing to the Bridge street boundary. The exact location of the fence is to be shown on plans approved by Council's Chief Town Planner. The fence is to remain until construction is complete.	Not Triggered	Bridge Street site never completed.	
24	In order to ensure the preservation of all trees not specifically required to be removed for building/construction work, a minimum of 1.8 metre high chain wire fence (or similar) is to be erected around trees at least one metre distance from the tree in the vicinity of the construction area as specified by Council 's Chief Town Planner. The fence is to remain until construction is complete. All existing trees within and adjoining the construction site are to be identified on a survey plan submitted with the management plan for the Bridge street site . Trees proposed to be removed are to be identified for approval by council .	Not Triggered	Bridge Street site never completed.	
25	The details of the colours of external materials of construction and finishes shall be to the satisfaction of the Chief Town Planner and detailed in the building application.	Not Triggered	Bridge Street site never completed.	
26	In order to ensure that the development is adequately landscaped the application is to submit a detailed landscaped plan prepared by a suitably qualified landscape architect for approval by council's Chief Town Planner prior to release of the building application .	Not Triggered	Bridge Street site never completed.	
27	Landscaping is to be installed in accordance with the approved plan and maintained in accordance with the details provided on that plan.	Not Triggered	Bridge Street site never completed.	
28	Details with respect to the exact location, design and colour of any required noise barrier erected during construction is to be submitted to council for approval.	Not Triggered	Bridge Street site never completed.	
29	Construction work is to cease immediately upon the discovery of any archaeological deposit, potential archaeological deposit or any protected or endangered fauna, as defined in the Endangered Fauna (Interim Protection) Act, 1991. Work is not to recommence until approval is obtained from the National Parks and Wildlife Service in accordance with the National Parks and Wildlife Act, 1974.	Not Triggered	Bridge Street site never completed.	
30	The company is to forward details to council for consideration and approval prior to the installation of construction and permanent lighting at the site. The details are to include: * the proposed lighting layout and lighting pattern * lux levels at the boundaries of the site, the immediate site area to be lit and at a distance of 10 m beyond the site boundaries.	Not Triggered	Bridge Street site never completed.	
31	Prior to the commencement of building construction works the company is to submit details for stormwater drainage works to be undertaken for the removal of roof waters and car park stormwater from the site. The details are to outline: * the proposed layout of the pipe work * the discharge location * The extent of site works and vegetation removal required to install the drainage system * erosion and sediment control measures to be incorporated prior to the commencement of works.	Not Triggered	Bridge Street site never completed.	
<b>Bridge Street Site Operational Conditions</b>				
32	The proposed mine ventilation not be reversed to an upcast mode of operation until a completed report into studies being under taken for the utilisation of mine gases is submitted to council for approval. The report is to detail proposals for reduction of mine gas release to the atmosphere as well as economic and technical bases for such recommendations.	Not Triggered	Bridge Street site never completed.	
33	There being nil discharge of groundwaters to Redbank creek unless discharge satisfies EPA licence conditions as notified to council. Any results of water quality testing shall be submitted to council as soon as practicable after the test.	Not Triggered	Bridge Street site never completed.	
<b>Roadworks Conditions</b>				
34	Provisions of road shoulder and kerb and gutter along the Bridge Street frontage of the site, together with associated drainage works.	Not Triggered	Bridge Street site never completed.	
35	The intersection of the site is to be based on a RTA rural design for Bridge Street traffic and an urban design for the frontage works and the side road . To this end the intersection is to be generally constructed in accordance with the requirements of council, the RTA and the company's EIS Figure 4.11. The access road is to be two lanes wide (separated by a wide median strip). * Right turn treatment - widen east bound carriageway pavement to 7.00 metres and design in accordance with Figure 4.8.16 (AUR) of the RTA Road Design Guide 1991. * Left turn treatment - in accordance with Fig 4.8.26 (BAL) of the RTA Road Design Guide 1991, with auxiliary left turn lane in accordance with Figure 4.8.30 (RTA) and Figure 4.11 of the EIS. * The intersection is to be located to maximise drive sight distance east and west along Bridge Street. Sight distance improvement will be required in the vicinity of the proposed entry area .	Not Triggered	Bridge Street site never completed.	
36	Widening of the sealed pavement along Bridge Street - towards Picton (0.25 km) and Thirlmere (1.65 km). Widen shoulders by 1.5 m with 1 m of seal to Council Standard W421 Sheet 1 (Annexure D). Widen the railway bridge to the same standard . The adoption of this standard will make some provision for cyclists .	Not Triggered	Bridge Street site never completed.	
37	(i) Stormwater drainage pipelines through allotments and within road reserves shall be designed for a minimum standard of 1:20 year average recurrence interval, with provision for overland flow, within the easement for storms of average recurrence interval of 1:100 years, unless otherwise specified. (i.i) Drainage easements are to be a minimum of 3.0 m wide and piped to council specification, with interallotment drainage easements being a minimum of 1.0 wide. (iii) The proposed widths of the various drainage easements is subject to the Shire Engineers approval. (iv) The discharge of stormwater from the development shall be carried to a point suitable for integration with either the natural or constructed stormwater drainage system. Any necessary amplification or upgrading of the downstream drainage system shall be carried out at no cost to council.	Not Triggered	Bridge Street site never completed.	
38	Vehicles are to enter and leave the site in a forward direction	Not Triggered	Bridge Street site never completed.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
39	Provision of 244 sealed car parking spaces and access thereto for the proposed development, such spaces to measure not less than 2.6 m x 5.5 m for 90 degree parking and 2.5 m x 6.2 m for parallel parking and to be marked on the pavement.	Not Triggered	Bridge Street site never completed.	
40	<p>i) Engineering design plans and stormwater drainage calculates, with all levels reduced to Australian Height Datum, for all road, carpark, loading area, access works and stormwater drainage construction are to be submitted to and approved by the Shire Engineer, prior to the commencement of any work. A plan checking and supervision fee is required to be paid, prior to the release of the approved engineering plans.</p> <p>Drainage calculations are to be carried out in accordance with "Australian Rainfall and Runoff" published by the Institute of Engineers Australian and are to include contoured catchment diagrams and delineation of flow paths for storms of average recurrence interval of 1:100 years, where appropriate.</p> <p>(ii) A Defects liability period of six (6) months will apply from the date of issue of the Certificate of Practical Completion by the Shire Engineer. A 10% maintenance bond is to be lodged in accordance with council's construction specification of all work to become the property of council.</p> <p>(iii) A certified "Works as Executed" plan from a Registered Surveyor is to be submitted before the final inspection and is to specifically include the location and level of service conduits, subsoil drains, interallotment drainage, and pipes laid within proposed drainage easements and show that the work has been constructed in accordance with the lines, levels and other information provided on the drawings and within the tolerances specified.</p> <p>(iv) To protect the environment and minimise erosion, a soil and water management plan, in accordance with the Department of Conservation &amp; Land Management and Environment Protection Authority guidelines and council's construction specification, is to be included with the engineering design plans. This plan shall be referred, by council, to the Department of conservation and Land Management for their approval.</p> <p>(v) The developer and any contractors or sub-contractor used to carry out any work authorised by or out of this approval on council owned or council controlled land, is to carry the following insurances which are to be produced to council prior to any work commencing:</p> <ul style="list-style-type: none"> <li>* Motor vehicle insurance (comprehensive or property damage) for all self propelled plant, as well as a valid registration or RTA permit (including CTP insurance). Primary producers registration is not valid registration for use on public road construction works.</li> <li>* Workers' Compensation insurance.</li> <li>* Five million dollars Public Liability Insurance.</li> </ul>	Not Triggered	Bridge Street site never completed.	
<b>Refuse Emplacement Conditions</b>				
41	<p>Submission of an integrated site management plan for the refuse emplacement within 4 months of the date of consent detailing:</p> <ul style="list-style-type: none"> <li>* Design criteria such as storm intensity, time of concentration, co-efficient of runoff calculated peak discharges, the catchment area and a nominated storm return period.</li> <li>* Dimensions such as batter grades, outlet and pipe sizes, wall heights, wall thickness, freeboard and slope grades for all sediment traps, settling ponds, fill trenches and diversion banks.</li> <li>* Information in relation to the outletting of both clean and dirty water into Teatree Hollow Creek, including information on outlet size and placement and pipe sizes and placement. Provision shall be made for treatment of dirty water to be outlet into Teatree Hollow Creek.</li> <li>* The upgrading of the haul road from the nune site, including information on drainage upgrading and no tree destruction in the area of Teatree Hollow Creek. (This area is Protected Land and the Department of conservation and Land Management must be consulted before any tree destruction occurs).</li> <li>* The length of time that the topsoil is to be stockpiled, and what cover crops will be used to decrease erosion of these stockpiles.</li> <li>* Maintenance of erosion control structures and drainage systems.</li> </ul>	Non-Compliant (Low Risk)	<p><u>Preparation:</u></p> <ul style="list-style-type: none"> <li>* Site Management Plan (Reject Emplacement Area Management, Rehabilitation and Water monitoring Plan dated January 1995) sent to council and EPA on 19 January 1995.</li> <li>* Based on discussions with Tahmoor, the site Management Plan are currently under review. Other documents have been prepared for this area; Mine Operations Plan (MOP), Topsoil and Rehabilitation Management Procedure (dated 2015). The site MPs also cover this area.</li> </ul> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> <li>* SLR viewed evidence of rehabilitation during the site visit. The rehabilitation is generally stable, however there are some areas sparsely covered by groundcover which require additional rehabilitation work. The groundcover in the older rehabilitation areas is better than the new areas. Climatic conditions in the area over the past couple of years have not been favourable for rehabilitation.</li> <li>* Topsoil stockpiles at the Refuse Emplacement Area appear to be higher than 3m (general guideline) and have not been seeded with a temporary vegetation cover.</li> <li>* Based on verbal communications with Tahmoor, no fine has been issued - currently the investigation is being finalised. Issued a notice and this has lead to an enforceable undertaking being agreed and currently being finalised relating to the Reject Emplacement Area. Directive issued to Tahmoor on 25 February 2016 regarding the construction of miss-aligned contour drains and construction of no contour drains in the newest section of the landform, and resultant erosion. Non compliance relating to implementation. There was also a report prepared by Cardno 'Reject Emplacement Area Contour Drains Review, December 2015' which stated that there are inadequacies with the current drains constructed onsite. Works relating to contour drains have since been completed.</li> <li>* Non - compliant for the implementation of surface water management controls within the Reject Emplacement Area.</li> </ul>	<ul style="list-style-type: none"> <li>* Continue to monitor grass planting trials at the Reject Emplacement Area where the survival and growth of planted grass species in areas where the existing vegetation (within revegetation areas) was sparse.</li> <li>* Undertake a grass seed mix trial, looking at increasing the diversity of grass seed mix in areas where groundcover is sparse.</li> <li>* The review of the Reject Emplacement Area Management Plan should be completed and the Plan updated as required. The plan is now potentially out of date due to the age.</li> <li>* Topsoil stockpiles resulting from future disturbance should be 3m high and be seeded with a temporary vegetation cover.</li> <li>* Ensure future contour drains and other water management structures at the Reject Emplacement Area are constructed in accordance with approved designs.</li> </ul>
42	Submission of a copy of approval granted by the commission of Soil Conservation for the undertaking of works adjacent to a prescribed stream as described in the Soil conservation Act, 1938, prior to the receipt at the refuse emplacement of refuse from the Tahmoor North lease area.	Not Triggered	Works didn't start until 2003. This Act was repealed condition in 2001.	
43	Submission of a copy of approval granted by the Department of Water Resources for the undertaking of works within protected river land as described in the River and Foreshores Improvement Act, 1948 prior to the receipt at the refuse emplacement of refuse from the Tahmoor North lease area.	Not Triggered	Exempt as a controlled activity. Not required where surface mining leases are held under the Mining Act 1992.	
44	All stages identified in the refuse emplacement site management plan are to be pegged by a Registered surveyor and a copy of a survey Certificate certifying the compliance of the extent of works at the completion of each stage boundary being forwarded to council.	Not Triggered	<ul style="list-style-type: none"> <li>* Sighted letter from 28 August 1998 surveying Stage 1-6 and 9 areas.</li> <li>* No stage boundaries completed therefore Council hasn't needed to be advised.</li> </ul>	
45	Council is to be formally notified in writing upon completion of each stage and each rehabilitation process at the refuse emplacement for the purpose of carrying out an inspection(s) of the works.	Not Triggered	* No stages completed during the audit period. Not triggered in this period.	
46	<p>Within 4 months of the date of this consent, a detailed refuse emplacement site rehabilitation and revegetation plan of management is to be submitted to council for approval. This is to include all existing works and embankments and proposed extensions and details are to include:</p> <p>(a) Topsoil depths and material to be placed upon the refuse and method of retention.</p> <p>(b) List of proposed species and planting densities.</p> <p>(c) Identification of each stage and species area.</p> <p>(d) A report describing the method of preparation of planting beds including planting methods, fertilising, mulching, staking etc and an outline of the provisions to be made to maintenance. The rehabilitation plan is to give regard to species types indigenous to the native area.</p> <p>(e) Details of final finished levels relative to depth of refuse and the stated EIS objective of an average of 12 m depth of emplaced refuse.</p>	Non-Compliant (Low Risk)	<ul style="list-style-type: none"> <li>* Refuse Emplacement Area Management Plan, Rehabilitation and Water Monitoring Plan approval dated 19 January 1995.</li> <li>* Other documents have been prepared to cover the Reject Emplacement Area area including the MOP, Topsoil and Rehabilitation Management Procedure and site environmental management plans.</li> <li>* Reject Emplacement Area to be rehabilitated to woodland environment. It noted that the previous 2014 audit recommended that the Refuse Emplacement Area Management Plan is updated. This has not been completed.</li> </ul> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> <li>* Viewed evidence of rehabilitation during site visit. The rehabilitation is generally stable, however there are some areas sparsely covered by groundcover which require additional rehabilitation work. The groundcover in the older rehabilitation areas is better than the new areas.</li> <li>* Topsoil stockpile at Reject Emplacement Area appeared to be very high (well over 3m). The Refuse Emplacement Area Management, Rehabilitation and Water Monitoring Plan doesn't include a topsoil storage height but the maximum height of 3 meters is included in the Soil and Water Management Plan (Section 4.3.4).</li> <li>* Water monitoring program being undertaken and results are being reported in Annual Reviews and Annual Returns.</li> <li>* Based on verbal communications with Tahmoor, no fine has been issued - currently the investigation is being finalised. Issued a notice and this has lead to an enforceable undertaking being agreed and currently being finalised relating to the Reject Emplacement Area. Directive issued to Tahmoor on 25 February 2016 regarding the construction of miss-aligned contour drains and construction of no contour drains in the newest section of the landform, and resultant erosion. Non compliance relating to implementation. There was also a report prepared by Cardno 'Reject Emplacement Area Contour Drains Review, December 2015' which stated that there are inadequacies with the current drains constructed onsite. Works relating to contour drains have since been completed.</li> <li>* Non - compliant for the implementation of surface water management controls within the Reject Emplacement Area.</li> </ul>	<ul style="list-style-type: none"> <li>* Continue to monitor grass planting trials where the survival and growth of planted grass species in areas where the existing vegetation (within revegetation areas) was sparse.</li> <li>* Undertake a grass seed mix trial, looking at increasing the diversity of grass seed mix in areas where groundcover is sparse.</li> <li>* The review of the Reject Emplacement Area Management Plan should be completed and the Plan updated as required. The plan is now potentially out of date due to the age.</li> <li>* Topsoil stockpiles resulting from future disturbance should be 3m high and be seeded with a temporary vegetation cover.</li> <li>* Ensure future contour drains and other water management structures at the Reject Emplacement Area are constructed in accordance with approved designs.</li> </ul>
47	<p>Within 4 months of the date of this consent a detailed refuse emplacement water monitoring plan is to be submitted to the EPA for approval and notified to the council. This monitoring plan is to include:</p> <p>(a) Proposals for the monitoring of Teatree Hollow and upstream and downstream of its confluence with Bargo River.</p> <p>(b) Monitoring details for all elements contained within table 6.9-3 of the EIS.</p> <p>(c) A sampling programme, on a monthly basis, for the duration of coal emplacement at site, or in any case, until notification is received by council, advising the last stage has been completed as required in the conditions of consent.</p>	Compliant	<ul style="list-style-type: none"> <li>* Evidence of approval letter dated 19 January 1995. Approval of Reject Emplacement Area Management, Rehabilitation and Water Monitoring Plan.</li> <li>* Covered in Reject Emplacement Area Management, Rehabilitation and Water Monitoring Plan. Covers requirement of this condition.</li> <li>* Management of the Reject Emplacement Area is also covered by the Soil and Water Management Plan dated December 2015. This is an internal document.</li> <li>* Evidence of water monitoring. Results from monthly water monitoring reported on the Tahmoor website and in the Annual Reviews and Annual Returns.</li> <li>* Tahmoor plan to re-commission the water treatment plant.</li> </ul>	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
48	The approved soil and water management plans for the refuse emplacement being under the control of a nominated employee or consultant being a qualified Soil Conservationist appointed by the company at its expense and advised to council, whose duties will include: * Control and management of all measures approved within the soil and water management plans . * Control and responsibility of employees required to maintain soil and water management devices. * Completion of a written report to be submitted to council on a six monthly basis certifying compliance with the approved soil and water management plans for the duration of construction works at Bridge street and for the duration of refuse emplacement.	Compliant	*The Tahmoor Environment and Community Manager is in control of all environment management plans onsite. All employees accountable for complying with the requirements of the Soil and Water Management Plan. Current Soil and Water Management Plan dated December 2015.  * Note: During 2014 Audit No examples of six monthly written reports were available to review. Tahmoor Coking Coal Operations has begun submitting 6-monthly updates to Council to satisfy this condition. Evidence of 6 monthly reports dated 19 November 2015, 30 November 2016 and 5 October 2017 provided.  *Evidence of Annual Reviews.  *Bridge Street works were not undertaken.	
49	The applicant shall provide an annual report on progress of disposal and rehabilitation to the Council, Department of Mineral Resources, Department of Conservation and Land Management, and the EPA.	Compliant	* Annual Review sent to DPE, EPA, DPI Water, Sydney Catchment Authority, DRG, DPI and Council.  * Evidence of submission letters.	
<b>Subsidence Conditions</b>				
50	(1) Submission to council for approval of a mine subsidence impact study for all areas proposed to be mined by bord and pillar techniques prior to pillar panel extraction commencing. (2) Three (3) months written notice shall be given to the owners of all land in (1) of the intention to remove pillar panels. (3) If requested in writing by an owner within one (1) month after the notice in (2) the applicant shall cause pre-mining surveys to be carried out on substantial improvements within the land and the 35 deg angle of draw at least one (1) month prior to removal of pillar panels taking place. These pre-mining inspections are to include soil sampling for moisture content and soil types. Owners of improvement are to get written reports of all findings and photographs of the existing condition of all improvements.	Compliant	Mining is managed through the SMP process. Government agencies are consulted as part of this process.	
51	51. The applicant shall: (a) Set up and participate in a community liaison programme upon gaining development consent, in order to provide periodically updated information on the progress of mining and explaining predicted and measured mining induced subsidence effects on residences and land; (b) Prior to c (c) Provide a representative for an annual liaison meeting of government agencies and council to discuss the results of subsidence monitoring, future mining proposals and study technical issues relevant to subsidence damage.	Compliant	The CCC has been established. Subsidence approvals and reporting on the website.	
52	The applicant shall carry out subsidence monitoring according to the requirements of the Department of Mineral Resources and taking into consideration the advice of the annual liaison meeting.  The applicant shall report the results of subsidence monitoring into an annual environmental management plan report and such results shall be publicly accessible through the council.	Compliant	Subsidence Monitoring Program. Evidence of reporting against this program in Subsidence Status Reports, End of Panel Reports and AEMR's.	
53	Mining is not to occur so as to result in the subsidence of any habitable floors to below the 1:100 year flood level (1% flood level).	Not Triggered	Flooding assessments completed for SMP's.	
54	No extraction of coal is to occur so as to cause subsidence of the surface upon which any item of Environmental Heritage (as listed in Schedule 1 of LEP 1991). A separate consent is required pursuant to Clause 30 of the LEP 1991 for any damage to those items. Prior to the extraction of coal which will result in subsidence with the benefit of actual subsidence data from initial longwall panels (not affecting heritage items) , a detailed study of each listed item is to be undertaken identifying expected damage from subsidence. This study is to be considered by a Heritage Architect (to be endorsed by the Heritage Branch of the DOP) and a report prepared by that person on the impact of identified damage on the item's historical significance and the appropriate premining measures or restoration measures so as to minimise impact on the significance of the item . The two studies, including recommendations, are to form the basis of a separate development application pursuant to Clause 30 of the LEP 1991 for consent to damage any item	Compliant	Tahmoor has approval to operate the mine. LW 27-30 approval provides specific subsidence performance measures which supersede this requirement.	
<b>Acoustic Conditions</b>				
55	The noise level emanating from any operation of Tahmoor North Mine shall not exceed an L10 level of 32 dBA within 3 m of any residence in existence or approved at the date of this consent.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
56	The Tahmoor North ventilation fan discharge shall face south.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
57	The Tahmoor North ventilation fan discharge duct shall include a 90° radius bend and shall be lined internally with 100 mm thick sound absorbent insulation.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
58	All Tahmoor North ventilation fan intake and discharge ducts shall be constructed from steel plate at least 6 mm thick .	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
59	The Tahmoor North ventilation fan and fan motor shall be enclosed such that the noise level emanating from the enclosure, when measured 7 m from the enclosure in any direction, shall not exceed an L10 level of 61 dBA.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
60	The Tahmoor North air compressor shall be enclosed in a structure so that the noise level emanating from the structure measured at a distance of 7 m from the structure, does not exceed an L10 level of 56 dBA.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
61	Noise levels emanating from construction activity during construction of Tahmoor North facilities shall not exceed an L10 level of 32 dBA at any position within 3 m of any residence in existence or approved at the date of this consent.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
62	All mobile plant used for construction at Tahmoor North C112 Mine shall be fitted with noise control kits, including high performance exhaust silencers, engine shrouding and cooling fan attenuators, so as to reduce the noise level of each item of plant, when measured at a distance of 7 m, by 5 dBA.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
63	A 5 m high barrier shall be constructed adjacent to the northwest boundary of the shaft site prior to commencement of construction and shall be maintained during the construction period .	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
64	The shaft ventilation fan and motor and the aircompressors used during the Tahmoor North construction period shall be located on the southern side of the barrier referred to in condition 63 .	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
65	A shaft protection door is to be provided on the shaft entrance with minimum openings included and- it shall remain closed during all shaft construction operations, excepting blasting and for shaft access.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
66	The shaft sinking ventilation fan inlet and discharge shall be acoustically treated before commencement of construction and before operation and shall be maintained and kept clean during the construction period.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
67	The overburden drill to be used during construction of the Tahmoor North shaft shall be fitted with a noise control kit to ensure that its noise level when measured at a distance of 7 m does not exceed an L10 level of 85 dBA. The kit may be removed providing the overburden drill operates at least 10 m below the existing ground level.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
68	Concrete trucks delivering concrete to the Tahmoor North construction site shall, when on site, park within a partial enclosure consisting of two sides and a roof, constructed of material with a surface density at least equivalent to 0.7 mm steel profile sheet, and the open ends of the enclosure are to face east and west	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
69	Blasting may be carried out on the Tahmoor North site only during the hours 9.00am to 3.00 pm Monday to Friday.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
70	Ground vibration levels during blasting at the construction site shall comply with the guidelines contained in the EPA's noise control manual.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
71	Blast overpressure levels during blasting at the site shall comply with the guidelines contained in the EPA's noise control manual	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
72	During construction and operation of Tahmoor North Mine the L noise level generated by road traffic to and from the site and measure over any 1 hour period shall not exceed 45 dBA during the period 6.00 am - 10.00 pm and 40 dBA during the period 10.00 pm - 6.00 am at the facade of any residence.	Not Triggered	Historical condition, well outside the audit period.	
73	The noise level emanating from Tahmoor Mine and any associated facilities, including the washery, stock pile area and rail loading facility, shall not exceed an L10 level of 45 dBA when measured with 3 m of any residence.	Compliant	Annual Review results for 2014, 2015 and 2016 indicate compliance with this condition.	



Condition Number	Condition	Compliance Status	Evidence	Recommended Action
74	The noise level emanating from operations at the refuse emplacement site shall not exceed an L10 level of 37 dBA or background + 5 dBA which ever is the greater when measured within 3 m of any residence.	Compliant	Annual Review results for 2014, 2015 and 2016 indicate compliance with this condition. Noise monitoring specifically covers the REA noise.	
75	The noise level emanating from the Tahmoor North Mine shall be measured within 3 months of commencement of operation over a 24 hour period while operations are taking place and after that, once per annum at the nearest 2 residences. The LA10 and the LA1 (or LA1allx) levels emanating from the operation shall be measured during the daytime and during the night time. A report of the results, including the weather conditions during the measurements, shall be prepared and submitted to council and the owners of the nearest two residences within 1 week of the measurements being completed.	Compliant	Noise monitoring undertaken quarterly, according to 2014 - 2016 Annual Review results. LA10 measurements included in the Annual Review and are within criteria. According to noise reports LAeq, LA90, LA50, LA1 are measured. Day and night time measurements undertaken.	
76	During the construction of Tahmoor North Mine the noise level emanating from each item of plant used for construction shall be measured at a distance of 7 m every 2 months. A report giving the results of the measurements shall be prepared and submitted to council and the owners of the nearest two residences within one week of completion of the measurement.	Not Triggered	No construction relating to this condition during the audit period.	
77	Noise levels shall be monitored for one 24 hour period every month during the construction of Tahmoor North Mine at the nearest two residences. The LA10 and LA1 (or LA1allx) noise levels emanating from the construction operations shall be measured every 15 minutes and the weather conditions shall be noted. A report shall then be prepared giving the results of the measurements and submitted to council and the owners of the nearest two residences within 1 week of the measurements being completed.	Not Triggered	No construction relating to this condition during the audit period.	
78	The noise level emanating from the Tahmoor Mine surface facilities shall be measured at the nearest two residences within 3 months of the commencement of processing and handling of coal from Tahmoor North Mine. The LA10 levels and LA1 (or LA1MX) noise levels emanating from Tahmoor Mine operations shall be determined for both daytime and night time and the weather conditions during the measurements shall be noted. The results obtained shall be included in a report which shall be submitted to council and the owners of the nearest two residences within 1 week of the measurements.	Compliant	Noise monitoring undertaken quarterly, according to 2014 - 2016 Annual Review results. LA10 measurements included in the Annual Review and are within criteria. According to noise reports LAeq, LA90, LA50, LA1 are measured. Day and night time measurements undertaken.	
79	The noise level emanating from the refuse emplacement site shall be monitored at the nearest two residences within 3 months of commencement of dumping of refuse from Tahmoor North Mine. The LA10 and LA1 (or LA1allx) C133 level emanating from refuse emplacement shall be measured every 15 minutes during the period 7.00 am to 6.00 pm on any 1 normal working day. The results of measurement shall be included in a report which shall be submitted to council and the owners of the nearest two residences within 1 week of the measurements.	Compliant	Noise monitoring undertaken quarterly, according to 2014 - 2016 Annual Review results. LA10 measurements included in the Annual Review and are within criteria. According to noise reports LAeq, LA90, LA50, LA1 are measured. Day and night time measurements undertaken.	
80	This consent is limited to the time required to complete extraction of coal from the area identified in the EIS as being Mining Lease Application No. 1 Sydney 1992 (North Tahmoor).	Compliant	No timing on this consent.	
81	(a) Shaft sinking shall occur between the hours of 6.00 am and 10.00 pm Monday to Friday and 8.00 am to 1.00pm Saturday with no shaft sinking on Sunday or Public Holidays. (b) Site works associated with construction works (excluding shaft sinking and blasting) shall only occur between the hours 7.00 am and 6.00 pm Monday to Friday and 8.00 am and 1.00 pm Saturday with no site works on Sunday or Public Holidays.	Not Triggered	This relates to the shaft for Tahmoor North which never got constructed.	
82	There shall be no removal of vegetation within 20 metres of the north western bank of Redbank Creek and the bank of Redbank Creek tributary which traverses the eastern extremity of the development site.	Not Triggered	this relates to the shaft for Tahmoor North which never got constructed.	
83	The company shall submit engineering plans to council for approval for the construction of an earth and rock fill mound at least 245 metres long and between 4-6 metres high on the SRA land opposite the Bridge Street frontage of the development generally in accordance with figure 7.1 annexed hereto and marked "C". Such mound shall be vegetated with native trees, shrubs and grasses together with the provision of a 2 metre high solid acoustic fence constructed along the crest of the mound. All works are to be provided to the satisfaction of the council details of which shall be submitted with the building application. The mound with fencing and screen landscaping shall be constructed prior to commencement of any construction works on the Bridge Street site. This condition which is an essential condition of this consent cannot be relied upon as development consent for the construction of the mound.	Not Triggered	Bridge Street site never completed.	

# 1975 Consent

Condition Number	Condition	Compliance Status (C/O/INC/NA)	Evidence	Recommended Action
<b>Schedule 00</b>				
Condition 001A	That Development Consent be granted to Clutha Development Pty. Ltd. for the construction of a Coal Mine and associated facilities on lands within the Parishes of Couridjah and Wargo subject to the following general conditions in addition to any conditions attached to the development of specified sites: 1.a) The Company confirming the verbal advices of their Chief General Manager that all coal from the outset will be taken from the Central site by Rail Transport.	Compliant	Wollondilly Shire Council (WSC) letter dated 16 April 1975.	
Condition 001B	1. b) The Company shall ensure that background noise levels in the vicinity of its operational sites, attributable either wholly or in part to its operations, shall not exceed 20dBA at the nearest existing dwelling. This requirement shall not apply to noise caused by construction work or road transport operations, if levels in excess of the 20dBA are considered by Council to be unavoidable.	Not Triggered	Superseded by the DA57/93 consent.	
Condition 001C	1. c) The Company shall strictly comply with all plans presented to Council unless an amendment to those plans has been specifically approved in writing by Council.	Not verified	Tahmoor submitted Government Information Public Access (GIPA) information request from WSC.	
Condition 001D	1. d) The Company shall submit further Building applications in respect of buildings and structures, giving detailed information concerning dimensions, architectural treatment and building materials, when such information becomes available.	Not verified	Tahmoor submitted Government Information Public Access (GIPA) information request from WSC.	
Condition 001E	e) The Company shall produce further evidence, supported by the N.S.W Department of Mines, to satisfy Council that mines subsidence will not be a significant problem, and sufficient security for landowners.	Compliant	Wollondilly Shire Council (WSC) letter dated 16 April 1975.	
Condition 001F	f) The Company shall consult with Council's Bush Fire Committee concerning the appropriate fire control measures, and shall take whatever steps the Committee may require to implement such measures.	Compliant	* Bushfire Management Plan dated October 2013. * Bushfire Management Committee meeting minutes dated June 2014. No recent meeting minutes provided for this audit. * Regular consultation with the NSW Rural Fire Service (RFS). * During the site inspection there was evidence of back burning.	
Condition 001G	g) No construction operations shall commence until Council has indicated in writing to the Company that it is satisfied in relation to the above matters.	Not verified	Tahmoor submitted Government Information Public Access (GIPA) information request from WSC.	
Condition 001H	h) During construction operations at night, blasting shall be prohibited and floodlighting restricted to an absolute minimum. The Company or its Contractors shall comply immediately with any stop-work notices issued by Council.	Not Triggered	Construction completed. No blasting during construction.	
Condition 001I	i) The Company shall itself obtain all necessary approvals from the other relevant statutory authorities, with the exception of the N.S.W Planning & Environment Commission and the Minister for Planning and Environment.	Compliant	Several other approvals since 1975.	
Condition 001J	j) The Company shall indemnify the Council from any action, suit, claim or demand arising from any action or thing which it may be permitted or required to do under the terms of this approval.	Not Triggered	Wollondilly Shire Council (WSC) letter dated 19/5/1975 refers to the condition being withdrawn.	
Condition 001K	k) On completion of mining activities the site shall be left safe, clean and tidy to the satisfaction of Council and including the following requirements: (i) Where required by Council all buildings shall be either removed or satisfactorily covered; (ii) The site shall be so treated that all batters are at a safe angle of repose; (iii) Exclusive only of sealed access roads, the surface area shall be satisfactorily graded, top-dressed to a depth of not less than 6" (152mm) and established with approved trees and grasses; (iv) The mine shaft shall be sealed in a substantial manner with adequate provision for drainage of the mine	Not Triggered	* Mine still operating. * Mine closure addressed by Mining Operations Plan (MOP) and Rehabilitation Cost Estimate (RCE).	
Condition 002A	2. Coal Mine Central service Site – Report 75/42 That Development consent for this site be granted subject to the following conditions: a) compliance the conditions adopted following consideration of Town Planner's Report No. 75/41;	Not verified	Tahmoor submitted Government Information Public Access (GIPA) information request from WSC.	
Condition 002B	b) submission and approval by Council of a detailed landscaping plan;	Not verified	Tahmoor submitted Government Information Public Access (GIPA) information request from WSC.	
Condition 002C	2c) construction of the proposed parking area and access road to Council's normal sealed standard, to the satisfaction of the Shire Engineer;	Not verified	Tahmoor submitted GIPA information request from WSC.	
Condition 002D	d) approval of the proposed access to the Hume Highway by the Department of Main Roads and Police Traffic Branch;	Not verified	Tahmoor submitted GIPA information request from WSC.	
Condition 002E	e) treatment and disposal of stormwater to the satisfaction of the Shire Engineer;	Not Triggered	Regulated by NSW Environment Protection Authority (EPA).	
Condition 002F	f) the wastewater control dam having a designed overflow frequency of no more than once in 10 months;	Not Triggered	Superseded by Environment Protection Licence (EPL) and newer approvals.	
Condition 002G	g) submission and approval by Council of detailed plans for the emergency coal stockpile;	Not Triggered	Stockpile area constructed.	
Condition 002H	h) consultation with Council and if deemed necessary by the Council, the Metropolitan Water Sewerage & Drainage Board concerning the supply of drinking water to the site;	Compliant	Water now supplied by Sydney Water. Metropolitan Water Sewerage and Drainage Board consulted per letter dated 5/7/2012.	
Condition 002I	i) treatment and disposal of all effluent from the temporary bathhouse and toilet facilities by means of a 'package' sewerage works, to standards set by the State Pollution Control Commission and Health Commission;	Not Triggered	Tahmoor no longer has these temporary facilities.	
Condition 002J	j) treatment and disposal of all effluent and sullage from the permanent toilet and washing facilities by means of a site-disposal septic unit, to the satisfaction of the Shire Health Surveyor;	Not Triggered	Superseded by 1979 Consent.	
Condition 002K	k) construction and maintenance of a standard firebreak around the whole boundary of the property;	Compliant	Bushfire Management Plan dated October 2013 covers this requirement.	
Condition 002L	l) the name of the project being changed to that of "Bargo River Mine"	Compliant	Wollondilly Shire Council (WSC) letter dated 19/5/1975 modifies the name of the project.	
Condition 003	3. Man-access Shaft: Upcast Ventilation Shaft. Etc., Bargo Bridge Road, Couridjah – Report 75/43 That Development consent for this site be granted subject to the following conditions: a) compliance with conditions (a), (b), (c), (e) and (h) recommended in Report 75/42; b) submission of additional evidence to satisfy Council that no alternative site could be obtained in a less populous area; c) no building or structure being located within 75 metres of the property boundary; d) outdoor lighting being restricted to 4.5 metre street standards; e) the Company discussing with Council the possible use of surplus lands fronting Nattai Street as a recreation reserve; f) access to the colliery facilities being limited to Bargo River Road at all times; g) the strengthening, at the Company's expense, of bridges and other structures along Bargo River Road prior to the road's use by heavy construction equipment, to the satisfaction of the Shire Engineer; h) prior to the commencement of normal mining operations, and at the Company's expense, the repair, widening and where necessary realignment of Bargo River Road to a 6 metre/80 kmh standard, to the satisfaction of the Shire Engineer, and the resurfacing of the road with bituminous plant-mix; i) treatment and disposal of all effluent and sullage by means of 'package' sewerage works, to a standards set by State Pollution Control Commission and Health Commission; j) it being understood by the Company that Council will not approve any additional facilities on the site over and above those already proposed.	Not Triggered	Man-access shaft at Bargo Bridge Road was never constructed.	

Condition Number	Condition	Compliance Status (C/O/I/NC/NA)	Evidence	Recommended Action
Condition 004A	4. Man-access Shaft: Upcast Ventilation Shaft, etc., - Rockford Road, Tahmoor – Report 77/44 That Development consent for this application be granted subject to the following conditions: a) compliance with conditions (a), (c), (d), (i) and (j) recommended in Report75/43;	Not verified	Tahmoor submitted Government Information Public Access (GIPA) information request from WSC.	
Condition 004B	4b) the strengthening, at the Company's expense, of bridges and other structures along Rockford Road, prior to the use of the road by heavy construction equipment;	Not Triggered	No bridges.	
Condition 004C	4c) prior to the commencement of normal mining operations and at the Company's expense, the repair, widening and where necessary realignment of Rockford Road to a 6 metre 80 kmh standard, to the satisfaction of the Shire Engineer, and the resurfacing of the road with bituminous plant-mix;	Not Triggered	Amended by 1979 Consent.	
Condition 004D	4d) the Company ensuring that no damage whatsoever is inflicted upon Warrabunda Reserve and the "Mermaid's Pool" as a result of the operations of itself or its contractors;	Not Triggered	Superseded by 1979 Consent.	
Condition 004E	4e) the discharge of all wastewater, stormwater and treated effluent into the Bargo River at a point downstream of "Mermaid's Pool",	Not Triggered	* Superseded by 1979 Consent. * LDP 001 is the discharge point.	
Condition 004F	4f) submission and approval of a detailed landscaping plan for the area;	Not verified	* Development in this area did not occur.	
Condition 004G	4g) construction and maintenance of a standard firebreak around the whole boundary of the property.	Compliant	Bushfire Management Plan dated October 2013 covers this requirement.	
Condition 005A	5. Downcast Shaft – Stratford (Lisson) Road, Tahmoor – Report 75/45 That Development consent for this application be granted subject to the following conditions: a) noise levels from the temporary fan not exceeding 20dBA at the nearest existing house;	Not Triggered	* Condition superseded by Development Consent 57/93.	
Condition 005B	5b) construction of a man-proof cyclone fence around the shaft;	Compliant	* Photograph of a cyclone fence over the top of the shaft was provided to SLR.	
Condition 005C	5c) extension of Stratford (Lisson) Road to the full frontage of the shaft site, and the road's construction throughout to Council's normal shale standards, to the satisfaction of the Shire Engineer, prior to the commencement of construction work at the shaft;	Not Triggered	* Construction complete. * Gravel road.	
Condition 005D	5d) regular watering during the shaft sinking and equipment operation, of any shale road constructed in accordance with condition (c) above, to the satisfaction of the Shire Engineer;	Not Triggered	* Construction complete.	
Condition 005E	5e) blasting being prohibited during shaft-sinking operations at night, unless specifically approved in writing by Council or the responsible Senior Officer;	Not Triggered	* Construction complete.	
Condition 005F	5f) floodlighting of the site being kept to an absolute minimum;	Compliant	* No lighting at vent shaft.	
Condition 005G	5g) the Company agreeing to comply with any stop-work notice issued by Council to be causing undue interference with the amenity of the neighbourhood;	Not Triggered	* Construction complete.	
Condition 005H	5h) Excess sandstone from the shaft excavations to be stockpiled, at sites to be determined, for Council's use.  The Meeting also decided to recommend to Council that the State Pollution Control Commission be advised of the approvals and conditions and that such will be held for a period of one (1) month to enable them to complete their examinations of the proposals. A further recommendation was that Council make application to the Minister for Planning and Environment for an amendment to the Interim Development Order No 7 (Wollondilly) to enable the application for the "central site" to proceed. In regards the letters of objections against the proposed mine development the Committee recommend to Council that the letters be received, the contents noted and the objectors advised accordingly.	Compliant	Wollondilly Shire Council (WSC) letter dated 19/5/1975 states that the Council accepts "the Companies" (Tahmoor's) offer.	

Environment Protection Licence - Licence 1389

Condition Number	Condition	Compliance Status	Evidence	Recommended Action																												
<b>Administration Conditions</b>																																
A1	<p>A1.1 - This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Coal Works</td> <td>Coal works</td> <td>&gt; 2000000 - 5000000 T handled</td> </tr> <tr> <td>Mining for Coal</td> <td>Mining for coal</td> <td>&gt; 2000000 - 3500000 T produced</td> </tr> <tr> <td>Sewage Treatment</td> <td>Sewage treatment processing by small plants</td> <td>0 - 20 ML discharged</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Coal Works	Coal works	> 2000000 - 5000000 T handled	Mining for Coal	Mining for coal	> 2000000 - 3500000 T produced	Sewage Treatment	Sewage treatment processing by small plants	0 - 20 ML discharged	Compliant	<ul style="list-style-type: none"> <li>* Sighted monthly reports regarding tonnages of coal handled.</li> <li>* Reporting tonnages in Annual Reviews.</li> <li>* 20 ML discharged. Sighted calculations for discharges.</li> </ul>	<ul style="list-style-type: none"> <li>* There needs to be a mechanism on the sewerage treatment system to measure discharge. SLR recommends an accurate a meter system.</li> <li>* Current system is potentially inaccurate and likely overestimates usage.</li> </ul>																
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A3	<p>A3.1 Works and activities must be carried out in accordance with the with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <p>a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</p> <p>b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	Compliant	<ul style="list-style-type: none"> <li>* Licence variation letter dated 11 May 2012.</li> <li>* No licence variations during the period.</li> </ul>																													

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<b>2. Discharges to Air and Water and Applications to Land</b>																																												
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	<p>P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p> <p>P1.3 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.</p>	Compliant	* See below comments.																																									
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<b>Limit Conditions</b>																																												
L1	<p>Pollution of Waters - L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.</p>	Compliant	<ul style="list-style-type: none"> <li>* Based on monitoring and reporting no exceedances except for 1 x TSS exceedance.</li> <li>* TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Reading considered an anomaly. Flocculation was increased to decrease level of solids in water. Although there was this one occasion where the site was above the TSS criteria there was no evidence provided to OEH indicating any material harm as POEO Act definition.</li> <li>* According to monitoring results posted on the website EC and TSS reached their upper limits in samples taken from LDP1 on 9 January 2015. These readings were 2600 µS/cm and 30 mg/L, respectively.</li> </ul>																																									

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L2	L2.1 For each monitoring/discharge point or utilisation area specified in the table(s) below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	Compliant	Noted condition. See L2.4 for details regarding compliance against criteria.																																																						
	L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Compliant	* Annual Review and Annual Return results indicate pH values within range.																																																						
	L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the tables.	Compliant	* All the parameters in the below table are being monitored. * TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Reading considered an anomaly. Flocculation was increased to decrease level of solids in water. * According to monitoring results posted on the website EC and TSS reached their upper limits in samples taken from LDP1 on 9 January 2015. These readings were 2600 µS/cm and 30 mg/L, respectively. * A full suite of analytes are analysed on a quarterly basis.																																																						
	L2.4 Water and/or Land Concentration Limits																																																								
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L3	For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a) liquids discharged to water; or b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area. <table border="1"> <thead> <tr> <th>Point</th> <th>Unit of Measure</th> <th>Volume/Mass Limit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>kilolitres per day</td> <td>15500</td> </tr> </tbody> </table> NOTE: The flow rate of the wastes discharged at the authorised discharge points may exceed the volume under wet weather conditions provided that all practical measures are taken to minimise additional pollution caused by wet weather. "wet weather conditions" means more than ten millimetres of rain falling within a 24 hour period at the premises.	Point	Unit of Measure	Volume/Mass Limit	1	kilolitres per day	15500	Compliant	* Discharge volumes not reported in Annual Reviews. * Discharge volumes reported in Annual Returns. 2016 Annual Return reported high result of 38,999kL and mean result of 4,563kL. High result was due to wet weather at the site (310 mm over the weekend of the 4/5th June 2016). <u>High result is not an exceedance.</u> 2015 Annual Return had mean (1,513kL) and high result (12,622kL) within limit. 2014 Annual Return had mean (5,162.82) and high result (11,892kL) within limit. * Licenced to discharge from point 1.	* Recommend reporting discharge volumes in Annual Reviews in accordance with Section 7 of the Oct 2015 <i>Annual Review Guidelines</i> .																																															
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O1	O1.1 Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Compliant	a) Tahmoor Coking Coal Operations maintains an EMS, with this including a series of management plans that outline monitoring and management of environmental aspects (including water, air quality) to ensure that all environmental criteria (for dust, water quality & water volume) are met. b) Data reported on a monthly basis. June 2017 Waste Management Report provided. Monthly waste data recorded in a register (excel spreadsheet). * WWTP installed and commissioned during 2014-2015 to improve water quality, in particular arsenic, nickel and zinc. WWTP no longer operating as difficulties maintaining effective operation of dissolved air floc section of the plant and build up of scale in the cells.	Recommend that remedial works are continued on the WWTP by the supplier to bring the plant back into full operation.																																																					
O2	O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Compliant	2.1 a) Contractor - HCS service monitoring equipment on a monthly basis. Records provided. Plant and equipment also serviced. b) Noise attenuation (sound power level testing) is being completed; as reported in Tahmoor Coking Coal Operations Environmental Noise Audit, dated May 2017.																																																						
O3	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Compliant	* AQHGMP. * Tahmoor Coking Coal Operations dust management TARP. * Progressive rehabilitation at REA. * Use of watercarts at site. * Covered conveyor belts. * Sprayers used at the product stockpile area. * Minimal waste sources identified during the site inspection.																																																						
<b>Monitoring and Recording Conditions</b>																																																									
M1	M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Compliant	* Monitoring data posted on the Tahmoor Coking Coal Operations website. * Monitoring data included in Annual Reviews.																																																						
	M1.2 All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Compliant	All records are kept: a) In a legible form; included on the website and recorded in Annual Returns. b) Kept for at least 4 years; data that dates back to 2012 (water data) & 2013 (dust data) reported and maintained on the sites website. c) Not asked for data by EPA within reporting period.																																																						
	M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Compliant	Records of several monitoring samples provided by the site illustrate: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.																																																						

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M2	M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Compliant	* Results from 9 March 2017 had correct units of measure, frequency and were in accordance with AS 3580. * Results reported in 2014, 2015 and 2016 Annual Returns had correct units of measure and frequency.																																				
	M2.2 Air Monitoring Requirements  POINT 7,8,9,10,11,12 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Insoluble solids</td> <td>grams per square metre per month</td> <td>Monthly</td> <td>Australian Standard 3580.10.1-2003</td> </tr> </tbody> </table> POINT 13,14 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Quarterly</td> <td>AS/NZS 3580.9.6:2003</td> </tr> </tbody> </table> POINT 15 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Monthly</td> <td>No method specified</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Insoluble solids	grams per square metre per month	Monthly	Australian Standard 3580.10.1-2003	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Quarterly	AS/NZS 3580.9.6:2003	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Monthly	No method specified	Compliant	* Raw monitoring results provided by Tahmoor Coking Coal Operations had correct units of measure, frequency and were in accordance with AS 3580s. * Results reported in 2014, 2015 and 2016 Annual Returns had correct units of measure and frequency. * Air quality monitoring completed by Specialists.												
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M3	M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	Not Triggered	* Not triggered. No dust criteria.																																				
	M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.  Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".	Not Triggered	* Not triggered. No dust criteria.																																				
M4	M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Compliant	* Complaints procedure. * Complaints register. * Complaints summarised in Annual Reviews.																																				
	M4.2 The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Compliant	Evidence of complaints register. Records of complaints provided by Tahmoor Coking Coal Operations included:  a) the date and time of the complaint. b) the method by which the complaint was made. c) personal details of the complainant. d) the nature of the complaint. e) the action taken by the licensee in relation to the complaint (reviewed real-time data). f) if no action was taken by the licensee, the reasons why no action was taken.																																				
	M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made. M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.	Compliant	* Complaints from over 4 years old kept in a register. * According to the complaints register EPA Officers have requested noise data and a summary of the mines operations during the time noise complaints were made. This data has been provided.																																				



Condition Number	Condition	Compliance Status	Evidence	Recommended Action					
M5	M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Compliant	* Telephone complaints line advertised on the Tahmoor Coking Coal Operations website and in the white pages. * Monthly newsletter advertises complaints line. Newsletter goes out to the general public.						
	M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Compliant	* Telephone complaints line advertised on the Tahmoor Coking Coal Operations website and in the white pages. * Monthly newsletter advertises complaints line. Newsletter goes out to the general public.						
	M5.3 The preceding two conditions do not apply until 3 months after: a) the date of the issue of this licence or b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	Compliant	Noted						
M6	M6.1 For each discharge point or utilisation area specified below, the licensee must monitor: a) the volume of liquids discharged to water or applied to the area; b) the mass of solids applied to the area; c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below.	Compliant	* Discharge report in excel provided. * Reported in Annual Returns. * Not reported in Annual Reviews.	* Recommend reporting discharge volumes in Annual Reviews in accordance with Section 7 of the October 2015 Annual Review Guidelines.					
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Frequency	Unit of Measure	Sampling Method							
Continuous	kilolitres per day	Level sensor and continuous logger							
<b>Reporting Conditions</b>									
R1	R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Compliant	Annual Return from 2016 signed on 20 February 2017. Annual Return comprises of: a) a Statement of Compliance, and b) a Monitoring and Complaints Summary.						
	R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.  Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	Compliant	* Annual Returns prepared for the 1 January 2016 to 31 December 2016, 1 January 2015 to 31 December 2015 and 1 January 2014 to 31 December 2014.						
	R1.3 Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.  Note: An application to transfer a licence must be made in the approved form for this purpose.	Not Triggered	* No transfers have been undertaken during licence period.						
	R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Not Triggered	* Licence not surrendered.						
	R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the "due date").	Compliant	* Record shown at site that Annual Return was posted on 27 February 2015. * EPA website and Annual Returns received by EPA on 21 February 2017, 18 February 2016 and 27 February 2015.						
	R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Compliant	* Folder in system at site with Annual Returns in it that go back to 2007.						
	R1.7 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	Compliant	* 2014, 2015 & 2016 Annual Returns are signed.						
R2	R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.	Compliant	* Incidents procedure (PIRMP). Section 6.2 of the PIRMP includes procedure for notifying EPA and the number that should be called. * Notification of environmental incidents procedure dated 6 January 2016 also includes number that should be called.						
	R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.  Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Compliant	* No notifications to the EPA have occurred over the last 3 years. * According to the Events Report dated 11/9/2017 TSS exceedance incident on 1/4/2016 reported to EPA on 19/4/2016, 4 days after the site received monthly water monitoring results.						
R3	R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event	Not Triggered	* No such requests.						
	R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Not Triggered	* No such requests.						
	R3.3 The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	Not Triggered	* No such requests.						
	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Not Triggered	* No such requests.						



Condition Number	Condition	Compliance Status	Evidence	Recommended Action																								
<b>General Conditions</b>																												
G1	G1.1 A copy of this licence must be kept at the premises to which the licence applies.	Compliant	* Licence included in database and a hard copy is kept on site.																									
	G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.	Not Triggered	* Not triggered. An EPA officer never requested to see the licence.																									
	G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Compliant	* The licence is easily accessed by any employee. It is on the company intranet.																									
G2	G2.1 Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.	Compliant	* Photos taken of each of the monitoring sites and discharge points showed all the sites are marked.																									
G3	G3.1 <b>Completed Pollution Studies and Reduction Programs (PRPs)</b>	Not Triggered	* Not triggered. Outside of audit period.																									
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PRP 15 - Improvement of Stormwater Management	Improve the capture and treatment of stormwater generated on site.	30-September-2011																										
PRP 16 - Noise Survey Review and Assessment	Investigate the impacts of noise from operations on surrounding residences.	30-May-2011																										
PRP 17 - Review of Noise Mitigation Works	Review previous noise investigations and noise reduction works to determine what can be implemented.	29-July-2011																										
PRP 18 - Feasible and Reasonable Noise Mitigation Works	Implement any identified noise mitigation works identified in PRP 17.	29-September-2011																										
PRP 19: Assessment of Soil and Groundwater Contamination	Assessment of Soil and Groundwater Contamination in the vicinity of the Waste Oil Tank and the underground storage tanks. Determine the nature and extent of the soil and groundwater contamination.	31-July-2011																										
PRP 20 - Water Recycling Plant	Install a recycled water plant to reduce potable water consumption	30-June-2012																										
PRP 21 - Consolidate mine discharges to LDP1	Consolidate mine discharge by connecting S4 Dam (LDP4) to discharge via LDP1	27-May-2013																										
PRP 24 - Coal Mine Particulate Matter Control Best Practice	Requires licensee to conduct a site specific Best Management Practice (BMP) determination to identify ways to reduce particle emissions	28-September-2012																										

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Pollution Studies and Reduction Programs</b>				
U1	<p>U1.1 The Licensee must install a water treatment plant to reduce the concentrations of arsenic, nickel and zinc in mine water released from Licensed Discharge Point 1.</p> <p>The treatment process must reduce concentrations of arsenic, nickel and zinc to levels below the default 95<sup>th</sup>ile trigger values for protection of aquatic ecosystems specified in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000) in the Bargo River downstream of the confluence with Tea Tree Hollow.</p> <p>In the period between the issuing of this Pollution Reduction Program and the completion of the treatment plant, Tahmoor's discharge from Licensed Discharge Point 1 will be subject to interim discharge limits as described in Section L3 of this licence.</p> <p>Beginning on 31 March 2013, the Licensee must submit quarterly reports to the EPA outlining the progress towards installing the treatment plant.</p> <p>By the due date the Licensee must submit a report confirming the installation and commissioning of the plant. The report must contain a summary of water quality achieved by the treatment process and demonstrate that ANZECC 2000 trigger values are achieved in the Bargo River.</p> <p>Due Date: 30 September 2016</p>	Compliant	<p>* Waste Water Treatment Plant Confirmation of Completion and Commissioning Report dated 28 September 2015.</p> <p>* The plant is not currently working. There is additional work planned to commission the water treatment plant.</p>	Continue investigations to commission the water treatment plant.
U2	<p>U2.1 The Licensee must conduct an aquatic health monitoring investigation in Tea Tree Hollow and the Bargo River. The main objective of the investigation will be to define site specific trigger values for electrical conductivity in the Bargo River, and recommend suitable discharge concentration limits for electrical conductivity at Licensed Discharge Point 1. The licensee must submit a copy of the investigation report to the EPA by the due date.</p> <p>Due Date: 30 April 2016</p>	Compliant	<p>* Tahmoor PRP 23 (Underground Aquatic Monitoring Program) Report dated 4 October 2016.</p> <p>* Letter to EPA dated 30 September 2016 confirming completion of study. Email provided to SLR outlining the document was submitted to EPA on 30 September 2016.</p>	

# Statement of Commitments - 1999 Consent

Statement of Commitments for Redbank Tunnel Subsidence Management Project  
Apr-12

Ref No.:	Objective	Commitment	Timing	Compliance Status	Evidence	Recommendation
<b>Biodiversity</b>						
<b>Construction Planning</b>						
SC1	Minimise the potential impacts that may occur during construction phase	A Construction Environmental Management Plan (CEMP) would be developed for the Project and include, where applicable, the construction impact mitigation measures and principles listed below.	Pre-construction	Not Triggered	Outside audit period.	
SC2	Construction Staging	It is intended that areas of open water at the Project site would be progressively drained to allow relocation of native aquatic vertebrate fauna as appropriate.	Construction	Not Triggered	Outside audit period.	
SC3	Soil and surface water management	The CEMP would include specific surface water management measures, which would include as a minimum the following principles to manage surface water: <ul style="list-style-type: none"> <li>Minimise the area of disturbance, thus minimising the volume of 'dirty' surface water runoff. The clearing and construction method would generally result in soils only being exposed immediately prior to construction, with the remainder of the Project site covered by permanent infrastructure or retained or replanted vegetation.</li> <li>Minimise handling of soils through direct replacement onto landscaped open space areas and careful selection of soil stockpile locations.</li> <li>Separation wherever possible of 'clean' and 'dirty' surface water runoff.</li> <li>Install appropriate erosion control devices (such as silt fences, hay bales or equivalent) around the disturbance footprint.</li> </ul>	Construction Construction Construction Construction	Not Triggered	Outside audit period.	
SC4	Runoff and water management practices	<ul style="list-style-type: none"> <li>Runoff from disturbed and rehabilitated areas would be diverted into sediment ponds or other measures and not directly discharged into the natural system.</li> <li>Where practicable a setback is required from the base of soil stockpiles when adjoining remnant native vegetation to prevent sediment from entering waterways.</li> </ul>	Construction Construction	Not Triggered	Outside audit period.	
SC5	Site Management	Restrict access into adjacent remnant vegetation during construction by appropriate marking and/or fencing of the construction impact zone.	Pre-construction and construction	Not Triggered	Outside audit period.	
SC6	Fauna Management	Fauna Management would involve a two-step process: fauna pre-clearance survey and management during construction.  This would involve: <ul style="list-style-type: none"> <li>An active search for birds, nests, roosts and microchiropteran bats (stag watches with Anabat II detector). Sedentary fauna detected within the area to be cleared are to be managed in accordance with a fauna management protocol that is implemented as part of the CEMP during the construction period.</li> <li>Identification and marking of habitat trees during pre-clearing surveys (habitat trees include: trees with a DBH &gt; 70 mm; trees with resident fauna or associated signs of occupation; and/or any trees with hollows).</li> <li>Additional consideration for the retention of habitat trees (avoidance) during construction activities, where practicable.</li> </ul>	Construction Pre-construction and construction	Not Triggered	Outside audit period.	
SC7	Pre-clearance surveys and CEMP	The CEMP would include specific protocols for Pre-construction the management of any fauna detected during and pre-clearing surveys or during clearing (tree hollow clearing protocol, fallen log, tree hollow compensatory measures). Appropriate actions would be documented according to type and conservation significance of the fauna in question. The OEH would be notified if roosting threatened species are detected within the construction footprint and construction may have to be modified or delayed to further reduce the risk of injury.  <ul style="list-style-type: none"> <li>During clearing operations, all cleared habitat trees would be retained as intact as practicable and placed on the surface of nearby revegetation and rehabilitation areas under the supervision of an ecologist. Where it is practical to separate any leaves, branches and seeds from native species, these items would be used for brush mulching in revegetation and rehabilitation works.</li> </ul>	Pre-construction and construction Construction	Not Triggered	Outside audit period.	
SC8	Groundcover Clearance Protocol	The following protocols would be included in the CEMP: <ul style="list-style-type: none"> <li>A pre-clearing survey for Cumberland Land Snails is to be performed and if any individuals are found, they would be relocated, along with relevant shelter substrate, to the nearest area of intact suitable habitat outside the disturbance footprint. Translocation of the species would only be performed in consultation with OEH.</li> <li>As part of the pre-clearing survey, large woody debris with habitat value (excluding exotic weed material) would be identified that warrants salvage and relocation.</li> <li>During construction, remove identified large woody debris using excavator grabs, where practicable and place within nearby areas of retained vegetation or revegetation areas.</li> </ul>	Construction	Not Triggered	Outside audit period.	

Ref No.:	Objective	Commitment	Timing	Compliance Status	Evidence	Recommendation
SC9	Weed and Pest Management	<p>The following measures would be adopted to manage environmental weeds during construction:</p> <ul style="list-style-type: none"> <li>Controlling noxious weed species in line with legislative obligations prior to the initiation of vegetation clearance works. Monitor seed bank reprisals after topsoil movements and emplacement in rehabilitation areas.</li> <li>The transfer of seeds from non-native species through contaminated soil and vegetative material to revegetation areas would be avoided through appropriate vegetation and topsoil management. Management would include the use of herbicides prior to clearing, sterile crop covers and use of native grasses in revegetation and rehabilitation scheme- particularly Kangaroo Grass.</li> <li>Stockpiles of fill or vegetation would only be placed within existing cleared areas.</li> <li>Incorporate control measures, such as appropriately placed silt fences in the design of the proposed works to limit the spread of weed propagules downstream of the site.</li> </ul>	Construction	Not Triggered	Outside audit period.	
<b>Post Construction</b>						
SC10	Revegetation and Rehabilitation	<p>There is potential for the rehabilitation of land reclaimed from filling redundant sections of the rail line. The following vegetation cover is proposed for these rehabilitated areas:</p> <ul style="list-style-type: none"> <li>Pasture (in consultation with the landholder).</li> <li>Approximately 1.1 ha of native vegetation similar to the floristics of Shale Hills Woodland.</li> </ul>	Post Construction	Compliant	<p>* The Redbank Tunnel Rehabilitation Report by Coffey, dated Sept 2013, and the Site Audit Report - Redbank tunnel Deviation, Tahmoor, NSW for the Redbank Tunnel Deviation Project by Golder Associates, dated Sept 2013 states that the site has been returned to a condition that is consistent with the natural landscape and existing rural activity. The audit report states that the project (rehabilitated) area covers 1.15 ha.</p> <p>* Planting completed. Aerial photo illustrates planting.</p>	
SC11	Native vegetation rehabilitation	<p>Proposed works within the 1.1 ha native vegetation rehabilitation area :</p> <ul style="list-style-type: none"> <li>Place logs recovered from clearing works parallel with the contour of the rehabilitated surface.</li> </ul>	Post Construction	Compliant	* Golder Audit Report dated September 2013 verifies rehabilitation works undertaken at the site.	
SC12	Biodiversity Offset	<p>Secure an offsite site or sites to be managed under effective and secure long term management through the retirement of biobanking credits (where appropriate credits are available). The nature of this offset would be determined in consultation with OEH in accordance with the NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects.</p> <p>The offset site or sites must contain sufficient ecosystem credits to match the development site credit profile unless varied by the Interim Policy. The composition of ecosystem credits would be defined by the Interim Policy and may comprise the following:</p> <ul style="list-style-type: none"> <li>Grey Box- Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin [HN528].</li> <li>Narrow-leaved Ironbark- Broad-leaved Ironbark- Grey Gum open forest of the edges of the Cumberland Plain, Sydney Basin [HN556].</li> </ul> <p>or alternative suitable vegetation types. The location of the offset site or sites would be determined by the guiding principles outlined in the Interim Policy. A Biodiversity Offsets Package will be prepared for approval by the Director- General DOP&amp;I that will provide the biobanking assessment of the development and biobank sites, and recommended management and monitoring measures .</p> <p>The offset site or sites must be secured within 12 months of the approval date of the Biodiversity Offsets Package.</p>	Within 12 months of the approval date of the Biodiversity Offsets Package	Compliant	<p>Evidence of signed letter from then DP&amp;I on 25/10/2012 regarding the Biodiversity Offset Package.</p> <p>"The Department, in consultation with OEH, has reviewed the proposed biodiversity offset package and is satisfied that it addresses the guiding principles of the NSW OEH Interim Policy."</p>	
<b>Visual Amenity</b>						
SC13	Minimise and/or manage adverse visual impacts of the project during the construction phase	<ul style="list-style-type: none"> <li>Avoid loss or damage to vegetation including the protection of trees prior to construction and/or trimming of vegetation to avoid total removal, particularly behind residences on Remembrance Driveway.</li> <li>Where site lighting is required, minimise light spillage to neighbouring properties</li> <li>Temporary hoardings, barriers, traffic management and signage would be removed when no longer required.</li> <li>Materials and machinery would be stored tidily during the works.</li> <li>Haul routes and roads providing access to the construction sites would be maintained free of dust and mud as far as reasonably practicable. Dust from construction sites would be minimised as much as possible.</li> </ul>	<p>Detailed design and construction</p> <p>Construction and Operation</p> <p>Construction</p> <p>Construction</p> <p>Construction</p>	Not Triggered	* No lighting at the site.	
SC14	Minimise and/or manage adverse visual impacts of the project during the operation phase	<ul style="list-style-type: none"> <li>Prepare Landscape plan that: <ul style="list-style-type: none"> <li>Integrates infrastructure (such as noise mitigation structures, structures, embankments/cuttings, bridges) into the surrounding environment.</li> <li>Includes planting of vegetation on fill batters where practicable</li> </ul> </li> </ul>	Detailed design, Construction and Operation	Compliant	<p>* The Redbank Tunnel Rehabilitation Report by Coffey, dated Sept 2013, and the Site Audit Report - Redbank tunnel Deviation, Tahmoor, NSW for the Redbank Tunnel Deviation Project by Golder Associates, dated Sept 2013 states that the site has been returned to a condition that is consistent with the natural landscape and existing rural activity.</p> <p>* Planting completed. Aerial Photo illustrates the planting.</p>	
SC15	Screening	<ul style="list-style-type: none"> <li>Maintain screening planting following the establishment phase to provide continual/improved visual screening over time.</li> </ul>	Operation	Compliant	<p>Planting completed.</p> <p>Aerial illustrates the planting and screening.</p> <p>Evidence of photographs.</p>	
<b>Traffic</b>						
SC16	Manage the potential construction traffic impacts	<ul style="list-style-type: none"> <li>A traffic management plan would be developed to reduce the impact of construction related traffic on the local road network</li> </ul>	Pre-construction and construction	Not Triggered	Outside audit period.	
SC17	Undertake design and construction works in consultation with Council	<ul style="list-style-type: none"> <li>Undertake design and construction works for the project access in Remembrance Driveway in consultation with Wollondilly Shire Council</li> </ul>	Pre-construction	Not Triggered	Outside audit period.	
SC18	Road dilapidation survey	<ul style="list-style-type: none"> <li>A road dilapidation survey would be undertaken prior to construction and affected roads restored post construction if required.</li> </ul>	Construction	Not Triggered	Outside audit period.	
SC19	Management of construction vehicles	<ul style="list-style-type: none"> <li>Use traffic controllers on Remembrance Driveway during periods of high activity, generally during set up and at the conclusion of construction</li> <li>Minimise truck movements on the local road network between 7-9 am and 3-5 pm where possible</li> </ul>	Construction	Not Triggered	Outside audit period.	

Ref No.:	Objective	Commitment	Timing	Compliance Status	Evidence	Recommendation
<b>Noise and Vibration</b>						
SC20	Construction hours	The standard hours for construction activities associated with the Project will be 7 am to 6 pm Monday to Friday and 8 am to 1 pm on Saturdays	Construction	Not Triggered	Outside audit period.	
SC21	Correct use of tools and equipment	All construction vehicles and machinery would be fitted with appropriate noise suppression devices and maintained. Fixed equipment (pumps, generators, compressors) would be located as far as possible from the nearest residences. Where possible, no plant or equipment would be left idling when operating in the vicinity of residential properties.	Construction	Not Triggered	Outside audit period.	
SC22	Amend and undertake work activities to minimise noise and vibration generation	Practical and reasonable measure would be implemented to minimise the noise and vibration impacts of construction activities on local sensitive receivers. Work methods would be reviewed with a preference for quieter and non-vibration generating methods wherever possible. This is particularly important for any out-of-hours and night-time activities .	Construction	Not Triggered	Outside audit period.	
SC23	Pile Driving management	Pile driving control plans would be prepared if undertaken as part of the project construction activities.	Construction	Not Triggered	Outside audit period.	
SC24	Inform all site workers of potential impacts	All site workers (including subcontractors and temporary workforce) would be informed of the potential for noise and vibration impacts upon local residents and encouraged to take practical and reasonable measures to minimise noise during the course of their activities.	Construction	Not Triggered	Outside audit period.	
SC25	Manage movement of materials	All vehicular movements to and from the site would comply with the requirements of the appropriate regulatory authority requirements for such activities.	Construction	Not Triggered	Outside audit period.	
<b>Aboriginal Heritage</b>						
SC26	Minimise impacts on Aboriginal heritage	If feasible, impacts would be avoided to the identified Aboriginal sites Redbank Tunnel 3/A, 15/A and 35/A, and the associated area of potential for sub-surface deposits of research value at site 3/A. Where impacts would be avoided to the identified heritage evidence, appropriate protective measures would be implemented for those sites in close proximity to the construction works . If impacts cannot be avoided to the identified Aboriginal sites Redbank Tunnel 3/A, 15/A and 35/A, an Aboriginal Heritage Impact Permit (AHIP) is to be gained for disturbance of this evidence, in consultation with the registered Aboriginal parties. As a general principle, all relevant contractors and staff engaged on the Project would receive heritage awareness training prior to commencing work on-site.	Construction and detailed design  Pre-construction  Pre-construction  Pre-construction	Not Triggered	Outside audit period.	
SC27	Consultation with Aboriginal stakeholders	Where requested by the registered Aboriginal parties, these stakeholders and a qualified archaeologist would be engaged to collect an identified surface artefacts that may be subject to impacts, and implement other measures as may be identified by the Aboriginal community in order to minimise the impacts of development on the identified heritage evidence and potential deposits at site 3/A	Pre-construction	Not Triggered	Outside audit period.	
SC28	Approval of Aboriginal heritage management	An AHIP would be obtained for the entire impact area (where A unit soil is present) prior to the proposed works being undertaken. Should any previously unrecorded Aboriginal sites or objects be detected prior to or during the course of development which are not covered by an AHIP, work in the immediate vicinity of those objects would need to promptly cease and the finds be reported to OEH and advice sought as to the appropriate course of action.	Construction	Not Triggered	Outside audit period.	
SC29	Management of skeletal remains	If human skeletal remains are identified, work would stop immediately and the appropriate authorities, including the Police and OEH, would be notified. If impacts cannot be avoided , an AHIP is required prior to any impacts occurring.	Construction	Not Triggered	Outside audit period.	
<b>Non - Aboriginal Heritage</b>						
SC30	Management of heritage structures	Protective Measures would be installed at Culverts Nos. 1 and 2. Prior to the filling or removal of Redbank Tunnel, a photographic archival recording of the tunnel would be made in accordance with guidelines established by the Heritage Office	Pre-construction  Pre-construction	Not Triggered	Outside audit period.	
SC31	Management of previously undiscovered artefacts	In accordance with Section 146 of the Heritage Act 1977 the accidental discovery of relics, other than those discussed in this report, would be reported immediately to the Heritage Council.	Construction	Not Triggered	Outside audit period.	
SC32	Management of heritage structures	Measures would be implemented along the Redbank Tunnel deviation to lessen the visual impact of the new rail deviation on the rural heritage landscape and, in particular, views to and from Tahmoor House. Such measures would include screens of natural vegetation in keeping with existing corridors of natural vegetation along Myrtle and Redbank Creeks and the existing railway line as well as the use of sound walls and mounds.	Post Construction	Compliant	* The Redbank Tunnel Rehabilitation Report by Coffey, dated Sept 2013, and the Site Audit Report - Redbank tunnel Deviation, Tahmoor, NSW for the Redbank Tunnel Deviation Project by Golder Associates, dated Sept 2013 states that the site has been returned to a condition that is consistent with the natural landscape and existing rural activity.  * Planting completed.  * Aerial photo illustrates planting and screening.	

Ref No.:	Objective	Commitment	Timing	Compliance Status	Evidence	Recommendation
<b>Air Quality</b>						
SC33	Minimise dust generation and adverse air quality impacts during construction phase	<p>Construction traffic would be controlled by designating specific routes for haulage and access. Vehicle speeds on unsealed surfaces would be limited to 40 km/hr with a further restriction of 20 km/hr when within 100 m of a site exit/entry point.</p> <p>All trucks hauling dirt, sand, soil or other loose materials to and from the construction site would be covered when travelling on public roads.</p> <p>Wheel wash units or rumble pads would be installed where required. Wash-off equipment for trucks and any equipment would be available for any vehicles leaving the site to remove excessive dirt, mud or debris from tyres and other under surfaces. Material spillage on sealed roads would be cleaned up as soon as possible.</p> <p>All construction vehicles, mobile plant and machinery would be maintained and operated to minimise exhaust emissions.</p> <p>A line of communication would be established between the construction contractor and the local community prior to the start of construction as part of a community consultation process. All complaints lodged by nearby residents would be recorded on a complaints register, which would also document the investigation into the source of the emission giving rise to the complaint, as well as any corrective actions taken to rectify the cause of complaint.</p>	<p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p>	Not Triggered	Outside audit period.	
<b>Contamination</b>						
SC34	Develop and implement potentially contaminated material management procedures	The CEMP for the proposed works would detail appropriate procedures for the handling, stockpiling and assessment of potentially contaminated fill and ballast materials during the works	Pre-Construction	Not Triggered	Outside audit period.	
<b>Surface water</b>						
SC35	Minimise water quality decline	<p>Temporary and permanent sediment and erosion control measures to be established, in accordance with a Spoil and Fill Management Plan (SFMP) as part of the Construction Environmental Management Plan (CEMP).</p> <p>Both the SFMP and the CEMP would include details of the proposed control measures, where and how the measures are to be applied, as well as a response plan and monitoring.</p>	Pre-construction and Construction	Not Triggered	Outside audit period.	
SC36	Minimise the impact of excavation, storage and placement of material on the surface and groundwater systems during construction	<ul style="list-style-type: none"> <li>• Minimise area of disturbance.</li> <li>• Land adjacent to waterways to remain undisturbed for as long as possible.</li> <li>• Temporary catch and diversion drains to divert runoff from upslope land and reduce erosion hazard .</li> <li>• Temporary diversions would outlet to stable discharge areas with additional protection as necessary.</li> <li>• Progressively revegetate disturbed areas to encourage infiltration .</li> <li>• Direct sediment laden runoff through a sediment trap or basin to minimise discharge of pollutants to downstream environment.</li> <li>• Direct smaller volumes of sediment laden runoff to sediment filters such as straw bale filters and sediment fences.</li> <li>• Locate stockpiles clear of flood prone areas, stream banks, channels and stormwater drainage areas.</li> <li>• Stabilise stockpiles that are to be in place for longer than 10 days.</li> <li>• Divert flows around stockpiles by bunds/diversion drains.</li> <li>• Place sediment fences downstream to capture sediment and minimise sediment discharge to downstream environment.</li> </ul>	<p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p> <p>Construction</p>	Not Triggered	Outside audit period.	
SC37	Permanent sediment and erosion control measures	<ul style="list-style-type: none"> <li>• Permanent catch and diversion drains to divert runoff from upslope land and reduce erosion hazard to be installed.</li> <li>• Establish permanent diversions to outlet to stable discharge areas with protection as necessary. Revegetate disturbed areas to encourage infiltration.</li> <li>• Locate permanent areas of fill emplacement clear of flood prone areas, stream banks, channels and stormwater drainage areas.</li> </ul> <p>Install scour protection to structures and embankments as necessary.</p> <ul style="list-style-type: none"> <li>• Provide permanent diversion of flows around fill emplacement areas and quarries by bunds/diversion drains.</li> <li>• Permanent areas of fill emplacement to have maximum batter slopes engineered for the purpose and stabilised by vegetation.</li> </ul>	Operation	Compliant	<p>According to the Site Audit Report - Redbank Tunnel Deviation, Tahmoor, NSW for the Redbank Tunnel Deviation Project by Golder Associates, dated Sept 2013 culverts have been installed to handle drainage.</p> <ul style="list-style-type: none"> <li>• Fill was imported into the area.</li> <li>• According to 2014 AEMR further work was undertaken to undertaken to stabilise slopes by reshaping south western batters.</li> </ul>	

Ref No.:	Objective	Commitment	Timing	Compliance Status	Evidence	Recommendation
SC38	Emergency Response Plan and Spill Containment	<p>' Develop an Emergency Response Plan, as a component of the SFMP that would address the steps required in the event that the capacities of sediment control measure were exceeded.</p> <p>' During construction, refuelling of plan and machinery would be undertaken either by fuel trucks with spill trays or within bunded areas or off-site in appropriate locations wherever possible and, where topography and track elevations allow, consideration be given to the provision of a secondary containment measure to limit the discharge of spills to waterways.</p>	Construction	Not Triggered	Outside audit period.	
SC39	Revegetation	<ul style="list-style-type: none"> <li>• Primary revegetation would be focused on quickly minimising the likelihood of erosion of recently disturbed areas using species that provide rapid groundcover. Following this a second revegetation phase would be undertaken that provides a permanent method of surface stabilisation.</li> <li>• Where the first phase of the revegetation cannot be completed for practical reasons the use of mulch or a rolled erosion control product would be used.</li> </ul>	Construction	Not Triggered	Outside audit period.	
SC40	Surface Water monitoring	<ul style="list-style-type: none"> <li>• A surface water monitoring program would be established prior to commencement of construction.</li> <li>• During construction, a surface water monitoring program would be maintained at each of the previously monitored waterways as part of the CEMP</li> <li>• Any seepage of water from the rock cutting would be tested prior to discharge to the environment.</li> </ul>	Pre-construction and construction	Not Triggered	Outside audit period.	
SC41	Minimise impacts to waterways	<ul style="list-style-type: none"> <li>• Disturbance of waterways as a result of construction activities would require suitable protection and rehabilitation works to minimise these impacts. These could include silt fences and sediment traps</li> <li>• Rock beaching would be provided to protect and stabilise the bed and banks of watercourses from erosion and to minimise the velocity of stormwater flows</li> </ul>	Construction Operation	Compliant	<ul style="list-style-type: none"> <li>* CEMP.</li> <li>* Monitoring during construction and monitoring of creeks as part of subsidence management.</li> <li>* Testing of water in Myrtle Creek when water in the creek.</li> <li>* Monitoring during construction and operations.</li> <li>* ARTC now manage the area.</li> </ul>	
SC42	Minimise blockage of low flows	Where practicable, diversion of flows around the work area (up to the 2 year ART) would occur .	Construction	Not Triggered	Outside audit period.	
SC44	Appropriate design of causeways	<p>Where required, either a bed level crossing through the invert of the waterway or a low level crossing with low flow culverts beneath to allow base flows to be conveyed, would be provided .</p> <p>Temporary crossings would also include a lower section for higher flows to pass with culverts extending beyond the toe of fill embankments . These crossings would be removed when not required, and the waterway rehabilitated.</p>	Construction	Not Triggered	Outside audit period.	
SC45	Prevent pollution of creeks	Closely associated with the mitigation against water quality decline and increases in scour, the placement of fill would be completed in a manner that would not result in the pollution of Myrtle or Redbank creeks.	Construction	Not Triggered	Outside audit period.	
SC46	Minimise impacts to surface water	A Surface Water Management Plan (SWMP) would be prepared that would include all measures provided in SC34-SC44. The SWMP would be prepared to the satisfaction of the NOW prior to commencement of construction.	Pre-Construction	Not Triggered	Outside audit period.	
SC47	Minimise impacts to groundwater	A Groundwater Management Plan would be prepared that would detail the response to the interception of groundwater, including licensing arrangements and proposed methods of disposal for the intercepted groundwater. The SWMP would be prepared to the satisfaction of the NOW prior to commencement of construction.	Pre-Construction	Not Triggered	Outside audit period.	
<b>Greenhouse Gas Emissions</b>						
SC48	Reduce impacts of greenhouse gases	Use Biodiesel blends (diesel that has a percentage of the fuel replaced with biodiesel) for construction vehicle use where practicable.	Construction	Not Triggered	Outside audit period.	
SC49	Mitigate against subsidence	<p>Prevent the collapse of the Redbank Tunnel void by filling the tunnel</p> <ul style="list-style-type: none"> <li>• Monitoring of rail track condition to be undertaken in accordance with the Subsidence Management Plan to be prepared for Longwalls 27-30.</li> <li>• Monitoring of Subsidence in Area 3 if required, to be undertaken in accordance with the Subsidence Management Plan to be prepared for longwalls 27-30.</li> </ul>	Pre-construction, Construction and Operation	Compliant	<ul style="list-style-type: none"> <li>* Tunnel filled. Photographic evidence provided.</li> <li>* Rail track managed and monitored.</li> <li>* Monitoring undertaken in accordance with SMP.</li> <li>* Area 3 covers LW 26 and LW 27. Monitoring is completed as per the SMP for LW26 (dated September 2011) and LW27 to LW30 SMP.</li> </ul>	



Ref No.:	Objective	Commitment	Timing	Compliance Status	Evidence	Recommendation
<b>Waste Management</b>						
SC50	Manage Waste appropriately	<ul style="list-style-type: none"> <li>• Excavated material would, wherever possible, be re-used on site, although some material may require offsite disposal.</li> <li>• Topsoil would be reused in revegetation and rehabilitation of cleared areas.</li> <li>• Where practical, vegetative matter, not including weeds, would be chipped and reused on-site. Logs and tree limbs suitable for habitat and or fauna refuge would be collected during clearing and placed in a location identified as suitable.</li> <li>• Any green waste containing weeds would be stockpiled separately and appropriately and would be disposed of at appropriate waste management facilities.</li> <li>• Demolition waste materials would be recycled and/or reused on site, or transported to an approved recycling or waste management facility, as appropriate.</li> <li>• Construction materials would be sourced and ordered in appropriate quantities to avoid the creation of excess waste, recycled and/or reused on site or on other projects where possible, or transported to an approved recycling facility .</li> <li>• Suitable waste bins/receptacles would be provided throughout the work site to capture all waste streams.</li> <li>• Separate containers would be provided for recyclable and non-recyclable materials. These materials would be transported to an approved recycling or waste management facility, as appropriate.</li> <li>• Waste would be transported from the site when storage facilities are filled. The waste storage area would be kept tidy and well maintained.</li> <li>• Liquid waste such as chemicals, fuel and lubricants, and their containers, would be disposed of in accordance with the requirements of the Waste Classification Guidelines Part 1: Classifying Waste (Department of Environment, Climate Change and Water 2009).</li> <li>• Portable toilet facilities would be installed on site and emptied periodically by an approved contractor.</li> <li>• The use of packaging materials would be minimised and where possible packaging products would be returned.</li> <li>• A regular site clean-up would be undertaken as required and general site waste would be managed in accordance with the waste reduction hierarchy of avoidance, reduce, re- use and recycle. • Site spill clean-up material (spill kits) would be available for both fuels and chemicals.</li> <li>• Suitable containment and absorbent products would be stored on site in a readily accessible location.</li> <li>• All emergency contacts would be provided in the CEMP.</li> </ul>	Pre-construction, construction	Not Triggered	Outside audit period.	

# Subsidence Management Plan Approval - LW 27-30

Tahmoor Coal Pty Limited (A.C.N. 076 633 968)

Date of Lease: 15 June, 1990

Expiry Date of Lease: 13 March 2000

Period of Renewal until: 13 March 2021

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Limits on Approval</b>				
1	The Leaseholder must carry out the activity strictly in accordance with SMP Approved Plan.	Compliant	* SMP Approval No 11/3219 for LW27-30 (DRG Letter, 31/10/12). Mining occurred as per the SMP Approved Plan.	
2	The Leaseholder must carry out the activity generally in accordance with the SMP; subject to the conditions of this Approval. In the event of any inconsistency between the conditions of this Approval and the SMP, the conditions of this Approval prevail to the extent of any inconsistency.	Non-Compliant (Medium Risk)	<p>Preparation: Approved Environmental and Infrastructure Management Plans prepared by Tahmoor prior to mine subsidence development and consequential impacts. Interim SMP approvals required by DRG during undermining of Main Southern Railway above LW28 to 30.</p> <p>Implementation: Evidence of subsidence impacts identified during field inspection and in correspondence with the DRG. This included impacts associated with Redbank and Myrtle Creek. A Notice under Section 240 of the Mining Act (1992) was issued to Tahmoor Colliery on 5 December 2016 to prepare a CMA Plan to address exceedances of impact assessment criteria or predictions in relation to surface water TARP's specified in the Tahmoor Colliery Longwall 27-30 EMP. Following detailed consultation a Revised CMA Plan was sent to DRG in June 2017 (Rev 1 report dated 16 June 2017). SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.</p> <p>The audit team has noted in the CMA Plan that 'minor' environmental consequences are defined as 'relatively small in quantity, size and degree given the relative context'. The impacts noted in Redbank Creek and Myrtle Creek seen during the site inspection and in other documentation (including CMA Plan) appear to be greater than minor impacts.</p> <p>It is also noted that in the letter to Tahmoor from DRG dated May 23, 2017 that:  'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator. The notice required provision of the CMA Plan by 31 March 2017 however this timeframe was extended to 28 April 20-17 at the request of Tahmoor.</p> <p>The inadequacy of the CMA Plan, required to be prepared in accordance with a statutory notice under the Mining Act raises serious concerns regarding Tahmoor's commitment to obligations under the Longwall 27-30 EMP and management of the adverse impacts on the environment as a result of its activities authorised under Consolidate Coal Lease (CCL) 716'.</p> <p>As the SMP has not been fully implemented and impacts have been above minor, this condition is a NC.</p>	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p> <p>For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.</p>
3	Where this Approval requires actions to be undertaken by the Leaseholder, including remediation of subsidence impacts, the obligation continues until the Director General notifies the Leaseholder that the action has been completed to his or her satisfaction.	Observation	Mine seeking approval from DRG in response to a Section 240 Notice to undertake a staged program of grouting works to reinstate Myrtle and Redbank Creek surface flows and drained pools above LW28 to 30.	
4	The Director General may vary the conditions of this Approval by notice in writing.	Observation	Interim approvals limited to 100 m, 250 m and 1100 m during mining of LW 28 to 30 beneath Main Southern Railway.	
5	The Director General may, at his or her discretion, suspend or revoke this Approval if: a) the Leaseholder fails to adhere to any condition of the Approval; or b) the head of any other government authority requests suspension or revocation on the basis of the Leaseholder's non-compliance, or potential non-compliance, with legislation administered by that agency in relation to this Approval.	Not Triggered		
<b>General Obligation to Minimise Harm to the Environment</b>				
6	The Leaseholder must implement the SMP (as amended by the conditions of this Approval) and carry out any additional practicable measures necessary to prevent any harm to the environment that may result from the construction, operation, or rehabilitation of the activity. Where prevention can not be achieved the leaseholder is to demonstrate minimisation of harm to the environment that may result from the construction, operation, or rehabilitation of the activity.	Non-Compliant (Medium Risk)	<p>Evidence of subsidence impacts identified during field inspection and in through Tahmoor Coking Coal Operations correspondence with the DRG.</p> <p>Tahmoor Coking Coal Operations is seeking approval from DRG in response to a Section 240 Notice to undertake a staged program of grouting works to reinstate Myrtle and Redbank Creek surface flows and drained pools above LW28 to 30. There was an effort to prevent subsidence impacts through mine design and the SMP process.</p> <p>The SMP/EMP has not been fully implemented. Letter from DRG May 23, 2017 stated - 'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator'. By not completing this CMA Plan earlier this is a not compliance with implementing the SMP.</p> <p>Tahmoor Coking Coal Operations provided an update on the status of the CMAP in writing on 1 May 2018.</p> <p>Tahmoor Colliery have consulted with DRG Environmental Inspectors and both agreed to wait until the undermining of Myrtle Creek is complete to begin remediation. This decision was due to photographic records demonstrating some pools in Myrtle Creek naturally remediating post rain events in Myrtle Creek. DRG inspectors Will Mitty and Greg Kininmonth have agreed to 'wait and watch natural remediation until the undermining of Myrtle Creek is complete'.</p> <p>SLR agrees with this approach. However we have still provided a comment regarding implementation of the CMAP when required in the future. SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.</p>	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p> <p>For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.</p>
7	The Proponent must give notice of this SMP approval within 30 days to the DP&I, NOW, EPA, Council, MSB, the local Aboriginal Land Council/s, the owners/operators of any infrastructure, and landowners in the application area and any other relevant government agencies or stakeholders that the Director General's approval of the SMP has been granted.	Compliant	SMP Approval notification letters sent to relevant agencies and announced in local newspapers. Copy of Approval letter placed on www.Tahmoorcoal.com.au website.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Implementation of Approval</b>				
8	Any plans, programmes, reports or strategies required as a condition of this Approval must be developed having regard to any guidelines adopted by the Director General for the purpose of subsidence management and mine rehabilitation.	Compliant	Environmental Management Plan and Infrastructure Management Plans for LW27 - 30 surface features prepared and approved by DRG (SMP includes Aboriginal and European Heritage sites). Some management plans have been updated for each longwall in consultation with the DRG. Developed to meet the SMP Guideline.	
9	The Leaseholder must implement any plan, programme or strategy required and approved pursuant to this Approval. <b>Note:</b> <i>The Leaseholder may, at any time, submit an amended plan, programme or strategy for approval. Once approved, the amended plan, programme or strategy must be implemented, however, up until the date of approval, the Leaseholder must continue to implement the previously approved plan, programme or strategy.</i>	Non-Compliant (Medium Risk)	The SMP has not been fully implemented. Letter from DRG May 23, 2017 stated - 'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator'. By not completing this CMA Plan until requested this is a non-compliance with implementing the SMP.  Tahmoor provided an update on the status of the CMAP in writing on 1 May 2018.  Tahmoor Colliery have consulted with DRG Environmental Inspectors and both agreed to wait until the undermining of Myrtle Creek is complete to begin remediation. This decision was due to photographic records demonstrating some pools in Myrtle Creek naturally remediating post rain events in Myrtle Creek. DRG inspectors Will Mity and Greg Kininmonth have agreed to 'wait and watch natural remediation until the undermining of Myrtle Creek is complete'.  SLR agrees with this approach. However we have still provided a comment regarding implementation of the CMAP when required in the future. SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.	Ensure CMA Plan is implemented when required in the future. Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.
10	Any modifications to plans, programmes or strategies already approved for the purposes of the conditions of this Approval must have regard to the matters set out in condition 8. Amended plans, programmes or strategies submitted for approval must be accompanied by all relevant supporting documentation to assist in the assessment of the amendment or modification. <b>Note:</b> <i>This condition relates to plans, programmes and strategies required by the conditions of this Approval- it does not apply to variations to the SMP or the SMP Approved Plan which must be done in accordance with the requirements of the Mining Act, the conditions of title and the variation procedures identified in the SMP guidelines.</i>	Compliant	see Condition 8. and 9.	
<b>Directions</b>				
11	The Leaseholder must comply with any written direction given by the Director General, Director Environmental Sustainability & Land Use, Director Mine Safety Operations or Principal Subsidence Engineer relating to:  a) the implementation of any aspect of the SMP or an approved plan, programme or strategy; b) assessing or reviewing the adequacy, effectiveness, or coverage of any approved plan, programme or strategy or any aspect of the SMP; c) the type, timing and/or location of monitoring of baseline conditions, subsidence or subsidence impacts; d) any reporting requirement under this Approval; e) the carrying out of works to address subsidence impacts; and/or f) the carrying out of any studies or investigations related to subsidence or subsidence impacts and the reporting of any findings or conclusions.  The obligations under this condition prevail over any other obligation under this Approval. <b>Note:</b> <i>Compliance with a written direction will not operate as a defence to a breach of any obligation under this Approval that occurred prior to the Direction being given.</i>	Compliant	Tahmoor Coking Coal Operations has prepared all necessary SMPs in consultation with relevant Stakeholders prior to LW27-30 and responded to requests from DRG for CMA Plan for Myrtle and Redbank Creeks. CMA Plan for reinstating surface flows and ponds during period of low flow along Myrtle and Redbank Creeks has been submitted to DRG and pending approval. Tahmoor regularly consults with government agencies as part of subsidence management.	Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback
<b>Subsidence Monitoring Programme</b>				
12	The Leaseholder must submit to the Principal Subsidence Engineer for approval a subsidence monitoring programme for the longwall panels which are the subject of this Approval. This programme must include:  a) inspection regimes; b) layout of monitoring points; c) parameters to be measured; d) monitoring methods and accuracy; e) timing and frequencies of surveys and inspections; f) recording and reporting of monitoring results..  The Leaseholder must not commence longwall mining prior to the subsidence monitoring programme being approved. <b>Note:</b> <i>The programme should be submitted to the Principal Subsidence Engineer at least 30 days prior to the expected commencement of operations to enable sufficient time for the assessment of the programme. The Principal Subsidence Engineer may require the provision of further information to assist in the assessment of the programme or a resubmission of the programme if it is considered inadequate. Complex issues or the need for additional information or a resubmission of the programme may require a longer assessment period.</i>	Compliant	DRG Approved Subsidence Monitoring Programs for LW28 to 30 prepared and monitoring completed as required. Meets the requirements of this condition.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action																						
<b>Environmental Management</b>																										
13	<p>The Leaseholder must submit to the Director Environmental Sustainability &amp; Land Use for approval an Environmental Management Plan (EMP) for the panels which are the subject of this Approval. This plan must address subsidence impacts on:</p> <p>a) surface and groundwater (quality and quantity) , including Myrtle and Redbank Creeks;  b) flora and fauna;  c) heritage sites including Aboriginal heritage sites;  d) geomorphology, including rock bars and cliff lines; and  e) surface and groundwater (quality and quantity); including groundwater bores on privately owned land within a 3 kilometre radius of the limit of mining.</p> <p>The leaseholder must not operate other than in accordance with an Environmental Management Plan (EMP) approved by the Director Environmental Sustainability &amp; Land Use. This plan must address subsidence impacts above and must include:</p> <p>a) a detailed monitoring programme;  b) trigger levels for subsidence impacts that require actions and responses;  c) the procedures that would be followed in the event that the monitoring indicates an exceedance of trigger levels;  d) measures to mitigate, remediate and/or compensate any identified impacts;  e) a protocol for the notification of identified exceedances of the trigger levels; and  f) a contingency plan.</p> <p>The leaseholder shall ensure that underground mining does not cause the performance outcomes in Table 1 to be exceeded.</p>	Non-Compliant (Medium Risk)	<p>Preparation:  Refer to Environmental Management Plan (Rev D) for LW27 to 30 (dated 6/12/13). Meets the requirements of a) to e).</p> <p>Implementation:  Tahmoor did not implement the EMP effectively. Letter from DRG May 23, 2017 stated - 'It is noted that Tahmoor have elected to not initiate the preparation of a CMA Plan in accordance with the longwall 27-30 EMP TARP since 22 March 2013 until issued with the Notice on 5 December 2016 by the Resources Regulator'. By not completing this CMA Plan earlier this is a non-compliance with implementing the EMP/overall SMP.</p> <p>Tahmoor provided an update on the status of the CMAP in writing on 1 May 2018.</p> <p>Tahmoor Colliery have consulted with DRG Environmental Inspectors and both agreed to wait until the undermining of Myrtle Creek is complete to begin remediation. This decision was due to photographic records demonstrating some pools in Myrtle Creek naturally remediating post rain events in Myrtle Creek. DRG inspectors Will Mity and Greg Kininmonth have agreed to 'wait and watch natural remediation until the undermining of Myrtle Creek is complete'.</p> <p>SLR agrees with this approach. However we have still provided a comment regarding implementation of the CMAP when required in the future. SLR understands Tahmoor Coking Coal Operations received a PIN relating to this subsidence issue from the DPE on 4/5/2018.</p>	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p> <p>For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.</p>																						
	<table border="1"> <thead> <tr> <th>Watercourses</th> <th></th> </tr> </thead> <tbody> <tr> <td>Myrtle and Redbank Creeks</td> <td>Minor environmental consequences</td> </tr> <tr> <td>Other watercourses</td> <td>No greater subsidence impact or environmental consequence than predicted in the SMP</td> </tr> <tr> <th>Land</th> <th></th> </tr> <tr> <td>Cliffs flanking Redbank Creek</td> <td>Minor environmental consequences</td> </tr> <tr> <td>Other cliffs</td> <td>Minor environmental consequences</td> </tr> <tr> <th>Biodiversity</th> <th></th> </tr> <tr> <td>Threatened species, threatened populations, or endangered ecological communities</td> <td>Negligible environmental consequences</td> </tr> <tr> <th>Aboriginal and other heritage features</th> <th></th> </tr> <tr> <td>Sites that may be determined to hold "special significance"</td> <td>Negligible alteration or damage to the feature or site.</td> </tr> <tr> <td>Other heritage sites</td> <td>Minor alteration or damage to the feature or site</td> </tr> </tbody> </table>	Watercourses		Myrtle and Redbank Creeks	Minor environmental consequences	Other watercourses	No greater subsidence impact or environmental consequence than predicted in the SMP	Land		Cliffs flanking Redbank Creek	Minor environmental consequences	Other cliffs	Minor environmental consequences	Biodiversity		Threatened species, threatened populations, or endangered ecological communities	Negligible environmental consequences	Aboriginal and other heritage features		Sites that may be determined to hold "special significance"	Negligible alteration or damage to the feature or site.	Other heritage sites	Minor alteration or damage to the feature or site	Non-Compliant (Medium Risk)	<p>Minor Environmental Consequences and TARPs developed in EMP for LW27-30 exceeded for Myrtle &amp; Redbank Creeks. Section 240 Issued to the mine by DGR on 5/12/16.</p> <p>The audit team has noted in the CMA Plan that 'minor' environmental consequences are defined as 'relatively small in quantity, size and degree given the relative context'. The impacts noted in Redbank Creek and Myrtle Creek seen during the site inspection and other documentation (including CMA Plan) appear to be above minor impacts.</p> <p>A comparison of results against predictions and triggers from the SMP (including the Natural Features Management Plan) is outlined within the End of Panel Reports.</p> <p>A key trigger is the 'Redirection of surface water flows and pool level / flow decline of &gt;20% during mining compared to baseline for &gt; 2 months, considering rainfall / runoff variability'.</p> <p>It was noted in the LW 29 End of Panel Report that for Redbank Creek, <i>Trigger exceeded during mining of LW29 at Sites 26A and RC2/37 above LWs 28 and 29, Sites RR2 and RB5 above LW29, and Site RR9 above LW30</i> .</p> <p>The end of panel reports do not specifically compare impacts observed against the performance outcomes in this condition.</p>	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p> <p>For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.</p>
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<p>This plan must be prepared in consultation with relevant landholders and government agencies. The Groundwater EMP must be consistent with the Murray Darling Basin Authority's "Groundwater Quality Guideline" and "Groundwater Sampling and Analysis Field Guideline" and the National Water Commission's "Australian Groundwater Modelling Guidelines".</p> <p>The Leaseholder must not cause subsidence impacts prior to the Environmental Management Plan being approved.</p> <p>The EMP must be developed in sufficient time to allow at least 2 years baseline data to be collected prior to extraction commencing, unless otherwise authorised by the Director Environmental Sustainability &amp; Land Use.</p> <p><b>Note:</b> The plan should be submitted to the Director Environmental Sustainability &amp; Land Use at least 30 days prior to the expected commencement of operations to enable sufficient time for the assessment of the plan. The Director Environmental Sustainability &amp; Land Use may require the provision of further information to assist in the assessment of the plan or a resubmission of the plan if it is considered inadequate. Complex issues or the need for additional information or a resubmission of the plan may require a longer assessment period.</p>	Compliant	<p>Groundwater Management Plan (7/01/16) and reviewed internally every 3 years.</p>																								
<b>Infrastructure and Property Management</b>																										
14.1	<p>The Leaseholder must submit to the Director Mine Safety Operations for approval management plans for the following infrastructure that may be affected by subsidence. These plans must be developed in consultation with:</p> <p>a) the owners/operators of the infrastructure; and  b) any Government Agency with a regulatory role for the infrastructure.</p> <p>The Leaseholder must not cause any subsidence impacts to any of the infrastructure listed below prior to the management plans for the said infrastructure being approved:</p> <p>i) The Main Southern Railway and associated structures and infrastructure;  ii) The Picton-Mittagong Loop Line and associated structures and infrastructure;  iii) Public amenities and commercial structures;  iv) Tahmoor Town Centre;  v) Potable water infrastructure;  vi) Sewer infrastructure;  vii) Telecommunication infrastructure;  viii) Gas infrastructure;  ix) Electricity infrastructure;  x) Public roads and streets and associated structures;  xi) Industrial, commercial and business establishments within the Bridge St Industrial Area, in particular, any buildings, equipment or operations within the Industry Area, which are sensitive to ground movements, and  xii) Any other infrastructure that may be required by the Director Mine Safety Operations for subsidence management.</p>	Compliant	<p>Tahmoor Coking Coal Operations has prepared all necessary Infrastructure SMPs in consultation with relevant Stakeholders prior to LW27-30. No subsidence within this area prior to approval of SMP.</p>																							
14.2	<p>The Leaseholder must submit to the Director Mine Safety Operations for approval management plans to manage the safety and serviceability of any residential and farm buildings and associated structures that may be affected by subsidence. These plans must be developed in consultation with the Mine Subsidence Board.</p> <p>The said management plans must contain adequate management measures to be developed based on information obtained from site-specific investigations, where they are necessary and appropriate, into the conditions of buildings and associated structures and their surrounding environment (where access is allowed). The said investigations must be undertaken by a suitably qualified engineer.</p> <p>The Leaseholder must not cause any subsidence impacts upon any residential and farm buildings and associated structures not owned by the Leaseholder prior to the management plans required under this Condition being approved.</p>	Compliant	<p>Refer to Built Structures Management Plans for LW28 to 30.</p>																							
14.3	<p>The leaseholder must ensure that subsidence impacts to the sewer pipes traversing Myrtle Creek do not result in any pollution of Myrtle Creek.</p>	Compliant	<p>Refer to Sydney Water Sewer SMP for LWs 28 to 30</p>																							

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Public Safety</b>				
15	<p>The Leaseholder must prepare and implement a public safety management plan to ensure public safety in any structures, houses and surface areas that may be affected by subsidence, to the satisfaction of the Director, Mine Safety Operations.</p> <p>The plan must include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a) regular monitoring and identification of houses which are hazardous or could become hazardous due to subsidence impacts;</li> <li>b) regular monitoring of areas or infrastructure/structures posing safety risks;</li> <li>c) regular monitoring of any areas with cliff formations and/or steep slopes that may be affected by subsidence;</li> <li>d) regular monitoring of any farm dams affected by subsidence, which may pose safety risks to the public;</li> <li>e) measures to prevent, mitigate and remediate hazards and safety risks referred to in a) to d) above</li> <li>f) erection of warning signs;</li> <li>g) entry restrictions;</li> <li>h) backfilling of dangerous surface cracks;</li> <li>i) securing of unstable built structures or rockmass where required and appropriate; and</li> <li>j) provision of timely notification of proposed mining progress to the community and any other relevant stakeholders where management of public safety is required.</li> </ul> <p>The Leaseholder must not commence longwall mining prior to the public safety management plan being approved.</p>	Compliant	Refer to Public Safety Management Plan for LW27 to 30. End of Panel Reports provide an update to site activities.	
<b>Incident and Ongoing Management Reporting</b>				
16	<p>The Leaseholder must, within 24 hours of becoming aware of the occurrence, notify:</p> <ul style="list-style-type: none"> <li>i. the Principal Subsidence Engineer;</li> <li>ii. the Director, Environmental Sustainability &amp; Land Use;</li> <li>iii. the Mine Subsidence Board;</li> <li>iv. the NSW Office of Water;</li> <li>v. the operators of all infrastructure as listed in condition 14; and</li> <li>vi. other relevant stakeholders and any Government Agency with a regulatory role if they request such notification, of the following:</li> </ul> <ul style="list-style-type: none"> <li>(a) Any significant unpredicted and/or higher-than-predicted subsidence and/or abnormalities in the development of subsidence;</li> <li>(b) Any exceedance of predicted impacts on groundwater resources and/or the natural environment that may have been caused (whether partly or wholly) by subsidence;</li> <li>(c) Any observed subsidence impacts adverse to the serviceability and/or safety of infrastructure and other built structures that may be affected by longwall mining;</li> <li>(d) Any significant subsidence-induced cracking and/or ground deformations observed in any surface areas within the SMP application area;</li> <li>(e) Any buildings, structures and infrastructure, which have become or are likely to become hazardous as a result of subsidence, and</li> <li>(f) Development of instability and/or falls of rocks within any areas with cliff formations and/or steep slopes that may have been affected by subsidence.</li> </ul> <p><b>Note:</b> Under Condition 11, the Leaseholder/der can be directed to, among other things, prepare a report on an incident reported under this condition. A report on the details of the incident, including likely or known causes, response action and proposed response measures will generally be required for incidents that involve material property or environmental damage or have the potential to cause such damage.</p>	Compliant	Refer to CMO Subsidence Incident Reporting System provides notifications to all stakeholders as required.	
<b>Status Report</b>				
17	<p>The Leaseholder must prepare and maintain a Subsidence Management Status Report which must include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) the current face position of the panel being extracted;</li> <li>(b) a summary of any subsidence management actions undertaken by the Leaseholder in the period subsequent to the last regular submission of the Status Report;</li> <li>(c) a summary of any comments, advice and feedback from consultation with stakeholders in relation to the implementation of this Approval (including the preparation, implementation and review of plans, programmes, reports or strategies required by this approval) undertaken or received in the period subsequent to the last regular submission of the Status Report and a summary of the Leaseholder's response to the comments, advice and feedback given by the stakeholders;</li> <li>(d) a summary of the observed and/or reported subsidence impacts, incidents, service difficulties, community complaints, and any other relevant information reported to the Leaseholder in the period subsequent to the last regular submission of the Status Report and a summary of the Leaseholder's response to these impacts, incidents, service difficulties and complaints;</li> <li>(e) a summary of subsidence development based on monitoring information compared with any defined triggers and/or the predicted subsidence to facilitate early detection of potential subsidence impacts;</li> <li>(f) a summary of the adequacy, quality and effectiveness of the implemented management processes based on the monitoring and consultation information summarised above; and</li> <li>(g) a statement regarding any additional and/or outstanding management actions to be undertaken or the need for early responses or emergency procedures to ensure adequate management of any potential subsidence impacts due to longwall mining.</li> </ul> <p>The Subsidence Management Status Report must be updated at least every 14 days to reflect any changes in the information required to be included in the Report. The Status Report must be regularly submitted to the Principal Subsidence Engineer, NSW Office of Water, EPA and each operator of infrastructure referred to in condition 14 every four (4) months from the date of this Approval. In addition, the Status Report (as updated from time to time) must be provided, upon request, to the Mine Subsidence Board, the Director of Environmental Sustainability &amp; Land Use, the Principal Subsidence Engineer, owners/operators of any infrastructure within the application area and any other relevant stakeholders.</p>	Compliant	<p>Refer to Subsidence Management Status Reports for LW28 to 30:</p> <ul style="list-style-type: none"> <li>* Report No. R05-07 for LW28.</li> <li>* Report No. R08-10 for LW29.</li> <li>* Report No. R11-13 for LW30.</li> </ul> <p>Reports generally cover the requirements of this condition. Tahmoor provided links to the regular updates.</p>	
<b>End of Panel Report</b>				
18	<p>Within 4 months of the completion of each longwall panel, an end of panel report must be submitted to the Director General. The end of panel report must:</p> <ul style="list-style-type: none"> <li>a) include a summary of the subsidence and environmental monitoring results for the applicable longwall panel;</li> <li>b) include an analysis of these monitoring results against the relevant; <ul style="list-style-type: none"> <li>• performance measures specified in Table 1</li> <li>• impact assessment criteria;</li> <li>• monitoring results from previous panels; and</li> <li>• predictions in the SMP;</li> </ul> </li> <li>c) identify any trends in the monitoring results over the life of the activity; and</li> <li>d) describe what actions were taken to ensure adequate management of any potential subsidence impacts due to longwall mining.</li> </ul>	Compliant	Refer to End of Panel Reports for LW28 to 30	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p> <p>For general subsidence recommendations refer to DGS Report (2018) which is an appendix to the audit report.</p>
<b>Access to Information</b>				
19	<p>Within 3 months of the submission of an End of Panel Report (as required by Condition 18) or the approval of a plan, programme or strategy required under this Approval or the SMP (or any subsequent revision of these documents), the Leaseholder must, to the satisfaction of the Director-General:</p> <ul style="list-style-type: none"> <li>(a) provide a copy of these documents to all relevant agencies;</li> <li>(b) ensure that a copy of the relevant documents is made publicly available at the Leaseholder's regional office; and</li> <li>(c) put a copy of the relevant documents on the Leaseholder's website.</li> </ul> <p><b>Note:</b> Relevant agencies currently include MSB, EPA, NOW and DP&amp;I.</p>	Compliant	Evidence of submission of documentation to government agencies. Evidence of reporting on the website. Refer to Tahmoor Coal website (www.Tahmoorcoal.com.au).	
<b>Survey Marks</b>				
20	At the completion of subsidence, or otherwise as required by the Land and Property Management Authority, the functionality of any survey marks affected by subsidence must be fully restored to the satisfaction of the Land and Property Management Authority.	Compliant	Refer to LW27-30 State Survey Mark SMP.	
<b>Water Supply</b>				
21	In the event of interruptions to potable water supplies (water quality and/or quantity) due to subsidence impacts on water supply systems and/or sources caused by longwall mining, the Leaseholder must provide, without delay, water supplies of equivalent quality and quantity to locations convenient to those affected within the SMP Application Area until such time that the affected water supply systems and/or sources are restored.	Compliant	Refer to Potable Water SMP for LW28-30. There have been evidence of impacts to potable water supplies through documentation provided at the audit. Mitigation measures for effectively implemented.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Independent Environmental Audit</b>				
22	<p>As may be directed by the Director Environmental Sustainability &amp; Land Use in accordance with section 246P of the Mining Act, the Leaseholder must commission and pay the full cost of an Independent Environmental Audit of the activity. This audit must:</p> <p>a) be conducted by a suitably qualified, experienced, and independent person/s whose appointment has been endorsed by the Director Environmental Sustainability &amp; Land Use;</p> <p>b) have the scope developed in consultation with the relevant agencies and agreed to by the Director Environmental Sustainability &amp; Land Use;</p> <p>c) assess the environmental performance of the activity, and its effects on the surrounding environment, particularly with respect to Myrtle and Redbank Creeks;</p> <p>d) assess whether the activity is complying with the relevant standards, performance measures and statutory requirements including compliance with this approval;</p> <p>e) review the SMP and any strategy/plan/programme required under this Approval; and, if necessary;</p> <p>f) recommend measures or actions to improve the environmental performance of the activity, and/or the SMP and other strategy/plan/programme required under this Approval.</p> <p><i>Note: It is the role of the reporting and auditing required under this Approval to inform the Leaseholder, the Department and other stakeholders of the effectiveness of the implementation of the terms of this Approval. The Leaseholder is expected to be proactive in identifying areas where impacts from the longwall mining can be better managed and implement necessary measures and, where necessary, amend any approved plans, programmes or strategies to ensure that this is achieved. Condition 4 of the Approval permits the Director General to amend the terms of this approval at any time. This power will generally only be exercised where the terms of this Approval and/or the carrying out of this project is causing impacts that the Department considers to be unreasonable. The Department or other Government agencies may consider other enforcement action if environmental impacts caused by the longwall mining which is the subject of this Approval is in breach of legislative requirements - proactive action by the Leaseholder will be taken into consideration when considering any enforcement action.</i></p>	Compliant	Refer to IEA Report for Oct 2014 - Sep 2017 (March, 2018) by a qualified independent environmental auditor. Assessed compliance against SMP's.	
<b>Special Conditions</b>				
23	The Leaseholder must submit, on a weekly interval, a subsidence impact log to the Mine Subsidence Board and the Principal Subsidence Engineer. The format and its written and graphic presentation of the required log must be developed to the satisfaction of the Principal Subsidence Engineer.	Compliant	Refer to weekly Subsidence Impact logs for audit period. Evidence noted at site during meeting with subsidence co-ordinator.	



## Subsidence Management Plan Approval - Longwall 31

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Limits on Approval</b>				
1	The Leaseholder must carry out the activity strictly in accordance with the SMP Approved Plan.	Compliant	* SMP Approval No 17/57494 for LW31 (DRG Letter, 30/4/17). Mining in LW 31 commenced in June 2017, hence falling within the audit period	
2	The Leaseholder must carry out the activity generally in accordance with the: a) SMP; b) The Development Consents, and c) EIS, subject to the conditions of this Approval.  In the event of any inconsistency between the conditions of this Approval and the SMP, Development Consents or EIS, the conditions of this Approval prevail to the extent of any inconsistency.	Compliant	Approved Environmental and Infrastructure Management Plans prepared by Tahmoor Coking Coal Operations prior to mine subsidence development and consequential impacts. Interim SMP approvals requested by Tahmoor Coking Coal Operations and granted by DRG while LW31 Shallow Groundwater Hydrological Monitoring Plan prepared.	
3	Where this Approval requires actions to be undertaken by the Leaseholder, including remediation of subsidence impacts, the obligation continues until the Secretary notifies the Leaseholder that the action has been completed to his or her satisfaction.	Observation	Mine seeking approval from DRG in response to a Section 240 Notice to undertake a staged program of grouting works to reinstate Myrtle and Redbank Creek surface flows and drained pools above LW28 to 30.	
4	The Division of Resources and Geosciences may vary the conditions of this Approval by notice in writing.	Observation	Interim approvals limited to 200 m, 400 m, 800 m and Stage 1 pending preparation of the Environmental Management Plan for LW31	
5	The Secretary may, at his or her discretion, suspend or revoke this Approval if: a) the Leaseholder fails to adhere to any condition of the Approval; or b) the head of any other government authority requests suspension or revocation on the basis of the Leaseholder's non-compliance, or potential non-compliance, with legislation administered by that agency in relation to this Approval.	Not Triggered		
<b>General Obligation to Minimise Harm to the Environment</b>				
6	The Leaseholder must implement the SMP (as amended by the conditions of this Approval) and carry out any additional practicable measures (including those identified in the EIS) necessary to prevent any harm to the environment that may result from the construction, operation, or rehabilitation of the activity. Where prevention cannot be achieved the leaseholder is to demonstrate minimisation of harm to the environment that may result from the construction, operation, or rehabilitation of the activity.	Observation	Mine currently seeking approval from DRG in response to a Section 240 Notice to undertake a staged program of grouting works to reinstate Myrtle and Redbank Creek surface flows and drained pools above LW28 to 30.	
<b>Notification of Approval</b>				
7	The Proponent must give notice of this SMP approval within 30 days to the WNSW, NSWoW, OEH, Council, SA, the local Aboriginal Land Council/s, the owners/operators of any infrastructure, and landowners in the application area and any other relevant government agencies or stakeholders that the Secretary's approval of the SMP has been granted.	Compliant	SMP Approval notification letters sent to relevant agencies and announced in local newspapers. Copy of Approval letter placed on www.Tahmoorcoal.com.au website.	
<b>Implementation of Approval</b>				
8	Any plans, programmes, reports or strategies required as a condition of this Approval must be developed having regard to any guidelines adopted by the Secretary for the purpose of subsidence management and mine rehabilitation.	Compliant	Environmental Management Plan and Infrastructure Management Plans for LW31 surface features prepared and approved by DRG (SMP includes Aboriginal and European Heritage sites)	
9	The Leaseholder must implement any plan, programme or strategy required and approved pursuant to this Approval.  <i>Note: The Leaseholder may, at any time, submit an amended plan, programme or strategy for approval. Once approved, the amended plan, programme or strategy must be implemented, however, up until the date of approval, the Leaseholder must continue to implement the previously approved plan, programme or strategy.</i>	Compliant	Interim SMP Approvals for LW31 applied for by Tahmoor Coking Coal Operations while the Environmental Management Plan for LW31 being prepared. Mining commenced in July 2017. No monitoring results have been made available to the audit team at the time of the audit inspection.	
10	Any modifications to plans, programmes or strategies already approved for the purposes of the conditions of this Approval must have regard to the matters set out in condition 8. Amended plans, programmes or strategies submitted for approval must be accompanied by all relevant supporting documentation to assist in the assessment of the amendment or modification.  <i>Note: This condition relates to plans, programmes and strategies required by the conditions of this Approval – it does not apply to variations to the SMP or the SMP Approved Plan which must be done in accordance with the requirements of the Mining Act, the conditions of title and the variation procedures identified in the SMP guidelines.</i>	Compliant	see 8. and 9.	
<b>Directions</b>				
11	The Leaseholder must comply with any written direction given by the Secretary, Director ESU, Director Mine Safety Operations or Principal Subsidence Engineer relating to: a) the implementation of any aspect of the SMP or an approved plan, programme or strategy; b) assessing or reviewing the adequacy, effectiveness, or coverage of any approved plan, programme or strategy or any aspect of the SMP; c) the type, timing and/or location of monitoring of baseline conditions, subsidence or subsidence impacts; d) any reporting requirement under this Approval; e) the carrying out of works to address subsidence impacts; and/or f) the carrying out of any studies or investigations related to subsidence or subsidence impacts and the reporting of any findings or conclusions.  The obligations under this condition prevail over any other obligation under this Approval.  <i>Note: Compliance with a written direction will not operate as a defence to a breach of any obligation under this Approval that occurred prior to the Direction being given.</i>	Compliant	Tahmoor Coking Coal Operations has prepared all necessary SMPs in consultation with relevant Stakeholders prior to LW31. Consultation as required throughout the mining process.	
<b>Environmental Management Plan</b>				
12	The Leaseholder must submit to the Director ESU for approval an Environmental Management Plan (EMP) for the panels which are the subject of this Approval. This plan must address subsidence impacts on: a) surface and groundwater (quality and quantity); b) flora and fauna c) archaeological sites; and d) any other significant environmental features that may be effected by subsidence resulting from the proposed longwall extraction  The leaseholder must not operate other than in accordance with an Environmental Management Plan (EMP) approved by the Director Environmental Sustainability. This plan must address subsidence impacts above and must include: a) a detailed monitoring programme; b) trigger levels for subsidence impacts that require actions and responses; c) the procedures that would be followed in the event that the monitoring indicates an exceedance of trigger levels; d) measures to mitigate, remediate and/or compensate any identified impacts; e) a protocol for the notification of identified exceedances of the trigger levels; and f) a contingency plan. g) annual reporting procedures  This plan must be prepared in consultation with relevant landholders and government agencies.  The Leaseholder must not cause subsidence impacts prior to the Environmental Management Plan being approved.  <i>Note: The plan should be submitted to the Director ESU at least 30 days prior to the expected commencement of operations to enable sufficient time for the assessment of the plan. The Director Environmental Sustainability may require the provision of further information to assist in the assessment of the plan or a resubmission of the plan if it is considered inadequate. Complex issues or the need for additional information or a resubmission of the plan may require a longer assessment period.</i>	Compliant	DRG Approved Subsidence Monitoring Programs for LW31 prepared. Meets the requirements of this condition.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action								
<b>Shallow groundwater hydrological investigation and monitoring plan</b>												
13	<p>a) Prior to undermining of Redbank Creek by LW31 the titleholder shall seek the approval of Director ESU, and execute to the satisfaction of the Department, a shallow groundwater hydrological investigation and monitoring plan within the LW 31 impact zone.</p> <p>b) The shallow groundwater hydrological investigation and monitoring plan should include, but not be limited to:</p> <p>i. Characterise pre-mining lithology and fracture networks in the shallow aquifers down to 50m below creek level.</p> <p>ii. Provide multi-level groundwater monitoring within close proximity to the Redbank creek line within the LW31 impact zone.</p> <table border="1"> <thead> <tr> <th>Piezometer</th> <th>Screen depths</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5 m below initial water strike</td> </tr> <tr> <td>2</td> <td>20 m below initial water strike.</td> </tr> <tr> <td>3</td> <td>50m below initial water strike.</td> </tr> </tbody> </table>	Piezometer	Screen depths	1	5 m below initial water strike	2	20 m below initial water strike.	3	50m below initial water strike.	Compliant	Refer to LW31 EMP - Stage 1 for LW31 (22/09/17).	
	Piezometer	Screen depths										
1	5 m below initial water strike											
2	20 m below initial water strike.											
3	50m below initial water strike.											
	<p>iii. Monitoring boreholes should be designed and located to reduce the risk of damage from subsidence (e.g. steel cased). If damaged during mining, a new bore is to be drilled to reinstate groundwater monitoring piezometers following mining.</p> <p>iv. Groundwater levels should be monitored (for pressure/depth plus electrical conductivity) at hourly intervals.</p> <p>v. Based on results of the water level monitoring, model groundwater behaviour through the cross section of Redbank Creek in both pre-mining and post-mining conditions.</p> <p>vi. Use pre-mining and post-mining shallow groundwater data to inform rehabilitation plans, objectives and completion criteria.</p> <p>c.) Submit pre-mining and post-mining monitoring data and modelling results of the shallow groundwater hydrological investigation and monitoring plan in the End of Panel Report.</p> <p>d.) Provide raw groundwater, surface water and ecological data if requested by Department or OEH in the format as reasonably required</p>	Compliant	Implementation of this section underway during audit with report pending.									
<b>Incident and Ongoing Management Reporting</b>												
14	<p>The Leaseholder must, within 24 hours of becoming aware of the occurrence, notify:</p> <p>a) the Principal Subsidence Engineer;</p> <p>b) Director ESU;</p> <p>c) SA;</p> <p>d) NSWOW;</p> <p>e) other relevant stakeholders and any Government Agency with a regulatory role if they request such notification, of the following:</p> <p>i. Any significant unpredicted and/or higher-than-predicted subsidence and/or abnormalities in the development of subsidence;</p> <p>ii. Any exceedance of predicted impacts on groundwater resources and/or the natural environment that may have been caused (whether partly or wholly) by subsidence;</p> <p>iii. Any observed subsidence impacts adverse to the serviceability and/or safety of infrastructure and other built structures that may be affected by longwall mining;</p> <p>iv. Any significant subsidence-induced cracking and/or ground deformations observed in any surface areas within the SMP application area;</p> <p>v. Any buildings, structure and infrastructure, which have become or likely to become hazardous as a result of subsidence, and</p> <p>vi. Development of instability and/or falls of rocks within any areas with cliff formation and/or steep slopes that may have been affected by subsidence.</p> <p>f) the operators of infrastructure affected by subsidence.</p> <p><b>Note:</b> Under Condition 11, the Leaseholder can be directed to, among other things, prepare a report on an incident reported under this condition. A report on the details of the incident, including likely or known causes, response action and proposed response measures will generally be required for incidents that involve material property or environmental damage or have the potential to cause such damage.</p>	Not Triggered	No incidents provided to the audit team relating to LW 31 during the audit period.									
<b>Status Report</b>												
15	<p>The Leaseholder must prepare and maintain a Subsidence Management Status Report which must include but not be limited to:</p> <p>a) the current face position of the panel being extracted;</p> <p>b) a summary of any subsidence management actions undertaken by the Leaseholder;</p> <p>c) a summary of any comments, advice and feedback from consultation with stakeholders in relation to the implementation of this Approval (including the preparation, implementation and review of plans, programmes, reports or strategies required by this approval) undertaken or received and a summary of the Leaseholder's response to the comments, advice and feedback given by the stakeholders;</p> <p>d) a summary of the observed and/or reported subsidence impacts, incidents, service difficulties, community complaints, and any other relevant information reported to the Leaseholder and a summary of the Leaseholder's response to these impacts, incidents, service difficulties and complaints;</p> <p>e) a summary of subsidence development based on monitoring information compared with any defined triggers and/or the predicted subsidence to facilitate early detection of potential subsidence impacts;</p> <p>f) a summary of the adequacy, quality and effectiveness of the implemented management processes based on the monitoring and consultation information summarised above; and</p> <p>g) a statement regarding any additional and/or outstanding management actions to be undertaken or the need for early responses or emergency procedures to ensure adequate management of any potential subsidence impacts due to longwall mining.</p> <p>The Subsidence Management Status Report must be updated at least every 14 days to reflect any changes in the information required to be included in the Report. The Status Report (as updated from time to time) must be provided, upon request, to SA, the Director of ESU, the Principal Subsidence Engineer, owners/operators of any infrastructure within the application area and any other relevant government agencies.</p>	Compliant	Evidence provided for status reports for LW 31. These reports have been prepared to meet these requirements. Evidence of regular reporting during the audit period.									
<b>Annual Report</b>												
16	<p>a) The Leaseholder shall prepare an annual report. This report shall be submitted to the Secretary within twelve months of the date of this approval and annually thereafter. The annual report must:</p> <p>b) include a summary of the subsidence and environmental monitoring results for the year;</p> <p>c) include an analysis of these monitoring results against the relevant:</p> <p>* impact assessment criteria;</p> <p>* monitoring results from previous panels; and</p> <p>* predictions in the SMP;</p> <p>d) identify any trends in the monitoring results over the life of the activity; and</p> <p>e) describe what actions were taken to ensure adequate management of any potential or actual subsidence impacts due to mining.</p> <p><b>Note:</b> The requirement of this condition may be satisfied via an Annual Review prepared under conditions of development consent or project approval.</p>	Not Triggered	AEMR for LW31 not required until after audit period									

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Access to Information</b>				
17	<p>a) Within 3 months of the submission of an Annual Report (as required by Condition 18) or the approval of a plan, programme or strategy required under this Approval or the SMP (or any subsequent revision of these documents), the Leaseholder must:</p> <p>b) provide a copy of these document/s to all relevant agencies;</p> <p>c) ensure that a copy of the relevant documents is made publicly available at the Leaseholder's regional office; and</p> <p>d) put a copy of the relevant document/s on the Leaseholder's website.</p> <p><b>Note:</b> Relevant agencies currently include SA, OEH, NSWoW and DP&amp;E.</p>	Not Triggered	LW31 currently mining	
<b>Survey marks</b>				
18	At the completion of subsidence, or otherwise as required by the Land and Property Management Authority, the functionality of any survey marks affected by subsidence must be fully restored to the satisfaction of the Land and Property Management Authority.	Not Triggered		
<b>Water Supply</b>				
19	In the event of interruptions to potable water supplies (water quality and/or quantity) due to subsidence impacts on water supply systems and/or sources caused by longwall mining, the Leaseholder must provide, without delay, water supplies of equivalent quality and quantity to locations convenient to those affected within the SMP Application Area until such time that the affected water supply systems and/or sources are restored.	Not Triggered		

# Mining Lease No. 1376 Dated 28 August AD 1995

Note: Covers the area of the 1994 Consent

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Methods of Operation</b>				
1	The lease holder shall extract as large a percentage of the coal in the subject area as is possible consistent with the provisions of the Coal Mines Regulation Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Compliant	* 2015 MOP includes material production and waste schedule in Table 2.2. 2014, 2015 and 2016 production reported in the Annual Reviews did not exceed MOP production targets.	
<b>Barriers</b>				
2	(10) The lease holder shall not work or cause to be worked any seam of coal within the subject area without leaving, if the Minister so directs, a barrier of such width or a protective pillar or pillars of such size or sizes against any surface improvements or any feature natural or artificial.	Not Triggered		
3	(12) The lease holder unless with the consent of the Minister and subject to such conditions as the Minister may impose shall not work or cause to be worked any seam of coal by underground methods within the barrier defined as follows:-  * The land in the subject area within the zone adjacent to the Main Southern Line or the Mittagong - Picton Loop Line of the State Railway enclosed by an angle of draw of 35 0 from the vertical plane of the boundary parallel to and thirty (30) metres horizontally distant from either side of the railway lands, such angle of draw being measured outwards from the point on the vertical plane of the said boundary at the surface or at the level of the horizontal plane of the railway track, whichever may be the higher, to the floor of the coal seam in which mining operations are being carried out.	Not Triggered		
4	The lease holder, unless with the consent of the Minister and subject to such conditions as the Minister may impose, shall not work or cause to be worked any seam of coal by underground methods within the barrier contained by an angle of draw of 26.5 0 measured inwards from the vertical plane of the boundaries of Thirlmere Lakes National Park, to the floor of the coal seam in which mining operations are being carried out.	Not Triggered		
5	[16] The lease holder shall comply with any direction given or which may be given by the Minister regarding the dumping, depositing or removal of any material extracted during the construction of any shaft, drift or adit on the subject II area.	Not Triggered	* Not triggered. No shafts on the lease.	
6	[17] Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	Not Triggered	* Not triggered No shafts on mining lease.	
<b>Escape of Water</b>				
7	(22) The lease holder shall provide and maintain efficient means to prevent contaminated waters discharging or escaping from the subject area onto surrounding areas.	Compliant	* Soil and Water Management Plan. * Spill Response Procedure to prevent contamination. * Tahmoor built the water treatment plant. * Implementing other water management controls. * Undertaking water monitoring.	
<b>Dust</b>				
8	(23) The lease holder shall take such precautions as are necessary to abate any dust nuisance.	Compliant	* AQGHGMP. * Air quality TARP. * Monitoring points. * Undertaking dust management controls.	
<b>Management and Rehabilitation of Lands (General)</b>				
9	[27] The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	Compliant	* Normal external fences weren't modified during the audit period. * No recent repairs to any fences outside of the immediate operation (and within the lease area). * Didn't report any fences being interfered with in the 2014, 2015 or 2016 Annual Reviews.	
10	[28] The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	Not Triggered	* Not triggered. No such instruction from the Minister.	
11	[29] Subject to any specific condition of this authority providing for rehabilitation of any particular part of the subject area affected by mining or activities associated therewith, the lease holder shall;  (a) shape and revegetate to the satisfaction of the Minister, any part of the subject area that may, in the opinion of the Minister have been damaged or deleteriously affected by mining operations and ensure such areas are permanently stabilised, and,  (b) reinstate and make safe, including sealing and/or fencing, any excavation within the subject area.	Compliant	* Extensive works have been undertaken to repair damage caused by subsidence.	
12	[30] If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Not Triggered	* Not triggered. No such stipulations by the Minister. * But do undertake surveys of structures, buildings and pipelines on adjacent landholdings.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
13	<p>[31]</p> <p>(a) The lease holder shall each year once operations have commenced, submit for the Minister's approval an "Annual Environmental Management Report" relating to the operations of the lease holder on the subject area.</p> <p>(b) The date by which the Report must be submitted will be determined by the Minister after consulting with the lease holder.</p> <p>(c) The Report shall comprise:</p> <p>(i) a plan showing short, medium and long term mining plans;</p> <p>(ii) a rehabilitation report (in respect of open cut operations) and/or a surface environmental management report (in respect of underground operations);</p> <p>(iii) a review of performance in terms of Environment Protection Authority and Department of Water Resources licence and approval conditions (related to the Clean Air Act 1961, the Clean Waters Act 1970, the Noise Control Act 1975, the Environmentally Hazardous Chemical Act 1985, the Pollution Control Act 1970 and the Water Act 1912) applicable to the subject area;</p> <p>(iv) a review of performance in terms of Development Consent conditions for the subject area;</p> <p>(v) a listing of any variations obtained to approvals applicable to the subject area during the previous year.</p> <p>(d) The Minister may, by notice in writing, direct the lease holder to D28 undertake any operations or remedial actions in such manner and within such period as may be specified in that notice so as to ensure that operations on the subject area conform to the requirements of relevant statutory approvals or licences.</p>	Compliant	<p>(a) Yearly Annual Reviews reviewed.</p> <p>(b) All Annual Reviews were submitted prior to the due date (end of March of each year).</p> <p>(c) The 2014, 2015 and 2016 Annual Reviews include:</p> <p>(i) A plan showing short, medium and long term mining plans;</p> <p>(ii) Rehabilitation monitoring program reports are attached to the 2014 and 2016 Annual Reviews. A summary is included in the 2015 Annual Review.</p> <p>(iii) A review of performance in terms of Environment Protection Authority and Department of Water Resources licence and approval conditions included in Table 1 statement of compliance in 2017 and 2016 Annual Reviews.</p> <p>(iv) A review of performance in terms of Development Consent conditions for the subject area. Table 2 in 2015 and 2016 Annual Review includes non-compliances.</p> <p>(v) No variations to environmental approvals applicable to the lease area.</p> <p>(d) Directive from DRG regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted Corrective Action Plan in June 2017. Directive from DPE, including a PIN - letter dated 4 May 2018.</p>	<p>As per overall recommendation for Annual Reviews - See Condition 45 of 1999 Development Consent.</p> <p>* Include water quality results from previous years in future Annual Reviews.</p> <p>* Include comparisons against predictions of the EA for water quality in future Annual Reviews.</p> <p>* Provide trends for all data, not just dust, in future Annual Reviews.</p> <p>* Identify discrepancies between the predicted and actual impacts for water quality, in future Annual Reviews.</p> <p>* Progress in respect of rehabilitation completion criteria needs to be reported in future Annual Reviews.</p> <p>* Future Annual Reviews should report discharge volumes, in accordance with Section 7 of the Annual Review Guideline, dated October 2015.</p> <p>* Future Annual Reviews should include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</p> <p>* Future Annual Reviews should include a summary of non-compliances in Section 11, in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</p> <p>* Future Annual Reviews should include in Section 12 a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</p> <p>* Additional subsidence reporting as per recommendations from DGS Report (Section 6)</p>
14	<p>[32]</p> <p>If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by the lease holder.</p>	Compliant	<p>* Directive from DRG (now under DPE) regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted CMA Plan in June 2017. Tahmoor Coking Coal Operations hadn't yet received any feedback at the time of the site inspection component of the audit. However Tahmoor Coking Coal Operations provided SLR evidence of a PIN, dated 4/5/2018.</p>	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p>
15	<p>[33]</p> <p>Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.</p>	Not Triggered	<p>* Site still operating.</p>	
16	<p>[34]</p> <p>If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.</p>	Compliant	<p>* Directive from DRG (now under DPE) regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted CMA Plan in June 2017. Tahmoor Coking Coal Operations hadn't yet received any feedback at the time of the site inspection component of the audit. However Tahmoor Coking Coal Operations provided SLR evidence of a PIN, dated 4/5/2018.</p>	<p>Ensure CMA Plan is implemented when required in the future.</p> <p>Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback</p>
17	<p>[35]</p> <p>The lease holder shall maintain the subject area in a clean and tidy condition at all times.</p>	Compliant	<p>* Designated resource for maintenance at site.</p> <p>* Contractors manage waste.</p> <p>* Waste Management Plan, dated 10 November 2015.</p> <p>* There is a lot of waste material (old parts etc) at site, with much of this unlikely required for future operations.</p>	<p>* Recommend that plans are developed to remove/recycle waste material (old parts etc) from the site.</p>
18	<p>[36]</p> <p>The lease holder shall take all precautions against causing outbreak of fire on the subject area.</p>	Compliant	<p>* Bushfire Management Plan, dated 13 March 2014.</p> <p>* RFS planned to do burning off this year but didn't. Will undertake burning off next year.</p> <p>* Site representative attends RFS meetings on a quarterly basis to stay informed.</p> <p>* Grounds Manager maintains the site, including the fire breaks.</p>	
<b>Blasting</b>				
19	<p>[37]</p> <p>(a) Ground Vibration</p> <p>The lease holder shall ensure that the ground vibration peak particle velocity generated by any blasting within the subject area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be.</p> <p>(b) Blast Overpressure</p> <p>The lease holder shall ensure that the blast overpressure noise level generated by any blasting within the subject area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be.</p> <p>(c) Blasting will not be carried out outside the hours of 9 am and 3 pm except with the prior notification and approval of the Inspector.</p>	Not Triggered	<p>* Underground operation. Minimal blasting undertaken.</p>	
20	<p>[39]</p> <p>The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area, or any undue interference to fish or their environment.</p>	Not Triggered	<p>* Underground operation. Minimal blasting undertaken.</p>	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Trees (Planting and Protection of) Flora and Fauna and Arboreal Screens</b>				
21	[42] The lease holder shall carry out operations in such a manner as to interfere as little as possible with flora and fauna and shall not cut or damage any tree, shrub or other vegetative cover except such as may directly obstruct or prevent the carrying out of the operations.	Compliant	* MOP document indicates disturbance areas. * Ground Disturbance and Excavation Procedure. * Disturbance during audit period at Dam 3. * Actual areas (totals) of disturbance included in the 2015 and 2016 Annual Review. Map showing proposed disturbance only included in the 2014 Annual Review.	
22	[43] The lease holder shall plant such grasses, trees or shrubs or such other vegetation as may be required by the Minister and care for same during the currency of this authority or any renewal thereof, to the satisfaction of the Minister.	Compliant	* MOP indicates rehabilitation in area. Indicates no rehabilitation undertaken in lease area during the audit period. * RCE includes provision for rehabilitating the last longwall 35.	
23	[44] The lease holder shall not fell trees, strip bark or cut timber on any land within the subject area except with the approval of the owner/occupier and subject to the payment to the owner of the trees, bark or timber of compensation as agreed or as assessed by the Warden.	Compliant	* Development Consent for area (1994 consent) provides approval for disturbance within development area.	
24	[45] The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Not Triggered	* Bund wall is outside the mine lease area.	
25	(46) The lease holder shall cover with top dressing material, to the Minister's satisfaction, such parts of the subject area as may be stipulated by the Minister and shall plant and maintain, to the Minister's satisfaction, such grasses, trees or shrubs or such other vegetation as may be required by the Minister.	Compliant	* MOP contains method for rehabilitation of site. * Subsidence repair within this leases area.	
26	(47) Notwithstanding the provisions of Condition No 21 [42], the lease holder shall not destroy or injure any tree, sapling, shrub or scrub on any protected land, as defined by the Soil Conservation Act, 1938, except in accordance with an authority issued by the Catchment Areas Protection Board, under Section 21D of that Act.	Not Triggered	* Section of Act is now repealed.	
<b>Soil Erosion</b>				
27	[48] The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Compliant	* Cracking identified as part of subsidence inspections. No erosion identified. * Terrestrial Ecology Report - Niche did not identify impacts.	
28	(49) The lease holder shall ensure that any topsoil or other material suitable for topdressing purposes which may be disturbed during operations shall be removed separately for replacement as far as may be practicable and the lease holder shall plant or sow such grasses, shrubs or trees in the replaced surface material as may be considered necessary by the Minister to control or prevent soil erosion.	Not Triggered	None within this lease area.	
29	(50) In the event of any excavations being made the lease holder shall ensure that such are refilled and the topsoil previously removed is replaced and levelled. All such refilling and levelling shall be done to the satisfaction of the Minister.	Not Triggered	None within this lease area. No topsoil removed and no excavations.	
30	(51) The lease holder shall ensure that the run off from any disturbed area including the overflow from any depression or ponded area is discharged in such a manner that it will not cause erosion.	Not Triggered	No ponding identified during end of panel reports.	
<b>Roads</b>				
31	[52] The lease holder shall pay to Wollondilly Council, Department of Land and water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.  PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	Compliant	* Tahmoor Coking Coal Operations monitor for subsidence impacts. * Lodge claims with Council. * Tahmoor repair and are compensated by the MSB.	
32	(53) In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	Not Triggered	* Tahmoor Coking Coal Operations monitor and inform council of impacts. * The council lodge a claim and are compensated by the MSB accordingly. * Minimal fire trails with no impacts identified. * Based on site communication a claim hasn't been lodged for such infrastructure.	



Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Catchment Areas</b>				
33	[55 (c)] The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination, pollution, erosion or siltation of any stream or watercourse or catchment area and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution or siltation of any stream watercourse or catchment area.	Compliant	Instructions to complete the remediation plan for Redbank Creek and Myrtle Creek subsidence. This plan has not been signed off, therefore no work has commenced.	
34	[56 (a)] The lease holder shall make such provisions for sanitation as may be directed by the Water Board and shall at all times observe and perform any requirements of the said Board respecting sanitation.	Compliant	There is a Sydney Water Sewer Management Plan for different longwalls, including LW28 to LW31. Consultation with the MSB and Sydney Water to develop the plans. There has been a significant amount of monitoring by Tahmoor Coking Coal Operations including tilt metres. There has been mitigation measures prior to and after impacts. There has been a large amount of monitoring completed by Tahmoor Coking Coal Operations and contractors. 'Water bombing' is completed if sewer backs up to a certain level.	
<b>Transmission Lines, Communication Lines and Pipelines</b>				
35	[62] The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Compliant	* No such direction received from the Minister. * End of panel report for LW29, dated August 2016. No repairs conducted on transmission lines or pipelines which were monitored. Some repair work required for communication lines.	
<b>Aboriginal Place or Relic</b>				
36	[64] The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Compliant	* Draft End of Panel Archaeology Report for LW29, dated July 2016, details monitoring of archaeology sites.	
<b>Labour/Expenditure</b>				
37	[65] The lease holder shall during each year of the term of the authority, commencing after the third anniversary of the lease:- (a) ensure that at least 90 workers are efficiently employed on the subject area or (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$1,575,000-00. The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	Compliant	a) There are approximately 320 people onsite. Stated on Tahmoor Coking Coal Operations fact sheet, dated April 2015. b) The site has spent much more than this amount.	
<b>Additional Information</b>				
38	[66] The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:- (a) information "regarding the ownership of the land within the subject area; (b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982; (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished; (d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and (e) information regarding shareholdings in the lease holder.	Not Triggered	* No information requests regarding such matters.	
<b>Service of Notices</b>				
39	[67] Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow the lease holder shall serve on each owner and occupier of the private land and on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten or more owners or occupiers affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	Not Triggered	* Not triggered. Outside the audit period.	
<b>Inspectors</b>				
40	[68] (a) Where the Inspector is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:- (i) to cease operations within the subject area in contravention of that condition or Act; and (ii) to carry out within the specified time works necessary to rectify or remedy the situation. (b) The lease holder shall comply with the directions contained in notice served pursuant to sub-paragraph (a) of this condition. The Director-General may confirm, vary or revoke any such direction. (c) A notice referred to in this condition may be served on the Colliery Manager.	Compliant	* Directive from DRG (now under DPE) regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted Corrective Action Plan in June 2017. Tahmoor hadn't yet received any feedback at the time of the site inspection component of the audit. However Tahmoor Coking Coal Operations provided SLR evidence of a PIN, dated 4/5/2018. Note, the impacts were self reported by Tahmoor Coking Coal Operations.	Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback. For end of panel reports and AEMR a table should be prepared comparing results observed against the performance outcomes in this table.

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Indemnities</b>				
41	[69] The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges- and expenses- which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the lease holder within the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do hereunder.	Not Triggered	* Crown has been kept indemnified from such matters.	
42	(70) The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Not Triggered	* Crown has been kept indemnified from such matters.	
<b>Prospecting (General)</b>				
43	[71] (a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations. (b) Where the lease holder notifies the Director-General pursuant to sub-paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	Not Triggered	* No exploration during audit period.	
<b>Security Deposit</b>				
44	[72] (a) The lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of \$120,000-00 in accordance with Instructions for Manner of Lodgement of Security Deposits as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of its obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of this clause a lease holder shall be deemed to have failed to fulfil its obligations under this authority, if it fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder. (b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition. (c) Where the amount of security has been increased pursuant to clause (b) hereof the lease holder shall, within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.	Compliant	* Current RCE for the site covers the entire site, including the mining lease. * Current RCE sighted by SLR.	
45	For the purposes of Condition 44 9a), the lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of \$10,000-00as an initial security deposit. However, immediately prior to the commencement of any construction works at the Bridge Street surface site, the security required will increase to a total of \$120,000-00	Not Triggered	Outside the audit period and the project never progressed.	
<b>Recovery of Public Monies Expended</b>				
43	[73] The lease holder shall pay to the Minister the costs and expenses incurred in previously drilling DM Picton DDH 2 and DM Picton DDH 3 within the subject area and Authorisation 410, in the sum of \$195,365 in three (3) equal annual instalments, the first of which shall fall due on 1 July 1996.	Not Triggered		
<b>Special Condition</b>				
47	Prior to the commencement of "second working" extraction lease holder shall give three (3) months written notice of intention to carry out such mining to the owners of overlying land on which there are substantial improvements.	Administrative Non-Compliance	* See letters dated 1 June 2017 to council, government and property owners. * Outlines mining will occur for Longwall 31 within properties, with residents sent a 'Resident Information Pack'. * Proposed timing for Longwall 31 commencement was 30 June 2017 - less than three months notice. * Notified after 1 month of getting approval for the SMP.	* Tahmoor Coking Coal Operations must ensure that prior to the commencement of "second working" extraction they give three (3) months written notice to landowners.

Mining Lease - Mining Act 1992 No 1539 Dated: 16 June 2003

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Extraction of Coal</b>				
1	The lease holder shall extract as large a percentage of the coal in the subject area as is practicable consistent with the provisions of the Coal Mines Regulations Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Compliant	*Mining Operations Plan (MOP) states extraction rates. * SMP provides details about extraction. * Annual Review provides amount of coal extracted.	
<b>Mining, Rehabilitation, Environmental Management Process (MREMP) Mining Operations Plan (MOP)</b>				
2	(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	Compliant	* Original MOP was developed and approved in 25 January 2013. * Current MOP doc is developed in accordance with interim guidelines from 2011 and not the latest version of the guidelines, dated September 2013. However it is acknowledged that the most recent MOP is a MOP Amendment dated October 2015.	* Next version of the MOP document needs to be revised to reflect latest version of the guidelines (ESG3: Mining Operations Plan (MOP) Guidelines, dated September 2013
	(3) A Plan must be lodged with the Director-General:- (a) prior to the commencement of operations; (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General.	Compliant	* 8 October 2015 approval for current amended MOP. Reviewed letter from DPE.	
	(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- (a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) progressive rehabilitation schedules; (f) areas of particular environmental sensitivity; (g) water management systems (including erosion and sediment controls); (h) proposed resource recovery; and (i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation	Compliant	* Reviewed MOP dated Oct 2015. 7 year MOP period. The MOP: (a) shows area(s) proposed to be disturbed under the Plan; (b) shows mining and rehabilitation method(s) to be used and their sequence (Plans); (c) Plans show areas to be used for disposal of tailings/waste; (d) Plans show existing surface infrastructure; (e) Progressive rehabilitation is shown on the MOP plans but a rehabilitation schedule indicating areas to rehabilitated during each year of the MOP term is not included; (f) Plan showing areas of particular environmental sensitivity included in the MOP document; (g) Water management systems is shown on Water Pathways Plan; (h) MOP has proposed resource recovery, with the extraction schedule included; and (i) Not applicable.	* Next version of the MOP document needs to be revised to reflect latest version of the guidelines (ESG3: Mining Operations Plan (MOP) Guidelines, dated September 2013
	(5) The Plan when lodged will be reviewed by the Department of Mineral Resources.	Compliant	* Original MOP was developed and approved on 25 January 2013.	
	(6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and relodgement.	Not Triggered	* Re-lodgement not required.	
	(7) If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.	Compliant	* 8 October 2015 approval for current amended document. Reviewed letter from DPE. * Modification not required.	
	(8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Compliant	* 8 October 2015 approval for current amended document. Reviewed letter from DPE. * Modification not required.	
<b>Annual Environmental Management Report (AEMR)</b>				
3	(1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Compliant	* Reviewed the submission email for the 2016 Annual Review, dated 30 March 2017. * Reviewed the submission email for the 2015 Annual Review, dated 31 March 2016. * Reviewed the submission email for the 2014 Annual Review, dated 31 March 2015. * Reviewed 2014, 2015 and 2016 Annual Reviews.	
	(2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:- (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area. and (f) where relevant, progress towards final rehabilitation objectives.	Compliant	(a) 2014, 2015 and 2016 Annual Reviews provide comparisons with what the MOP said it would do. (b) Statement of compliance against development consent requirements and conditions is included in Table 1 and Table 2 of the 2015 and 2016 Annual Reviews. These tables are not included in the 2014 Annual Review. (c) Summary of Environment Protection Authority and Department of Land and Water Conservation licences and approvals included in 2014, 2015 and 2016 Annual Reviews. (d) Not applicable. (e) Not applicable. No environmental variations. (f) 2014, 2015 and 2016 Annual Reviews provide brief status update regarding progress to rehabilitation objective.	As per overall recommendation for Annual Reviews - See Condition 45 of 1999 Development Consent. * Include water quality results from previous years in future Annual Reviews. * Include comparisons against predictions of the EA for water quality in future Annual Reviews. * Provide trends for all data, not just dust, in future Annual Reviews. * Identify discrepancies between the predicted and actual impacts for water quality, in future Annual Reviews. * Progress in respect of rehabilitation completion criteria needs to be reported in future Annual Reviews. * Future Annual Reviews should report discharge volumes. in accordance with Section 7 of the Annual Review Guideline, dated October 2015. * Future Annual Reviews should include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP in accordance with Section 8 of the Annual Review Guideline, dated October 2015. * Future Annual Reviews should include a summary of non-compliances in Section 11, in accordance with Section 8 of the Annual Review Guideline, dated October 2015. * Future Annual Reviews should include in Section 12 a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period in accordance with Section 8 of the Annual Review Guideline, dated October 2015. * Additional subsidence reporting as per recommendations from DGS Report (Section 6)
	(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.	Compliant	* Directive from DRG regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted Corrective Action Plan in June 2017. Tahmoor Coking Coal Operations hadn't yet received any feedback at the time of the site inspection component of the audit. However Tahmoor Coking Coal Operations provided SLR evidence of a PIN, dated 4/5/2018.	Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback
	(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.	Not Triggered	*Not triggered. No such requests.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Barriers</b>				
11	The lease holder unless with the consent of the Minister and subject to such conditions as the Minister may impose shall not work or cause to be worked any seam of coal by underground methods within the subject area within the barrier defined as follows:  The land in the subject area within the zone adjacent to the Main Southern Line or the Mittagong - Picton Loop Line of the State Railway enclosed by an angle of draw of 35° from the vertical plane of the boundary parallel to and thirty (30) metres horizontally distant from either side of the railways lands, such angle of draw being measured outwards from the point on the vertical plane of the said boundary at the surface or at the level of the horizontal plane of the railway track, whichever may be the higher, to the floor of the coal seam in which mining operations are being carried out.	Compliant	* Approval to subsidise the main southern line for 11 years, since 2007. Provided letters to subsidise, dated 16 December 2016, for LW30. * Approval to subsidise the loop line will be sought in the future.	
<b>Management &amp; Rehabilitation of Lands (General)</b>				
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	Compliant	* Directive from DRG regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted Corrective Action Plan in June 2017. Tahmoor haven't yet received any feedback. * The recorded subsidence effects and environmental impacts are consistent with the predicted non-systematic subsidence movements (valley closure) predicted (according to the Corrective Action Plan). LW27, LW28 and LW29 TARPs were triggered on multiple occasions (according to the Corrective Action Plan). Subsidence event notifications to DRG reported in the Event Report dated 11/9/2017.	Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback
20	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent land holdings to determine the effect of operations on any such structures, buildings and pipelines.	Not Triggered	Not triggered. No such stipulation from the Minister.	
22	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	Not triggered. Site still operating.	
23	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	Compliant	* Directive from DRG regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted Corrective Action Plan in June 2017. Tahmoor haven't yet received any feedback.	Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback
<b>Trees (Planning and Protection of) Flora and Fauna and Arboreal Screens</b>				
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Compliant	* MOP document indicates disturbance areas. * Ground disturbance and excavation procedure. * No disturbance in mining lease during reporting period. * Actual areas (totals) of disturbance included in the 2015 and 2016 Annual Review. Map showing proposed disturbance only included in the 2014 Annual Review.	
<b>Roads</b>				
31	The lease holder shall pay to Wollondilly Shire Council, Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.  PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	Not Triggered	* Not triggered. Site has never had to pay anything above or beyond that paid to the Mine Subsidence Compensation Fund.	
<b>Catchment Areas</b>				
33	(a) Operations shall be carried out in such a way as not to cause any pollution of the Hawkesbury River Catchment Area.  (b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.  (c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.	Compliant	(a) The site discharges to the Nepean River, a tributary of the Hawkesbury River Catchment area. * The site operates under the EPL. (b) No such process undertaken. (c) Water and Soil Management Plan and water management controls in place at site.	
34	The lease holder shall make such provisions for sanitation as may be directed by the Sydney Catchment Authority and shall at all times observe and perform any requirements of the said Authority respecting sanitation.	Not Triggered	Not triggered. Water doesn't reach the waters managed by the Sydney Catchment Authority.	
<b>Transmission Lines, Communication Lines and Pipelines</b>				
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Compliant	* No such direction received from the Minister. * End of panel report. LW29 end of panel report, dated August 2016. No repairs conducted on transmission lines, or pipeline which were monitored. Some repair work on communication line.	
<b>Aboriginal Place or Relic</b>				
43	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Compliant	* Draft End of Panel Archaeology Report for LW29, dated July 2016. Details monitoring of archaeology sites.	
<b>Labour/Expenditure</b>				
44	The lease holder shall during each year of the term of the authority:  (a) ensure that at least 23 workers are efficiently employed on the subject area; or  (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$402,500.00.  The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	Compliant	* 320 persons working on-site (including contractors). Figure included in the site's Fact Sheet, dated 1 April 2015. * Expenditure on the operation exceeds \$402,500.00, in the lifetime of the mine.	
<b>Additional information</b>				
45	The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:  (a) information regarding the ownership of the land within the subject area;  (b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982;  (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder;  (d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and  (e) information regarding shareholdings in the lease holder.	Not Triggered	* Not triggered. Site has not been required by the Minister to furnish such information or indemnity.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Services of Notices</b>				
46	<p>Within a period of three (3) months from the date of this authority or a period of three (3) months from the date of service of the notice of renewal, or within such further time as the Director General may allow, the lease holder shall serve on each landholder within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.</p> <p>If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.</p>	Not Triggered	* Not triggered. Outside the audit period.	
<b>Inspectors</b>				
47	<p>(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:</p> <p>(i) to cease operations within the subject area in contravention of that condition or Act; and</p> <p>(ii) to carry out within the specified time works necessary to rectify or remedy the situation.</p> <p>(b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction.</p> <p>(c) A notice referred to in his condition may be served on the Colliery Manager.</p>	Compliant	* Directive from DRG regarding rehabilitation of Redbank Creek and Myrtle Creek dated October 2016. Submitted Corrective Action Plan in June 2017. Tahmoor haven't yet received any feedback.	Implement agreed actions relating to rehabilitation of Myrtle Creek and Redbank Creek based on DRG feedback
<b>Indemnities</b>				
48	The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expense which may be brought against the lease holder or which the lease holder may incur respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the lease holder within the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do hereunder.	Not Triggered	* Crown has been kept indemnified from such matters.	
49	Lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Not Triggered	* Crown has been kept indemnified from such matters.	
<b>Prospecting (General)</b>				
50	<p>(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.</p> <p>(b) Where the lease holder notifies the Director General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.</p>	Not Triggered	* Not triggered. No prospecting during the reporting period.	
<b>Security Deposit</b>				
51	<p>(a) The lease holder shall, upon request by the Director General, lodge with the Minister the sum of <b>\$10,000.00</b> as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of the lease holder's obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfil the lease holder's obligations under this authority, if the lease holder fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.</p> <p>(b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:-</p> <p>(i) cash, or</p> <p>(ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.</p> <p>(c) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition.</p>	Compliant	* Current RCE worth \$19 million. Submitted on February 2017.	
<b>Condition Required By The Report Dated December 1998 On The Commission Of Inquiry - Tahmoor North Underground Extension Project</b>				
56	<p>(a) The lease holder shall ensure that the second workings in the red tinted area shown on Fig 2 of Commissioner Cleland's report on the Tahmoor North Underground Extension Project, dated December 1998, shall not cause any subsidence in the blue tinted area shown on Fig 2. To effect this requirement, mining in the red tinted area shall not occur within the 26.5° angle of draw at the common boundary with the blue tinted area.</p> <p>(b) The lease holder shall ensure that first workings are designed so as not to cause subsidence at the ground surface as a result of those workings.</p>	Not Triggered	* Mining has not commenced in the area.	
<b>Special Condition</b>				
57	Prior to the commencement of "second working" extraction the lease holder shall give three (3) months written notice of the intention to carry out such mining to the owners of all overlying land on which there are substantial improvements.	Administrative Non-Compliance	<p>* See letters dated 1 June 2017 to council, government and property owners.</p> <p>* Outlines mining will occur for Longwall 31 within properties, with residents sent a 'Resident Information Pack'.</p> <p>* Proposed timing for Longwall 31 commencement was 30 June 2017 - less than three months notice.</p> <p>* Notified after 1 month of getting approval for the SMP.</p>	* Tahmoor must ensure that prior to the commencement of "second working" extraction they give three (3) months written notice to landowners.

# Consolidated Coal Lease No. 716 (Act, 1973)

Tahmoor Coal Pty Limited (A.C.N. 076 633 968)

Date of Lease: 15 June, 1990

Expiry Date of Lease: 13 March 2000

Period of Renewal until: 13 March 2021

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Extraction of Coal</b>				
1	The lease holder shall extract as large a percentage of the coal in the subject areas as is practicable consistent with the provisions of the Coal Mines Regulations Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Compliant	* MOP document states extraction rates. * SMP talks about extraction. * Annual Review provides amount of coal extracted.	
<b>Mining, Rehabilitation, Environmental Management Process (MREMP) Mining Operations Plan (MOP)</b>				
2	(1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- (a) ongoing mining operations and environmental management; and (b) ongoing monitoring of the project.	Compliant	* 8 October 2015 approval for current amended MOP. Reviewed letter from DPE. (a) Ongoing mining operations and environmental management covered in Sections 2 and Section 3, respectively; and (b) Ongoing monitoring of rehabilitation monitoring covered in MOP.	
	(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement	Compliant	* Original MOP was developed and approved in 25 January 2013. * Current MOP doc is developed in accordance with interim guidelines from 2011 and not the latest version of the guidelines, dated September 2013. However it is acknowledged that the most recent MOP is a MOP Amendment dated October 2015.	* Next version of the MOP document needs to be revised to reflect latest version of the guidelines (ESG3: Mining Operations Plan (MOP) Guidelines, dated September 2013)
	(3) A Plan must be lodged with the Director-General:- (a) prior to the commencement of operations; (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General.	Compliant	* 8 October 2015 approval for current amended MOP. Reviewed letter from DPE.	
	(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- (a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) progressive rehabilitation schedules; (f) areas of particular environmental sensitivity; (g) water management systems (including erosion and sediment controls); (h) proposed resource recovery; and (i) where the mine will cease extraction during the term of the plan, a closure plan including final rehabilitation objectives/methods and post mining land use/vegetation.	Compliant	* Reviewed MOP Amendment dated October 2015. 7 year MOP period. (a) MOP shows area(s) proposed to be disturbed under the Plan. (b) MOP shows mining and rehabilitation method(s) to be used and their sequence (Plans). (c) Plans show areas to be used for disposal of tailings/waste. (d) Plans show existing surface infrastructure. (e) Progressive rehabilitation is shown on the MOP plans but a rehabilitation schedule indicating areas to be rehabilitated during each year of the MOP term is not included. (f) Plan showing areas of particular environmental sensitivity included in the MOP document. (g) Water management systems is shown on Water Pathways Plan. (h) MOP has proposed resource recovery, with the extraction schedule included. (i) Not applicable.	* Next version of the MOP document needs to be revised to reflect latest version of the guidelines (ESG3: Mining Operations Plan (MOP) Guidelines, dated September 2013).
	(5) The Plan when lodged will be reviewed by the Department of Mineral Resources	Compliant	* 8 October 2015 approval for current amended MOP. Reviewed letter from DPE.	
	(6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and relodgement.	Not Triggered	* Re-lodgement not required.	
	(7) If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified outlined in (5) - (7) above.	Compliant	* 8 October 2015 approval for current amended document. Reviewed letter from DPE. * Modification not required.	
	8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subjected to the review process outlined in (5) - (7) above.	Compliant	* 8 October 2015 approval for current amended document. Reviewed letter from DPE.	
<b>Annual Environmental Management Report (AEMR)</b>				
3	(1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Compliant	* Reviewed the submission email for the 2016 Annual Review, dated 30 March 2017. * Reviewed the submission email for the 2015 Annual Review, dated 31 March 2016. * Reviewed the submission email for the 2014 Annual Review, dated 31 March 2015. * Reviewed 2014, 2015, 2016 and Annual Reviews.	
	(2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:- (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Environmental Protection Authority and Department of Land and Water Conservation licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area and (f) where relevant, progress towards final rehabilitation objectives	Compliant	(a) 2014, 2015 and 2016 Annual Reviews provide comparisons with the forecasted activities from the MOP. (b) Statement of compliance against development consent requirements and conditions is included in Table 1 and Table 2 of the 2015 and 2016 Annual Reviews. These tables are not included in the 2014 Annual Review. (c) Summary of Environment Protection Authority and Department of Land and Water Conservation licences and approvals included in 2014, 2015 and 2016 Annual Reviews. (d) Not applicable. (e) Not applicable. No environmental variations. (f) 2014, 2015 and 2016 Annual Reviews provide brief status update regarding progress to rehabilitation objective (bushland at REA).	As per overall recommendation for Annual Reviews - See Condition 45 of 1999 Development Consent. * Include water quality results from previous years in future Annual Reviews. * Include comparisons against predictions of the EA for water quality in future Annual Reviews. * Provide trends for all data, not just dust, in future Annual Reviews. * Identify discrepancies between the predicted and actual impacts for water quality, in future Annual Reviews. * Progress in respect of rehabilitation completion criteria needs to be reported in future Annual Reviews. * Future Annual Reviews should report discharge volumes, in accordance with Section 7 of the Annual Review Guideline, dated October 2015. * Future Annual Reviews should include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP in accordance with Section 8 of the Annual Review Guideline, dated October 2015. * Future Annual Reviews should include a summary of non-compliances in Section 11, in accordance with Section 8 of the Annual Review Guideline, dated October 2015. * Future Annual Reviews should include in Section 12 a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period in accordance with Section 8 of the Annual Review Guideline, dated October 2015. * Additional subsidence reporting as per recommendations from DGS Report (Section 6)
	(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions, or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area conducted in accordance with sound mining and environmental practice.	Compliant	Annual Reviews have a section outlining the DPE and DRG reviews. A cross referencing table is included in Annual Reviews outlining where recommendations have been met.	
	(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.	Not Triggered	* Not triggered. No such requests.	
<b>Barriers</b>				
9	The lease holder shall not work or cause to be worked any seam of coal within the subject area without leaving, if the Minister, so directs, a barrier of such width or a protective pillar or pillars of such size or sizes against any surface improvements of any feature whether natural or artificial.	Not Triggered		
13	The lease holder shall not prospect or mine for coal within surface lands within the lease.	Not Triggered		
<b>Shafts, Drifts, Adits</b>				
14	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	Compliant	* Fencing and building around shafts. * Placed material near Stratford Road ventilation shaft to cap the shaft in case of fire. * Letter to Department identifying all shafts had protection around them, dated 26 May 2014.	
<b>Dumps</b>				
15	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.	Compliant	* Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete.	
16	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	Not Triggered	* No such directives for the lease.	



Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Management and Rehabilitation of Lands (General)</b>				
18	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate	Compliant	* Normal external fences aren't modified. * No recent repairs to any fences outside of the operation. * Didn't report any fences being interfered with in the 2014, 2015 or 2016 Annual Reviews.	
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or prevent public inconvenience or damage to public or private property.	Not Triggered	* No such instructions received for the lease.	
20	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	Not Triggered	* Not triggered. No such stipulations by the Minister. * Tahmoor do undertake such surveys themselves.	
21	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Not Triggered	Not triggered for this lease.	
22	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	* Site still operating.	
23	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder	Not Triggered	Not triggered for this lease.	
24	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	Compliant	* Bushfire Management Plan, dated 13 March 2014. * RFS planned to do burning off this year but didn't. Will undertake this next year. * Site representative attends RFS meetings on a quarterly basis to stay informed.	
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or situation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	Not Triggered	* Soil and Water Management Plan implemented. * Historical subsidence repair completed within this lease.	
<b>Trees (Planting and Protection of) Flora and Fauna and Arboreal Screens</b>				
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Not Triggered	Historical subsidence repair completed in this lease area. Based on site communications this has not been triggered.	
28	The lease shall not fell trees, strip bark or cut timber on any land within the subject area except with the approval of the owner/occupier and subject to the payment to the owner of the trees, bark or timber of compensation as agreed or as assessed by the Warden	Compliant	* Development Consents provide approval for clearing within development area. * MOP includes amount of disturbance for the area.	
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Compliant	* Bund wall goes entire length of the highway.	
<b>Soil Erosion</b>				
30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Non-Compliant (Low Risk)	* Historical subsidence repair completed in this lease area. Based on site communications this has not been triggered. * Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Low risk non compliance relating to the REA drainage. * It is also noted that some topsoil stockpiles are greater than 3m in height. Large topsoil stockpiles can be less effective in future rehabilitation.	For any future topsoil stockpiles, they should be shaped to be less than 3m in height.
<b>Roads</b>				
31	The lease holder shall pay to Wollondilly Shire Council, Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface of the expected surface, as the case may be of the subject area.  PROVIDED HOWEVER, that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Land and Water Conservation or the Chief Executive, Road and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	Not Triggered	* Not triggered. Site has never had to pay anything above or beyond that paid to the Mine Subsidence Compensation Fund.	
32	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	Not Triggered	* Tahmoor Coking Coal Operations monitor such infrastructure and inform Council of impacts. The Council lodge a claim and are compensated by the MSB accordingly. * Minimal fire trails with no impacts identified. * A claim hasn't been lodged for such infrastructure.	
<b>Catchment Areas</b>				
33	(a) Operations shall be carried out in such a way as not to cause any pollution of the Hawkesbury River Catchment Area.  (b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.  (c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.	Compliant	(a) Tahmoor Coking Coal Operations discharges to the Nepean River, a tributary of the Hawkesbury River Catchment area. * The site operates under the EPL. Pit top is located within this lease area. * Based on monitoring and reporting no exceedances except for 1 x TSS exceedance. * TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Flocculation was increased to decrease level of solids in water. * According to monitoring results posted on the website EC and TSS reached their upper limits in samples taken from LDP1 on 9 January 2015. These readings were 2600 µS/cm and 30 mg/L, respectively.  (b) No such process undertaken at site.  (c) Water and Soil Management Plan and water management controls in place at site.  Water management was generally completed as per the Blue Book. There was some sediment fencing that needs to be replaced in a couple of sections around the pit top. Although there was a previous non-compliance for erosion and improper construction of contour drains at the REA, no specific evidence was provided to SLR relating to pollution of the Hawkesbury River Catchment or environmental harm.	Replace/repair small sections of sediment fence at the pit top.
<b>Reserves</b>				
38	The lease holder shall permit the free and uninterrupted passage of stock through the subject area and shall conduct operations in such a manner as not to cause any danger to travelling stock	Compliant	* Normal external fences weren't modified during the audit period * Sighted photos indicating the fencing around shaft. * Shaft 2 has building around it. * Letter to Department identifying all shafts had protection around them, dated 26/5/2014.	
<b>Transmission Lines, Communication Lines and Pipelines</b>				
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the expected surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Compliant	* No direction received from the Minister. * Historical subsidence repair within this lease.	
<b>Aboriginal Place or Relic</b>				
43	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area, except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Compliant	* Historical mining area. No evidence of impacts identified in Annual Reviews within this area.	
<b>Labour/Expenditure</b>				
44	The lease holder shall during each year of the term of the authority:  (a) ensure that at least 164 workers are efficiently employed on the subject area; or  (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$2,870,000.00.  The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	Compliant	* 320 persons working on-site (inc contractors). Figure included in the site's Fact Sheet, dated April 2015. * Expenditure on operation exceeds \$2,870,000.00 in the lifetime of the mine.	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Additional Information</b>				
45	The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister: (a) information regarding the ownership of the land within the subject area; (b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982; (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder; (d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and (e) information regarding shareholdings in the lease holder.	Not Triggered	* Not triggered. Site has not been required by the Minister to furnish such information or indemnity.	
<b>Service of Notices</b>				
46	Within a period of three (3) months from the date of this authority or a period of three (3) months from the date of service of the notice of renewal, or within such further time as the Director-General may allow, the lease holder shall serve on each owner and occupier of the private land and on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.  If there are ten (10) or more owners or occupiers affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	Not Triggered	* Not triggered. Outside the audit period.	
<b>Inspectors</b>				
47	(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder: (i) to cease operations within the subject area in contravention of that condition or Act; and (ii) to carry out within the specified time works necessary to rectify or remedy the situation (b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director-General may confirm, vary or revoke any such direction. (c) A notice referred to in this condition may be served on the Colliery Manager	Not Triggered	* Historical mining area. No evidence of impacts identified in Annual Reviews within this area.	
<b>Indemnities</b>				
48	The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expense which may be brought against the lease holder or which the lease holder may incur respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the lease holder within the boundaries of the subject areas or in connection with any of the operations notwithstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licenced or compelled to do hereunder.	Not Triggered	* Not triggered. Repairs to property impacted by subsidence have been paid for by the mine subsidence board.	
49	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Not Triggered	* Not triggered. Repairs to property impacted by subsidence have been paid for by the mine subsidence board.	
<b>Security Deposit</b>				
<b>Prospecting (General)</b>				
50	(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations. (b) Where the lease holder notifies the Director-General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	Not Triggered	* Not triggered. No prospecting during the reporting period.	
<b>Security Deposit</b>				
51	(a) the lease holder shall, upon request by the Director-General, lodge with the Minister the sum of <b>\$1,335,000.00</b> as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of the lease holder's obligations under this authority the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfil the lease holder's obligations under this authority, if the lease holder fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to the condition or provision of this authority or of any provision of the Act or regulations made thereunder. (b) the lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:- (i) cash, or (ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister (c) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition.	Compliant	* Submitted RCE on February 2017. * SLR viewed copy of the RCE.	
52	If the lease holder is using or about to use any process, or to carry on any works within the yellow and orange coloured areas on Diagram Catalogue No. D6052, which in the opinion of the District Inspector of Coal Mines, Department of Mineral Resources, is likely to pollute the Bargo River or its Catchment Area, the lease holder, upon service in writing under the hand of the District Inspector of Coal Mines so to do shall: (a) Discontinue the use of such process or works within twenty four (24) hours; or (b) thereafter refrain from adopting such process or works at any time as the case may require Provided, however, that the Chief Inspector of Coal Mines may confirm or revoke any such notice.	Not Triggered	* Not required by DRG.	
53	The lease holder shall not interfere with any fences or Crown improvements within the yellow and orange coloured areas on Diagram Catalogue No D6052 unless with the consent in writing of the Minister first had and obtained and subject to such conditions as he may stipulate.	Not Triggered	* Tahmoor Coking Coal Operations did not interfere with any fences during the reporting period.	
54	Settling dams or other dams to be erected on the subject lands shown by yellow colour exclusive of the hatched area shall be constructed, maintained and sealed to the satisfaction of the Minister.	Not Triggered	* No dams constructed in this area during the reporting period.	
55	Above ground conveyor systems within the orange coloured and hatched areas on Diagram Catalogue No. D6052 shall be enclosed to the satisfaction of the Minister.	Compliant	* All conveyors at Tahmoor Coking Coal Operations are enclosed.	
56	The lease holder shall at all times allow free and uninterrupted access along the public road traversing the subject lands shown by blue colour on Diagram Catalogue No. D6052 and, in the event of the surface of the said road being disturbed by the operations hereby authorised, the lease holder shall restore the said road to the satisfaction of the Wollondilly Shire Council.	Not Triggered	* The road was not disturbed by the mine operations during the reporting period.	

**Mining Lease - Mining Act 1992 No. 1642 Dated: 27 August 2010**  
**Lease over Pit Top and REA**

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Notice of Landholders</b>				
1	<p>Within a period of three months from the date of granted renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed, state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	Not Triggered	* Not triggered. Outside the audit period.	
<b>Environmental Harm</b>				
2	The leaseholder shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	Non-Compliant (Low Risk)	<p>* Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Low risk non compliance relating to the REA drainage.</p> <p>* TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Flocculation was increased to decrease level of solids in water. Exceedance reported in Annual Review and Annual Return. Although there was the minor non compliance relating to the TSS sample, steps were undertaken prior to the post exceedance to reduce TSS.</p>	<p>Recommendation as per Condition L2.4 of the EPL.</p> <p>Recommend testing in two locations at the dam (M4), with this being the last dam prior to discharging to LDP 1. Recommend testing for a period of six months at a monitoring location close to the discharge point and one adjacent to the flocculation area. This will determine if the Flocculant is fully mixing across the dam.</p>
<b>Mining Operations Plan</b>				
3	<p>(a) Mining operations must not be carried out otherwise than in accordance with:  a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.</p> <p>(b) The MOP must:</p> <p>i) identify areas that will be disturbed by mining operations;  ii) detail the staging of specific mining operations;  iii) identify how the mine will be managed to allow mine closure;  iv) identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment;  v) reflect the conditions of approval under:  - the Environmental Planning and Assessment Act 1979  - the Protection of the Environment Operations Act 1997  - and any other approvals relevant to the development including the conditions of this lease; and  vi) have regard to any relevant guidelines adopted by the Director-General.</p> <p>(c) The leaseholder may apply to the Director-General to amend an approved MOP at any time.</p> <p>(d) It is not a breach of this condition if:</p> <p>i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997 or the Occupational Health and Safety Act 2000; and  ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p> <p>(e) A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purpose of this paragraph unless otherwise identified by the Director-General.</p>	Compliant	<p>* Current amended MOP approved 8 October 2015. Reviewed approval letter from DPE.</p> <p>(b) The MOP:  i) Shows area(s) proposed to be disturbed under the Plan.  ii) Plans show the staging of specific mining operations (rehabilitation and disturbance).  iii) A mine closure plan will be developed within 5 years of closure-site indicated that a draft mine closure has been prepared. MOP includes Figure 7.15 "Final Shape of Refuse Emplacement Area".  iv) Section 3 of the MOP identifies how mining operations will be carried out on site in order to prevent and or minimise harm to the environment.  v) Doesn't reflect all the relevant conditions of approval, including rehabilitation.  vi) Was developed in accordance with interim guidelines from 2011 and not the most up-to-date guidelines, dated September 2013.</p> <p>(c) The current approved MOP is an amendment (Amendment A).</p> <p>(d) The operation did not need to obtain permission to undertake works that were not in accordance with the approved MOP. All works were completed in accordance with the MOP.</p> <p>(e) The MOP is current until 2019.</p>	* Next version of the MOP document needs to be revised to reflect latest version of the guidelines (ESG3: Mining Operations Plan (MOP) Guidelines, dated September 2013).
<b>Environmental Management Reporting</b>				
4	The lease holder must lodge Environmental Management Reports (EMR) with the Director General annually or at dates otherwise directed by the Director-General.	Compliant	<p>* Reviewed the submission email for the 2016 Annual Review, dated 30 March 2017.  * Reviewed the submission email for the 2015 Annual Review, dated 31 March 2016.  * Reviewed the submission email for the 2014 Annual Review, dated 31 March 2015.  * Reviewed 2014, 2015, 2016 Annual Reviews.</p>	
5	<p>The EMR must:</p> <p>a) report against compliance with the MOP;  b) report on progress in respect of rehabilitation completion criteria;  c) report on the extent of compliance with regulatory requirements; and  d) have regard to any relevant guidelines adopted by the Director-General;</p>	Administrative Non-Compliance	<p>(a) 2014, 2015 and 2016 Annual Reviews provide comparisons with what the MOP had proposed.</p> <p>b) Admin_NC - 2014, 2015 and 2016 Annual Reviews do not report on progress in respect of rehabilitation completion criteria. There is an ecological report attached to the Annual Review, but it does not satisfy the requirement of this condition.</p> <p>c) Statement of compliance against regulatory requirements is included in Table 1 and Table 2 of the 2015 and 2016 Annual Reviews.  * Admin_NC - Compliance against regulatory requirements tables are not included in the 2014 Annual Review.</p> <p>d) The 2016 Annual Review doesn't report discharge volumes.  * The 2016 Annual Review doesn't include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP.  * The 2016 Annual Review A.17 Rehabilitated and Target Areas plan doesn't include surface contours or rehabilitation vegetation type.  * The 2016 Annual Review doesn't identify any variations in activities undertaken to those proposed in the MOP.  * Section 12 (Activities to be Completed in the Next Reporting Period) of the 2016 Annual Review doesn't include a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period.</p>	<p>As per overall recommendation for Annual Reviews - See Condition 45 of 1999 Development Consent.</p> <p>* Include water quality results from previous years in future Annual Reviews.</p> <p>* Include comparisons against predictions of the EA for water quality in future Annual Reviews.</p> <p>* Provide trends for all data, not just dust, in future Annual Reviews.</p> <p>* Identify discrepancies between the predicted and actual impacts for water quality, in future Annual Reviews.</p> <p>* Progress in respect of rehabilitation completion criteria needs to be reported in future Annual Reviews.</p> <p>* Future Annual Reviews should report discharge volumes, in accordance with Section 7 of the Annual Review Guideline, dated October 2015.</p> <p>* Future Annual Reviews should include a summary of the rehabilitation performance of the operation against the rehabilitation targets in the MOP in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</p> <p>* Future Annual Reviews should include a summary of non-compliances in Section 11, in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</p> <p>* Future Annual Reviews should include in Section 12 a timeline for implementation of measures, whether any management plans will need to be revised to reflect the measures to be implemented and any actions resulting from a condition of a relevant approval that will be triggered in the next reporting period in accordance with Section 8 of the Annual Review Guideline, dated October 2015.</p> <p>* Additional subsidence reporting as per recommendations from DGS Report (Section 6)</p>
6	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Compliant	* Directive from the DRE dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Report completed, therefore compliant with this condition. According to 2016 Annual Review the contour drains were constructed during 2016.	
<b>Rehabilitation</b>				
7	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director-General.	Compliant	<p>* Approved MOP includes proposed end land use.  * Undertaking progressive rehabilitation at the site, including at the REA.</p>	
<b>Control of Operations</b>				
10	<p>(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-  (i) cease working the lease; or  (ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.</p> <p>(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.</p> <p>(c) A direction referred to in this condition may be served on the Mine Manager.</p>	Non-Compliant (Low Risk)	<p>* No directive to cease activities, however there was directive to relating to erosion and sediment control at the REA.</p> <p>* Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Maintenance to continue. As works have been completed in consultation with the DRG, the site is compliant with this condition.</p>	No further recommendations.
<b>Blasting</b>				
15	<p>a) Ground Vibration  The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Climate Change.</p> <p>b) Blast Overpressure  The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Climate Change.</p>	Not Triggered	* Underground blasting at site only. No surface impacts.	
<b>Safety</b>				
16	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.	Compliant	<p>* Photos indicated fencing around shaft 1.  * Shaft 2 has building around it.  * Letter to Department identifying all shafts had protection around them, dated 26 May 2014.</p>	

Condition Number	Condition	Compliance Status	Evidence	Recommended Action
<b>Exploratory Drilling</b>				
17	(a) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Water and Energy Regional Hydrologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes. (b) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:- (i) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established; (ii) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface; (iii) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters; (iv) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape; (v) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers. (vi) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General. (vii) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.	Not Triggered	* No exploratory drilling during the audit period.	
<b>Prevention of Soil Erosion and Pollution</b>				
18	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Non-Compliant (Low Risk)	* Directive from the DRG dated 25/02/2016 relating to contour drains not constructed on the newest section of the REA, causing erosion, and inadequate contour drains constructed on the REA. Directive required reporting of remedial works once complete. According to 2016 Annual Review the contour drains were constructed during 2016. Low risk non compliance relating to the REA drainage. * TSS exceedance occurred at LDP1 on 1 April 2016. Sample taken during additional sampling procedures exceeded TSS limit of 30mg/L by 4mg/L. Flocculation was increased to decrease level of solids in water. Exceedance reported in Annual Review and Annual Return.	Recommendation as per Condition L2.4 of the EPL. Recommend testing in two locations at the dam (M4), with this being the last dam prior to discharging to LDP 1. Recommend testing for a period of six months at a monitoring location close to the discharge point and one adjacent to the flocculation area. This will determine if the Flocculant is fully mixing across the dam.
<b>Transmission lines, Communication Lines and Pipelines</b>				
19	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Compliant	* No such direction received from the Minister. * No mining in this lease area for many years. * No repairs conducted on transmission lines, or pipeline which were monitored. Some repair work completed on communication line.	
<b>Fences, Gates</b>				
20	(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate. (b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.	Compliant	(a) * No recent repairs to any fences. * Didn't report any fences being interfered with in the 2014, 2015 and 2016 Annual Reviews. (b) Gates inspected during site visit were all closed and locked.	
<b>Road and Tracks</b>				
21	(a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate. (b) The lease holder must pay to the designated authority in control of the road (generally the local councillor the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	Compliant	(a) SMP Approvals for impacts to roads. (b) No payment required for repair of roads above and beyond payments made to the MBS.	
22	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Environment and Climate Change.	Compliant	* Provision in the RCE for ripping, ameliorating and revegetating tracks/roads. * According to 2014, 2015 and 2016 Annual Reviews no tracks constructed within the lease area during the audit period.	
<b>Trees and Timber</b>				
23	(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. (b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003. (c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	Compliant	* The approved MOP document indicates disturbance areas. * Ground Disturbance and Excavation Procedure. * Actual areas (totals) of disturbance included in the 2015 and 2016 Annual Reviews. Map showing proposed disturbance only included in the 2014 Annual Review. * 3 ha disturbed at REA in MOP. Permit prepared for site. Pre-clearing ecological assessment undertaken for permit. Also used data for recently completed heritage assessment for northern area.	
<b>Indemnity</b>				
26	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Not Triggered	* MSB pays for the cost of repair of property.	
<b>Single Security (extended)</b>				
28	(a) The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Consolidated Coal Lease No 716 (Act 1973), Mining Lease No 1308 (Act 1992), Mining Lease No 1376 (Act 1992) and Mining Lease 1539 (Act 1992) is extended to apply to this lease. (b) If the lease holder fails to fulfil anyone or more of the obligations under this lease, then the security held may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.	Compliant	* Current RCE provided. * RCE submitted on February 2017.	
<b>Cooperation Agreement</b>				
31	The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping petroleum title(s). The cooperation agreement should address but not be limited to issues such as: *access arrangements *operational interaction procedures *dispute resolution *information exchange *well location *timing of drilling *potential resource extraction conflicts and *rehabilitation issues.	Not Triggered	* MOP indicates no overlapping licences.	

# APPENDIX C

## Audit Certification Form

Development Name	Tahmoor Coal Mine
Development Consent No.	DA 67/98, 10172 (of 1993) and DC 1975
Description of Development	Coking Coal Operations Mining Operation
Development Address	Remembrance Driveway Old Hume Hwy, Tahmoor, NSW, 2573
Operator	Tahmoor Coal Pty Ltd
Operator Address	Remembrance Driveway Old Hume Hwy, Tahmoor, NSW, 2573
Title of Audit	Tahmoor Coal 2017 Independent Environmental Audit
<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> <p><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></p> <p><i>The findings of the audit are reported truthfully, accurately and completely;</i></p> <p><i>I have exercised due diligence and professional judgement in conducting the audit;</i></p> <p><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></p> <p><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></p> <p><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></p> <p><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></p> <p><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> <p><i>Note.</i></p> <p><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><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	Chris Jones
Address	10 Kings Road, New Lambton NSW 2305, Australia
Email Address	cjones@slrconsulting.com
Auditor Certification (if relevant)	Principal Environmental Auditor
Date:	12 June 2018



# APPENDIX D

## Endorsement of SLR



Contact: Georgia Dragicevic  
Phone: 4224 9477  
Fax: 4224 9470  
Email: [Georgia.Dragicevic@planning.nsw.gov.au](mailto:Georgia.Dragicevic@planning.nsw.gov.au)

Ms Fiona Robinson  
Environmental Coordinator  
Tahmoor Coal – A Glencore Company  
PO Box 100  
TAHMOOR NSW 2571

Dear Ms Robinson

**Tahmoor Coal Mine (DA 67/98)  
Independent Environmental Audit 2017**

I refer to your letter dated 24 July 2017 seeking approval of the audit team for the upcoming Tahmoor Coal Mine Independent Environmental Audit, in accordance with condition 50 of Schedule 2 of the development consent DA 67/98 (the consent).

The Secretary has considered your request and approves that Messrs Christopher Jones and Andrew Hutton of SLR be engaged as lead auditors, together with Messrs Duncan Barnes of SLR and Steve Ditton of DGS as environmental specialists for the upcoming Independent Environmental Audit of Tahmoor Coal Mine, in accordance with condition 50 of the consent. This approval is conditional on the audit team being independent of the development.

The Secretary also approves the scope for the proposed audit from 30 September 2014 to September 2017. Notwithstanding, the Secretary requests that the audit team assess the actual versus predicted subsidence impacts and provide the assessment in the audit report.

The audit is to be conducted in accordance with AS/NZS ISO 19011 Australian/New Zealand Standard: Guidelines for quality and/or environmental management systems auditing and in accordance with the Independent Audit Guideline dated October 2015. A copy of this guideline can be located at <http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy>.

The audit report is to include the following:

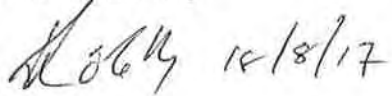
- a compliance table indicating the compliance status of each condition of approval and any relevant EPL;
- not use the term "partial compliance"
- recommend actions in response to non-compliances;
- review the adequacy of plans and programs required under this consent; and
- identify opportunities for improved environmental management and performance.

Within six weeks of completing the audit, or otherwise as agreed by the Secretary, Tahmoor is to submit a copy of the audit report to the Secretary together with its response to any recommendations contained in the audit report and a timetable to implement the recommendations.

Prior to submitting the audit report to the Secretary, it is recommended that Tahmoor review the report to ensure it complies with the relevant consent condition.

Should you have any enquiries in relation to this matter, please contact Georgia Dragicevic, Senior Compliance Officer, on telephone number (02) 4224 9477 or by email to [Georgia.Dragicevic@planning.nsw.gov.au](mailto:Georgia.Dragicevic@planning.nsw.gov.au)

Yours sincerely

Handwritten signature of Katrina O'Reilly in black ink, including the date 12/18/17.

Katrina O'Reilly  
**Team Leader Compliance**  
as nominee of the Secretary

# APPENDIX E

## Subsidence Audit Report

Ditton Geotechnical Services Pty Ltd  
82 Roslyn Avenue Charlestown NSW 2290  
PO Box 5100 Kahibah NSW 2290



28 February 2018

Christopher Jones  
Associate - Env Man Permitting & Compliance  
SLR Consulting Australia Pty Ltd  
10 Kings Road, New Lambton, NSW, 2305

**Report No. TAH-001/1**

Dear Christopher,

**Subject: Subsidence Impact Management Compliance Assessment for the 2014 - 2017  
Triennial Independent Environmental Audit of the Tahmoor Coal Mine,  
Tahmoor**

**1.0 Introduction**

This report presents the outcomes of the 2014 - 2017 Triennial Independent Review on the performance of the Subsidence Management Plans and Extractions Plans prepared by the Tahmoor Coal Mine, Tahmoor.

This Independent Environmental Audit covers the period from 1 October 2014 (end date of previous period) to 11 October 2017 (third day of the site component for this audit). Mining activities during this period included the completion of Tahmoor North longwalls (LW) 28 to 30 and the commencement of LW31. All mining activities occurred in the Bulli Seam of the Illawarra Coal Measures.

This report forms part of the "Independent Environmental Audit" required by the NSW Planning & Environment's (DPE) as specified in the modified Development Approval Schedule 2, Condition 50 (Mod 3) DA 67/98, dated 25/11/12 for the Tahmoor North Coal Mine.

The report has been prepared in accordance with NSW Independent Audit Guidelines 2015 for submission with the Independent Environmental Audit Report as requested by SLR Pty Ltd.

## 2.0 Scope of Work

The scope of the audit has included the following items of work:

- (i) A desktop review of the following documents (all available on the Tahmoor Colliery website, <http://www.tahmoorcoal.com.au>):

### Approvals

- Modified Development Consent (Mod 3) DA No. 67/98, (DPE<sup>1</sup>, 25/11/12);
- 1994 Development Consent (Matter No. 10172 of 1993);
- Mining Leases (ML 1376, ML 1539, CCL 716, ML 1642);
- Subsidence Management Plan Approval No. 11/3219 for Longwalls 27 to 30 (DRG<sup>2</sup>, 31/10/12); and
- Subsidence Management Plan Approval No. 17/57494 for Longwall 31 (DRG, 30/4/17).

### Subsidence Management Plans (SMP) and Individual Stakeholder Plans (Specific Environmental, Property and Heritage Management Plans)

- Environmental Management System and Framework (Version 6, 101/08/17);
- Tahmoor Subsidence Management Plans for LW 27 to 30 (Feb - Apr 2014);
- Tahmoor Subsidence Management Plan for LW 31 to 37 (Sep 2017); and
- Subsidence Monitoring Programs for LW 28 to 31.

### SMP Status Reports / Annual Environmental Management Reports / End of Panel Reports

- 4-Monthly SMP Status Reports for LW 28 - 31 (audit period);
- Annual Environmental Monitoring Reports (AEMR) for 1 Jan 2014 - 31 Dec 2014, 1 Jan 2015 - 31 Dec 2015 and 1 Jan 2016 - 31 Dec 2016 that were submitted to DPE; and
- End of Panel Reports (EOPR) for LW 28 to 30 that were submitted to DRG.

### Incident Reports / Corrective Management Action Plans / Complaints

- Subsidence Event Notification Reports (CMOs for audit period);
- Corrective Management Action Plan for Myrtle Creek (Rev B) (16/06/1); and
- Tahmoor Coal Mine's Community Complaints Register (audit period).

- (ii) A brief walk over / drive by inspection of surface features above the extracted longwalls LW28 to 31.

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<sup>1</sup> DPE - Department of Planning and Environment

<sup>2</sup> DRG - Department of Resources and Geosciences



- (iii) Provide an assessment of the effectiveness of the Subsidence Management Plans and their compliance with consent/approval conditions.
- (iv) Provide recommendations on any changes to the overall reporting process such that it may improve the effectiveness, transparency and performance of the management plans.

### **3.0 Surface Conditions, Mining Geometry and Subsidence History**

The surface features within the approved mining area for LW 28 to 31 include Myrtle and Redbank Creeks, steep slopes and cliffs, European and Aboriginal heritage sites, rural residential properties, commercial/industrial buildings in Picton and urban residential properties in Tahmoor, State Rail, Sydney Water, local council and private utility infrastructure.

Specific natural, built features and cultural heritage sites within the approved SMP area include:

- Ephemeral drainage gullies (Myrtle and Redbank Creeks);
- Cliffs along Redbank Creek (< 10 m high) above LW29;
- Steep Slopes;
- Dry-land and riparian vegetation;
- Main Southern Railway;
- Wollondilly Shire Council public roads, bridge, culverts (Remembrance Drive, Stilton Lane, Myrtle St, Bridge St);
- Sydney Water Sewer (Thirlmere & Picton Main line);
- Communications infrastructure (Telstra local copper cables, NBN Optic Fibre);
- Endeavour power poles and lines (domestic);
- Jemena Gas pipelines (domestic);
- Urban residential properties along Remembrance Drive in Tahmoor (including houses, pools, driveways, sheds and fences);
- Rural property buildings and infrastructure between Tahmoor, Thirlmere & Picton (Private dwellings, private access tracks, sheds, farm dams and fences);
- Redbank Place and Bridge St Commercial / Industrial Businesses in Picton (10 Lots);
- Private groundwater bores;
- Six European heritage sites (Queen Victoria Memorial Gardens, Tahmoor House, Myrtle Creek Bridge, 2425 Remembrance Driveway, 220 Bridge St, 675 Thirlmere Way);
- Five Aboriginal Archaeological sites (two Rock Shelters with Art; one Potential Archaeological Deposit; one Isolated Artefact; one Open Camp Site); and

- Permanent Marks and State Survey marks.

The Tahmoor North longwalls are located at depths ranging from 420 m to 500 m with a void width of 283 m each and solid chain pillar widths of 39 m. Conventional longwall mining technology was used to extract the 2.1 m thick Bulli Seam. Longwalls 20 to 27 have already been extracted to the south-west of the current audit period longwalls.

Subsidence monitoring data has indicated variable maximum subsidence ranging between 0.6 m and 1.2 m has occurred for similar mining geometries to-date. **Gale & Sheppard, 2011** describe “abnormal increases in subsidence” were due to deeply weathered bedding and jointing associated with the deeply incised Bargo River gorge along the south eastern boundary of the mining lease. Regardless of the subsidence exceedances that occurred over the southern sections of Longwalls 24a to 27, surface impacts to built features have generally been within predicted ranges (**Sheppard *et al*, 2011**).

#### 4.0 Document Review

##### 4.1 Environmental Management Strategy (EMS) and Management Plans (EMP)

Tahmoor was required to prepare an Environmental Management Strategy (EMS) in accordance with Development Consent Condition 43 of DA No. 67/98 (Mod 3). An Environmental Management Plan (EMP) is also required by Schedule 2, Condition 13 of SMP Approvals for LWs 27-30 and Condition 12 of the LW31 SMP Approval.

The objectives of the EMS/EMP include:

- To provide an overall framework for environmental and community management of subsidence impacts;
- To identify key environmental and community aspects to be addressed in the strategy and supporting plans and procedures;
- To establish procedures for reviewing progress and implementing corrective actions or contingencies; and
- Provide a framework for review and continual improvement, including internal audits to ensure compliance of the operation with development consents and licences.

In addition, Tahmoor Underground is required to meet Glencores’ own Environmental Management System (EMS)<sup>3</sup> which includes similar standards and internal review processes as those required by the regulatory departments. Tahmoor applies the GCAA “CMO” compliance management database system to record subsidence related impact events and

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<sup>3</sup> The EMS provides the strategy & framework for Tahmoor Underground and is based on the broader Glencore Coal Assets Australia Health, Safety Environmental & Community Standards, Section 11 - Environment and Section 13 - Assurance.

trigger corrective actions during mining and maintain compliance with development consents and SMP approvals.

The Tahmoor EMS (June 2008) satisfies the Development Consent condition and has been updated six times since the original document was approved, with the current document dated 1/8/17.

The Tahmoor Colliery EMP (Revision D) for LW 27 to 30 (dated 6/2/13) and EMP (Revision B) for LW31 (dated 2/11/17) satisfies the relevant SMP Approval Conditions.

SMP Approval Conditions define “Subsidence Impact Performance Outcomes” required for watercourses, cliffs, threatened or endangered ecological communities and Aboriginal and European Heritage sites. The mine has subsequently prepared Trigger Action Response Plans (TARPS) to manage mine subsidence impacts and define appropriate responses in the EMPs.

#### **4.2 Subsidence Management Plan (SMP)**

The SMP system was the precursor to the Extraction Plan system currently being administered by DPE at other coal projects in NSW. The SMP is approved and administered by the DRG and requires similar impact management plans to be developed and maintained to the satisfaction of the Secretary of Environmental Sustainability Unity of DRG and the Development Consent Conditions set by DPE.

The following SMP/EMP Approvals and interim Approvals were granted by DRG to Tahmoor Underground prior to and during the mining of LW 27 to 31:

- Subsidence Management Plan Approval No. 11/3219 for Longwalls 27 to 30 (DRG, 31/10/12);
- Subsidence Management Plan Approval No. 17/57494 for Longwall 31 (DRG, 30/4/17);
- Environmental Management Plan - Stage 1 Approval for LW31 (DRG, 22/09/17);
- Interim SMP/Monitoring Plan Approvals for first 100 m, 250 m and 1100 m of LW 28 (DRG, 17/4/14 - 15/5/14);
- Interim SMP/Monitoring Plan Approvals for first 250 m then 1100 m of LW 29 (DRG, 27/5/15 - 30/6/15);
- Interim SMP/Monitoring Plan Approvals for first 1100 m of LW 30 (DRG, 18/5/16 & 30/5/16); and
- Interim SMP Approvals for first 200 m, 400 m, 800 m of LW 31 (DRG, 26/6/17-30/8/17)

The interim approvals for LW 28 to 30 were deemed necessary by DRG to control potential impacts and maintain public safety during undermining of the Main Southern Railway. Subsidence monitoring results were required to be submitted in excel spreadsheet format within 48 hours of each survey.

The Interim approvals for LW31 were required to give the mine time to prepare the EMP prior to undermining Redbank Creek as specified in Condition 13 “Shallow Groundwater & Hydrological Investigation and Monitoring Plan”.

Condition 14.1 Infrastructure and property Management of the LW27 to 30 SMP Approval requires that no impact must occur to the listed built infrastructure items until approved impact management plans are in place. This included the commercial/industrial businesses at Redbank Place and Bridge St, Picton above LW31. The management plans for these features have now been developed and submitted (LW31 Management Plan for Potential Impacts to Built Structures, 28/6/17) with approval pending at the time of the audit.

The SMP Approvals require the following documentation to be prepared in support of Development Consent Conditions:

- Preparation of individual stakeholder subsidence management plans with TARPS to determine performance of the plan after mining impacts occur;
- Subsidence Monitoring Programs;
- 4-monthly SMP status reports;
- Annual Environmental Management Reports; and
- End of Panel Reports;

The documentation prepared for the SMP also follows the above EMS framework for environmental and community impact management. A Community Complaints register and Corrective Management Action (CMO) Report register are also maintained and responded to by the mine. The mine also offers a monthly mine subsidence status report by request to Stakeholders, provides regular information circulars and holds meetings with the Tahmoor Colliery Community Consultation Committee (TCCCC) and general public.

The mine has contracted SMEC Urban to install and monitor over 21 km of surface level monitoring lines since 2005. Individual private properties and commercial business were also surveyed.

#### **4.2 Annual Environmental Management Reports (AEMRs)**

Three AEMR’s have been submitted to the DPE as required by Schedule 2, Condition 45 of DA 67/98 (Mod 3) during the audit period.

The following information is required to be provided in the AEMRs:

- descriptions of mining activities completed during the previous 12 months;
- descriptions of mining activities proposed for the next 12 months;
- descriptions of any modifications to the original mining layout to which consent or mining approval was granted;

- present and summarize monitoring data and compare against predictions (Subsidence and Environmental Monitoring Programs)<sup>4</sup>.
- community complaints and the responses to them by the mine;
- identify any non-compliances and determine if any actions are required to improve the effectiveness of the management plans and/or environmental performance.
- The subsidence effect and impact predictions for the approved longwalls;
- The results of the monitoring conducted and comparison with predictions and the relevant Trigger Action Response Plan (TARP); and
- Identification of any predicted subsidence effect and impact exceedance and the necessary responses and/or corrective management and reporting actions.

#### 4.2.1 AEMR 2014

The AEMR for 2014 noted the following subsidence impacts and reportable incidents described in the TARPS due to LW27 and 28. General reference made to the End of Panel Report for LW27 for subsidence related impact details:

General environmental impacts listed in *Section 3.16.2* of AEMR included:

- Stream bed cracking and loss of pool holding capacity to Myrtle & Redbank Creeks above LWs 27 and 28. Increased salinity downstream of subsidence effected zones noted in both creeks with elevated nickel, zinc, iron and manganese in Redbank Creek;
- Groundwater levels in one piezometer (P2) had temporary head losses of up to 8.9 m, with a cumulative loss of 5.8 m since mid-2009. No indication of surface to seam interaction, or aquifer impact within 20 m of the surface; and
- Minor cracking and subsidence “unconformities” or compression humps occurred in isolated locations above LW27 and 28 on semi-rural and urban properties. The impacts were remediated by the mine to the satisfaction of the property owners.

Reportable impacts listed in *Table 27* of AEMR included:

#### EMP TARPS

- Stream bed cracking and loss of water for more than 2 months from two rock pools along Myrtle Creek (No TARP Trigger level indicated); and
- Water quality exceedance (iron floc deposition) of EMP TARP along Redbank Creek (No trigger level indicated).

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<sup>4</sup> The data required to be collected and reviewed is defined in the following individual management plans: *Subsidence Monitoring Program, Environmental, Rail, Built Structures, Built Heritage, Jemena Gas, Wollondilly Shire Council, Sydney Water Sewer, Endeavour, Picton-Mittagong Loop Line, Potable Water, State Survey Marks, Public Safety.*

### Built Feature SMP TARPS

- Single tension crack down cutting batter along the Main Southern Railway Line (No TARP Trigger level indicated);
- Possible Trigger Level 1 for Strain and curvature exceedance along Jemena Gas Pipeline; and
- Two houses damaged along Remembrance Drive, Tahmoor (Category 4)<sup>5</sup>.

### Further Improvements

- This section discusses planned mining activities and the features that are likely to be affected by subsidence in the next 12 months<sup>6</sup>.

### **4.2.2 AEMR 2015**

The AEMR for 2015 noted the following subsidence impacts and reportable incidents described in the TARPS due to LW28 and 29. A general reference made to the End of Panel Report for LW28 for subsidence related impact details:

General environmental impacts listed in *Section 6.8* of AEMR included:

- Stream bed cracking and loss of pool holding capacity along Myrtle & Redbank Creeks above LWs 28 and 29. Creeks and pools drained at times of low flow, with diverted surface flows re-emerging down-stream of LW28;
- No head losses in shallow standpipe piezometers observed due to LW28 and 29. Partial depressurisation of one private piezometer above LW30 (unmined) and loss of water and serviceability of another private bore above LW26 (mined). Tahmoor supplied town water to the effected land holder;
- No indication of surface to seam interaction, or aquifer impact within 20 m of the surface. (No TARP trigger level indicated); and
- Minor surface cracking and subsidence “unconformities” or compression humps occurred in isolated locations above LW 28 and 29 around semi-rural and urban properties. The impacts were remediated by the mine to the satisfaction of the property owners.

Reportable impacts listed in *Table 11* of AEMR included:

### EMP TARPS

- Minor cracking and loss of water from two rock pools along Redbank Creek (No Location or TARP Trigger level indicated);
- Minor cracking to “Colluvial soil sandstone and in bedrock downstream of Redbank Culvert”. (No TARP Trigger level indicated); and

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<sup>5</sup> It is assumed this is referring to AS2870 Residential Footings Standard for Damage Classification.

<sup>6</sup> Sub-section title infers future improvements to SMP, however, none are indicated. It is suggested that this heading be changed to “Future Mining and SMP Activities” or something similar if no SMP improvements are mentioned.



- Significant crack in rock bar observed along Redbank Creek (No location or TARP Trigger level indicated).

#### Built Feature SMP TARPS

- Bridge St, Thirlmere damage to pavement (“dip and ripples”) over culvert crossing;
- Single tension crack extending across cutting bench to lower batter of the Main Southern Railway Line (No TARP Trigger level indicated); and
- Localised changes to track geometry (primarily superelevation) of Main Southern Railway Line (No TARP Trigger level indicated).

#### Further Improvements

- This section discusses planned mining activities and the features that are likely to be affected by subsidence in the next 12 months<sup>7</sup>.

### **4.2.3 AEMR 2016**

The AEMR for 2016 noted the following subsidence impacts and reportable incidents described in the TARPS due to LW29 and 30. A general reference was made in the 2016 AEMR to the End of Panel Report for LW29 for subsidence related impact details:

General environmental impacts listed in *Section 6.8* of AEMR included:

- Stream bed cracking and loss of pool holding capacity Myrtle & Redbank Creeks above LWs 29 and 30. Creeks and pools drained at times of low flow, with diverted surface flows noted as re-emerging down-stream of LW30;
- No head losses in shallow standpipe piezometers observed in response to LW29 and 30. Partial depressurisation of one private piezometer above LW30 (unmined); and
- No indication of surface to seam interaction, or aquifer impact within 20 m of the surface. (No TARP trigger level indicated).

Reportable impacts listed in *Table 11* of AEMR included:

#### EMP TARPS

- Significant cracking and loss of water from two rock bars (RR10 & RR11) along Redbank Creek above LW29 (No TARP Trigger level indicated)<sup>8</sup>;
- Redbank Culvert damage above LW29 described as “Separation between the sandstone sheets recently increasing to a degree to allow the sediment / gravel to wash in between the expanded sandstone sheets”. (No TARP Trigger level indicated);
- Stream bed along Redbank Creek above LW28 was dry and new cracking observed at sites RR10, RR11 and RRS12 (No TARP Trigger level indicated); and

<sup>7</sup> Same issue as mentioned for the 2014 AEMR (see footnote 6).

<sup>8</sup> General commentary mentions cracking damage and loss of ponding along Myrtle Creek (and Redbank Creek) above Longwalls 29 and 30, however, no details mentioned in summary table.

- Water quality exceedance for Redbank Creek with zinc concentrations higher than base line readings (No TARP level indicated).

#### Built Feature SMP TARPS

- Existing crack on upper side bench of cutting along the Main Southern Railway Line at 92.510 km had increased (No TARP Trigger level indicated); and
- Localised changes to track geometry (primarily super-elevation) of Main Southern Railway Line (No TARP Trigger level indicated).

#### Subsidence Monitoring

DA 67/98 Consent Condition 12 Subsidence Monitoring requires comparison between predicted and measured subsidence effects and impacts to creek stream flows and water quality; dams; and residential areas. Review of anomalous subsidence events, angle of draw and performance of remedial measures is also required. The outcomes of the review are to be presented in the AEMR (if triggered).

Condition 13 of the DA requires the mine to carry out additional remedial works if deemed necessary by NOW and Wollondilly Council to restore any damage to watercourses (including banks). The works are to be undertaken in accordance with an Erosion and Sediment Control Plan in consultation with the relevant Stakeholders.

The End of Panel report for LW 29 indicated a reasonable correlation with observed and predicted subsidence effects and impacts to urban infrastructure equal to or less than predicted.

The following impacts to dams, creeks and groundwater bores were listed in *Table 12* of the AEMR which demonstrated a range of responses and remediation works have been necessary due to LW29 (and 30) and in accordance with the SMP TARPs:

- Several minor dams (five) were monitored during LW29 and 30 with one large de-commissioned dam above LW30 and adjacent to Stilton Lane removed and the land remediated in accordance with the LW28 to 30 Management Plan for Potential Impacts to Built Structures (Rev A). (No TARP trigger level indicated);
- Visual and valley closure survey monitoring along Myrtle and Redbank Creeks were done in accordance with LW27 to 30 Environmental Management Plan (Rev D) and LW29 and LW30 Subsidence Monitoring Programs. The surveys measured effects (creek uplift and closure) and impacts (cracking, pond drainage, sub-surface flow development and reduced water quality downstream of the subsidence zones) that were within predictions. Geoterra noted partial recovery of pools above LW25 and 26 along Myrtle Creek following recent rainfall. A Section 240 Notice was issued to the mine on 5/12/16 to address creek impact exceedance criteria defined in Condition 13 of the SMP Approval for LW27 to 30 (dated 5/12/16);<sup>9</sup> and
- Monitoring of groundwater levels and water quality in shallow open standpipes have not detected water level reduction.

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<sup>9</sup> Tahmoor Underground has since prepared and submitted a CMAP Plan to DRG on the 16/06/17 for staged remedial works to Myrtle and Redbank Creeks. The plan was provided, but still pending DRG approval at the time of the 2017 Independent Audit.

### Further Improvements

- This section discusses planned mining activities and the features that are likely to be affected by subsidence in the next 12 months<sup>10</sup>.

Details of the subsidence data review are provided in the EoP Reports and summarised in **Section 4.3**.

### **4.3 End of Panel Reports (EOPRs)**

The End of Panel Reports (EOPRs) were a requirement of Condition 18 of the SMP Approval for LW27 to 30 and must provide the following information within 4 months of the completion date for the panel:

- Subsidence and environmental monitoring data for the panel;
- An analysis of the monitoring results against the relevant performance measures specified in Table 1 (of the Approval Conditions); impact assessment criteria; monitoring results of previous panels and predictions in the SMP;
- Identify any trends in the monitoring results over the life of the activity; and
- Describe what actions were taken to ensure adequate management of any potential subsidence due to longwall mining.

Reference to the EOPRs for LW28, 29 and 30 indicate the following in regard to the above requirements:

- Maximum total subsidence effects recorded outside of the creeks included 1.041 m of subsidence, 6.3 mm/m of tilt, 2.8 mm/m of tensile strain and -4.5 mm/m of compressive strain due to “conventional” subsidence development<sup>11</sup>;
- Subsidence effects along Myrtle and Redbank Creeks included ‘valley closure’ mechanism effects (i.e. “non-conventional” subsidence) that resulted increased horizontal displacements and strains. Maximum valley closure movements ranged between 0 mm and 450 mm, with tensile and compressive strains ranging from 2.1 mm/m to -9 mm/m;
- Angle of draw to 20 mm of subsidence ranged between 15° and 20° ahead of the retreating longwall face, with post-mining values < 26° out from the panel sides;
- Measured surface subsidence effects have generally been within the predicted values provided in the SMP with a few strain exceedances. It was noted that measured subsidence

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<sup>10</sup> Same issue with title as mentioned for the 2014 & 2015 AEMRs.

<sup>11</sup> Conventional subsidence refers to the typical bending and shear movements within the overburden as it sags over the extracted longwall panel(s) and compresses the chain pillars and goaves. It can also include non-systematic movements due to interaction of joints/faults/dykes and rock failure that can cause surface cracks and compression “humps” or “bumps”.

had returned to ‘normal’ levels after the subsidence prediction exceedances due to the Bargo Gorge-affected values recorded over the starting ends of LW24a, 25 to 27 occurred;

- Measured subsidence impacts to built features have been within the predicted values provided in the SMP. Several strain prediction exceedances occurred at isolated “bumps” along the Main Southern Railway, however, the track works required did not cause any public safety or delay issues;
- The SMPs for the built features have performed adequately with no amendments to management plans considered necessary;
- It was noted in the EoPR for LW28 to 30 that cracking to the Myrtle and Redbank Creek beds has resulted in loss of ponds with surface to sub-surface flow diversion for > 20% of the creek and for > 2 months since their undermining. The impacts to the creeks therefore triggered the “Exceeds Predictions” trigger level specified in the Stream Flow / Water Level TARP. The Stream Water Quality TARP trigger for “Exceeds Predictions” was also triggered on Myrtle Creek after LW28; and
- The interpretation of performance measures for the Creeks (Myrtle and Redbank) by the mine however, appears to be significantly different to DRG’s assessment. It is stated in the EoPRs for 28 to 30 and 2016 AEMR Report that the impacts to the creeks were within predictions, which indicates that no further corrective management action should be necessary. However, DRG has considered the impacts to be more than a ‘minor’ environmental consequence, as defined in *Table 1* Condition 13 of the SMP Approval for LW27 to 30, resulting in it issuing the Section 240 Notice to the mine on 5/12/16 (see **Section 6.2** for further discussion).

The mine has subsequently prepared a CMAP for staged grout remediation of Myrtle and then Redbank Creeks (pending the success of the trials on Myrtle creek) in consultation with DPI Water<sup>12</sup>.

## 5.0 Site Inspection

A brief drive by and walk over inspection of several of the natural surface and built features within the SMP area for LW28 to 31 was conducted by a Principal Engineer from DgS on the 10/10/17 (see photos attached).

The features inspected included:

- A drained pond and cracked creek bed site (No. 19) on Myrtle Creek above LW28;
- A bridge across Myrtle Creek above LW28;
- The Main Southern Railway Embankment above LW28;
- Remembrance Drive, Stilton Lane and Bridge St above LWs 28 to 31;
- Commercial/industrial sites at Redbank Place, Picton above LW31;

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<sup>12</sup> DPI - Department of Primary Industries

- The remediated dam site adjacent to Stilton Lane above LW30;
- A damaged house at Tahmoor Court, Tahmoor; and
- Tahmoor House heritage site.

The condition of all sites inspected were consistent with the SMP Reporting documents.

## **6.0 Compliance and Effectiveness of the Subsidence Management Plans**

### **6.1 Reporting Issues**

It is considered that the AEMR/EoPR Reports prepared during the audit period have generally met the requirements of the Development Consent and SMP Approval Conditions during the audit period. However, the audit has identified several inconsistencies and confusing definitions in the reporting with regard to (i) the various definitions of subsidence mechanism types used in the EoPRs, and (ii) the assessment of natural feature impacts in the AEMRs (namely the two main creeks) against the TARPS in the EMP for LW27 to 30 and the performance outcomes defined in the Approval Conditions.

#### **6.1.1 EoPR**

The first issue refers to the use of “systematic”, “non-systematic”, “conventional” and “non-conventional” subsidence in the reports can be confusing at times when explaining “normal” and “valley closure” related subsidence. Whilst the author understands that “conventional” subsidence refers to subsidence effects due to normal trough and chain pillar compression behaviour above a series of longwall panels, “non-conventional” subsidence actually means the valley closure mechanism or topographic (steep slope/cliff) related movements that can occur inside or outside the “conventional” angle of draw.

“Non-systematic” subsidence or strain concentrations due to “bumps” and cracking can and does occur due to both “conventional” and “non-conventional” subsidence effects. The presence of faults/joints/dykes and rock mass failure causing the strain concentrations during “conventional” subsidence development.

It is also considered that the type of impact should also be clearly defined as either “non-systematic conventional”, “valley closure” and “steep slope/cliff” with the use of “anomaly” only used to describe non-mining related movements (eg. disturbed subsidence pegs or environmental shrink/swell effects).

The above issues could be easily rectified with a clear set of definitions in the reports and then applying them consistently in the text.

### 6.1.2 AEMR

The review and assessment of the impacts to natural features could be improved by including an assessed TARP level in the summary tables. It would also probably help if the Triggers were given a simple numbering system that would reduce repetition as follows:

Level 1 = Normal or no mining impact (no change to monitoring program)

Level 2 = Mining Impact Within Predictions (no change to monitoring program or notifications required unless subsidence effect predictions exceeded)

Level 3 = Mining Impact Exceeds Predictions (Notification to stakeholders, review of monitoring program and consideration of corrective management actions).

It is considered that while the TARPs prepared in the approved SMP documents are satisfactory in regard to meeting the ‘minor’ impact consequence required by the SMP Approval, the lack of recognition that the predicted impacts had been exceeded meant that the mine did not acknowledge the review of the impact and possible requirement for a CMAP effectively. This issue however, appears to be resolved with the proposed creek reinstatement works plan that is pending approval.

The description of damage to the houses could also be made clearer by defining what reference the Category mentioned is based on.

Another minor issue that has been previously noted in earlier review of the AEMR is the mis-titled “Future Improvements” sections, which only discuss future mining activities and not improvements. It is suggested that the section title be amended to “Future Mining and SMP Activities” or something similar if no SMP improvements are mentioned.

The above recommendation during the next audit period is re-stated in **Section 7**.

## 6.2 Compliance with Consent Conditions

Based on a review of the AEMRs and EoP Reports for the Oct 2014-Sep 2017 Audit Period documentation, it is assessed that the Tahmoor Underground has satisfactorily complied with the DA Conditions of Consent and SMP Approval Conditions for mine subsidence impact management except for SMP Approval Condition 13. Environmental Management in regard to Myrtle and Redbank Creeks. The condition states:

“The leaseholder shall ensure that underground mining does not cause the performance outcomes in *Table 1* to be exceeded.

***Table 1 - Subsidence Impact Performance Outcomes***

Myrtle and Redbank Creeks	Minor environmental consequences
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In Schedule 2 on the conditions ‘Environmental Consequences’ are defined as, but not limited to “loss of surface flows to the subsurface, loss of standing pools, adverse water quality impacts; development of iron bacterial mats, impacts on aquatic ecology” and ‘Minor’ is given as “Relatively small in quantity, size and degree given in the relative context”.

It is noted that the mine has adopted DRG-approved TARP trigger levels that define clear definitions of what constitutes a minor creek impact exceedance (i.e. > 20% of the creek pool levels and stream levels decline due to rock bar cracking and water quality baseline concentrations are exceeded by more than 2 standard deviations for more than 2 months).

The exceedance of the Stream Flow / Water Level and Stream Water Quality TARP triggers therefore represent an Administrative Exceedance only at this stage as Corrective Management Action Plans are being considered to rehabilitate the creek ponds as close as practicable to pre-mining conditions such that impact exceedances to < 20% of the creeks are achieved (as was approved by DRG in the EMP TARPs).

It is also noted that no loss of diverted surface flow from the catchment, with normal stream flows measured downstream of the subsidence affected reaches.

As discussed earlier, the exceedance of the minor impact TARP for Myrtle and Redbank creeks should have triggered a stronger response in the AEMR and therefore is a medium non-compliance. A further administrative non-compliance is identified in regard to the lack of TARP trigger levels and compliance summaries presented in the AEMRs generally. It is clearly noted in the TARP that a CMAP may be required to rehabilitate the creeks through grouting after mine subsidence impacts had ceased.

Although the CMAP preparation is mentioned in the 2016 AEMR the mine stated that “the observed impacts are within predictions” and only referred to Condition 12 Subsidence Monitoring. Condition 13 Environmental Management, which discusses the Performance Outcomes for the creeks. The EMP TARP triggers are not mentioned. The relevant TARP exceedances are mentioned in the End of Panel Reports for LW28 - 30 and the Subsidence Management Status Reports for LW30 only.

The majority of required documentation specified in Condition 19 of the SMP Approval have been placed on the Tahmoor Coal website. However, it was difficult to find the Environmental Management Plan Report for LW27 - 30 until it was noticed that it was in with the Infrastructure Management Plans. The Natural Feature Management Plans for each longwall did not appear to be on the website, although the main EMP Report was adequate as it provided the relevant TARPs.

It is recommended that these issues should be addressed in the AEMR and EMS Non-compliance system updated during the next audit period if not already done.

### **6.3 Adequacy of the Strategies**

The information being collected is considered adequate for meeting the objectives of current SMP/Extraction Plan standards and allows for the assessment / mitigation strategies if any environmental damage occurs.

Actual subsidence and impact predictions at surface features within the area of influence of mining have generally been consistent with the SMP predictions. Only the impacts to the two main creeks were exceeded and have triggered the preparation of a CMAP.

Overall, the current strategies, plans and programs for managing mine subsidence impacts to the environment, man-made developments and public safety are considered to be performing adequately.

### **7.0 Recommended Actions to Improve Subsidence Impact Management System Performance**

No further improvements to the current SMP and EMS framework and management system is considered necessary at this stage. The recommended improvements to the post-mining reporting and assessment of impact triggers have been provided in **Section 6**.



For and on behalf of  
**Ditton Geotechnical Services Pty Ltd**

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**Attachments:**

Photos 1 to 6

**References:**

Gale & Sheppard, 2011. **Investigation into Abnormal Increased Subsidence above Longwall Panels at Tahmoor Colliery, NSW.** Proceedings of 8<sup>th</sup> Triennial Conference on Mine Subsidence. Pokolbin, NSW.

Sheppard *et al*, 2014. **Management of Mine Subsidence Impacts Beneath the Township of Tahmoor.** Proceedings of 9<sup>th</sup> Triennial Conference on Mine Subsidence. Pokolbin, NSW.

**Photo 1 - Drained Pond No. 19 along Myrtle Creek, Tahmoor (above LW28)**



**Photo 2 - Bridge Across Myrtle Creek on Remembrance Drive (not undermined)**





**Photo 3 - Remediated Dam above LW30, Stilton Lane**



**Photo 4 - Damage to Acquired House in Tahmoor Court, Tahmoor**



**Photo 5 - Industrial Building at Redbank Close above LW31**



**Photo 6 - Typical Rural Land Conditions above LW 28 to 31**





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