

DARTBROOK MINE

Independent Environmental Audit 2019

Prepared for:

Australian Pacific Coal
Dartbrook Mine
Stair Street
Kayuga NSW 2333

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PREPARED BY

SLR Consulting Australia Pty Ltd
ABN 29 001 584 612
10 Kings Road
New Lambton NSW 2305 Australia
(PO Box 447 New Lambton NSW 2305 Australia)
T: +61 2 4037 3200
E: newcastleau@slrconsulting.com www.slrconsulting.com

BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Australian Pacific Coal (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
630.12824-R01-v0.2	17 October 2019	Chris Jones	Jessica Coffey	Chris Jones
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1 Introduction

1.1 Background to Site

Dartbrook Mine is owned and managed by Australian Pacific Coal Limited (AQC). Dartbrook Mine is located 10 kilometres (km) north of Muswellbrook and 4.5 km south-west of Aberdeen (see Figure 1 and Figure 2) in New South Wales (NSW). From 1993 until October 2006, Dartbrook Mine operated as an underground longwall coal mine.

As a result of operational difficulties and lower coal prices, mining was suspended and the operation was placed under Care and Maintenance from 1 January 2007.

Under Care and Maintenance, site activities are generally limited to the maintenance of:

- The Hunter Tunnel, which along with the Kayuga interseam drift, are the only areas of the underground mine that are still accessible. The Hunter Tunnel and Kayuga interseam drift connect to the Eastern and Kayuga Western mine entrances, respectively;
- The Western Facilities (West Site), which are located west of the New England Highway and include the administration office, a small workshop, and Wynn and Kayuga mine entrances to the underground mine; and
- The Eastern Facilities (East Site), which are located east of the New England Highway and include the Coal Handling and Preparation Plant (CHPP), rail load out facilities, cleared coal stockpiles and the rehabilitated Reject Emplacement Area (REA).

The location and general site layout of the existing infrastructure at the West and East Sites is shown on **Figures 1-4**. In December 2015, the sale of the majority joint venture interest in Dartbrook Mine to AQC was announced. The sale was completed in May 2017.

Development Consent DA 231-07-2000 Modification 7 (MOD 7) was determined by the NSW Independent Planning Commission (IPCN) on 9 August 2019.

1.2 Key Site Contacts

Contact details for key personnel are provided in **Table 1** below.

Table 1 Contact Details for Dartbrook Personnel

Name	Role	Telephone	Email
Dorian Walsh	Contract Environmental Officer	02 6575 2000	dwalsh@hansenbailey.com.au
John Robinson	Director, AQC	02 6540 8846	jrobinson@aqcltd.com

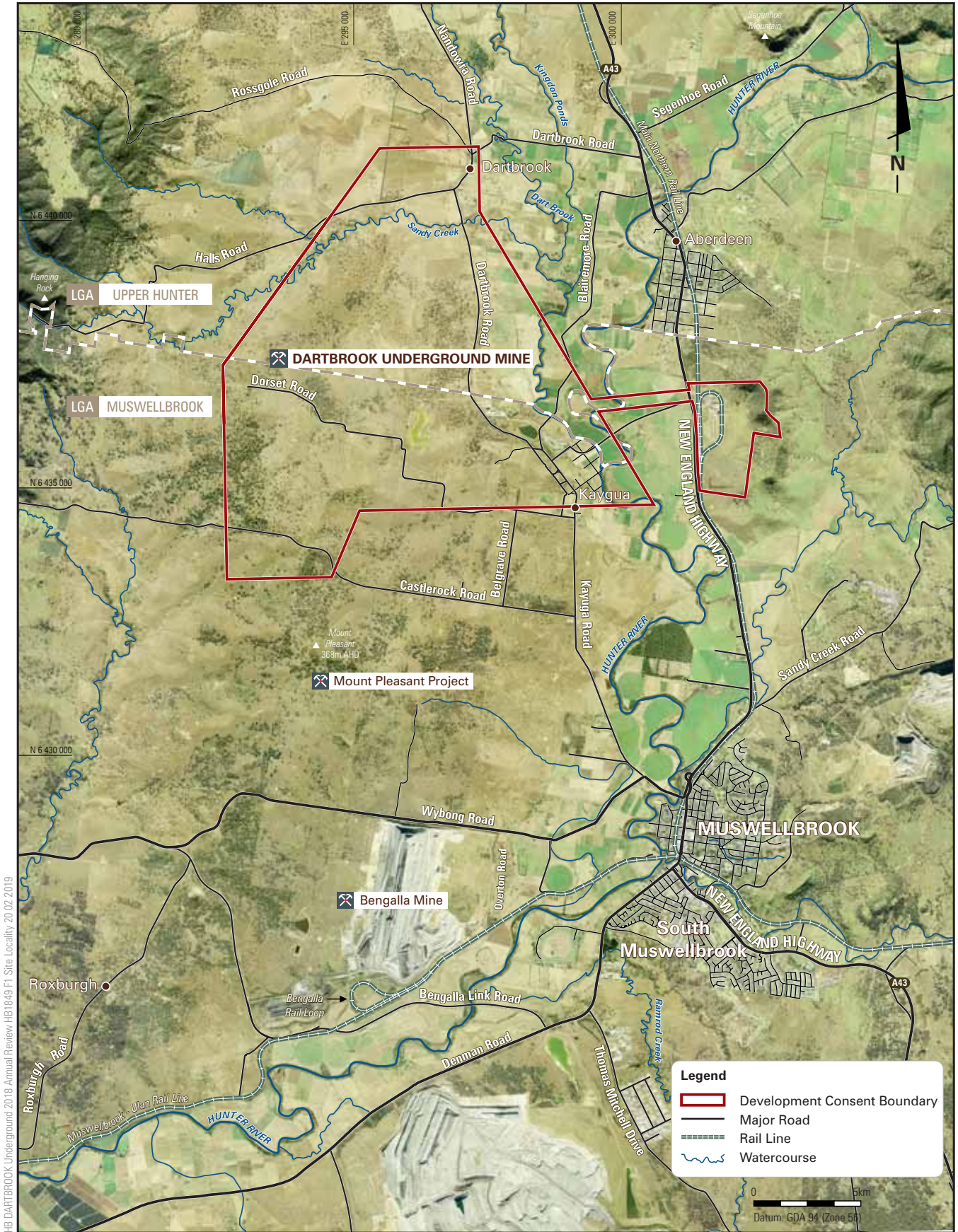


Figure prepared by Hansen Bailey

DARTBROOK MINE

Site Locality

FIGURE 1

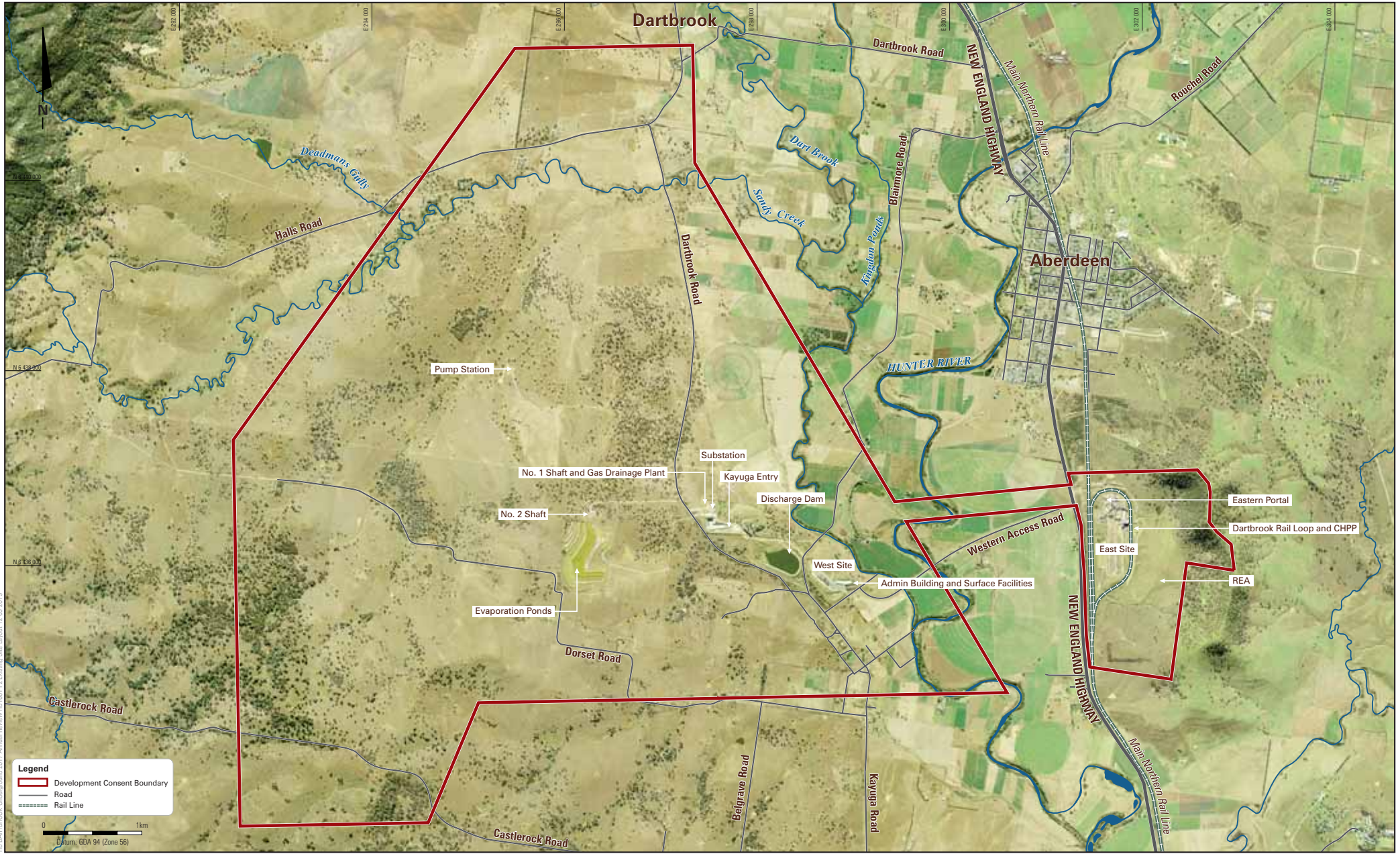
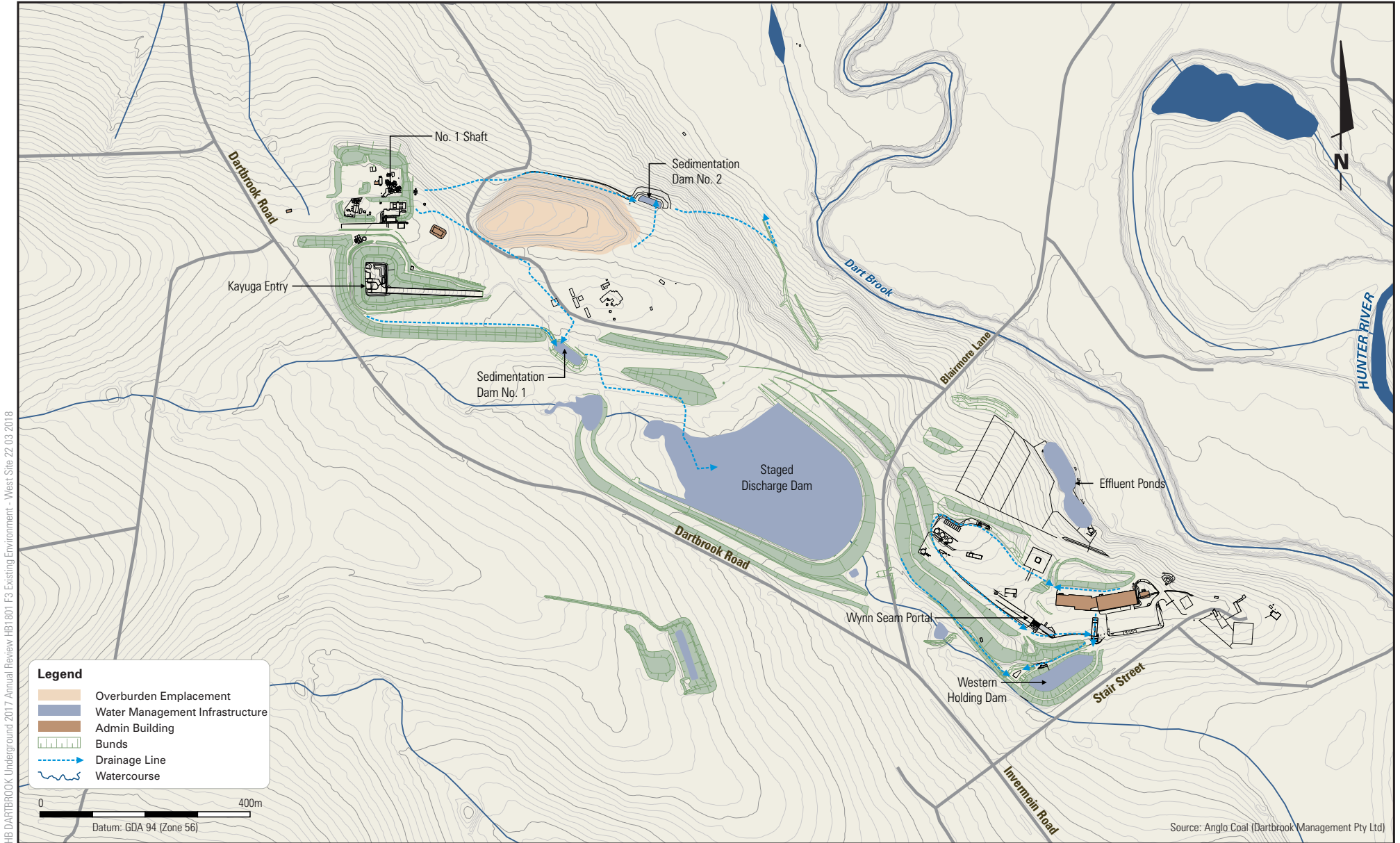


Figure prepared by Hansen Bailey

DARTBROOK MINE
Existing Site Layout

FIGURE 2

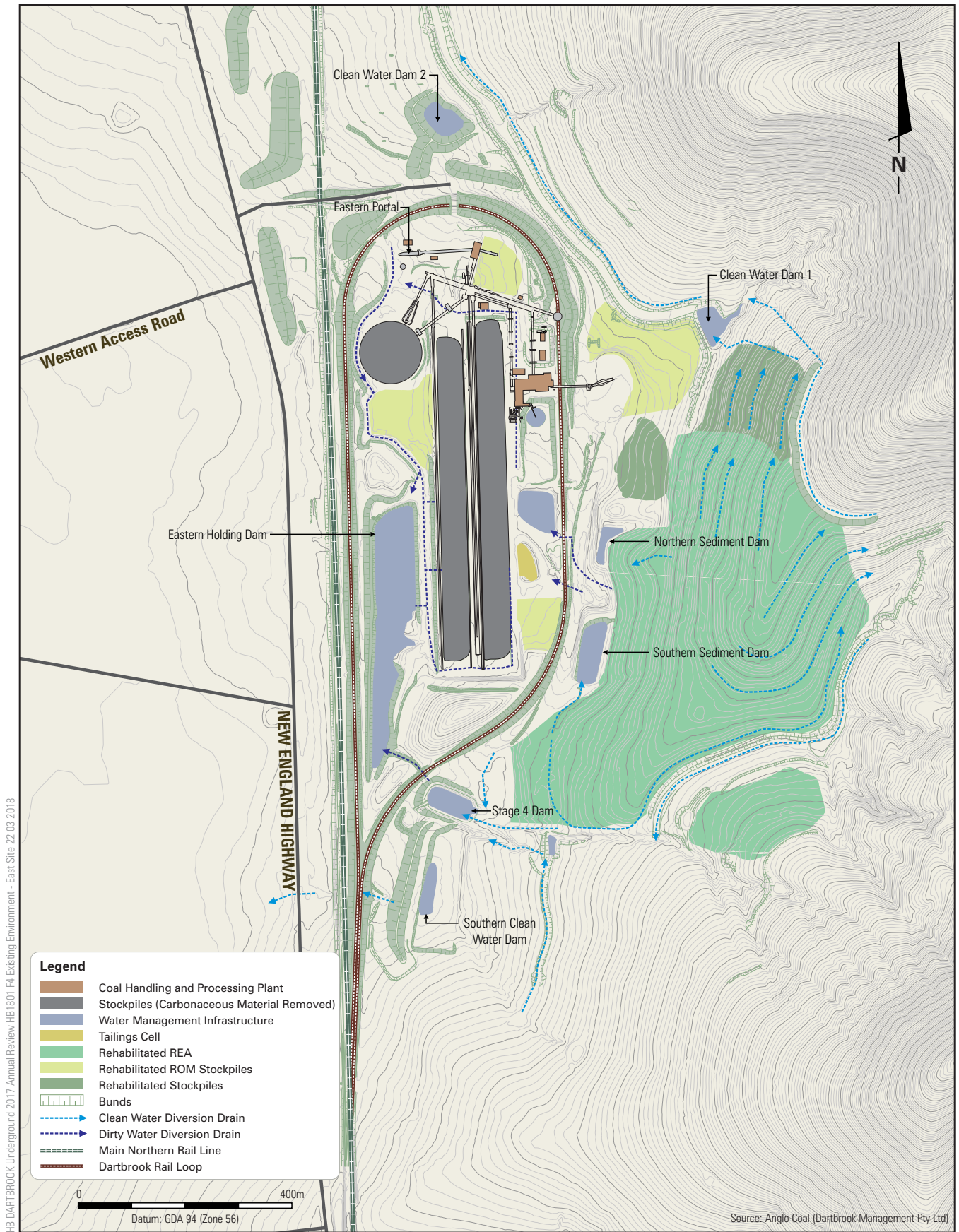


HB DARTBROOK Underground 2017 Annual Review HB1801 F3 Existing Environment - West Site 22.03.2018

Figure prepared by Hansen Bailey

DARTBROOK MINE
Existing Environment - West Site

FIGURE 3



HB DARTBROOK Underground 2017 Annual Review HB1801 F4 Existing Environment - East Site 22 03 2018

Figure prepared by Hansen Bailey

DARTBROOK MINE
Existing Environment - East Site

FIGURE 4

1.3 IEA Scope

The Independent Environmental Audit (IEA) timeframe has been determined as the date of the previous IEA site component on 13 July 2016 until the date of the approval of MOD 7 on 9 August 2019. This date was determined following consultation with the Department of Planning Industry and Environment (DPIE) in an email dated 16 August 2019.

All conditions of the Development Consent DA 231-07-2000 were assessed, however several conditions were 'Not Triggered' during the IEA period with the site remaining on Care and Maintenance.

The IEA has been completed to meet the requirements of Schedule 2 Condition 8.1 of DA 231-07-2000 (MOD 6). Condition 8.1 states:

Independent Environmental Audit

(a) Every three years from the date of this consent until completion of mining in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the mining and infrastructure areas of the development in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, MSC, SSC, EPA, DLWC, DMR, NPWS and CCC within two weeks of the report's completion for comment.

(b) The audit shall:

(i) assess compliance with the requirements of this consent, licences and approvals;

(ii) assess the development against the predictions made in the EIS;

(iii) review the effectiveness of the environmental management of the mine, including any mitigation works;

(iv) be carried out at the Applicant's expense; and

(v) be conducted by a duly qualified independent person or team approved by the Director-General in consultation with MSC and SSC. Such approval shall not be unreasonably withheld.

(c) The Director-General may, after considering any submission made by the relevant government agencies, MSC, SSC and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.

It is important to note that based on the advice of DPIE, the MOD 7 approval conditions have not been included in this IEA scope. SLR has however reviewed the MOD 7 Development Consent as it affects the context of recommendations as part of the IEA.

The IEA team assessed the following documentation:

- Development Consent DA 231-07-2000 (up to and including MOD 6);
- Environment Protection Licence (EPL) 4885;
- Consolidated Coal Lease (CCL) 386;

- The predictions made in the Dartbrook Extended Environmental Impact Statement (HLA Envirosciences, 2000); and
- Requests/comments received during pre-IEA consultation with government agencies and the Dartbrook Community Consultative Committee (CCC) Chairperson.

1.4 IEA Methodology

SLR Consulting was endorsed by the DPIE on 8 July 2019 to undertake the IEA of Dartbrook Mine. DPIE requested specialists in subsidence, rehabilitation and groundwater provide input to the IEA. The IEA was undertaken by the following personnel:

- Chris Jones – SLR Lead Auditor, subsidence and rehabilitation specialist;
- Jessica Coffey – SLR Assistant Auditor; and
- Claire Stephenson – SLR groundwater specialist.

Chris Jones and Jessica Coffey of SLR Consulting (SLR) completed the site review component of the IEA on 20 and 21 August 2019 at the Dartbrook Mine. Claire Stephenson assisted via a desktop review of groundwater information.

Information was provided prior to, during, and following the IEA site review.

The methodology for the IEA consisted of the following key steps:

- a. Introductory and close out meetings;
- b. Reviewing key documents provided by Dartbrook Mine prior to the IEA;
- c. Consultation with relevant government agencies;
- d. Site inspections of the East and West Sites and discussions with key Dartbrook personnel at the main office;
- e. Review of additional relevant documentation obtained while on site or provided by Dartbrook Contract Environmental Officer after the site visit; and
- f. Dartbrook Mine review and comment on the draft compliance spreadsheet.

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

The IEA has been completed as per the DPIE *Independent Environmental Audit Guidelines* (DPIE October 2015).

1.5 Consultation Requirements

Consultation emails were sent to the following government agencies and CCC Chairperson. The email from the CCC Chairperson to the SLR Lead Auditor was very detailed. Key comments from that email are outlined in **red text** in the 'Response to Stakeholder' comment table.

Table 2 Consultation Requirements for Dartbrook IEA

Contact	Details	Response from Stakeholder	SLR Response
Muswellbrook Shire Council	<p>Sharon Pope Executive Manager Planning, Environment & Regulatory Services Sharon.Pope@muswellbrook.nsw.gov.au</p>	<p>Completion of the audit against key statutory requirements outlined in Section 2 of the DPE Independent Environmental Audit Guidelines e.g. Development Consent (DA 231-07-2000 as modified and attached), Environment Protection Licence 4885 and other key licences (including Consolidate Coal Lease 386) would address areas of concern/interest held by Council. However four matters have recently been raised and, if you were not expecting to address these in the audit, I ask that you do:</p> <p>Water quality in the Hunter River downstream of the site, and the effects the operations have had in this water quality;</p> <p>Impacts on the Hunter River Alluvium aquifers (a combination of loss of water to fill voids and salinity);</p> <p>Grazing practices and management on buffer land (particularly on the western parts of the site). Overgrazing appears to have led to poor ground cover. There is concern that there will be erosion and sediment loss when heavy rain occurs. Due to current drought conditions groundcover is unlikely to return simply by removing stock. Some sediment control works may be required adjacent to waterways now to stop flow of sediment into the waterways. A program to re-seed and manage weeds will be necessary when the drought breaks; and</p> <p>What steps are being taken to manage vehicle movements to and from the site to achieve compliance with conditions of approval?</p>	<p>Water quality is assessed in the Annual Review with upstream and downstream monitoring completed. Based on the information provided there was no evidence downstream surface water impacts.</p> <p>Potential impacts relating groundwater and the Hunter River Alluvium aquifers is outlined in Section 5.1.</p> <p>Due to the drought conditions cattle were removed from the REA in 2018 and stock numbers reduced in areas of AQC land managed under lease to the west of the site. An additional reseedling program for sections of the REA is required once the drought breaks.</p> <p>There are very few vehicle movements in the IEA period with the site being on Care and Maintenance. This was not an issue during the IEA period.</p>

Contact	Details	Response from Stakeholder	SLR Response
UHSC	Paul Smith Senior Environmental Planner PSmith@upperhunter.nsw.gov.au	Nil response	Nil comments.
EPA	Jenny Lange jenny.lange@epa.nsw.gov.au	Nil Response	Nil comments.
DoI Water	Estelle Avery Senior Water Regulation Officer estelle.avery@dpi.nsw.gov.au	Nil Response	Nil comments.
NPWS	No direct contact	Nil Response	Nil comments.
The Resources Regulator	Jeremy Arnott Inspector Environment jeremy.arnott@planning.nsw.gov.au	Nil Response	Nil comments.
BCD	Steven Cox Senior Team Leader Planning Steven.Cox@environment.nsw.gov.au and rog.hcc@environment.nsw.gov.au	<p>Biodiversity and Conservation Division (BDC) of the Department of Planning, Industry and Environment (formerly the Office of Environment and Heritage) recommend the following matters are included in the IEA:</p> <p>In relation to condition 3.4 (Heritage Assessment, Management and Monitoring):</p> <p>that an Archaeology and Cultural Heritage Management Plan [as per condition 3.4 (a)] has been prepared and whether it is current</p> <p>whether protocols for the management procedures and protocols for issues relating to Aboriginal heritage for all stages of the development are in accordance with the current legislation [as per condition 3.4.(a) and (c)]</p> <p>whether consultation requirements stated in condition 3.4 (a) meet the current consultation requirements</p>	<p>1. Dartbrook Mine will review and update the approved Archaeology and Cultural Heritage Management Plan prior to any recommencement of mining operations on site. There was no clearing at the site during the IEA period and no evidence of heritage impacts.</p> <p>2. Dartbrook Mine will be required to review and update the approved Flora and Fauna Management Plan prior to any recommencement of mining operations on site.</p>

Contact	Details	Response from Stakeholder	SLR Response
		<p>whether the annual monitoring of the effectiveness of the measures described in the Archaeology and Cultural Heritage Management Plan and monitoring of known indigenous heritage sites within the DA area during construction and mining operations have been conducted [as per conditions 3.4 (g) and 3.4 (h)].</p> <p>In relation to condition 3.5 (Flora and Fauna Assessment, Management and Monitoring):</p> <p>The currency of the Flora and Fauna Management Plan and whether it considers all currently-listed local threatened species, populations and communities [this is particularly relevant for condition 3.5 (b) and recently-identified local threatened species such as <i>Dichanthium setosum</i> and the Striped Legless Lizard); and</p> <p>Whether the Flora and Fauna Management Plan includes the most current vegetation mapping available for the mine site?</p>	<p>Both of the management plans are out of date, but it is acknowledged in an email from DPIE on 9 April 2018, that updates to these plans were not required during the IEA period.</p>
Department of Planning Industry and Environment	<p>Heidi Watters Senior Compliance Officer heidi.watters@planning.nsw.gov.au</p>	<p>With the recent decision on MOD 7, please ensure that the IEA focuses on the compliance with the previous consolidated consent (i.e. MOD 6 – 2005) and environmental management for the period from the last IEA up to the date of the determination of MOD 7 (i.e. 09/08/2019), where the mine has been under care and maintenance.</p> <p>Further, it is noted that Schedule 2 condition 8.1 of the MOD 7 notice of modification requires an IEA within one year of the recommencement of mining operations.</p>	<p>The IEA has only assessed the period from 13 July 2016 until the date of the approval of MOD 7 on 9 August 2019. The IEA does not cover MOD 7, being outside of the IEA period.</p>

Contact	Details	Response from Stakeholder	SLR Response
CCC Chairperson	Kiwa Fisher Councillor, UHSC cr.fisher@upperhunter.nsw.gov.au	<p><u>1). The Security Deposit</u></p> <p>Also known as the 'Rehabilitation Bond', the Security Deposit is currently set at AUD\$9,245,000. This figure is to cover the costs of all rehabilitation in the event of proponent default.</p> <p>It is unclear whether the Dartbrook Security Deposit is in the form of a Bank Guarantee or actual cash in the bank. I will ask the question at the upcoming CCC meeting. In my view a Bank Guarantee presents greater risk (over cash in the bank) to the state if the proponent defaults.</p> <p>The size of the Security Deposit was evidently reassessed when the proponent submitted their current Mine Operation Plan. I am not privy to the scope and details of that reassessment, the criteria used or any conditions attached.</p> <p>When Anglo American, the previous proponent, placed the Dartbrook mine in Care and Maintenance in 2006, they booked Closure and Impairment Costs of AUD\$125M in their 2006 accounts contained in the Annual Report.</p> <p>Whilst that booked cost of closure would necessarily have included redundancy payments and a plethora of other costs, the figure still dwarfs the current Security Deposit.</p> <p>The current financial position of Australian Pacific Coal can accurately be described as critical and precarious. Under their current debt arrangements the company has debts of AUD\$53.2M. Much of that debt becomes payable on 29 May 2020, including AUD\$7.7M to the previous owner Anglo American.</p>	<p>1. The Rehabilitation Cost Estimate (RCE) has been approved by the Resources Regulator. However there will be a requirement to review the RCE again for MOD 7. It is not in the scope of this audit to complete a detailed review of the RCE.</p> <p>2. In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated:</p> <p><i>"other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review"</i>. It is noted that a Water Management Plan was not submitted to meet that timeframe, however evidence has been provided that the Water Management Plan is currently being updated.</p> <p>3. All management plans are being revised and updated for MOD 7.</p>

Contact	Details	Response from Stakeholder	SLR Response
		<p>The Company has recently lost its Joint Venture Partner, Stella Natural Resources [SNR]. Under the terms of the deal SNR were responsible for all costs associated with reopening the mine. The implications of this loss are that Australian Pacific Coal resume all costs at Dartbrook, circa AUD\$500K per quarter, along with their own corporate costs of AUD\$200K a quarter.</p> <p>The company's latest Quarterly Activities and Cash Flow Report details AUD\$700,000 in the bank. As previously mentioned, that figure represents roughly one Quarter's worth of the company's cash flow requirements. http://www.aqcltd.com/irm/PDF/2286_0/QuarterlyActivitiesandCashflowReport</p> <p>The company has been selling assets to prop up its Dartbrook project. It retains a shareholding in Bowen Coking Coal which equates to around \$800,000 or a little over another quarter of cash requirements. Other tenement assets are mortgaged to Anglo American and monies due to them if sold. http://www.aqcltd.com/irm/PDF/2283_0/PartialDivestmentofInvestmentHolding</p> <p>The company has just announced the departure of its CFO and Company Secretary who has been replaced on a "part-time basis", and the closure of its Brisbane office. https://www.asx.com.au/asx/share-price-research/company/AQC</p> <p>Australian Pacific Coal's modification 7 application to restart mining at Dartbrook is currently being considered by the Independent Planning Commission, with a decision expected this month.</p>	<p>4. A geotechnical inspection was completed by Douglas Partners for the REA in February 2019. The recommendations from the Douglas Partners Report should be implemented, with these identified as actions in Section 7.</p> <p>5. All management plans are being revised and updated for MOD 7.</p> <p>6. There was one enquiry during the IEA period. No written requests for compensatory water supply during the IEA period.</p>

Contact	Details	Response from Stakeholder	SLR Response
		<p>I am strongly of the view that the size of the Security Deposit is inadequate and insufficient to meet the full rehabilitation costs of the Dartbrook Mine, and as such represents an unacceptable risk to the state of NSW and its taxpayers.</p> <p>I am also strongly of the view that the risk of default by Australian Pacific Coal is high and growing exponentially and that this is compounding the already unacceptable risk to the State of NSW and its taxpayers.</p> <p>I refer you to the comments of Martin Rush, Mayor of the Muswellbrook Shire (which Dartbrook lies partially within) and my predecessor as chair of the Dartbrook CCC contained within the article at https://www.newcastleherald.com.au/story/3718470/nsw-auditor-general-asked-to-assess-mine-liabilities/</p> <p>I refer you to the NSW Auditor General’s 2017 Report into Mining Rehabilitation Security Deposits. The report makes for alarming reading. https://www.audit.nsw.gov.au/sites/default/files/pdf-downloads/01_Mining_Rehabilitation_Security_Deposits_Final_Report.pdf</p> <p>At the very least I would request a recommendation for an independent audit and assessment report of the costs of full rehabilitation of the Dartbrook Mine and site to be undertaken, and that the Security Deposit be amended as necessary pending the outcomes of that report.</p> <p>2). Site Water Management Plan</p>	

Contact	Details	Response from Stakeholder	SLR Response
		<p>In the 2017 AEMR 'Activities Proposed In The Next Reporting Period' section (page 80) it states <i>"The SWMP [Site Water Management Plan] will be revised and provided to DPE, EPA and stakeholders for comment"</i> in both the Surface Water Management and Ground Water Management tables.</p> <p>However, the 2018 AEMR states (page 1) <i>"it is proposed to review the Site Water Management Plan and associated surface and groundwater trigger levels following the determination of DA 231-07-2000 (MOD7) during the next reporting period"</i>. It is noted that the company flagged its intention to seek a modification in the 2017 AEMR, so the lodging of the modification application cannot really be used as an excuse for not completing that revision / review.</p> <p>In the 2017 AEMR 'Activities Proposed In The Next Reporting Period' section (page 80) Ground Water Management area it states, <i>"Dartbrook will review and investigate all 2017 exceedances of the SWMP ground water trigger levels"</i>. If this work was done, I could not find any details of it in the 2018 AEMR. Indeed, on page 1 of the 2018 AEMR in the 'Summary of Non - compliances' table it states <i>"Groundwater and surface water monitoring results in exceedance of trigger levels identified in the Site Water Management Plan. Investigation of causes to be completed in the next reporting period"</i>.</p> <p><u>3). Dust Management Plan</u></p> <p>In the 2017 AEMR 'Activities Proposed In The Next Reporting Period' section (page 80) it states, <i>"Air Quality. The DMP will be revised and provided to the DPE, EPA and stakeholders for comment"</i>. If this work was done it is not reflected in the 2018 AEMR.</p>	

Contact	Details	Response from Stakeholder	SLR Response
		<p><u>4). Reject Emplacement Area</u></p> <p>In the 2017 AEMR 'Activities Proposed In The Next Reporting Period' section (page 81) it states, "REA. A structural inspection of the REA will be undertaken in 2018". This activity does not appear to have taken place. Indeed the 2018 AEMR (page 17) details that "... an independent engineering assessment to be made ... at periods not exceeding 3 years of the dams and holding structures associated with the rejects disposal project" is a condition of the Section 126 approval and that the last such exercise was dated November 2015 and that the next such exercise will be undertaken in early 2019.</p> <p><u>5). Aboriginal Heritage</u></p> <p>At the recent Independent Planning Commission hearing of the Dartbrook Modification 7 Application evidence was presented by Dr. Tim Owen of GML Heritage (he holds a PhD in Aboriginal Archaeology) of a previously unrecognised male bora or ceremonial area in the north of the mining boundary area. Dr. Owen's verbal presentation is accessible via this link (pages 95 - 98) https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/general/transcripts/dartbrook/dartbrook-coal-mine-20190409_public-meeting-transcript.pdf?la=en&hash=F0845E0851E08E9E0BCC9CD38D2C2769 . A copy of his presentation is at this link https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2019/02/dartbrook-coal-mine-modification-7/public-meeting/speakers-presentations/tim-owen_gml-heritage-presentation.pdf .</p>	

Contact	Details	Response from Stakeholder	SLR Response
		<p>Clause 3.4 of the Development Consent deals with Heritage Assessment Management and Monitoring. The new information provided by Dr. Owen is relevant to clauses 3.4(a)i, 3.4(a)ii, 3.4(a)iii, 3.4(a)iv, 3.4(c), 3.4(g) and 3.4(h) and possibly others. I'm of the view that the proponent's Archaeology and Cultural Management Plan may very well need updating to reflect the new information provided by Dr. Owen.</p> <p><u>6. Other</u></p> <p>As previously mentioned I contacted the other community members of the CCC for any input. The following comment was received back -</p> <p><i>"Please add rehabilitation of the site and protection of surface and subsurface water assets as part of the community concerns... When Dartbrook pump from their underground workings/ tunnel, some neighbours are losing the ability to pump from their shallow aquifer bores"</i>.</p>	

1.6 Statement of Independence

We can confirm independence based on the following:

- No one from SLR or the proposed IEA team is related to any proponent, owner, operator or other entity involved in the delivery of the project. Such a relationship includes that of employer/employee, a business partnership, sharing a common employer, a contractual arrangement outside an Independent Audit, or that of a spouse, partner, sibling, parent, or child.
- No one from SLR or the proposed IEA team has any pecuniary interest in the project, proponent or related entities. Such an interest includes where there is a reasonable likelihood or expectation of financial gain (other than being reimbursed for performing the IEA) or loss to the auditor, or their spouse, partner, sibling, parent, or child.
- No one from SLR or the proposed IEA team have provided services (not including independent reviews or auditing) to the current project with the result that the IEA work performed by themselves or their company, except as otherwise declared to the Department prior to the IEA.
- No one from SLR or the IEA team is an Environmental Representative for the Project.
- No one from the proposed IEA team can or will accept any inducement, commission, gift or any other benefit from auditee organisations, their employees or any interested party, or knowingly allow colleagues to do so.

2 Documents Reviewed and Assessed

The key documentation reviewed as part of the IEA are outlined below:

Approval Documentation

- Dartbrook Extended Development Consent (DA 231-07-2000) (as modified);
- EPL 4885;
- Coal Lease (CL) 386;
- Anglo Coal Dartbrook Extended Mine Project Environmental Impact Statement (HLA Envirosciences, 2000);
- Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information (Hansen Consulting, 2002);
- Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information for an emergency tailings storage cell (Hansen Consulting, 2003);
- Dartbrook Coal Mine: Statement of Environmental Effects for Modification to Rejects Disposal System (Hansen Consulting);
- Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant (Hansen Consulting, 2005); and
- Dartbrook Mine: Environmental Assessment Modification 7 (Hansen Bailey, June 2018).

Monitoring and Audits

- Annual Review 2016-2019;
- Monitoring records for air, water, noise from 2016-2019; and
- Independent Environmental Audit Report (2016).

Management Plans

- MOP for Care and Maintenance;
- Environmental Management Strategy;
- Complaints Handling Protocol;
- Archaeology and Cultural Heritage Management Plan;
- Blast Management Plan;
- Bushfire Management Plan;
- Land Management Plan;
- Landowner Communication and Consultation Plan;
- Vibration Management Plan;
- Waste Management Plan;
- Dust Management Plan;
- Noise Management Plan;

- Flora and Fauna Management Plan;
- Landscape and Lighting Management Plan;
- Dartbrook Mine Closure Plan;
- Site Water Management Plan; and
- Soil Stripping Management Plan.

Correspondence

Numerous pieces of correspondence with government agencies. Key consultation is noted in **Appendix B** conditions.

3 Assessment of Compliance

The terms used in the IEA to describe the level of compliance of the site with the relevant approval documentation are outlined in **Table 3** and **Table 4**. These are requirements of the DPIE *Independent Environmental Audit Guidelines* (October 2015).

Table 3 Compliance Assessment Criteria

Assessment	Criteria
Compliant	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.
Not verified	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.
Non-compliant	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.
Administrative non-compliance	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).
Not triggered	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.
Observation	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.
Note	A statement or fact, where no assessment of compliance is required.

Table 4 Risk Levels for Non - Compliances

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

4 Approvals and Documents Assessed

4.1 Previous Audit Recommendations

The previous IEA was undertaken by SLR in July 2016 and reviewed operations at Dartbrook from August 2013 (the previous IEA) to July 2016. The previous IEA identified one low-risk and five administrative non-compliances and made a number of associated recommendations.

Dartbrook Mine responded to SLR's recommendation from the previous IEA in a letter to DPE dated 29 September 2016. On 13 March 2017, DPIE advised that both the IEA report and Dartbrook's response were satisfactory. Annual Reviews have tracked the status of proposed recommendations from the IEA.

Many of the recommendations related to updating management plans. It is noted that there have been several emails provided to SLR regarding timings and requirements to update management plans post MOD 7 approval (since been approved). See **Section 4.4** regarding management plans.

4.2 EIS

The original Dartbrook EIS was prepared by Envirosciences in 1990. A new EIS for the Extended Mine Project, titled the *Anglo Coal Dartbrook Extended Mine Project Environmental Impact Statement* (HLA Envirosciences, 2000) was prepared in 2000 (the EIS). There have since been seven consent modifications, of which, five have had supporting environmental assessments:

MOD 1 - Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information to Accommodate Blasting Conditions (Hansen Consulting, 2002);

MOD 2 - Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information for an Emergency Tailings Storage Cell (Hansen Consulting, 2003);

MOD 5 - Dartbrook Coal Mine: Statement of Environmental Effects for Modification to Rejects Disposal System (Hansen Consulting);

MOD 6 - Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant (Hansen Consulting, 2005); and

MOD 7 Dartbrook Mine Modification 7 Environmental Assessment Kayuga Seam Bord and Pillar Mining Operations", dated June 2018 (Hansen Bailey Environmental Consultants June 2018).

The impact predictions in the EIS were for an operating site and are not applicable to the site being in Care and Maintenance. It is therefore difficult to compare EIS predictions to data for noise, dust, subsidence and water during the IEA period based on the site being in Care and Maintenance since the end of 2006. The impacts to MOD 7 have not been assessed as the modified Development Consent was not determined during the IEA period.

4.3 Development Consent

The Development Consent has been modified on seven occasions.

It is important to note that based on the advice of DPIE the MOD 7 approval has not been included in this IEA scope. SLR has however reviewed the MOD 7 Development Consent as it affects the context of recommendations as part of the IEA.

All conditions of the Development Consent were assessed, however several conditions were 'Not Triggered' during the IEA period with the site remaining on Care and Maintenance. A summary of non-compliances and additional recommendations are outlined in **Section 5 and 6**, with full compliance tables included as **Appendix B**.

4.4 Management Plans and Programs

The adequacy of management plans and programs required under the Development Consent were assessed for this IEA. A list of the management plans reviewed for this IEA is outlined in **Section 2**.

An assessment of the conditions of each management plan is covered within **Appendix B**. A summary of non-compliances and additional recommendations for the site management plans are outlined in **Sections 5 and 6**.

The following management plans were updated and approved by the DPIE during the IEA period and cover the Care and Maintenance status of the site:

- Dust Management Plan (24 November 2015);
- Erosion and Sediment Control Plan (21 October 2014); and
- Site Water Management Plan (20 April 2015).

The following other MP's were updated, however these are for internal use only:

- Mine Closure Plan (26 July 2014); and
- Environmental Monitoring Plan (22 Sept 2014).

In an email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it was stated that:

"other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review". It is noted that although the Water Management Plan has been undergoing a review during the IEA period, an updated plan has not been submitted to DPIE.

4.5 Environment Protection Licence

EPL 4885 is administered by the EPA. All conditions of this licence were assessed for the IEA with this outlined in **Appendix B**.

A summary of non-compliances and additional recommendations are outlined in **Sections 5 and 6**.

4.6 Mining Leases

CCL 386 was assessed during the IEA with this outlined in **Appendix B**.

A summary of non-compliances and additional recommendations relating to CCL 386 are outlined in **Sections 6 and 7**.

4.7 Water Licences

There is a very complex arrangement of Water Access Licences (WALs) for Dartbrook Mine. The Annual Review provides an excellent summary of Water Take in the 2017 and 2018 Annual Reviews. The 2016 Annual Review did not provide as detailed a summary.

Bore licences listed in the SWMP have since been converted to WALs, and licencing reconciled during the MOD7 process:

- Licence 20BL169016 has been converted to WAL41524, which has a share component of 150 units; and
- Licence 20BL169015 has been converted to WAL41523, which has a share component of 30 units.

The table below provides a summary of water access licences from 2017 – 2018 with this information outlined in the Annual Review.

Table 5 Groundwater Inflows (2017/2018)

Water Licence	Water Sharing plan, source and management zone (as applicable)	Entitlement	Passive Take/inflows 2018	2017 Active Pumping (ML)	2018 Active Pumping (ML)	Total Entitlement
WSP for Hunter Unregulated and Alluvial Water Sources 2009						
WAL 17739	Dartbrook Alluvial Water Source	30	0	2.09	6.3	950
WAL 17762		254				
WAL 17781		278				
WAL 17863		5				
WAL 23875		50				
WAL 17790		228				
WAL 30213		105				
WAL 17889	Dartbrook Unregulated River Source	17	0	0	0	85
WAL 17797		68				
WAL 18134	Hunter Alluvial Water Source	297	128	0	0	1,249
WAL 18174		37				
WAL 18210		235				
WAL 18225		121				
WAL 18228		90				
WAL 18239		371				
WAL 18126		98				
WSP for Hunter Regulated River Water Source 2016						
WAL 506		261	0	0	2,194.8	2,811
WAL 759		24				
WAL 838		8				

Water Licence	Water Sharing plan, source and management zone (as applicable)	Entitlement	Passive Take/inflows 2018	2017 Active Pumping (ML)	2018 Active Pumping (ML)	Total Entitlement
WAL 956	General Security	176				
WAL 996		120				
WAL 1005		171				
WAL 1021		480				
WAL 1022		264				
WAL 1024		228				
WAL 1025		3				
WAL 1026		5				
WAL 1027		63				
WAL 1235		270				
WAL 13386		270				
WAL 14607		328				
WAL 14609		5				
WAL 9048		135				
WAL 955	High Security	3	0	0	0	6
WAL 1023		3				
WAL 1267	Supplementary Water	6	0	0	0	254.8
WAL 1313		30.2				
WAL 1316		10				
WAL 1317		42.				
WAL 1318		23.8				
WAL 13336		18.7				
WAL 14605		89				
WAL 9055		35				
WSP for Sydney Basin North Coast Groundwater Source						
WAL 41523	Sydney Basin North Coast Groundwater Source	30	-	182	0	180

5 Environmental Management - Specialist Assessments

5.1 Groundwater

5.1.1 EIS – Groundwater Impacts

The groundwater assessment for approved operations at Dartbrook was conducted by MER (2000). The assessment identified two main groundwater sources relevant to the site, unconfined alluvium and the Permian coal measures (hardrock). Numerical groundwater modelling was conducted to assess the potential impacts on the groundwater regime in response to existing underground mining within the Wynn Seam plus additional mining within the Kayuga Seam and Piercefield Seam. The model predicted inflows to active mine areas of 0.6 ML/day in the Wynn Seam workings, rising to 1.6 ML/day in the Kayuga and Piercefield seams. Approximately 1.4 ML/day of water is also pumped from the Hunter Tunnel.

The Annual Reviews document the volume of water abstracted from the Hunter Tunnel and transferred into the Wynn Seam Goaf for storage, and the volume of predicted inflows from the Wynn Seam into the goaf, as detailed in **Table 6**. The groundwater intercepted at site is within the Water Sharing Plan (WSP) for North Coast Fractured and Porous Rock Groundwater Source, Sydney Basin – Upper Hunter Groundwater Source.

Table 6 Groundwater Inflows

	Predicted (During Mining)	2016	2017	2018
Hunter Tunnel	511 ML/year	182 ML/year	182 ML/year	128 ML/year
Wynn Seam Goaf	219 ML/year	106 ML/year	106 ML/year	106 ML/year
Total	730 ML/year	288 ML/year	288 ML/year	234 ML/year

Depressurisation of the Permian coal measures was predicted to extend up to 2 km from the active mine area. With depressurization there was predicted to be a reduction in upward seepage to the overlying alluvium in isolated areas by up to 0.1 ML/day, but no impact on surface water flows. With cessation of mining it was predicted that recovery will take over 100 years.

Assessment of leachate also indicated a rise in total dissolved solids (TDS) from 500 mg/L to 10,000 mg/L at year 21. There was potential for seepage of the saline water towards alluvium to the west over the long term, potentially increasing TDS in the alluvium from 327 mg/L to 1,000 mg/L. However, the source of seepage will be removed with capping and closure.

Ongoing monitoring was proposed to include weather monitoring, measurement of water levels and water quality (EC, pH and ionic speciation) within the regional network of bores, measurement of water levels and water quality (EC and pH) in the mine water system, compliance monitoring of surface water discharges and annual reporting.

5.1.2 Assessment of Development Consent Conditions

In an email from Dorian Walsh at Hansen Bailey on 6 June 2019, we understand DPIE requested specialist focus on groundwater, *“review of groundwater monitoring results and adequacy of management plan”*.

Groundwater is a key management aspect for the site currently along with future operations. SLR’s groundwater specialist and Lead Auditor have both reviewed the sub conditions in great detail and outlined in the table below. It’s noted that an updated Site Water Management Plan is currently being updated and will need to cover the requirements of MOD 7.

Table 7 Dartbrook IEA Groundwater Conditions Summary

Condition	Details	Status	Evidence	Recommendations
4.1	<p>Surface & Ground Water Management Plans</p> <p>The Applicant shall:</p> <p>(a) prior to the commencement of Mining Operations, prepare a Site Water Management Plan for the DA area, in consultation with DLWC, MSC and to the satisfaction of the Director-General, which shall include, but not be limited to, the following matters:</p>	Compliant	SWMP Version 5 dated 20 April 2015.	-
	<p>(i) management of the quality and quantity of surface and ground water within the areas covered by the water management plans;</p>	Compliant	<p>SWMP 2015 Sections 2, 3 and 4.</p> <p>Section 2.2 for surface water runoff management and Section 2.3 for groundwater management strategies for the Hunter Tunnel dewatering and the Wynn Seam and Kayuga Seam goaf areas. Section 2.3.3 includes requirement for monthly monitoring of the inflow rate and water quality. Increased flow rate or reduced salinity will trigger an investigation. Section 2.3.4 includes requirements for monitoring of the Wynn Seam goaf area. Section 4.2 includes details on the groundwater monitoring network, monitoring frequency and trigger criteria.</p>	

Condition	Details	Status	Evidence	Recommendations
			<p>Observation – the groundwater monitoring network and monitoring frequency outlined within the SWMP 2015 does not fully comply with the recommended monitoring program included in Appendix A of the SWMP 2015 (Rationalisation of Groundwater Monitoring Program).</p> <p>For example, three monitoring points (WSG1 to WSG3) for the Wynn Seam Goaf have not been included in the monitoring program. There is a recommendation in the report to review the monitoring program as part of MOD 7.</p>	
	(ii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water; including details of temporary surface drainage works to minimise the flow of surface water onto the rejects emplacement area and details of drainage works to direct runoff from the active rejects emplacement areas to onsite storage dams;		Surface water condition covered in Appendix B.	
	(iii) measures to prevent the degradation of downstream surface water quality below the pre-mining ANZECC beneficial water use classification due to mining operations, particularly in the Hunter River;		Surface water condition covered in Appendix B.	

Condition	Details	Status	Evidence	Recommendations
	<p>(iv) measures to determine whether any groundwater from the Hunter River alluvium aquifers is captured by the mine including a response plan in the event that monitoring shows evidence of a dilution of salinity or change in water chemistry, or increase in inflow rate that may indicate leakage from the alluvium to the Hunter Tunnel;</p>	<p>Administrative non - compliance</p>	<p>SWMP 2015 refers to this being addressed in Section 2.2.3 and 5.2.</p> <p>There is no Section 2.2.3. Section 2.3.3 details that monthly monitoring of inflows and water quality to the Hunter Tunnel and refers to the monitoring program in Section 4, and details that any monitoring results that may indicate unexpected impact such increased flow rate or reduced salinity will trigger an investigation.</p> <p>Section 4.3 includes mention of monitoring of dewatering volumes from the Hunter Tunnel and annual reconciliation of the site water balance. No details are provided on how monthly data for inflows and water quality will be utilised to monitor potential impacts.</p> <p>Section 4.4 includes details for 6 monthly monitoring of four Hunter River alluvial bores (FRA1, JOR1, KAI1 and WAL2), and water level and quality triggers for five alluvial bores (lists WAL2 twice with separate triggers).</p> <p>Section 5.2 relates to Excess Mine Water management – when water levels reach 269 mbgl at the pleuger pump site the</p>	<p>GW REC 1</p> <p>Recommend update the SWMP to include a monitoring program to ensure early identification of potential impacts associated with dewatering from the Hunter Tunnel utilising the monthly monitoring data. Develop a clear action response plan, including timing for actions to be commenced from when triggers are exceeded or adverse trends identified.</p>

Condition	Details	Status	Evidence	Recommendations
			<p>consumption of mine water will be reviewed.</p> <p>No impacts with regards to the Hunter River alluvium were identified in the groundwater assessment and the SWMP (Section 5.3) indicates studies were conducted to verify hydraulic connectivity. However, there is a risk that the current SWMP does not fully address all requirements within the consent conditions and is not adequate for early identification of groundwater impacts with regards to the Hunter Tunnel.</p>	
	(v) measures to be implemented in the event that the continued operation of the Hunter Tunnel leads to a significant increase in groundwater salinity in the alluvial aquifer system;	Administrative non - compliance	<p>SWMP 2015 refers to this being addressed in Section 2.2.3 and 5.2.</p> <p>There is no Section 2.2.3.</p> <p>Section 2.3.3 details that any monitoring results that may indicate unexpected impact such increased flow rate or reduced salinity will trigger an investigation. No details on the measures to be implemented if an increase in salinity in the Hunter River alluvium is detected.</p>	<p>GW REC 2</p> <p>Update the SWMP to include measures to be implemented in response to increase in groundwater salinity in alluvial aquifer being identified in site monitoring.</p>
	(vi) contingency plans for managing adverse impacts of the development on surface and groundwater quality which shall include:	-	-	-

Condition	Details	Status	Evidence	Recommendations
	1) contingency arrangements to manage excess saline water if the storage of the mine water management system is exceeded; and	Compliant	Section 5.2 of SWMP 2015.	-
	2) contingency measures to manage any impacts identified by monitoring that the management strategies have failed to predict or control, particularly relating to groundwaters associated with the alluvial aquifer of the Hunter River, in consultation with DLWC.	Compliant	Section 5.3 of SWMP 2015 specifies that the proponent would consult with the regulatory authority to develop appropriate mitigation measures. No further details on contingency measures are provided.	GW REC 3 Recommend update the SWMP to include clear procedures with regards to the timing and types of actions to be initiated in response to unexpected impacts.
	(vii) details of a dispute resolution process to resolve issues where deepening and/or increased operational costs of licensed bores where the water table has been lowered by mining activities, is disputed between the Applicant and affected landowner;	Compliant	Section 5.4 of SWMP 2015 refers to the dispute resolution process to be conducted in accordance with the Development Consent.	-
	(viii) measures to ensure that waters of poorer quality are effectively segregated and reused on the site.	Compliant	Section 2.2 of SWMP 2015 and ESC include details on management of surface water. Any seepage / drainage from the REA is captured in the site water management system.	-
	(ix) details of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams;	-	To be captured within the Mine Closure Plan	-

Condition	Details	Status	Evidence	Recommendations
	(x) measures to isolate heavily contaminated waters, including waters containing oil and grease, or other pollutants, operation chemical residues or other criteria, to avoid mixing with reuse or discharge waters;	Compliant	Section 2.2 of SWMP 2015.	GW REC 4 Observation – no discussion on potential sources of contamination and subsequent measures to isolate waters is specified in the SWMP. Additional detail to be provided in the next revision to the SWMP.
	(xi) measures for assessing chemical water quality impacts of the mining operation above and below the mine site;	Compliant	Section 4.0 of SWMP 2015.	-
	(xii) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts including downgradient of the rejects emplacement area;	Administrative non-compliance	Referred to as Section 2.2 of SWMP 2015, which relates to surface water management only. No measures are specified to manage groundwater quality changes and mobilisation of salts including downgradient of the REA.	GW REC 5 Trigger threshold criteria for the REA monitoring bore FRA1 have been triggered over the review period. No evidence provided on action to investigate or manage potential changes in water quality and mobilisation of salts. Additional detail to be provided in the next revision to the SWMP.
	(xiii) details of consultation with landholders who use water from the proposed longwall mining area and adjacent area and those parts of Dart Brook and Sandy Creek alluvia immediately adjacent to the mining areas, in relation to their requirements for and the availability of, water and shall consider those water uses in the formulation of the management plan;	Compliant	Section 5.4 of SWMP 2015.	

Condition	Details	Status	Evidence	Recommendations
	(xiv) details of a surface water and groundwater monitoring program (refer to clause 4.2(a)(ii); and	Compliant	Section 4 of SWMP 2015.	-
	(xv) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plans, and EIS.	Compliant	Section 6 of SWMP 2015, annual reporting and incident reporting.	-
	<p>(b) The Applicant shall undertake annual assessments of the accuracy of the groundwater model predictions outlined in the EIS compared with monitored groundwater impacts in consultation with DLWC. Details of the assessments shall be reported in the AEMR and the scope of the assessment shall be determined in consultation with DLWC.</p> <p>Should the assessment identify significant differences between the EIS model predictions and monitored impacts, the Applicant shall revise the assessment of the potential impacts on groundwater systems in consultation with DLWC and implement any further mitigation measures in consultation with DLWC.</p>	Non-compliant – Low Risk	<p>For the Hunter Tunnel monitoring network annual groundwater reviews (AGE 2016, 2017 and 2018) include discussion on groundwater level and quality trends for the alluvial bores. AGE 2017 and AGE 2018 identified a trigger exceedance for EC for bore WAL2. In addition trigger exceedances for alkalinity, calcium, chloride, magnesium, sulphate and TDS for bores FRA1 and KA1. No further investigation was conducted.</p> <p>Annual groundwater reviews by AGE (2016, 2017 and 2018) include discussion on groundwater level and quality trends for the rejects emplacement area (REA) bores. AGE 2017 and 2018 identified that EC results were above the trigger criteria, were recording a trend of rising EC over time and recommended further investigation. The AGE 2018 report also shows a rise in EC at alluvial bore FRA1,</p>	<p>GW REC 6</p> <p>Trigger threshold criteria for the REA monitoring bores and Hunter Tunnel bores have been triggered over the review period. No evidence provided on action to investigate or notify the regulator. Ensure the TARP's are effectively implemented in the future.</p>

Condition	Details	Status	Evidence	Recommendations
			which is located west of the REA network and indicates potential seepage towards the Hunter River alluvium.	
	(c) In the event that the development adversely affects groundwater users, the Applicant shall in consultation with DLWC, liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply.	Compliant	No formal complaints made over the review period.	-

Condition	Details	Status	Evidence	Recommendations
	<p>(d) The Applicant shall obtain a licence from DLWC under:</p> <p>(i) Part 2 of the <i>Water Act 1912</i>, for the drainage diversion channels (changing the course of a river);</p> <p>(ii) Part 5 of the <i>Water Act 1912</i> for the bores and wells which intersect the groundwater table, including monitoring bores and the excavations which intersect the groundwater table.</p>	Compliant	<p>The SWMP specifies water licenses held by the proponent in Section 2.4, stipulating licence 20BL169016 with an allocation of 150 ML for dewatering from the Wynn Seam Goaf and licence 20BL169015 has an allocation of 30 ML for dewatering from the Hunter Tunnel. Within Table 20 in Section 7.1 of Annual Review 2017 it is stated the proponent holds an entitlement of 182 ML/year for take of groundwater from the North Coast Fractured and Porous Rock Groundwater Source, within a separate groundwater source, the Alstonville Basalt Plateau Groundwater Source. Within Table 22 of Section 7.1.2 of Annual Review 2018 details on licences under the Sydney Basin North Coast Groundwater Source are included with an entitlement of up to 180 ML/year (WAL 41523 and WAL 41524).</p>	<p>GW REC 7</p> <p>Recommend current water licencing is included in the revised SWMP.</p>

Condition	Details	Status	Evidence	Recommendations
			<p>The Annual Reviews from 2016 to 2018 detail that 128 ML/year to 182 ML/year of water was abstracted from the Hunter Tunnel, and 106 ML/year from the Wynn Seam Goaf. The seepage into the Hunter Tunnel is derived predominantly from the Hunter Regulated River Alluvial Water Source (i.e. the Hunter River alluvial aquifer). AQC holds several WALs with a combined share component of 1,249 units in this water source. Therefore, AQC's current water licences are sufficient to authorise the taking of 128 – 182 ML/year from the Hunter River alluvial aquifer. Section 7.1.2 of the 2018 Annual Review outlines this information.</p> <p>Based on the combined volume, the volume of water intercepted over the review period exceeded the licence allocation held.</p> <p>Bore licences listed in the SWMP have since been converted to WALs, and licencing reconciled during MOD7 process:</p> <ul style="list-style-type: none"> - licence 20BL169016 has been converted to WAL41524, which has a share component of 150 units 	

Condition	Details	Status	Evidence	Recommendations
			<p>- licence 20BL169015 has been converted to WAL41523, which has a share component of 30 units.</p> <p>These WALs authorise the taking of up to 180 ML/year from the Sydney Basin-North Coast Groundwater Source, which includes the Permian aquifer at Dartbrook Mine. Therefore, these WALs are sufficient to account for the modelled inflow to the Wynn Seam Goaf (106 ML/year).</p> <p>Records for pumping to goaf and seepage from the Hunter Tunnel. The volume of water in the goaf is calculated based on the water levels recorded in the groundwater dip.</p>	
4.2	Surface and Groundwater Monitoring	-	-	-
	(a) The Applicant shall:			
	(i) construct and locate surface and groundwater monitoring positions, as identified in the Site Water Management Plan (Condition 4.1(a)) in consultation with DLWC, and to the satisfaction of the Director-General, at least three months prior to the commencement of mining operations;	Compliant	Groundwater monitoring network was in place as specified within the SWMP 2015.	GW REC 8 Observation – the groundwater monitoring network and monitoring frequency outlined within the SWMP 2015 does not fully comply with the recommended monitoring program included in Appendix A of the SWMP 2015. For example, three monitoring points (WSG1 to WSG3) for the

Condition	Details	Status	Evidence	Recommendations
				Wynn Seam Goaf have not been included in the monitoring program.
	(ii) prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the DA area during mining works and post mine operations in consultation with DLWC which shall form part of the Site Water Management Plan. The monitoring program shall have the capacity to collect sufficient data to adequately assess:	-	-	-
	1) the impact on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;	Compliant	The SWMP 2015 Section 4.1 and 4.2 specify that the depth to groundwater within the Wynn Seam Goaf will be monitored at the Pleuger pump site on a monthly basis. No monitoring of groundwater levels is conducted at this location, however water levels in the goaf are monitored on a weekly basis at the nearby BH901 site. Annual groundwater reviews by AGE for 2017 and 2018 refer to monitoring at BH901 with six monthly dipped water levels (mbgl) recorded and no details on the bore location or historical water level trends provided.	GW REC 9 Recommend updating the monitoring program in the SMWP for consistency with current monitoring arrangements for the Wynn Seam Goaf and Hunter Tunnel. Liaise with groundwater specialist regarding monitoring program to ensure potential additional groundwater impacts from MOD 7 are being effectively being monitored and reviewed.

Condition	Details	Status	Evidence	Recommendations
	2) the impact of the development on groundwaters associated with the alluvial aquifer of the Hunter River including the ongoing monitoring of the volume and quality of water inflows into the Hunter Tunnel;	Compliant	SWMP 2015 includes requirement to monitor inflow volume and water quality into the Hunter Tunnel on a monthly basis, as well as monitoring of alluvial bores (FRA1, JOR1, KAI1 and WAL2) on a six monthly basis. Evidence of inflows into the Hunter Tunnel being monitored weekly.	-
	3) regional groundwater levels and water quality including the extension of the regional groundwater monitoring network to include bores RDH508-511; and	Compliant	Groundwater monitoring program as specified within SWMP 2015 has a regional network and includes bores RDH508-51 to monitor impacts of the rejects emplacement area (REA).	-
	4) any concerns or complaints from surrounding landholders on groundwater matters, and any ensuing actions, which shall be recorded and be available to DLWC.	Compliant	Documented within Section 9.1 of Annual Review 2016, Annual Review 2017 and Annual Review 2018, no formal complaints were received over the IEA period.	-
	(iii) report on the monitoring results and raw data in the AEMR on the following matters:	-	-	-
	1) a basic statistical analysis (mean, range, variance, standard deviation) of the results for the parameters measured	Compliant	Annual Review 2016 includes Table F2 with statistical analysis of groundwater quality data.	-

Condition	Details	Status	Evidence	Recommendations
	in individual bores / wells and as a subset of the aquifer;		Annual Review 2017 and Annual Review 2018 include Table E2 with statistical analysis of groundwater quality data.	
	2) an interpretation of the water quality results and changes in time for water quality and water levels (supported with graphs, contour plots showing changes in aquifer pressure levels);	Compliant	Annual Review (2016, 2017 and 2018) include groundwater level and quality trends presented in hydrographs. AGE (2016, 2017 and 2018) include groundwater level and quality trends presented in hydrographs, plus Piper Plot of water type (major ion) composition change.	GW REC 10 Recommend also presenting groundwater level contour maps to identify any potential flow pathways.
	3) an interpretation of the water balance identifying the volume of water and comparing this to predictions made in the EIS or the previous AEMR; and	Compliant	Water management reported in Section 4.7 of Annual Review 2016, and Section 7 of Annual Review 2017 and 2018. Includes volume of water, Annual Review 2016 includes discussion to compare to previous years readings and Annual Review 2017 and 2018 include comparison to total water inventory between years. But it does not include comparison to EIS predictions or previous Annual Review.	GW REC 11 Recommend improved discussion on water take compared to 2000 EIS and previous years. Annual groundwater reviews (AGE 2016, 2017 and 2018) include only discussion on previous modelled results for alluvial groundwater leakage. Further work to review and discuss the groundwater inflows to the mine area is recommended, particularly monthly flow volumes and water quality from the Hunter Tunnel and groundwater storage within the Wynn Seam Goaf.

Condition	Details	Status	Evidence	Recommendations
	4) provide an electronic copy of the data forwarded to DLWC. (iv) 12The Applicant must consult with the DLWC and submit the Groundwater and Surface Water Monitoring Program in subclause (a)(ii) to the EPA when an application for a licence variation is submitted.	-	-	-

5.2 Rehabilitation

We understand DPIE requested specialist focus on rehabilitation, *“focussing on the REA rehab and performance of tree screens adjacent the New England Highway”*.

Rehabilitation at the Dartbrook Mine includes the New England Highway tree screening, river red gum and forestry plantation areas. It also includes the rehabilitated REA at the East Site.

No rehabilitation was undertaken during the IEA period. The site inspection indicated that the REA has some weeds, including galenia in large patches. It was noted that the REA rehabilitation area was stable however due to the ongoing drought there were some bare areas identified. The site inspection indicated that the New England Highway tree screen was working effectively and evidence of annual monitoring reports were provided to SLR.

There is no formal monitoring program for the REA by rehabilitation specialists, with this recommended for the next IEA period. There was a grazing trial in the REA that was discontinued in 2018 due to the drought. There is little detail in the Annual Review regarding the quality of rehabilitation at the REA. Despite the impact of the drought in the region, the REA rehabilitation is mostly stable and vegetated.

Recommendations relating to rehabilitation are outlined in **Section 7** and include:

- Recommend implementing an annual rehabilitation monitoring program for the REA by a qualified rehabilitation consultant. This should focus on how the site is tracking against completion criteria in the MOP and focus on obtaining and reviewing quantifiable data;
- Two ESC features at the lower area of the REA are showing minor evidence of erosion, however they have a high potential for additional erosion during large rainfall events. Continue to inspect and maintain these structures; and
- REA - some areas of bare ground identified. Due to current climatic conditions we recommend continuing to monitor these areas for ground cover, however if climatic conditions improve (i.e. more rain) then additional seeding should be completed over these areas. No grazing in the REA to be undertaken until climatic conditions improve. If grazing trials recommence these should be described in the relevant Annual Reviews.

Specific conditions relating to rehabilitation have been assessed in **Appendix B**.

5.3 Subsidence

We understand DPIE requested specialist focus on a *“review of subsidence management plans, monitoring results and remediation actions”*.

Mining ceased in 2006 and based on the information provided there were no additional subsidence impacts identified during the IEA period. We sighted a letter from the then Department of Planning (dated 06/07/06) approving reduced Care and Maintenance requirements for surface subsidence monitoring. The subsidence monitoring program was required up to five years post mining (i.e. 2011).

Subsidence inspections are completed annually and cover private landholdings and AQC land. We sighted the 2016-2018 documents, with these documents focussing on reviewing the status of previously remediated subsidence areas. The 2017 report stated:

"The three tributaries of Sandy Creek that were undermined by Longwalls KA101- KA103 are now stable and well vegetated. There are no observable adverse effects on the catchments following mining. Minor infrastructure remains in the form of poles and wires".

In terms of subsidence management the approved Subsidence Management Plans (SMP's) are less relevant due to their age and were prepared for when Dartbrook was an operating mine. With detailed subsidence monitoring not required since 2011, much of the SMP requirements were not applicable to the IEA period.

There are two recommendations relating to subsidence including:

- We recommend that a Subsidence Management Protocol to be developed for former mining areas as the SMP's are not very relevant anymore for the site due to the age of these documents and long period of time since mining operations were undertaken at Dartbrook. We envisage this to be a very streamlined document and should cover inspections, subsidence management and any reporting requirements for historic areas where surface subsidence was observed.
- Additional information is required in the Annual Review relating to subsidence areas at the site.

Specific conditions relating to subsidence have been assessed in **Appendix B**.

6 Summary of Non – Compliances – IEA Findings

The table below summarises non - compliances from the IEA.

Table 8 Summary of Non - Compliances

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
Development Consent				
Condition 2.1	<p>Mine Management Plan, Operations and Methods</p> <p>(d) A copy of the MOP, excluding commercial in confidence information, shall be forwarded to MSC, SSC and the Director-General within 14 days of acceptance by DMR.</p>	Administrative Non-Compliance	Evidence of email submitting the approved 2018 MOP. Note approval letter was dated 18.12.2017. The email providing the approved MOP to Upper Hunter Shire Council, Muswellbrook Shire Council and the DPIE was on 5.02.2018. This is greater than 14 days from approval.	<p>REC 1</p> <p>Ensure MOPs are provided to the required government departments within 14 days of approval.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
Condition 3.2	<p>Environmental Management Strategies and Plans</p> <p>(f) The management plans are to be revised, and updated as necessary, at least every 5 years or as otherwise directed by the Director-General in consultation with the relevant government agencies. They will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at MSC and SSC within two weeks of approval by DUAP.</p>	Administrative Non-Compliance	<p>The Water Management Plan, Dust Management Plan, Erosion and Sediment Control Plan and MOP are currently available on website. The Contract Environmental Officer noted that other approved plans were not updated for C&M operations.</p> <p>The Environmental Management Strategy is currently not on the website. In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated:</p>	<p>REC 2</p> <p>With MOD 7 now approved, all management plans, including the SWMP, are required to be updated prior to recommencing mining operations. Approved plans should be put on the website.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p><i>"other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review".</i></p> <p>SLR understands management plans will be reviewed once MOD 7 is approved and these updated management plans will be put on the website.</p> <p><u>Admin Non - Compliance</u></p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			The approved SWMP is dated 20/4/2015. The SWMP is under review at the time of IEA, however it should have been submitted at some time between 9 April 2018 and August 2019 following the 2018 email from DPIE. This condition is not compliant for not completing the SWMP update in the relevant period.	
Condition 4.1	<p>Surface & Ground Water Management Plans</p> <p>The Applicant shall:</p> <p>(a) prior to the commencement of Mining Operations, prepare a Site Water Management Plan for the DA area, in consultation with DLWC, MSC and to the satisfaction of the Director-General, which shall include, but not be limited to, the following matters:</p> <p>(iv) measures to determine whether any groundwater from the Hunter River alluvium aquifers is captured by the mine including a response plan in the event that monitoring shows evidence of a dilution of salinity or change in water chemistry, or increase in inflow rate that may indicate leakage from the alluvium to the Hunter Tunnel;</p>	Administrative Non - Compliance	<p>SWMP 2015 refers to this being addressed in Section 2.2.3 and 5.2.</p> <p>There is no Section 2.2.3. Section 2.3.3 details that monthly monitoring of inflows and water quality to the Hunter Tunnel and refers to the monitoring program in Section 4, and details that any monitoring results that may indicate unexpected impact such as increased flow rate or reduced salinity will trigger an investigation.</p>	<p>GW REC 1</p> <p>Recommend update the SWMP to include a monitoring program to ensure early identification of potential impacts associated with dewatering from the Hunter Tunnel utilising the monthly monitoring data. Develop a clear action response plan, including timing for actions to be commenced from when triggers are exceeded or adverse trends identified.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>Section 4.3 includes mention of monitoring of dewatering volumes from the Hunter Tunnel and annual reconciliation of the site water balance. No details are provided on how monthly data for inflows and water quality will be utilised to monitor potential impacts.</p> <p>Section 4.4 includes details for 6 monthly monitoring of four Hunter River alluvial bores (FRA1, JOR1, KAI1 and WAL2), and water level and quality triggers for five alluvial bores (lists WAL2 twice with separate triggers).</p> <p>Section 5.2 relates to Excess Mine Water management – when water levels reach 269 mbgl at the pleuger pump site the consumption of mine water will be reviewed.</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>No impacts with regards to the Hunter River alluvium were identified in the groundwater assessment and the SWMP (Section 5.3) indicates studies were conducted to verify hydraulic connectivity. However, there is a risk that the current SWMP does not fully address all requirements within the consent conditions and is not adequate for early identification of groundwater impacts with regards to the Hunter Tunnel.</p>	
Condition 4.1	(v) measures to be implemented in the event that the continued operation of the Hunter Tunnel leads to a significant increase in groundwater salinity in the alluvial aquifer system;	Administrative non-compliance	<p>SWMP 2015 refers to this being addressed in Section 2.2.3 and 5.2.</p> <p>There is no Section 2.2.3.</p> <p>Section 2.3.3 details that any monitoring results that may indicate unexpected impact such increased flow rate or reduced salinity will trigger an investigation. No details on the measures to be implemented if</p>	<p>GW REC 2</p> <p>Update the SWMP to include measures to be implemented in response to increase in groundwater salinity in alluvial aquifer being identified in site monitoring.</p>

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations						
			an increase in salinity in the Hunter River alluvium is detected.							
Condition 4.1	(xii) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts including downgradient of the rejects emplacement area;	Non-compliant – Low Risk	<p>Referred to as Section 2.2 of SWMP 2015, which relates to surface water management only.</p> <p>No measures are specified to manage groundwater quality changes and mobilisation of salts including downgradient of the REA.</p>	<p>GW REC 5</p> <p>Trigger threshold criteria for the REA monitoring bore FRA1 have been triggered over the review period. No evidence provided on action to investigate or manage potential changes in water quality and mobilisation of salts. Additional detail to be provided in the next revision to the SWMP.</p>						
Condition 6.1	<p>Air Quality Management and Monitoring</p> <p>Air Quality Standards/Goals</p> <p>(a1) The Applicant shall comply with the air quality standards/goals listed in Tables 1 and 2:</p> <p>Table 1: Health based air quality standards/goals</p> <table border="1"> <thead> <tr> <th>Dust Type</th> <th>Standard/Goal</th> <th>Source Agency</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>90 µg/m³ (annual average)</td> <td>NHMRC¹</td> </tr> </tbody> </table> <p><small>¹ National Health and Medical Research Council.</small></p>	Dust Type	Standard/Goal	Source Agency	Total suspended particulate (TSP) matter	90 µg/m ³ (annual average)	NHMRC ¹	Non-Compliant (Low Risk)	<p><u>2016:</u></p> <p>In 2016, annual average dust deposition rates were below the limit of 4 g/m²/month at all sites. TSP results were within the criteria. The data recovery rate was 100% for all HVAS sites.</p> <p>Contamination testing being undertaken on depositional dust results. Contaminated</p>	<p>REC 3</p> <p>All exceedances of dust goals, regardless of the cause should be reported in Section 1 and 11 of the Annual Review.</p>
Dust Type	Standard/Goal	Source Agency								
Total suspended particulate (TSP) matter	90 µg/m ³ (annual average)	NHMRC ¹								

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations														
	<p>Table 2: NSW EPA amenity based air quality standards/goals</p> <table border="1"> <thead> <tr> <th rowspan="2">Existing dust fallout level (g/m²/month)</th> <th colspan="2">Maximum acceptable increase over existing deposition levels (g/m²/month)</th> </tr> <tr> <th>Residential</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>3</td> <td>1</td> <td>2</td> </tr> <tr> <td>4</td> <td>0</td> <td>1</td> </tr> </tbody> </table>	Existing dust fallout level (g/m ² /month)	Maximum acceptable increase over existing deposition levels (g/m ² /month)		Residential	Other	2	2	2	3	1	2	4	0	1		<p>samples have been excluded from calculations of annual averages, as outlined in the 2018 Annual Review.</p> <p><u>2017:</u> In 2017, annual average dust deposition rates were below the limit of 4 g/m²/month at all sites. TSP results were within criteria. The data recovery rate was 100% for all HVAS sites in 2017.</p> <p><u>2018:</u> 2018 Annual Review indicated depositional dust exceedance at site 897, with an exceedance of 12.1g /m²/month. Dartbrook stated that 'although this was an exceedance of DA231-07-2000 criteria for depositional dust, Dartbrook Care and Maintenance Activities during that year were not a significant contribution to this elevated result. Numerous gauges had</p>	
Existing dust fallout level (g/m ² /month)	Maximum acceptable increase over existing deposition levels (g/m ² /month)																	
	Residential	Other																
2	2	2																
3	1	2																
4	0	1																

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>contamination. It is noted that the exceedance of site 897 was not reported in Section 1 or 11 of the 2018 Annual Review which details non compliances. All exceedances, regardless of the cause should be reported in Section 1 and 11.</p> <p>TSP results were within criteria. It's noted there was full data capture.</p> <p><u>2019:</u> No annual averages yet.</p>	
EPL				
R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <p>a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</p> <p>b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</p>	Administrative Non-Compliance	<p>Relevant EPL Annual Returns cover:</p> <p>* 1 Dec 2015- 30 Nov 2016 - Anglo Coal (Dartbrook Management) Pty Limited;</p> <p>* 1 Dec 2016-30 Nov 2017 - AQC Dartbrook Management Pty Ltd; and</p>	Nil recommendation

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>* 1 Dec 2017-30 November 2018 - AQC Dartbrook Management Pty Ltd</p> <p>Next Annual Return is not yet due.</p> <p>The acquisition of the site by AQC Dartbrook Management Pty Ltd was finalised on 29 May 2017. Therefore separate EPL Annual Returns should have been completed for:</p> <ul style="list-style-type: none"> * Anglo Coal (Dartbrook Management) Pty Limited from 1 December 2016 - 28 May 2017; * AQC Dartbrook Management Pty Ltd from 29 May 2017 - 30 November 2017. 	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>The EPL wasn't formally transferred to AQC Dartbrook Management Pty Ltd until the March 2019 revision. On 29 May 2017 when AQC Dartbrook Management Pty Ltd took ownership of the site, the EPA should have been contacted by AQC Dartbrook Management Pty Ltd to outline the change of owners and request a change to the licence holder.</p> <p>To complete 2 separate EPL Annual Returns for 2016-17 would now not be beneficial as Anglo Coal (Dartbrook Management) Pty Limited does not exist as a company. The required information was also provided to the EPA in the Annual Returns submitted during the IEA period under Condition R1.2 above. Therefore no further recommendation.</p>	
Consolidated Coal Lease 386				

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
Condition 1a)	<p>1. Notice to Landholders</p> <p>(a) Within a period of three months from the date of renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p>	Administrative Non-Compliance	<p>It is noted that in a letter dated 30 October 2015 Resources Regulator approved an application for suspension of mining operations within CCL386, ML1381, ML1456, ML1497, until 31 Dec 2017.</p> <p>Evidence of letter from the Resources Regulator dated 8 August 2019 indicates the approval to suspend mining leases had lapsed.</p>	Nil recommendation

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			<p>Evidence of email correspondence from AQC dated 31 August 2018 stating "AQC is seeking further approval to suspend mining operations within Coal Lease 386, Mining Lease (ML) 1381, ML 1497, ML 1382 and ML 1456, pursuant to clause 7A of Schedule 1B of the Mining Act 1992. The existing approval to suspend mining operations expired on 13 December 2017 and as such, AQC would like to apply to for an extension to the abovementioned suspensions of operations and conditions for a period of up to another three years, up to the end of 2020".</p>	

Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendations
			Assessment of this application by the Resources Regulator was pending at the time of the IEA. The Resources Regulator confirmed in a meeting on 27 August 2019 that AQC had provided all information required for their assessment and determination of the application.	
EIS 2000 Predictions				
Nil non compliances identified from the statement of commitments indicates general compliance.				

7 Additional Recommended Actions for Compliant Conditions

Additional recommendations relating to compliant conditions are outlined within **Table 9**. These recommendation numbers continue on from **Section 6**.

Table 9 Additional Recommendations

Aspect	Recommendation
General	<p>REC 4</p> <p>General recommendation</p> <p>AQC to provide an update to DPIE and other relevant agencies of the future plans for the site (in terms of activities, timings, and implementation of MOD 7). Recommend that this update is provided by end of November 2019.</p> <p>REC 5</p> <p>Update to EPA/ Pollution Reduction Program</p> <p>Provide an update on the status of the operation with this condition E2 Discontinuation of Mining) to be enacted by the EPA if mining recommences. SLR understands that it is the EPA's intention to include a Pollution Reduction Program requiring the licensee to conduct a site specific determination of best management practices to reduce particulate emissions from coal mining activities</p>
All Management Plans	<p>REC 6</p> <p>With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.</p>

Aspect	Recommendation
Annual Reviews	<p>REC 7 General Layout of the Annual Review If mining recommences future Annual Reviews should provide a greater level of comparison against the EIS predictions/commitments for MOD 7. Ensure that future Annual Reviews are completed in accordance with the MOD 7 requirements. This includes additional detail regarding trends in environmental data and rehabilitation. Additional information is required in the Annual Review relating to historic subsidence areas at the site.</p> <p>REC 8 Discharges There is not enough information in the 2016 Annual Review regarding the September 2016 Hunter River Salinity Trading Scheme (HRSTS) discharge. Description of HRSTS discharges in future Annual Reviews should have:</p> <ul style="list-style-type: none"> • Dates of discharge; • Some more details about volumes (ie. Volumes over different days); • Results of water quality testing for that discharge event compared against HRSTS Criteria and EPL Criteria; and • Comparison to upstream and downstream data. <p>REC 9 Complaints Management Ensure sufficient details of the queries/complaints (not including personal information) are provided in the Annual Review.</p>

Aspect	Recommendation
Rehabilitation and Closure	<p>REC 10 Closure Plan Liaise with DPIE and the Resources Regulator regarding the requirement and level of detail for a Closure Plan based on Condition 1.2. Unless there is a change to the Development Consent approval date, a Final Closure Plan/Final Closure MOP to be developed prior to July 2020. Consultation is required with the Resources Regulator and the other government departments listed in this condition.</p> <p>REC 11 Rehabilitation Monitoring Recommend implementing an annual rehabilitation monitoring program for the REA by a qualified rehabilitation consultant. This should focus on how the site is tracking against completion criteria in the MOP and focus on obtaining and reviewing quantifiable data.</p> <p>REC 12 Grazing Trials If grazing trials are recommended these need to be described in the relevant Annual Reviews.</p> <p>REC 13 REA Some areas of bare ground identified. Due to current climatic conditions we recommend continuing to monitor the area for ground cover, however if climatic conditions improve (i.e. more rain) then additional seeding should be completed over these areas. No grazing in the REA until climatic conditions improve. Any grazing trials on the REA are to be described in the relevant Annual Reviews.</p>
Rehabilitation Cost Estimate	<p>REC 14 If mining recommences a full review of the RCE should be completed, in consultation with the Resources Regulator.</p>
Spontaneous Combustion	<p>REC 15 Spontaneous combustion management to be included as a heading in any new MOP. The Spontaneous Combustion Management Plan is very old and the risk of spontaneous combustion may increase if approved mining operations recommence. The Spontaneous Combustion Management Plan requires updating if this is to occur.</p>

Aspect	Recommendation
Subsidence	<p>REC 16 Extraction Plan The MOD 7 consent now includes a requirement to prepare Extraction Plans for all secondary workings. This must be completed prior to the recommencement of mining.</p> <p>REC 17 Areas of Previous Undermining We recommend that a Subsidence Management Protocol to be developed for former mining areas as the SMP's are not very relevant anymore for the site due to the age of these documents and long period of time since mining operations were undertaken at Dartbrook. We envisage this to be a very streamlined document and should cover inspections, subsidence management and any reporting requirements for historic areas where surface subsidence was observed.</p>
Fire Management	<p>REC 18 Undertake a fire assessment if MOD 7 operations recommence to assess compliance against Condition 3.9.</p>
Dust Management/Stabilisation	<p>REC 19 If a decision is made to recommence operations, bare areas on former coal stockpile at CHPP should be stabilised if not being used for coal storage. If decision is made to close the site, the areas should be rehabilitated as part of planned closure. Additional soil testing and advice from a rehabilitation specialist would be required for any stabilisation or final rehabilitation activities.</p>
Waste Management	<p>REC 20 Move the above ground tank to bunded area or remove from site. Once the tank has been moved, review the previous area for potential contamination from leaks.</p>

Aspect	Recommendation
Surface Water	<p>REC 21 CHPP Minor grading/shaping and seeding of windrow which runs parallel to the main dirt road.</p> <p>REC 22 REA Two ESC features at the lower area of the REA are showing minor evidence of erosion, however they have a high potential for additional erosion during large rainfall events. Continue to inspect and maintain these structures. The recommendations identified by the Douglas Partners REA Geotechnical Inspection Report (February 2019) should be implemented.</p> <p>REC 23 West Site internal access road Drainage line along the box cut fence is only partially stable and needs additional stabilisation. This would likely include additional reshaping, and completion of rock lining or grass lined channels.</p> <p>REC 24 Drainage line along internal access road Additional engineering work required including reshaping. This would likely include additional reshaping, and completion of rock lining or grass lined channels.</p> <p>REC 25 Pipeline area of Western Holding Dam Current erosion where water from the pipe enters the dam. Additional erosion and sediment control works required to stabilise. Engineer to advise. Possible solutions include extending the length of the pipeline into the dam.</p> <p>REC 26 Geotechnical Assessment Recommend geotechnical assessment of all major mine water dams on site (excepting the SDD which was assessed in 2018) prior to recommencement of operations associated with MOD 7.</p>

Aspect	Recommendation
Groundwater	<p>GW REC 3: Recommend update the SWMP to include clear procedures with regards to the timing and types of actions to be initiated in response to unexpected impacts.</p> <p>GW REC 4: Observation – no discussion on potential sources of contamination and subsequent measures to isolate waters is specified in the SWMP. Additional detail to be provided in the next revision to the SWMP.</p> <p>GW REC 7 Recommend current water licencing is included in the revised SWMP.</p> <p>GW REC 8 Observation – the groundwater monitoring network and monitoring frequency outlined within the SWMP 2015 does not fully comply with the recommended monitoring program included in Appendix A of the SWMP 2015. For example, three monitoring points (WSG1 to WSG3) for the Wynn Seam Goaf have not been included in the monitoring program. Review of monitoring program is required for MOD 7.</p> <p>GW REC 9 Recommend updating the monitoring program in the SMWP for consistency with current monitoring arrangements for the Wynn Seam Goaf and Hunter Tunnel. Liaise with groundwater specialist regarding monitoring program to ensure potential additional groundwater impacts from MOD 7 are being effectively being monitored and reviewed.</p> <p>GW REC 10 Recommend also presenting groundwater level contour maps to identify any potential flow pathways.</p> <p>GW REC 11 Recommend improved discussion on water take compared to 2000 EIS and previous years. Annual groundwater reviews (AGE 2016, 2017 and 2018) include only discussion on previous modelled results for alluvial groundwater leakage. Further work to review and discuss the groundwater inflows to the mine area is recommended, particularly monthly flow volumes and water quality from the Hunter Tunnel and groundwater storage within the Wynn Seam Goaf.</p>

8 Conclusion

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

- Overall the site had a high degree of compliance with key statutory approvals which were assessed as part of the IEA;
- The majority of non - compliances were related to administrative non – compliance which is minor in nature;
- The site has been well maintained during the period of care and maintenance, with record keeping at the site being of a high standard;
- There were no noted issues of subsidence;
- SLR noted that the rehabilitation of the REA is generally in a good condition considering the severity of the drought;
- There were noted field improvements in areas such as waste management and weed management from the previous IEA;
- The site has an environmental management system with some the management plans being dated. However all management plans require updating as part of the MOD 7 approval.

Areas of improvement are noted in Sections 6 and 7 with these relating to administrative improvements and minor field improvements. With the possible recommencement of operations, environmental risks will need to be managed under new environmental management plans.

APPENDIX A

Photographs



Photo 1 Window needs reshaping in areas along main access road east of Eastern Holding Dam



Photo 2 Material Testing required for material removed from dam at CHPP, if required in future rehabilitation



Photo 3 Numerous bare areas at East Site coal stockpiles



Photo 4 Tanks correctly stored within bunds



Photo 5 Looking up at the REA



Photo 6 Some bare area at the REA. However land is generally stable



Photo 7 Galenia is prevalent in some areas of the REA



Photo 8 EPL HRSTS Licenced Discharge Point



Photo 9 Drainage Line along pit top access road is not stable and needs additional erosion and sediment control design and implementation



Photo 10 A section of the drainage line on the pit top main road has washed out



Photo 11 Above ground tank at West Site pit top needs to be moved to a bund or removed from site



Photo 12 Additional erosion and sediment control required at culvert into Western Holding Dam



Photo 13 Additional erosion and sediment control required at culvert into Western Holding Dam

APPENDIX B

Compliance Spreadsheet

Development Consent DA 231-07-2000 Mod 6 (2005)

		2019 Audit Outcomes		
Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
Schedule 2				
1. General				
1	There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, decommissioning of the development.	Compliant	This is a general condition. The site has been in Care and Maintenance for the entire period of the audit. No major construction or decommissioning. Generally the site has been well maintained to minimise any harm to the environment.	General recommendation: AQC to provide an update to DPIE and other relevant agencies of the future plans for the site (in terms of activities, timings, and implementation of MOD 7). Recommend that this update is provided by end of November 2019.
1.1	<p>1.1 Adherence to terms of DA, EIS, etc.</p> <p>(a) The development is to be carried out generally in accordance with Development Application No. 231-07-2000, and the EIS dated June 2000, prepared by HLA EnviroSciences Pty Ltd, and the following documentation:</p> <p>(i) 1The following documents supplied to the EPA in relation to the development:</p> <ul style="list-style-type: none"> • Odour Analysis of Ventilation Air from the No.1 Ventilation Shaft at Dartbrook Mine, Office Memorandum, David Rollings, HLA EnviroSciences Pty Ltd to Colin Phillips, HLA EnviroSciences Pty Ltd, (dated 11th May 2000); • Laboratory Results from The Odour Unit Pty Ltd to HLA EnviroSciences Pty Ltd, (dated 29th March 2000); • Stack Emissions Testing Dartbrook Coal Pty Ltd, Dartbrook, NSW, April 2000, dated 1st May 2000, prepared by HLA EnviroSciences Pty Ltd on behalf of Dartbrook Coal Pty Ltd; • Analysis of Gaseous Discharges from Dartbrook Mine Operations and additionally, Ambient Air Samples from Selected Background Sites, Office Memorandum from Ken Ferguson/Dr Jim Orr, HLA EnviroSciences Pty Ltd to Colin Phillips, HLA EnviroSciences Pty Ltd, (dated 3 March 2000); • Dartbrook Ventilation Odour, Facsimile from Nigel Holmes, Holmes Air Sciences to Andrew Kerr, Shell Coal, (dated 28 September 2000); <p>(ii) Additional information provided by the Applicant to the NPWS in relation to archaeology and flora and fauna matters, during the assessment of DA 231-07-2000;</p> <p>(iii) Anglo Coal Dartbrook Extended Mine Project Commission of Inquiry, Primary Submission (Dartbrook Coal, dated March 2001);</p> <p>(iv) Anglo Coal Dartbrook Extended Mine Project Commission of Inquiry, Submission in Reply (Dartbrook Coal, dated May 2001); and</p> <p>(v) Dartbrook Underground Coal Mine Project Environmental Impact Statement, prepared by EnviroSciences Pty Limited, November 1990;</p> <p>(vi) Development Application No. 53-10-98, dated 12 October 1998, accompanying Statement of Environmental Effects dated October 1998 prepared by Dartbrook Coal Pty Limited and in accordance with the development consent to construct a 450ML Discharge Dam and Pipeline issued by the Minister of Urban Affairs and Planning to Dartbrook Coal Pty Limited on 5 March 1999;</p> <p>(vii) The information titled 'Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information' prepared in support of a Section 96(1A) application for the Dartbrook Coal Mine, dated 27 May 2002, prepared by Hansen Consulting;</p> <p>(viii) The information on the emergency tailings storage cell in the document titled "Dartbrook Extended Coal Project Development Consent Modification Application Supporting Information", dated 10 April 2003, prepared by Hansen Consulting;</p> <p>(ix) The information titled "Dartbrook Coal Mine: Statement of Environmental Effects for Modification to Rejects Disposal System", dated 9 March 2004, prepared by Hansen Consulting; and</p> <p>(x) The information titled "Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant", dated 12 August 2005 and prepared by Hansen Consulting.</p> <p>If there is any inconsistency between the above, either the conditions of this consent or the most recent document shall prevail to the extent of the inconsistency.</p>	Compliant	<p>SLR have reviewed the key aspects of the EIS and noted "comparisons against predictions" made in the Annual Reviews. It is noted that EIS' and modifications have been prepared for the site to be operating. The site has been in Care and Maintenance for the entire audit period, therefore it is difficult and sometimes not possible to compare against the predictions made. In general the site has been consistent with key aspects of the EIS.</p> <p>The key statutory document at the site is the 2017 MOP which outlines proposed activities during Care and Maintenance.</p> <p>Note MOD 7 has now been approved and this will affect future operations and management plans etc.</p>	If mining recommences future Annual Reviews should provide a greater level of comparison against the EIS predictions/commitments for MOD 7.
	<p>(b) In accordance with section 80A(5) of the Environmental Planning and Assessment Act 1979 and clause 97 of the Environmental Planning and Assessment Regulation 2000, the Applicant shall, surrender to the Minister for Urban Affairs and Planning, the development consent for the Dartbrook Underground Mine (Authorisation 256) issued by the then Minister for Planning to Shell Company of Australia Ltd and Austen & Butta Limited and Bellambi Coal Company Pty Ltd and Dartbrook Coal Pty Limited on 2 December 1991, and the following development consents for Dartbrook Mine issued by the Minister for Urban Affairs and Planning or Muswellbrook Council by the 30 June 2005, or such other later date agreed by the Director-General:</p> <p>(i) Amendment of a Development Consent (issued on 2 December 1991 by the Minister for Planning), dated 9 July 1997; and</p> <p>(ii) Modification to a Development Consent (issued on 2 December 1991 by the Minister for Planning), dated 21 September 1999.</p> <p>This consent will apply to all facilities and activities subject to these previous consents from the date they are relinquished.</p>	Compliant	Sighted during previous audit. Outside the audit period.	
	<p>(c) 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 environmental management measures in place to ameliorate the impacts, the Director-General may order the Applicant to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.</p>	Not Triggered	Based on documentation review and discussions with site this was not triggered during the audit period.	
	<p>(d) If any licence conditions are breached the applicant shall comply with any modification to the work as specified by the relevant agency.</p> <p>Note: Conditions of this consent relating to the matters of air quality, noise management and proponents obligations (Conditions 6.1, 6.4 and 11.1, 11.2, 11.3 respectively) shall prevail over the conditions related to these matters in the existing consents for Dartbrook Mine as listed under Condition 1.1(b).</p>	Not Triggered	No modifications to operations requested by any agencies during the audit term.	
1.2	<p>1.2 Period of Approval/Project Commencement</p> <p>(a) This approval is for a period of 21 years from the date of granting of a mining lease pursuant to this consent.</p> <p>(b) At least two weeks prior to the commencement of construction and Mining Operations respectively or within such period as agreed by the Director-General, the Applicant shall submit for the approval of the Director-General a compliance report detailing compliance with all the relevant conditions that apply prior to the commencement of construction and Mining Operations.</p> <p>(c) Date of commencement of construction and Mining Operations is to be notified in writing to the Director-General, DMR, MSC and SSC at least two weeks prior to commencement of construction and Mining Operations respectively.</p>	Compliant	<p>Approval valid within audit term. Compliance for construction times outside audit period and verified during previous audits.</p> <p>The site has approval to operate until 28 August 2022.</p> <p>Closure Plan to be developed if no further extension to LOM granted.</p>	Liaise with DPIE and the Resources Regulator regarding the requirement and level of detail for a Closure Plan based on Condition 1.2. Unless there is a change to the Development Consent approval date, a Final Closure Plan/Final Closure MOP to be developed prior to July 2020. Consultation is required with the Resources Regulator and the other government departments listed in this condition.
1.3	<p>1.3 Dispute Resolution</p> <p>In the event that the Applicant, MSC, SSC or a Government agency, other than the Department of Urban Affairs and Planning, cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the Director-General or if not resolved, to the Minister for Urban Affairs and Planning, whose determination of the disagreement shall be final and binding on the parties.</p>	Not Triggered	Not triggered during the audit term. As the site is on Care and Maintenance there have been no disputes.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
1.4	1.4 Security Deposits and Bonds Security deposits and bonds will be paid as required by DMR under mining lease approval conditions.	Compliant	<p>Security deposit revised and updated during 2018 MOP preparation. The most recent RCE is dated 20 November 2017 and costed at \$8,903,379.19. The RCE and associated MOP (see Condition 2.1 below) have been approved by the Resources Regulator.</p> <p>A document was provided (Notification of Security Assessment) was provided outlining the current security was entered into the Resources Regulator system on 13 August 2019 (therefore is compliant). It is noted that the RCE has several site specific costs from a demolition specialist (Liberty Industrial).</p> <p>The cost to decommission powerlines "Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations" was only \$5,235 for 6.65kms of powerlines. This seems very low for the amount of infrastructure to be removed, however this is due to removal of the powerlines being included as part of a full site decommissioning program by a demolition specialist. The RCE currently states:</p> <p>"Includes 1.45km from Metering Point to West Site and 5.2km from Metering Point to CHPP. Quotation for removal of powerpoles and footings Ref. DAR34 in Liberty Industrial Dartbrook Coal Mine Fixed Plant and Infrastructure Decommissioning Study 10 October 2015 as revised October 2017."</p> <p>As this is covered by the full site decommissioning there are no additional recommendations relating to the powerline cost.</p>	If mining recommences a full review of the RCE should be completed, in consultation with the Resources Regulator.
2. Mine Management				
2.1	2.1 Mine Management Plan, Operations and Methods (a) No mining undertaken in accordance with this consent shall occur until the Applicant has submitted and had accepted by the DMR, a Mining Operations Plan (MOP) in accordance with current guidelines issued by DMR. The Plan covers mining operations for a period of up to seven years.	Compliant	<p>No mining during Audit period. Site operates in Care and Maintenance under an approved Care and Maintenance MOP (Hansen Bailey, 2017). Approval letter sighted (18.12.2017). Prior to that the site operated under a MOP covering 2012 - 2017 (approved on 18 December 2012).</p> <p>A new MOP will be required for MOD 7 operations.</p>	
	(b) The MOP shall: (i) be prepared in accordance with DMR Guidelines for the Preparation of Mining Operations Plans (Document 08060002.GUI or its most recent equivalent); (ii) demonstrate consistency with the conditions of this consent and any other statutory approvals; (iii) demonstrate consistency with the Environmental Management Plans for the project site; (iv) provide the basis for implementing mining operations, environmental management, and ongoing monitoring; (v) include a mine rehabilitation and land use management plan; and (vi) identify a schedule of proposed mine development for the period covered by the plan and include: • the area proposed to be impacted by mining activity and resource recovery mining methods and remediation measures, • areas of environmental, heritage or archaeological sensitivity and mechanisms for appropriately minimising impact, • water management, and • proposals to appropriately minimise surface impacts.	Compliant	<p>No mining during Audit period. Site operates in Care and Maintenance under an approved Care and Maintenance MOP (Hansen Bailey, 2017). Approval letter sighted (18.12.2017). Current MOP completed in accordance with the guidelines and meets the requirements of this condition.</p> <p>Prior to 2017, the site operated under a MOP covering 2012 - 2017 (approved on 18 December 2012).</p> <p>New MOP will be required for MOD 7 operations.</p>	
	(c) In preparing the Mine Operations Plan, the Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of those services.	Compliant	None required during the preparation of the MOP. It was for continued care and maintenance.	
	(d) A copy of the MOP, excluding commercial in confidence information, shall be forwarded to MSC, SSC and the Director-General within 14 days of acceptance by DMR.	Administrative Non-Compliance	Evidence of email submitting the approved 2018 MOP. Note approval letter was dated 18.12.2017. The email providing the approved MOP to Upper Hunter Shire Council, Muswellbrook Shire Council and the DPIE was on 5.02.2018. This is greater than 14 days from approval.	Ensure MOPs are provided to the required government departments within 14 days of approval.
	(e) At least two years prior to the cessation of mining operations the Applicant shall investigate, determine and report, taking account of the potential community benefits, on a final strategy for the future use of the mine site, weirs, dams and any other infrastructure in consultation with DUAP, DLWC, MSC and SSC for approval of DMR and the Director-General.	Not Triggered	Not yet two years prior to cessation of mining (August 2020). Not triggered.	Unless there is a change to the Development Consent approval date, a Final Closure Plan/Final Closure MOP to be developed prior to July 2020. Consultation is required with the Resources Regulator and the other government departments listed in this condition.
2.2	2.2 Spontaneous Combustion The Applicant shall prepare, prior to the commencement of mining operations, a Spontaneous Combustion Management Plan to the satisfaction of DMR.	Compliant	<p><u>Preparation:</u> Copy of Spontaneous Combustion Management Plan sighted (dated 2006). Note there is a letter from the then Department of Planning from 7 September 2006 approving proposed actions from the 6 July 2006 letter from Dartbrook. This included: "continuing to operate under existing environmental management plans without reviewing. Propose to modify these management plans should any activities recommence".</p> <p>Also note the Spontaneous Combustion Management Plan has not required further updates since this time. In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated: "other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review".</p> <p><u>Implementation:</u> No evidence of spontaneous combustion during the Audit period based on discussions with site and Annual Reviews.</p>	Spontaneous combustion management to be included as a heading in any new MOP. The Spontaneous Combustion Management Plan is very old and the risk of spontaneous combustion may increase if approved mining operations recommence. The Spontaneous Combustion Management Plan requires updating if this is to occur.
2.3	2.3 Limits on Production or Hours of Operation (a) Run of Mine coal production shall generally not exceed 6 Mtpa. The Applicant must notify the Director-General, MSC and SSC prior to any short term increase in production above this level. (b) Heavy earth moving equipment shall not operate on the rejects emplacement area, and coal rejects shall not be hauled to the rejects replacement area, between the hours of 6.00pm and 7.00am, except in an emergency, and as agreed by the Director-General. (c) The haulage of coal between stockpiles and the CHPP within the East Site shall be limited to the daytime period (7am-6pm Monday to Saturday and 8am-6pm on Sundays and Public Holidays) only.	Not Triggered	Site was on care and maintenance during the Audit period. No major works on REA during the period. No haulage of material. No evidence of non-compliance with timings.	
3. Land and Site Environmental Management				

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
3.1	<p>3.1 Appointment of Environmental Officer</p> <p>(a) The Environmental Officer employed by Dartbrook Mine shall:</p> <p>(i) be responsible for the preparation of the environmental management plans (refer Condition 3.2);</p> <p>(ii) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;</p> <p>(iii) be responsible for receiving and responding to complaints in accordance with Condition 10.2(a);</p> <p>(iv) facilitate an environmental induction and training program for all persons involved with construction activities, mining and rehabilitation/remedial activities; and</p> <p>(v) have the authority to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.</p>	Compliant	Doug Stewart (Carbon Based Environmental) was Safety, Health and Environmental Coordinator from July 2009. Dorian Walsh (Hansen Bailey) appointed as Environmental Officer by DPIE in a letter dated 6/2/18 (sighted).	
	<p>(b) The Applicant shall notify the Director-General, DMR, EPA, NPWS, DLWC, MSC, SSC and CCC (refer condition 10.1) of the name and contact details of the Environmental Officer if it has not already done so and of any changes to that appointment. Any new appointment of the Environmental Officer is to receive prior approval by the Director-General. Such approval shall not be unreasonably withheld.</p>	Compliant	Doug Stewart (Carbon Based Environmental) was Safety, Health and Environmental Coordinator from July 2009. Dorian Walsh (Hansen Bailey) appointed as Environmental Officer by DPIE in a letter dated 6/2/18 (sighted). Also evidence provided to government agencies including the Resources Regulator, the EPA and CCC Chair on 15/2/2019.	
3.2	<p>3.2 Environmental Management Strategies and Plans</p> <p>(a) The Applicant shall prepare an Environmental Management Strategy providing a strategic context for the environmental management plans [refer condition 3.2(d)]. The Environmental Management Strategy shall be prepared in consultation with the EPA, DLWC, DUAP, NPWS, SSC, MSC, DMR and the Community Consultative Committee (refer condition 10.1) and to the satisfaction of the Director-General, prior to commencement of construction. The Strategy shall be provided to the Director-General no later than the time the first Environmental Management Plan under sub clause (d) below and MOP are submitted.</p>	Compliant	<p>The approved EMS provided, dated (2011). Section 1.3 outlines consultation during preparation of EMS. It states: "The Draft EMS documents were also provided to DP&I, OEH, NOW, NPWS, UHSC, MSC, and DME for review and comment. Where necessary, amendments to the draft EMS were made in response to comments from the review agencies."</p> <p>The Environmental Management Strategy is currently not on the website. In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated: "other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review".</p> <p>It should also be noted that Doug Stewart (previous Contract Environmental Officer) submitted a revised copy of the EMS to DPIE on 21 December 2016. There appears to be no feedback or approval on this document.</p>	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	<p>(b) The Environmental Management Strategy shall include, but not be limited to:</p> <p>(i) statutory and other obligations which the Applicant is required to fulfil during construction and mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;</p> <p>(ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer;</p> <p>(iii) overall environmental management objectives and performance outcomes, during construction, mining and decommissioning of the mine, for each of the key environmental elements for which management plans are required under this consent;</p> <p>(iv) overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by mining operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;</p> <p>(v) identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;</p> <p>(vi) overall objectives and strategies to protect economic productivity within the area affected by mining;</p> <p>(vii) steps to be taken to ensure that all approvals, plans, and procedures are being complied with;</p> <p>(viii) processes for conflict resolution in relation to the environmental management of the project; and</p> <p>(ix) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.</p>	Compliant	<p>The Environmental Management Strategy is currently not on the website. In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated:</p> <p>"other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review".</p> <p>Preparations: EMS approved by Planning prior to 2013 (prior to audit period). The EMS generally covers these sections, with Section 1.2 outlining a checklist.</p> <p>i. s2.2 ii. S2.3 iii S3 iv S3 v. S4 vii. S3 viii. S2.7 ix. S1.3</p> <p><u>Implementation:</u> No major environmental incidents occurred during the audit period.</p> <p>Two queries about lighting received in April 2019. These were Investigated however they were not attributed to operations at site. Evidence of email response provided to complainants. Evidence of investigation of the groundwater query from a landholder in March 2019, including current investigation by AGE (Groundwater specialists).</p>	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	<p>(c) The Applicant shall make copies of the Environmental Management Strategy available to MSC, SSC, EPA, DLWC, NPWS, DMR, MSB and the CCC within fourteen days of approval by the Director-General.</p>	Compliant	EMS provided, dated (2011). Prior to this audit period therefore outside of the audit scope. Compliance verified during previous audit. No requirement to update during audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	<p>(d) The Applicant shall prepare the following environmental management plans:</p> <ul style="list-style-type: none"> • Property Subsidence Management Plans (refer condition 3.3) • Archaeology and Cultural Management Plan (refer condition 3.4) • Flora and Fauna Management Plan (refer condition 3.5) • Erosion and Sediment Control Plan (refer condition 3.6(a)) • Soil Stripping Management Plan (refer condition 3.6(c)) • Landscape Management Plan (refer condition 3.8) • Bushfire Management Plan (refer condition 3.9) • Land Management Plan (refer condition 3.10(a)) • Site Water Management Plan (refer condition 4.1) • Waste Management Plan (refer condition 5.2(a)) • Dust Management Plan (refer condition 6.1(a)) • Blast Management Plan (refer condition 6.3(a)) • Road Closure Management Plan (refer to condition 6.3(j)) • Noise Management Plan (refer condition 6.4.2(a)) • Construction Noise Management Plan (refer condition 6.4.2(c)) • Lighting Management Plan (refer condition 6.5) • Vibration Management Plan (refer to condition 6.6(b)) <p>These environmental management plans may also form part of the overall Site Management Plan and/or Mining Operations Plan.</p>	Compliant	<p>In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated:</p> <p><i>"other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review".</i></p> <p>Note this condition only states 'Prepare' plans hence implementation has not been assessed as part of this condition.</p> <p>Many approved management plans are now old and out of date (i.e. they have not been updated for at least five years and need to be reviewed).</p>	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	<p>(e) The Applicant shall make copies of the environmental management plans in sub-clause (d) above available to relevant government agencies, MSC, SSC and the CCC and ensure that the plans are made publicly available within 14 days of approval by the Director-General.</p>	Compliant	<p>In a letter dated 07/09/06 DP&I agreed that the site could operate in accordance with the existing approved management plans until operations recommenced.</p> <p>The following management plans were updated and approved by the DPIE during the previous audit period:</p> <ul style="list-style-type: none"> * Dust Management Plan (24 October 2014); * ESCP (21 October 2014); and * SWMP (15 September 2015). <p>The following other management plans were updated, but these are for internal use only:</p> <ul style="list-style-type: none"> * Mine Closure Plan (26 July 2014); and * Environmental Monitoring Plan (22 Sept 2014). <p>A copy of the Water Management Plan (email 18 September 2015) was provided to EPA, Muswellbrook Council, and to Upper Hunter Council. also provided to DPI Water. No evidence of CCC submission within 14 days.</p> <p>A copy of the Erosion and Sediment Control Plan (email 20 May 2014) was provided to Muswellbrook Council and Upper Hunter Council, but no evidence of submission to the CCC within 14 days of approval.</p> <p>No evidence of submission of Dust Management Plan to Muswellbrook Council, Upper Hunter Council and the CCC within 14 days of approval of Dust Management Plan. Historical admin non-compliance from outside of the current audit period.</p> <p>Evidence provided by Contract Environmental Officer that the Dust MP was discussed at the CCC following 2016 audit (as per CCC meeting minutes).</p>	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	<p>(f) The management plans are to be revised, and updated as necessary, at least every 5 years or as otherwise directed by the Director-General in consultation with the relevant government agencies. They will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at MSC and SSC within two weeks of approval by DUAP.</p>	Administrative Non-Compliance	<p>Water MP, Dust MP, ESCP and MOP currently available on website. The Contract Environmental Officer noted that other approved plans were not updated for C&M operations.</p> <p>The Environmental Management Strategy is currently not on the website. In the email from Megan Dawson from DPIE to Dianne Munro at Hansen Bailey on 9 April, 2018, it stated:</p> <p><i>"other than the Water Management Plan, AQC will continue to use the existing approved Anglo American management plans until Mod 7 is determined. As such, I will remove the draft EMS and Land Management Strategy (received from Doug Stewart last year) from our list of plans to review".</i></p> <p>SLR understands management plans will be reviewed once MOD 7 is approved and these updated management plans will be put on the website.</p> <p><u>Admin Non - Compliance</u> The approved SWMP is dated 20/4/2015. The SWMP is under review at the time of IEA, however it should have been submitted at some time between 9 April 2018 and August 2019 following the 2018 email from DPIE. This condition is not compliant for not completing the SWMP update in the relevant period.</p>	With MOD 7 now approved, all management plans, including the SWMP, are required to be updated prior to recommencing mining operations. Approved plans should be put on the website.
3.3	<p>3.3 Property Subsidence Management Plans</p> <p>(a) The Applicant shall prepare and implement a "Landowner Communication and Consultation Plan" relating to longwall extraction throughout the DA area, within six months of the date of this consent. The Plan shall be approved by the Director-General and the final approved plan made available for public inspection. The Plan shall include but be limited to the matters listed in Condition 3.3(n).</p>	Compliant	<p>Plan sighted (dated 2002). Plan available at Dartbrook Office. No requirement to update during audit period.</p> <p>Mining ceased in 2006. No current PSMPs. Subsidence inspections that are completed annually cover private landholdings. Sighted 2016-2018 documents. In terms of subsidence management the old SMP's are less relevant due to their age and being related to an operating mine.</p>	<p><u>Extraction Plan</u> The MOD 7 consent now includes a requirement to prepare Extraction Plans for all secondary workings. This must be completed prior to the commencement of mining.</p> <p><u>Areas of Previous Undermining</u> We recommend that a Subsidence Management Protocol to be developed for former mining areas as the SMP's are not very relevant anymore for the site due to the age of these documents and long period of time since mining operations were undertaken at Dartbrook. We envisage this to be a very streamlined document and should cover inspections, subsidence management and any reporting requirements for historic areas where surface subsidence was observed.</p>

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(b) The Applicant shall prepare a Property Subsidence Management Plan to the satisfaction of the Director-General of DMR (or delegate) for each property title to be affected by subsidence from a longwall panel or groups of longwall panels, for which an application for secondary workings approval under s.138 of the <i>Coal Mines Regulation Act 1982</i> is being prepared.	Not Triggered	Subsidence inspections are completed annually. No evidence of subsidence impacts during the audit period (mining ceased in 2006). No current PSMPs. Subsidence inspections cover private landholdings.	
	(c) At least two (2) years prior to the extraction of coal by longwall mining referred to in subclause (b) above or other mining methods requiring approval under s.138 of the Coal Mines Regulation Act, 1982, the Applicant will advise each landowners within the area covered by the s.138 application referred to in subclause (b) of: (i) The plans for future mining activities and the specific impacts (based on best available information) affecting each property; and (ii) Requirements regarding landowner consultation arrangements and offers of assistance to meet landowner legal and associated costs for determining landowner rights under law and the conditions of consent and reaching property agreements and valuations, as detailed in Condition 3.3(g).	Not Triggered	Not triggered during the audit period.	
	(d) The relevant Property Subsidence Management Plans shall be completed prior to seeking approval under s.138 of the Coal Mines Regulation Act 1982 for the secondary workings referred to in subclause (b) above.	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	(e) Each Property Subsidence Management Plan shall demonstrate consistency with the relevant MOP and the Environmental Management Strategy.	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	(f) In preparing Property Subsidence Management Plans the Applicant shall: (i) consult with each affected landowner throughout the preparation process and take their views into account. This consultation shall include discussions on integrating any proposed mitigation works with the management of the property as a whole; (ii) update geological data (i.e. geological structures, seam thickness, coal quality) based on current knowledge; (iii) review, and if necessary update, the mine plan based on current geological knowledge; (iv) review and revise as necessary, subsidence predictions taking into account the results of any relevant subsidence monitoring that has been undertaken; (v) ensure that, with the consent of the owner and in consultation with MSB, a structural inspection is conducted of each structure and 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); (vi) assess current agricultural utilisation, agricultural improvements and the underlying agricultural suitability of the relevant property; (vii) review current utilisation of the land for business purposes (other than agriculture), including the value of improvements and the business; (viii) ensure that inspections, surveys and assessments referred to in subclauses (v), (vi) and (vii) are carried out, at the expense of the Applicant, by an independent and technically qualified person, selected in consultation with the relevant property owner, and a copy of any report, certified by the person who undertook the work, supplied to the relevant property owner within fourteen days of receipt of same; (ix) support the continuation of agricultural activities and where practicable, improve the opportunity for sustained agriculture where any surface remedial works can be used to improve such productivity.	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	(g) In preparing the individual Property Subsidence Management Plans the Applicant shall also: (i) advise affected landowners of any potential impacts of the proposed mining and review and discuss implementation procedures; (ii) provide a copy of the draft Property Subsidence Management Plan to the relevant landowner; (iii) identify dwellings that are likely to be subject to damage beyond safe, serviceable and repairable criteria as a result of the development; (iv) identify structures and surface improvements that are likely to be subject to significant damage as a result of the development; (v) identify agricultural or other business values that are likely to be affected by the development; (vi) convene an on-site meeting with the landowner to review the draft Property Subsidence Management Plan including, where applicable, MSB technical officers with respect to dwellings that are predicted to be damaged beyond safe, serviceable and repairable criteria; (vii) investigate feasible mitigation measures that can be implemented to reduce subsidence impacts to the satisfaction of the landowner and in consultation with MSB; (viii) investigate other options if subsidence impacts cannot be reduced satisfactorily, such as compensation, acquisition, temporary relocation, or any other form of agreement with the landowner; (ix) identify areas of likely compensable loss as defined by the Mining Act 1992, and either reach agreement with the landowner in regard to likely compensable loss, or determine suitable mitigation measures to minimise compensable loss; and (x) provide a copy of each Property Subsidence Management Plan to the relevant landowner.	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	(h) In implementing the terms of any Property Subsidence Management Plan the Applicant shall: (i) review, based on information available at the time, the potential impacts of the proposed mining on ecologically sensitive areas, archaeological resources and heritage resources and take these into consideration in any refinement of the mine plan and design of appropriate mitigation measures. Works should be designed where possible to avoid areas of ecological and archaeological sensitivity unless works are being specifically undertaken to conserve these areas; and (ii) determine in consultation with the landowner, DLWC, MSC and SSC, appropriate drainage mitigation measures and earthworks, consistent with the relevant environmental management plans. Where it is indicated that drainage works are required to be undertaken on other land to mitigate remnant ponding on the property which is the subject of the Property Subsidence Management Plan, the Applicant shall seek to reach an agreement with the owner(s) of that land prior to carrying out such works. In determining appropriate drainage mitigation works, the Applicant shall take into consideration environmental, archaeological and heritage aspects of areas where mitigation works are proposed. The Applicant shall pay any reasonable costs for landowners to obtain legal and other advice on Property Subsidence Management Plans.	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	Longwall Subsidence Management Plans (i) The Applicant shall prepare a Longwall Subsidence Management Plan to the satisfaction of the Director-General of DMR (or delegate) for each longwall panel or group of panels for which an application for secondary workings approval under s. 138 of the Coal Mines Regulation Act 1982 is being prepared.	Not Triggered	Plan sighted, however not relevant during audit period as no mining undertaken since 2006.	
	(j) The Longwall Subsidence Management Plan shall be completed prior to an approval under s.138 of the Coal Mine Regulation Act 1982 for secondary workings. Each Longwall Subsidence Management Plan shall be consistent with the conditions of this consent, the Environmental Management Strategy and any relevant management plans.	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	(k) The Applicant shall ensure that the terms and details of each relevant Property Subsidence Management Plan are incorporated into any Longwall Subsidence Management Plan for that part of the development which may affect that property. Subsidence Monitoring	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	<p>(l) 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 DLWC and DMR throughout the life of the mine and for a period of at least five years after the completion of mining, or other such period as determined by the Director-General in consultation with DLWC and DMR. Monitoring shall include the following:</p> <p>(i) a survey of affected stream channel systems;</p> <p>(ii) monitoring of groundwater levels and quality;</p> <p>(iii) monitoring of remedial measures; and</p> <p>(iv) a comparison of predicted impacts with actual impacts, including mapping of subsidence profiles.</p> <p>The Applicant shall include information on monitoring conducted and the interpreted results in the AEMR.</p>	Compliant	<p>Letter sighted from the then Department of Planning (dated 06/07/06) confirming C&M requirements to reduce subsidence monitoring. The subsidence monitoring program was required up to five years post mining. Inspections of areas where surface subsidence had previously been identified were completed annually during the audit period.</p> <p>Evidence of subsidence inspection reports with the most recent dated 28/11/2018. Also reports from 2017 and 2016 were sighted.</p> <p>The 2017 report stated:</p> <p><i>"The three tributaries of Sandy Creek that were undermined by Longwalls KA101- KA103 are now stable and well vegetated. There are no observable adverse effects on the catchments following mining. Minor infrastructure remains in the form of poles and wires".</i></p> <p>Based on information provided no subsidence repair was undertaken in the audit period.</p>	
	<p>Notification of Landowners</p> <p>(m) The Applicant shall notify each relevant landowner in writing:</p> <p>(i) of its intention to commence header roads under a property. Such notification to be made at least 14 days prior to commencement of such works; and</p> <p>(ii) of its intention to proceed with an application in accordance with s138 of the Coal Mine Regulation Act, 1982. Such notification is to be made at least one month prior to an application under s138 of the Coal Mine Regulation Act 1982 for land within EL 4575 or EL 5525 or A256 not owned or under licence to the Applicant.</p>	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	<p>(n) The notification referred to in subclause (m) shall provide a timetable and information on at least the following:</p> <p>(i) landowner consultation arrangements;</p> <p>(ii) the proposed mine plan;</p> <p>(iii) arrangements for consultation in preparing a Property Subsidence Management Plan;</p> <p>(iv) landowner rights under law and the conditions of this development consent; and</p> <p>(v) offers of assistance from the Applicant to meet reasonable landowner legal and associated costs for reaching property agreement and valuations (if required). Compensation</p>	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	<p>(o) The Applicant shall compensate landowners for compensable loss in accordance with the provisions of the Mining Act, 1992. Compensable loss is defined in that Act.</p> <p>Subsidence Effects</p>	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	<p>(p) The Applicant shall ensure that any impact due to surface subsidence within the Crown road system is restored and safeguarded to the extent that public access is not compromised.</p>	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
	<p>(q) The Applicant must monitor and remediate any erosion or provide stabilising structures in any areas that have significant risk of destabilisation occurring as a result of longwall panel mining, in accordance with DLWC guidelines, to the satisfaction of DLWC, for any streams that are affected by subsidence.</p>	Not Triggered	Compliance verified during previous audit. There was no mining during the audit period.	
3.4	<p>Heritage Assessment, Management and Monitoring</p> <p>Assessment and Management</p> <p>The Applicant shall prior to the commencement of construction or Mining Operations:</p> <p>(a) prepare an Archaeology and Cultural Management Plan to address Aboriginal and European cultural heritage issues. The Plan shall be prepared in consultation with the Upper Hunter Wonnarua Tribal Council, Wonnarua Local Aboriginal Land Council and NPWS, and to the satisfaction of the Director-General. The Plan shall include but not be limited to:</p> <p>(i) provision of management strategies for known Aboriginal heritage sites for all parts of the DA area not affected by mining;</p> <p>(ii) identification of any future salvage, excavation and monitoring programs for any known heritage/archaeological sites within the DA area, prior to and during construction;</p> <p>(iii) set out management procedures and protocols for issues relating to Aboriginal heritage for all stages of the development (induction of employees on archaeological and heritage issues; training of field crews, Upper Hunter Wonnarua Tribal Council and Wonnarua Local Aboriginal Land Council participation; staging of works; salvage etc);</p> <p>(iv) details of a program for salvaging known Aboriginal sites;</p> <p>(v) details of consultation undertaken with the Upper Hunter Wonnarua Tribal Council and Wonnarua Local Aboriginal Land Council in the preparation of this Plan;</p> <p>(vi) details of the measures to fully document, in accordance with the NSW Heritage Council guidelines, any non-indigenous heritage sites that will be required to be removed as a result of the development;</p> <p>(vii) details of proposed monitoring that will be undertaken in the areas adjacent to the non-indigenous heritage sites identified within the DA area during their excavation and removal, to identify any further cultural material that may exist;</p> <p>(viii) details of the methods to dispose of the excavated non-indigenous heritage sites in a manner approved by the NSW Heritage Council, and following consultation with MSC and the Muswellbrook and Upper Hunter Historical Society;</p> <p>(ix) details of how public access to the Kayuga Cemetery shall be maintained at all times; and</p> <p>(x) details of the measures to mitigate any potential impacts resulting from the mine on the heritage homesteads Old Kayuga, New Kayuga, Riverview, the McIntyre family cemetery, Kayuga Cemetery and the Kayuga Estate and details of any maintenance procedures proposed to preserve their heritage value in accordance with the NSW Heritage Council requirements.</p>	Compliant	<p>Last approved ACHMP dated 2002. Internal version updated in 2011 (not approved by regulatory agencies).</p> <p>Scarred tree was relocated in 2016 (as per 2017 Annual Review). Evidence of Care Agreement with the OEH dated 15/12/2015. Evidence of signed Management Agreement with Muswellbrook Shire Council for the Scarred Tree dated 7/9/2016.</p> <p>Note that 2017 Annual Review stated the ACHMP would be updated in 2018. This did not happen due to the DPIE approving the approach of updating management plans following MOD 7 approval.</p>	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	<p>(b) Within six months of the commencement of construction or Mining Operations, the Applicant shall make a \$50,000 contribution towards the establishment of a trust fund set up by the Department of Urban Affairs and Planning through the Public Trustee. The funds are to be used for a regional study of Aboriginal sites and other cultural heritage projects as defined by the Trust Deed.</p>	Not Triggered	No construction or additional disturbance during Audit period.	
	<p>(c) If, during the course of construction of any surface facilities or mining activities, the Applicant becomes aware of any heritage or archaeological sites not previously identified, all work likely to affect the site 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 NSW Heritage Office, the Upper Hunter Wonnarua Tribal Council and Wonnarua Local Aboriginal Land Council. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.</p>	Not Triggered	No construction or additional disturbance during Audit period.	
	<p>(d) The Applicant is to consult regularly with the Upper Hunter Wonnarua Tribal Council and Wonnarua Local Aboriginal Land Council using consultation principles and strategies consistent with those outlined in the "Guidelines for best practice community consultation in the NSW Mining and Extractive Industries". The results of these consultations shall be documented in the AEMR.</p>	Not Triggered	No construction or additional disturbance during Audit period.	
	<p>(e) Any proposed works that will affect non-indigenous heritage items, (including the items listed in Section 3.9.2 of the EIS) including demolition of the items, will require an approval under section 139 of the Heritage Act 1977 and an application for an excavation permit under section 140 of the Heritage Act 1977 to disturb the relics will be required. This may also require additional approvals from MSC if the items are listed on the Heritage Schedule of the Local Environmental Plan.</p>	Not Triggered	No construction or additional disturbance during Audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(f) The Applicant shall engage an appropriately qualified person to prepare an oral history of the mining lease prior to the dispersal of local residents. This will include an investigation of: <ul style="list-style-type: none"> • all buildings and sites within the lease area; • • areas that will be affected by the mine; • the former Dartbrook authorisation area; and • the Kayuga cemetery. The investigation will be carried out in consultation with a member of the Muswellbrook and Upper Hunter Historical Society, who is to be allowed reasonable access to the Applicant's properties for the purposes of assessing European archaeological features. The report shall be made available to the Muswellbrook and Upper Hunter Historical Society, MSC and the Director-General.	Not Triggered	No construction or additional disturbance during audit period.	
	(g) The Applicant shall monitor the effectiveness of the measures outlined in the Archaeology and Cultural Management Plan [Condition 3.4(a)]. A summary of monitoring results shall be included in the AEMR.	Not Triggered	The Contract Environmental Officer undertakes inspections of fenced areas at regular intervals. Monitoring of heritage sites within subsidence areas is no longer required with this only required 12 months after undermining.	
	(h) The Applicant shall prepare a monitoring program of known indigenous heritage sites identified within the DA area, during the period of construction and mining operations. The monitoring program shall be included in the Archaeology and Cultural Heritage Management Plan (Condition 3.4 (a)) and a summary of results will be included in the AEMR. The program shall: <ol style="list-style-type: none"> 3 monitor all known archaeological sites 12 months after undermining for the effects of subsidence and report on the results of these inspections in the Archaeology and Cultural Heritage Management Plan; 4 monitor the construction of sediment and erosion control works to identify new archaeology sites; 5 monitor locations in the subsidence area in order to assess the impacts of subsidence on the land surface, in areas that the Applicant has identified as being potentially affected by the following processes: <ul style="list-style-type: none"> • erosion; • rilling; • knickpoint initiation; and • areas prone to pooling. 	Not Triggered	Monitoring of heritage sites within subsidence areas is no longer required with this only required 12 months after undermining	
3.5	Flora and Fauna Assessment, Management and Monitoring <u>Assessment and Management</u> (a) The Applicant shall prior to commencement of construction or Mining Operations prepare and implement a Flora and Fauna Management Plan for the management of flora and fauna issues for the DA area. The Plan is specifically required to outline procedures for clearing or disturbing vegetation and other habitat types, along with measures for habitat reinstatement and management. The Plan shall be prepared in consultation with NPWS and to the satisfaction of the Director-General. The Plan shall be prepared by an appropriately qualified and experienced ecologist. The ecologist shall be responsible for providing advice to minimise potential impacts upon threatened and protected fauna species that may utilise the site and to provide expert advice on the regeneration and reconstruction of flora and fauna habitat on mined areas. The Plan shall include but not be limited to: <ol style="list-style-type: none"> (i) details of strategic vegetation management, outlining timeframes for clearing and re-vegetation activities and a map illustrating the Plan. The Plan should aim to maximise scope for new vegetation to establish and restore ecological integrity; (ii) details of the schedule for clearing activities incorporating seasonal habitat requirements for species such as bats and other mammals, with the objective of avoiding incidents during sensitive hibernation and breeding periods; (iii) details of methods of how medium to large tree hollows (defined as being greater than 20 centimetres in diameter) and nests removed during construction are salvaged and replaced in adjacent vegetation; and (iv) details of management measures to be applied if threatened species identified in the EIS are found on site. 	Compliant	Approved plan dated 2011. FFMP revised in 2016 and submitted to DPIE for approval (still not approved). There is little detail in the current approved 2011 FFMP and 2016 Draft FFMP about what monitoring is undertaken. Additional detail is required in the future management plan review including monitoring areas, methodology, timing and reporting requirements. Monitoring been undertaken as per 2016 management plan (unapproved but evidence of being sent to DPIE on 28 October 2016). Annual monitoring of highway tree screening by Carbon Based Environmental. Monitoring of River Red Gums and Native Forest Plantation area (Cumberland Ecology) with summary included in Annual Review.	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	(b) If threatened species, not identified in the EIS, are identified on the site during construction or operation of the coal mine, the Applicant shall cease any work immediately which could adversely impact on the species, pending investigation and negotiation of ameliorative measures. The Applicant shall advise the NPWS and engage a suitable qualified person to investigate, and identify appropriate amelioration measures.	Not Triggered	Not triggered. No further disturbance.	
	(c) The Applicant shall ensure that the construction and operation of ventilation shafts shall not require the clearing of trees, where practicable.	Not Triggered	No vent shafts constructed during the audit period.	
	(e) The Applicant shall ensure that any vegetated areas cleared for construction purposes and not utilised in the Mining Operations are restored at least to its original condition.	Not Triggered	No former construction areas been rehabilitated during the audit period.	
	(f) The Applicant shall use locally endemic species for revegetation purposes.	Not Triggered	No rehabilitation undertaken during the reporting period.	
	(g) The Applicant shall during the life of the mine and until the revegetated areas are established to the satisfaction of the DMR, maintain revegetated areas. Maintenance shall include, where necessary, but not be limited to: <ul style="list-style-type: none"> • replanting failed or unsatisfactory areas • repairing erosion problems • fire management – fire suppression or fire encouragement • pest and weed control • control of feral animal populations • maintain and repair fencing • fertiliser application • application of lime or gypsum to control pH and improve soil structure. 	Compliant	Rehabilitation includes the tree screening, river red gum and forestry area. It also includes the rehabilitated REA at the East Site. REA has some weeds, including galenia in large patches. No rehabilitation undertaken during the audit period. There is no formal rehabilitation monitoring program for the REA with this recommended for the next audit period. There was a grazing trial in the REA that was discontinued in 2018 due to the drought. There is little detail in the Annual Review regarding the quality of rehabilitation at the REA. No issues with spontaneous combustion were noted during the audit period in REA. Monitoring continues by thermocouples installed in the REA. Rehabilitation is managed under the MOP and Landscape MP. For the REA some areas of bare ground were identified, however the area appears stable. Due to current climatic conditions we recommend to continue to monitor the area for ground cover, however if the drought breaks then additional seeding could be completed over these areas. Maintenance during the audit period has mostly related to weed spraying and feral animal management.	Recommend implementing an annual rehabilitation monitoring program for the REA by a qualified rehabilitation consultant. This should focus on how the site is tracking against completion criteria in the MOP and focus on obtaining and reviewing quantifiable data. See Condition 3.6 for other recommendations.
	(h) As well as the requirements under subclause (g), the efforts and progress of the Flora and Fauna Management Plan shall be documented in the Annual Environmental Management Report in accordance with the Department of Mineral Resource's Guidelines to the Mining, Rehabilitation and Environmental Management Process (March 1998) or its latest version.	Compliant	Flora and fauna management summarised in the Annual Review. Outlined in Section 6.7 and 6.8 of the Annual Review. Evidence of 2018 monitoring reports for both the River Red Gum area and the Native Forest Plantation.	
	(i) Measures to control invasion of weeds as a result of construction activities shall be addressed and managed.	Not Triggered	No construction/clearing during the audit period.	
	(j) The Applicant shall not clear vegetation in advance of the immediate area required for use during construction or operation of the rejects emplacement area.	Not Triggered	No construction/clearing during the audit period in relation to the REA.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	<p><u>Monitoring</u> (k) The restoration works shall be monitored by the environmental officer. The results of the monitoring and the effectiveness of the restoration shall be reported as part of the Annual Environmental Management Report.</p>	Compliant	Evidence of 2018 monitoring reports for both the River Red Gum area and the Native Forest Plantation. Evidence of grazing trial reports with these reports appearing to be internal reports. There was some details of grazing trials in the 2016 Annual Review, however limited information in 2017 and 2018 Annual Reviews.	If grazing trials are recommenced these need to be described in the relevant Annual Reviews.
	<p>(l) The Applicant shall prepare a detailed monitoring program for habitat areas within the DA area, including any wetlands and aquatic habitats, during the development and for a period after the completion of the development to be determined by the Director-General in consultation with NPWS. The monitoring program shall be included in the Flora and Fauna Management Plan (Condition 3.5(a)) and a summary of the results shall be provided in the AEMR. The program shall: (i) monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works. The Applicant shall carry out any further works required by the Director-General and DMR as a result of the monitoring; (ii) establish an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristics and structure and to propose contingency measures for improvements to revegetation if required; and (iii) establish an ongoing monitoring program in the rejects emplacement area, of fauna species diversity and abundance and the effectiveness of reconstructed ecosystems in providing fauna habitat and contingency measures should impacts be identified as occurring. Note: The information obtained from the monitoring shall be used to guide future revegetation efforts on the mine site.</p>	Compliant	<p><u>Completion of Monitoring Reports</u> Forestry and River Red Gum monitoring reports by Cumberland Ecology. These reports generally meet these requirements. It is noted however there is no reference to the Flora and Fauna Management Plan within 2018 Cumberland Ecology reports for Forestry and Red Gum monitoring.</p> <p><u>Implementation of Flora and Fauna Management Plan</u> The Flora and Fauna Management Plan states: Once re-vegetated the areas are regularly monitored for issues such as: • <i>planting failure or unsatisfactory areas</i> • <i>repairing erosion problems</i> • <i>fire management</i> • <i>pest and weed control regularly as per the Land Management Plan and in consultation with the Mid Coast Livestock Health and Pest Authority (LHPA).</i> • <i>control of feral animal populations as per the Land Management Plan and in consultation with the Mid Coast Livestock Health and Pest Authority (LHPA).</i> • <i>maintain and repair fencing as required to ensure the ongoing health of the rehabilitated areas and to exclude trespassers.</i></p> <p>The Cumberland Ecology reports for the Forestry and River Red Gum monitoring generally cover this information.</p>	
3.6	<p>Prevention of Soil Erosion (a) The Applicant shall prepare an Erosion and Sediment Control Plan for the surface facilities and extension to the rejects emplacement area in consultation with the DLWC, taking account of the DLWC "Draft Guideline for Establishment of Stable Drainage Areas on Rehabilitated Mine sites" or its latest version, and to the satisfaction of DLWC and the Director-General. The Plan shall be prepared and implemented prior to the commencement of construction and/or the expansion of the rejects emplacement area.</p>	Compliant	<p>2014 ESCP provided, as well as approval letter from DPIE dated 12.11.2014. Evidence of submission to the Resources Regulator, and DPIE. Field inspection found minimal erosion and sediment control issues, however some recommendations are provided in the following areas: 1. CHPP - windrow which runs parallel to the main dirt road. 2. Lower area of the REA. 3. REA - some areas of bare ground identified. 4. UG Area - drainage line along the box cut fence. 6. Pipeline area of Western Stage Dam. 7. General geotechnical review of major mine water dams at the East Site. The SDD was the assessed by geotechnical engineers during the audit period.</p> <p>SLR notes the draft WMP is being updated currently, and will include a revised ESCP.</p>	<ol style="list-style-type: none"> 1. CHPP - minor grading/shaping and seeding of windrow which runs parallel to the main dirt road. 2. Two ESC features at the lower area of the REA are showing minor evidence of erosion, however they have a high potential for additional erosion during large rainfall events. Continue to inspect and maintain these structures. The recommendations identified by the Douglas Partners REA Geotechnical Inspection Report (February 2019) should be implemented. 3. REA - some areas of bare ground identified. Due to current climatic conditions we recommend continuing to monitor the area for ground cover, however if climatic conditions improve (i.e. more rain) then additional seeding should be completed over these areas. No grazing in the REA until climatic conditions improve. Any grazing trials on the REA are to be described in the relevant Annual Reviews. 4. West Site internal access road - drainage line along the box cut fence is only partially stable and needs additional stabilisation. This would likely include additional reshaping, and completion of rock lining or grass lined channels. 5. Drainage line along internal access road. Additional engineering work required including reshaping. This would likely include additional reshaping, and completion of rock lining or grass lined channels. 6. Pipeline area of Western Holding Dam - current erosion where water from the pipe enters the dam. Additional ESC works required to stabilise. Engineer to advise. Possible solutions include extending the length of the pipeline into the dam. 7. Recommend geotechnical assessment of all major mine water dams—on site (excepting the SDD which was assessed in 2018) prior to recommencement of operations associated with MOD 7.
	<p>(b) The Erosion and Sediment Control Plan shall include but not be limited to: (i) details of temporary and permanent erosion and sediment control systems to be used during both construction and/or the expansion of the rejects emplacement area, including earthworks associated with landscaping; (ii) details of soil salinity management where relevant; (iii) measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction and/or the expansion of the rejects emplacement area. The Plan should be prepared in accordance with the requirements for such plans outlined in Managing Urban Stormwater: Soils and Construction (available from the Department of Housing) or its latest version; (iv) the consideration of the location and purpose of structures in the erosion and sediment control plan to maximise similarities between pre-development and post-development drainage networks with reference to catchment areas, drainage densities and discharge characteristics; (v) consideration and management of erosion and sedimentation of affected surface watercourses/waterbodies, including creek lines within the DA areas; (vi) measures to construct banks, channels and similar works to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring; and (vii) a program for reporting on the effectiveness of the erosion and sediment control systems and performance against objectives contained in the approved Erosion and Sediment Control Management Plan, and EIS.</p>	Compliant	<p>2014 ESCP provided, as well as approval letter from DP&E dated 12.11.2014. Evidence of submission to Resources Regulator, and DPIE.</p> <p>Key requirements of this condition covered within the Management Plan, including Section 1.3 - Management Plan requirements and Section 2 of the Management Plan. Document outlines key controls for erosion and sediment control.</p> <p>Field inspection found only minor erosion and sediment control issues, however some recommendations are provided (refer above).</p> <p>Key Blue Book design drawings are included as an Appendix to the ESC Plan. Key figures are included within the ESC Plan.</p> <p>SWMP currently being updated and will include a revised ESCP.</p>	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(c) The Applicant shall also prepare a Soil Stripping Management Plan for the expansion of the rejects emplacement area, prior to the commencement of construction of the reject emplacement area, to the requirements of DMR and DLWC that shall include, but not be limited to: (i) details to ensure the maximum retrieval of suitable topdressing material and appropriate management of topsoil stockpiles including immediate revegetation to protect from soil erosion and to control potential weed problems; (ii) details of the management of soil stockpiles, soil stripping techniques and scheduling; (iii) control of weed infestation on topsoil stockpile material; (iii) details of estimated quantities of suitable topdressing material required for subsequent respreading on rehabilitated land; and (iv) a program for reporting on the effectiveness of the soil stripping methods and performance against objectives contained in the soil stripping management plan, and EIS.	Compliant	Copy of 2011 Soil Stripping Management Plan provided. No soil stripping or stockpiling during the audit period. Section 2 and 3 of the Soil Stripping Management Plan cover these requirements, however no planned implementation during next audit period.	
	(d) The company is to re-establish a post-mining drainage system which is comparable to the drainage density and discharge characteristics of the pre-mining land for each affected drainage line discharging from the area of the mining development. The design and implementation of the post-mining drainage system is to be prepared prior to the cessation of mining and to the satisfaction of DLWC.	Not Triggered	The site is in Care and Maintenance and has not reached mine closure and final landform establishment yet. Audit inspection noted the rehabilitation of the REA was good, with some minor areas of erosion and a good ground cover consisting of a mix of pasture and legume species.	
	(e) The Applicant shall install a flexible drop structure in Sandy Creek or its tributaries and undertake such other measures as required by DLWC when headward erosion of the creek bed becomes evident.	Not Triggered	This area is inspected annually - no action required during audit term. Underground mining was not carried out under this creek during the audit period.	
	(f) The Applicant shall implement soil erosion mitigation measures at ventilation shafts to the satisfaction of DLWC, including a sedimentation structure to collect runoff from disturbed areas.	Compliant	Vent shaft 1 inspected. No ESC issued identified. Area is flat, with disturbed area forming part of the dirty water management system.	
3.7	Site Rehabilitation Management The Applicant shall carry out rehabilitation of all mine areas, including decommissioned gas and water substation sites, in accordance with the requirements of any Mining Lease granted by the Minister for Mineral Resources and ensure the progressive rehabilitation of the area is also to the satisfaction of DMR and DLWC. The rehabilitation shall also have regard to the latest version of the <i>Synoptic Plan: – Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of NSW</i> .	Compliant	No rehabilitation undertaken during the audit period. Areas available have been rehabilitated to date (e.g. REA) and are compliant with this condition. Areas inspected are mostly stable. Some bare areas in steeper slopes. This is due to the ongoing drought conditions. Other areas of rehabilitation is the Forestry trial and River Red Gum areas.	See rehabilitation recommendations from Condition 3.6a regarding the REA. Two ESC features at the lower area of the REA are showing minor evidence of erosion, however they have a high potential for additional erosion during large rainfall events. Continue to inspect and maintain these structures. The recommendations identified by the Douglas Partners REA Geotechnical Inspection Report (February 2019) should be implemented. REA - some areas of bare ground identified. Due to current climatic conditions we recommend continuing to monitor these areas for ground cover, however if climatic conditions improve (i.e. more rain) then additional seeding should be completed over these areas. No grazing in the REA to be undertaken until climatic conditions improve. If grazing trials recommence these should be described in the relevant Annual Reviews.
3.8	Visual Amenity and Landscaping (a) A Landscape Management Plan shall be prepared by the Applicant and approved by the Director-General prior to commencement of construction. The Plan shall be prepared in consultation with DMR, MSC and SSC. In preparation of the plan, regard shall be given to the Aberdeen Sheet of DMR's Synoptic Plan: Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of NSW. The Landscape Management Plan shall be appended to the Mining Operations Plan (Condition 2.1) and shall include, but not be limited to, the following: i) An on-site landscaping strategy detailing design and proposed planting of trees and shrubs and/or the construction of mounding or bunding: 1) adjacent to the Dam and Ventilation Shaft No.1 where screening of new infrastructure is required from Dartbrook Road. 2) screening of new infrastructure, where required, from other public roads including Kayuga, and Dartbrook and Coal Creek Roads; 3) around the Drift Access to reduce lighting effects; 4) in areas of the eastern facilities site where replanting of existing screening is required. This shall include, where necessary, the construction of a suitably screened bund wall on the northern and southern ends of the CHPP to reduce visual effects on nearby residences at Aberdeen and nearby rural properties; 5) as part of the rehabilitation of the Rejects Emplacement Area; 6) along sections of the new access road to the mine site; 7) along sections of the New England Highway; and 8) at any other areas identified as necessary by MSC or SSC for the maintenance of satisfactory visual amenity, and as agreed by the Director-General. ii) Appropriate erosion control and sediment control practices for earthworks associated with the landscaping. iii) Details of visual appearance of new buildings, structures, facilities or works (including paint colours, screenings and specifications). New buildings and structures (including the Nitrogen Injection Plant) shall be designed and constructed so as to present a neat and orderly appearance and to blend as far as practicable with the surrounding landscape. iv) Details, specifications and staged work programs to be undertaken, maintenance and monitoring of all landscape works and maintenance of building materials and cladding. v) Details of a monitoring program to assess the effectiveness of visual impact mitigation measures. The program will be developed in consultation with MSC and SSC and be prepared to the satisfaction of the Director-General; vi) Reporting of monitoring results in the AEMR and to MSC, SSC and the CCC. Monitoring results would specifically identify any remedial works required; vii) Details of contingency measures to be applied in the case that proposed visual mitigation measures are not successful; viii) the process of incorporating vegetation screening and fauna protection corridors into the proposed visual and landscaping works, where practicable; ix) use of indigenous species; x) details of predicted visual impacts from the proposed rejects emplacement area on residences not owned by the Applicant, SSC land and Aberdeen. The predicted visual impacts shall be in the form of a montage and transects showing clear sightlines from the viewer to the proposed rejects emplacement area; xi) details of an off-site landscape strategy which will detail proposed off-site mitigation measures and include the: 1) identification of those properties to be offered off-site visual enhancement works, in accordance with predicted adverse visual impacts; 2) details of consultation with the relevant landowners; and 3) details of the procedure to be followed to design and implement appropriate off-site vegetation screening if requested by landowners identified under 1 above; and xii) consideration of the visual impact and adequacy of associated mitigating measures on the Aberdeen property of SCC, with recommendations for any additional measures including consideration of buffer land, as applicable. This consideration shall be undertaken by an independent qualified person(s) appointed by the Director-General, in consultation with SCC and Applicant, and paid for by the Applicant.	Compliant	Preparation: Copy of Landscape and Lighting Management Plan (2011) provided, document states it was prepared in consultation with relevant agencies and in accordance with the Synoptic Plan. Plan outlines visual and landscaping management and covers the key requirements of this condition. Section 1.3 of Management Plan outlines key requirements. Locations of landscape strategy is outlined in Section 2. Monitoring program outlined in Section 3 and 4 of the Management Plan. Visual management and monitoring is outlined in Section 6.10 of the Annual Review with additional maintenance recommended to continually improve screening. Noted that LMP will be updated and re-submitted following approval of MOD 7. Annual monitoring report for tree screenings provided. Tree screens have generally worked. Implementation: Field inspection found that visual amenity and landscaping was satisfactory. Two queries about lighting received in April 2019. These were investigated however they were not attributed to operations at site. Viewed evidence of email response provided to complainants.	
	(b) In the event that a landowner other than those identified in subclause (a)(xi) above, considers that his/her residence is visually impacted by the proposal, greater than predicted in the Landscape Management Plan once the proposal is operational, the Applicant shall, upon the receipt of a written request, consult the landowner, discuss their concerns and, if necessary, possible mitigation.	Not Triggered	Not triggered during the audit period.	
	(c) Should the Applicant and/or landowner dispute the level of adverse impact or any proposed mitigation measures from subclause (a)(xi) or (b) above, then either party may refer the matter to the Director-General in consultation with MSC and/or SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process. The decision of the Independent Dispute Resolution Process shall be final, as agreed by the Director-General.	Not Triggered	Not triggered during the audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(d) Notwithstanding subclauses (b) and (c) above, the Applicant shall fund and undertake an independent review of the visual impact of the proposed rejects emplacement area on SSC's land, every five years from the commencement of mining operations, unless otherwise agreed by the Director-General. The independent review shall be undertaken by an independent Landscape Expert appointed by the Director-General in consultation with SSC and the Applicant. The independent Landscape Expert shall determine whether the actual visual impact of the rejects emplacement area on SSC's land is greater than that predicted in the Landscape Management Plan. If the independent Landscape Expert determines that the impact on SSC's land is greater than that predicted in the Landscape Management Plan, the independent Landscape Expert shall make recommendations to mitigate the impact.	Not Triggered	Suspended by DPIE while on C&M. DPIE email 01/12/2005.	
	(e) If either party disputes the determination and recommendations of the independent Landscape Expert in subclause (d) above, either party may refer the matter to the Director-General for final determination.	Not Triggered	Not applicable as per above.	
3.9	Bushfire and other Fire Controls The Applicant shall: (a) provide adequate fire protection works, fire fighting equipment and hazard reduction measures with particular attention to boundaries of adjoining landholdings;	Compliant	Fire protection works, fire fighting equipment and hazard reduction measures are summarised in Annual Reviews. Fire fighting equipment observed around the site during field inspection. Water supply available for fire fighting purposes.	Undertake a fire assessment if MOD 7 operations recommence to assess compliance against Condition 3.9.
	(b) submit an annual report on fire management activities to the Muswellbrook Fire Management Committee; and	Compliant	Included in the Annual Review. Distributed to MSC, FRS and MFMC. Evidence of delivery date summary documents.	
	(c) prepare a Bushfire Management Plan for all its holdings contained in the DA area, prior to commencement of mining operations, to the satisfaction of MSC, SSC and the Rural Fire Service.	Compliant	2011 Bushfire Management Plan sighted in previous audit, document states it was prepared in accordance with MSC, SSC and RFS.	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
3.10	Land Management (a) The Applicant shall, prior to commencement of construction or Mining Operations update the current Dartbrook Mine Land Management Plan for the areas of the proposed surface facilities, and its holdings in the DA area, to provide for proper land management in consultation with DLWC, MSC, and to the satisfaction of the Director-General. The plan shall include, but not be limited to: (i) pastures and remnant vegetation management; (ii) prevention and rehabilitation of land degradation; (iv) assessment of the potential for commercial harvesting of standing timber removed from the site; (v) eradication of vermin and noxious weeds as required by the Rural Lands Protection Board, the Upper Hunter Weeds Authority, the Prickly Pear Authority and other relevant authorities; and, (vi) feral animal control.	Not Triggered	No construction or mining activities undertaken during audit period. Operating under approved Land Management Plan (2002). Land Management Plan covers requirements in this condition.	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	(b) The Applicant shall minimise the removal of trees and other vegetation from the proposed surface facilities area, and restrict any clearance to the areas occupied by mine activity, buildings and paved surfaces, and those areas necessary for fire control in accordance with MSC requirements.	Not Triggered	No construction or mining activities undertaken during audit period.	
	(c) The Applicant shall ensure that the agricultural capability of lands under its control within the mining lease area are at a level not less than the level at the date of this consent.	Compliant	Land not used for mining purposes is leased allowing agricultural practices to continue. Due to drought, no longer grazing on REA with this ceasing in 2018.	As per Condition 3.5k) If grazing trials are recommended these need to be described in the relevant Annual Reviews.
	(d) The Applicant shall maintain a minimum 50 metre wide buffer strip between the southern rejects emplacement area and the adjacent land owned by Mr and Mrs L Wilkinson. Surface drains and an access road may be constructed within the 50 metre wide strip.	Not Triggered	The land is now owned by Dartbrook. No change to the area was required or made during audit period due to Care and Maintenance activities.	
4.0 Water Management and Monitoring				
4.1	Surface & Ground Water Management Plans The Applicant shall: (a) prior to the commencement of Mining Operations, prepare a Site Water Management Plan for the DA area, in consultation with DLWC, MSC and to the satisfaction of the Director-General, which shall include, but not be limited to, the following matters: (i) management of the quality and quantity of surface and ground water within the areas covered by the water management plans; (ii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water; including details of temporary surface drainage works to minimise the flow of surface water onto the rejects emplacement area and details of drainage works to direct runoff from the active rejects emplacement areas to onsite storage dams; (iii) measures to prevent the degradation of downstream surface water quality below the pre-mining ANZECC beneficial water use classification due to mining operations, particularly in the Hunter River; (iv) measures to determine whether any groundwater from the Hunter River alluvium aquifers is captured by the mine including a response plan in the event that monitoring shows evidence of a dilution of salinity or change in water chemistry, or increase in inflow rate that may indicate leakage from the alluvium to the Hunter Tunnel; (v) measures to be implemented in the event that the continued operation of the Hunter Tunnel leads to a significant increase in groundwater salinity in the alluvial aquifer system; (vi) contingency plans for managing adverse impacts of the development on surface and groundwater quality which shall include: 1) contingency arrangements to manage excess saline water if the storage of the mine water management system is exceeded; and 2) contingency measures to manage any impacts identified by monitoring that the management strategies have failed to predict or control, particularly relating to groundwaters associated with the alluvial aquifer of the Hunter River, in consultation with DLWC. (vii) details of a dispute resolution process to resolve issues where deepening and/or increased operational costs of licensed bores where the water table has been lowered by mining activities, is disputed between the Applicant and affected landowner; (viii) measures to ensure that waters of poorer quality are effectively segregated and reused on the site. (ix) details of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams; (x) measures to isolate heavily contaminated waters, including waters containing oil and grease, or other pollutants, operation chemical residues or other criteria, to avoid mixing with reuse or discharge waters; (xi) measures for assessing chemical water quality impacts of the mining operation above and below the mine site; (xii) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts including downgradient of the rejects emplacement area; (xiii) details of consultation with landholders who use water from the proposed longwall mining area and adjacent area and those parts of Dart Brook and Sandy Creek alluvia immediately adjacent to the mining areas, in relation to their requirements for and the availability of, water and shall consider those water uses in the formulation of the management plan; (xiv) details of a surface water and groundwater monitoring program (refer to clause 4.2(a)(ii)), and	Administrative Non-Compliance	Current SWMP dated 20 April 2015. Approval letter, evidence of submission to DPIE and Resources Regulator, and evidence of consultation with DLWC (DPI Water) and MSC as part of 2015 update was sighted during previous audit. Key aspects covered within the management plan. i. throughout ii. S2-4 iii. S2.2 iv. S2.2 v. S2.2 and 5.2 vi. S2.2 and 5.2. There is little details regarding TARPs for surface water and groundwater vii. S5.2 viii. S5.2 ix. No decommissioning as site is in C&M x. S2.2 xi. S4 xii. S2.2 xiii. S5.4 xiv. S4 xv. S6 No plan resubmitted since 2015 despite email from DPIE (dated 9/4/18) requesting an update to the SWMP. This makes the condition Admin Non - Compliant. SWMP currently being reviewed including revision of monitoring requirements and triggers. Carbon Based Environmental complete surface water and groundwater monitoring. AGE completed annual groundwater reports which are reported in Annual Reviews. The groundwater components of this condition have been covered in detail and outlined within Section 5.1 of the Main Audit report. Non compliances relating to the implementation of this plan have been outlined in Section 5.1. <u>Implementation:</u> Minimal surface/groundwater issues identified during audit inspection. Refer to above line items for Condition 3.6 for ESC	Refer to Condition 3.6 for erosion and sediment control recommendations. The SWMP is to be updated prior to recommencement of operations. Ensure the management plan covers the requirement of MOD 7, including additional detail regarding a TARP. See specific groundwater recommendations in Section 5.1 of the Main Document.

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(xv) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plans, and EIS.		recommendations. Annual Reviews cover water management. Monitoring results are outlined in the Annual Review. Evidence of surface water results and flagging trigger levels.	
	(b) The Applicant shall undertake annual assessments of the accuracy of the groundwater model predictions outlined in the EIS compared with monitored groundwater impacts in consultation with DLWC. Details of the assessments shall be reported in the AEMR and the scope of the assessment shall be determined in consultation with DLWC. Should the assessment identify significant differences between the EIS model predictions and monitored impacts, the Applicant shall revise the assessment of the potential impacts on groundwater systems in consultation with DLWC and implement any further mitigation measures in consultation with DLWC.	Non-Compliant (Low Risk)	Annual assessment completed by AGE and summarised in Annual Reviews. For the Hunter Tunnel monitoring network annual groundwater reviews (AGE 2016, 2017 and 2018) include discussion on groundwater level and quality trends for the alluvial bores. AGE 2017 and AGE 2018 identified a trigger exceedance for EC for bore WAL2. In addition trigger exceedances for alkalinity, calcium, chloride, magnesium, sulphate and TDS for bores FRA1 and KA1. No further investigation was conducted. Annual groundwater reviews by AGE (2016, 2017 and 2018) include discussion on groundwater level and quality trends for the rejects emplacement area (REA) bores. AGE 2017 and 2018 identified that EC results were above the trigger criteria, were recording a trend of rising EC over time and recommended further investigation. The AGE 2018 report also shows a rise in EC at alluvial bore FRA1, which is located west of the REA network and indicates potential seepage towards the Hunter River alluvium.	See specific groundwater recommendations in Section 5.1 of the Main Document. Trigger threshold criteria for the REA monitoring bores and Hunter Tunnel bores have been triggered over the review period. No evidence provided on action to investigate or notify the regulator. Ensure the TARP's are effectively implemented in the future .
	(c) In the event that the development adversely affects groundwater users, the Applicant shall in consultation with DLWC, liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply.	Observation	No impacts to other groundwater users. CCC chair noted that an unknown groundwater user may have been adversely affected by the mine.	Discuss at next CCC meeting to identify the specific landowner, their main concerns, and if formal complaint received enact this condition (GW specialist input required).
	(d) The Applicant shall obtain a licence from DLWC under: (i) Part 2 of the <i>Water Act 1912</i> , for the drainage diversion channels (changing the course of a river); (ii) Part 5 of the <i>Water Act 1912</i> for the bores and wells which intersect the groundwater table, including monitoring bores and the excavations which intersect the groundwater table.	Compliant	Details on the licences held is variable. The SWMP specifies water licenses held by the proponent in Section 2.4, stipulating licence 20BL169016 with an allocation of 150 ML for dewatering from the Wynn Seam Goaf and licence 20BL169015 has an allocation of 30 ML for dewatering from the Hunter Tunnel. Within Table 20 in Section 7.1 of Annual Review 2017 it is stated the proponent holds an entitlement of 182 ML/year for take of groundwater from the North Coast Fractured and Porous Rock Groundwater Source, within a separate groundwater source, the Alstonville Basalt Plateau Groundwater Source. Within Table 22 of Section 7.1.2 of Annual Review 2018 details on licences under the Sydney Basin North Coast Groundwater Source are included with an entitlement of up to 180 ML/year (WAL 41523 and WAL 41524). The Annual Reviews from 2016 to 2018 detail that 128 ML/year to 182 ML/year of water was abstracted from the Hunter Tunnel, and 106 ML/year from the Wynn Seam Goaf. The seepage into the Hunter Tunnel is derived predominantly from the Hunter Regulated River Alluvial Water Source (i.e. the HR alluvial aquifer). AQC holds several WALs with a combined share component of 1,249 units in this water source. Therefore, AQC's current water licences are sufficient to authorise the taking of 128 – 182 ML/year from the Hunter River alluvial aquifer. Section 7.1.2 of the 2018 Annual Review outlines this information. Based on the combined volume, the volume of water intercepted over the review period exceeded the licence allocation held . Bore licences listed in the SWMP have since been converted to WALs as you note, and licencing reconciled during MOD7 process: - licence 20BL169016 has been converted to WAL41524, which has a share component of 150 units - licence 20BL169015 has been converted to WAL41523, which has a share component of 30 units. These WALs authorise the taking of up to 180 ML/year from the Sydney Basin-North Coast Groundwater Source, which includes the Permian aquifer at Dartbrook Mine. Therefore, these WALs are sufficient to account for the modelled inflow to the Wynn Seam Goaf (106 ML/year). However, it is unclear how the volume of water intercepted within the Wynn Seam Goaf was quantified, from a model prediction or the volume of water abstracted from the Pleuger Pump to maintain the specified underground water level of 269 mbgl.	See specific groundwater recommendations in Section 5.1 of the Main Document. Recommend current water licencing is included in the revised SWMP.
	(e) The construction or mining operations shall not damage or interfere with: • vegetation outside the area of operation; • the stability of adjacent or nearby streams; or • the quality of water in the stream or watercourse except as authorised by the EPA.	Not Triggered	No construction or mining undertaken during the reporting period.	
	(f) The Applicant shall ensure that soil and/or vegetation material to be removed from the area of operations shall be disposed of to an appropriate site where it will not re-enter the watercourses or drainage systems.	Not Triggered	No clearing during audit period.	
	(g) The Applicant shall be responsible for any excavation or soil removal undertaken by any other person at the mine site.	Not Triggered	No excavation or soil removal undertaken during audit period.	
	(h) The Applicant shall ensure that all drainage diversion works at the mine site shall minimise adverse impacts, in consultation with DLWC. This shall include: (i) sufficient flow detention measures to provide flow rates at non-erosive velocities prior to re-entry into the natural drainage system; (ii) provision of adequate scour protection to ensure that where flows re-enter natural drainage lines from the diversion drains, adverse erosion impacts do not occur; (iii) designing all diversion systems to provide stability for the long-term for permanent diversions or for the designed life for temporary diversions; (iv) undertaking a pre-construction survey, by a suitably qualified person, of the channel site and adjacent banks showing design channel profile on cross-sections; (v) undertaking engineering hydraulic calculations by a suitably qualified person and assessment of scour potential of the channel to meet design flood capacity. This should be related to flow velocities, stability of design bed material type and bed slopes and profiles; (vi) revegetating the banks of the new channel using suitable species immediately following excavation; (vii) rehabilitating using locally grown species transplanted and embedded into erosion matting where required in areas of high scour rates. The diversion system may require time for appropriate revegetation prior to its connection to divert water; (viii) ensuring the sizes of any culverts are determined by a suitably qualified person; (ix) ensuring the flows or hydraulic levels upstream and downstream of any culverts shall not hinder the passage of fish and aquatic animals where appropriate. Any culverts must be constructed so that they comply with NSW Fisheries Policy and Guidelines for culvert construction. (x) preventing erosion of the bed and banks upstream and downstream of any culvert with suitable scour protection as recommended by a suitably qualified person.	Not Triggered	No construction/changes to drainage during the audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
4.2	<p>Surface and Groundwater Monitoring</p> <p>(a) The Applicant shall:</p> <p>(i) construct and locate surface and groundwater monitoring positions, as identified in the Site Water Management Plan (Condition 4.1(a)) in consultation with DLWC, and to the satisfaction of the Director-General, at least three months prior to the commencement of mining operations;</p> <p>(ii) prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the DA area during mining works and post mine operations in consultation with DLWC which shall form part of the Site Water Management Plan. The monitoring program shall have the capacity to collect sufficient data to adequately assess:</p> <p>1) the impact on groundwater levels on neighbouring properties and in the locality, and to identify any water quality impacts;</p> <p>2) the impact of the development on groundwaters associated with the alluvial aquifer of the Hunter River including the ongoing monitoring of the volume and quality of water inflows into the Hunter Tunnel;</p> <p>3) regional groundwater levels and water quality including the extension of the regional groundwater monitoring network to include bores RDH508-511; and</p> <p>4) any concerns or complaints from surrounding landholders on groundwater matters, and any ensuing actions, which shall be recorded and be available to DLWC.</p> <p>(iii) report on the monitoring results and raw data in the AEMR on the following matters:</p> <p>1) a basic statistical analysis (mean, range, variance, standard deviation) of the results for the parameters measured in individual bores / wells and as a subset of the aquifer;</p> <p>2) an interpretation of the water quality results and changes in time for water quality and water levels (supported with graphs, contour plots showing changes in aquifer pressure levels);</p> <p>3) an interpretation of the water balance identifying the volume of water and comparing this to predictions made in the EIS or the previous AEMR; and</p> <p>4) provide an electronic copy of the data forwarded to DLWC.</p> <p>(iv) The Applicant must consult with the DLWC and submit the Groundwater and Surface Water Monitoring Program in subclause (a)(ii) to the EPA when an application for a licence variation is submitted.</p>	Compliant	<p>Annual groundwater reports completed by AGE. Monitoring results summarised in Annual Reviews (provided to Natural Resources Access Regulator (NARR)).</p> <p>Surface water monitoring generally completed as per the current SWMP.</p> <p>1) The SWMP 2015 Section 4.1 and 4.2 specify that the depth to groundwater within the Wynn Seam Goaf will be monitored at the Pleuger pump site on a monthly basis. No monitoring of groundwater levels is conducted at this location, however water levels in the goaf are monitored on a weekly basis at the nearby BH901 site. Annual groundwater reviews by AGE for 2017 and 2018 refer to monitoring at BH901 with six monthly dipped water levels (mbgl) recorded and no details on the bore location or historical water level trends provided.</p> <p>2) SWMP 2015 includes requirement to monitor inflow volume and water quality into the Hunter Tunnel on a monthly basis, as well as monitoring of alluvial bores (FRA1, JOR1, KA1 and WAL2) on a six monthly basis.</p> <p>Evidence of inflows into the Hunter Tunnel being monitored weekly.</p> <p>3) Groundwater monitoring program as specified within SWMP 2015 has a regional network and includes bores RDH508-51 to monitor impacts of the rejects emplacement area (REA). Documented within Section 9.1 of AEMR 2016, AEMR 2017 and AEMR 2018, no formal complaints were received over the audit period.</p> <p>4) Documented within Section 9.1 of Annual Review 2016, Annual Review 2017 and Annual Review 2018, no formal complaints were received over the audit period.</p>	<p>See specific groundwater recommendations in Section 5.1 of the Main Document.</p> <p>Observation – the groundwater monitoring network and monitoring frequency outlined within the SWMP 2015 does not fully comply with the recommended monitoring program included in Appendix A of the SWMP 2015. For example, three monitoring points (WSG1 to WSG3) for the Wynn Seam Goaf have not been included in the monitoring program. Review of monitoring program is required for MOD 7.</p> <p>Recommend updating the monitoring program in the SMWP to ensure adequate for consistency with current monitoring of potential impacts at site, including the arrangements for the Wynn Seam Goaf, and Hunter Tunnel and REA. Liaise with groundwater specialist regarding monitoring program to ensure potential additional groundwater impacts from MOD 4 are being effectively being monitored and reviewed.</p>
			<p>ii 1) Annual Review 2016 includes Table F2 with statistical analysis of groundwater quality data.</p> <p>Annual Review 2017 and Annual Review 2018 include Table E2 with statistical analysis of groundwater quality data.</p> <p>ii 2) Annual Review (2016, 2017 and 2018) include groundwater level and quality trends presented in hydrographs.</p> <p>AGE (2016, 2017 and 2018) include groundwater level and quality trends presented in hydrographs, plus Piper Plot of water type (major ion) composition change.</p> <p>ii 3) Water management reported in Section 4.7 of Annual Review 2016, and Section 7 of Annual Review 2017 and 2018. Includes volume of water, Annual Review 2016 includes discussion to compare to previous years readings and Annual Review 2017 and 2018 include comparison to total water inventory between years.</p> <p>But it does not include comparison to EIS predictions or previous Annual Review.</p>	<p>See specific groundwater recommendations in Section 5.1 of the Main Document.</p> <p>Recommend also presenting groundwater level contour maps to identify any potential flow pathways.</p> <p>Recommend improved discussion on water take compared to 2000 EIS and previous years. Annual groundwater reviews (AGE 2016, 2017 and 2018) include only discussion on previous modelled results for alluvial groundwater leakage. Further work to review and discuss the groundwater inflows to the mine area is recommended, particularly monthly flow volumes and water quality from the Hunter Tunnel and groundwater storage within the Wynn Seam Goaf.</p>
5. Rejects Emplacement Area and Waste Management				
5.1	<p>Rejects Emplacement Area</p> <p>(a) The Applicant shall:</p> <p>(i) Ensure the construction, operation and decommissioning of the rejects replacement area meets relevant geotechnical factors of safety and long-term stability criteria, suitable for a permanent feature of the landscape;</p> <p>(ii) Unless otherwise agreed to by the Department of Primary Industries, ensure the design of the rejects emplacement area addresses:</p> <ul style="list-style-type: none"> • the need for subsurface drainage; • compaction of rejects within the emplacement to achieve a target of 95 percent standard compaction, and at all times achieve a 90 percent standard compaction; • temperate control and monitoring using thermo-couples within the emplacement; and <p>(iii) Prepare and implement a surveillance program to monitor the geotechnical stability of the rejects emplacement area, including periodic geotechnical analysis of the reject material to ensure it continues to meet relevant design criteria, to the satisfaction of the Department of Primary Industries.</p>	Compliant	<p>The Report from Douglas Partners titled Stability Inspection: Rejects Emplacement Area (5 June 2019) covers the stability of the REA. It however does not specially address all these conditions of consent, including temperature control requirements. Temperature control is referenced in the Annual Review.</p>	
	<p>(b) Prior to the emplacement of rejects in the southern and northern rejects emplacement areas, and for any subsequent modifications to the design of these emplacement areas, the Applicant shall:</p> <p>(i) Commission a suitably qualified, experienced and independent geotechnical expert, whose appointment has been approved by the Director-General, to review the detailed design (and surveillance program) for the southern and northern rejects emplacement areas to verify each design meets relevant geotechnical factors of safety and long-term stability criteria;</p> <p>(ii) Implement all reasonable and feasible recommendations made by the independent geotechnical expert to improve the detailed design or the surveillance program for the southern and northern rejects emplacement areas; and</p> <p>(iii) Provide a copy of the independent geotechnical expert's report to the Department of Primary Industries and the Director-General, to the satisfaction of the Department of Primary Industries.</p>	Not Triggered	<p>Undertaken as part of original REA construction. No reject emplacement during the reporting period.</p>	
	<p>(c) Prior to emplacement of rejects in the southern rejects emplacement area, the Applicant shall prepare and implement a revised Rehabilitation Strategy for all rejects emplacement areas at the mine, to the satisfaction of the Department of Primary Industries</p>	Not Triggered	<p>Not applicable in audit period due to Care and Maintenance Operations. No REA Extensions during in audit period.</p>	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)																				
5.2	<p>Waste</p> <p>(a) Prior to the commencement of construction or Mining Operations, the Applicant shall prepare and implement a Waste Management Plan for the DA area in consultation with MSC and to the satisfaction of the Director-General. The Plan shall include, but not be limited to:</p> <p>(i) details of measures to facilitate waste management on site;</p> <p>(ii) details of compliance with the Applicant's obligations under the Protection of the Environment Operations Act (1997);</p> <p>(iii) identification of all types and quantities of waste materials produced at the mine site during construction, commissioning and operation;</p> <p>(iv) programs aimed at minimising the production of waste at the mine site through the implementation of operational and management measures;</p> <p>(v) details of the potential reuse and recycling avenues for waste materials produced at the mine site, including collection and handling procedures;</p> <p>(vi) details of appropriate disposal routes in the event that reuse and recycling avenues are not available or are not practicable; and</p> <p>(vii) programs for involving and encouraging employees and contractors to minimise waste production at the mine site and reuse / recycling where appropriate.</p>	Compliant	<p>2002 Waste Management Plan sighted during previous audit (operations). Several internal revisions undertaken, however never approved by DPIE, therefore not reviewed as part of this audit (9/12/217).</p> <p>No evidence of consultation with MSC or DPIE sighted during previous audit. Minimal waste generated due to Care and Maintenance.</p> <p>Letter from the then Department of Planning dated (07.09.2006) approved removing the requirement for an annual waste audit, and instead just report on waste in the Annual Review.</p> <p>Aspects covered within the Management Plan, including:</p> <p>i. S2 and 3</p> <p>ii. S2 and 3</p> <p>iii. App A</p> <p>iv. S3.1</p> <p>v. S3.1 and App A</p> <p>vi. S3.1 and App A</p> <p>Evidence of spill kits, segregated rubbish. It is noted an empty above ground tank is being stored outside a bunded area at the pit top.</p>	Move the above ground tank to bunded area or remove from site. Once the tank has been moved, review the previous area for potential contamination from leaks.																				
	(b) The Applicant shall dispose of all solid waste and putrescible matter from the site to the satisfaction of MSC or EPA, as relevant.	Compliant	Waste management summarised in Annual Review and sent to MSC and EPA. No solid or putrescible waste management issues observed during site inspection.																					
	(c) The Applicant shall dispose of all treated sewage and sullage to the satisfaction of MSC and in accordance with the EPA Licence.	Compliant	Sewage treated in the Sewage Treatment Plant with treated liquids irrigated as approved by the EPL. Waste in treated and then sent to a pond. Don't need to irrigate in current C&M phase. Monitoring as per the EPL.																					
5.3	<p>Tailings Disposal</p> <p>(a) The Applicant shall not use tailing dams for the disposal of fine coal rejects, other than in emergency situations when the ratio of fine to coarse rejects are not within the specifications for the waste plant.</p>	Not Triggered	No tailings disposal during the audit period. Site in Care and Maintenance.																					
	(b) The Applicant shall prepare a report to the Director-General every five years, or as otherwise agreed by the Director-General, reporting on the feasibility of using goaf areas of the Dartbrook Extended Mine, other than that described in the "Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant", dated 12 August 2005 and prepared by Hansen Consulting, for rejects disposal.	Not Triggered	No tailings disposal during the audit period. Site in Care and Maintenance.																					
6. Air Quality, Noise and Light Management and Monitoring																								
6.1	<p>Air Quality Management and Monitoring</p> <p><u>Air Quality Standards/Goals</u></p> <p>(a1) The Applicant shall comply with the air quality standards/goals listed in Tables 1 and 2:</p> <p>Table 1: Health based air quality standards/goals</p> <table border="1"> <thead> <tr> <th>Dust Type</th> <th>Standard/Goal</th> <th>Source Agency</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>90 µg/m³ (annual average)</td> <td>NHMRC¹</td> </tr> </tbody> </table> <p>¹ National Health and Medical Research Council.</p> <p>Table 2: NSW EPA amenity based air quality standards/goals</p> <table border="1"> <thead> <tr> <th rowspan="2">Existing dust fallout level (g/m²/month)</th> <th colspan="2">Maximum acceptable increase over existing deposition levels (g/m²/month)</th> </tr> <tr> <th>Residential</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>3</td> <td>1</td> <td>2</td> </tr> <tr> <td>4</td> <td>0</td> <td>1</td> </tr> </tbody> </table>	Dust Type	Standard/Goal	Source Agency	Total suspended particulate (TSP) matter	90 µg/m ³ (annual average)	NHMRC ¹	Existing dust fallout level (g/m ² /month)	Maximum acceptable increase over existing deposition levels (g/m ² /month)		Residential	Other	2	2	2	3	1	2	4	0	1	Non-Compliant (Low Risk)	<p>2016:</p> <p>In 2016, annual average dust deposition rates were below the limit of 4 g/m²/month at all sites. TSP results were within the criteria. The data recovery rate was 100% for all HVAS sites.</p> <p>Contamination testing being undertaken on depositional dust results. Contaminated samples have been excluded from calculations of annual averages, as outlined in the 2018 Annual Review.</p> <p>2017:</p> <p>In 2017, annual average dust deposition rates were below the limit of 4 g/m²/month at all sites. TSP results were within criteria. The data recovery rate was 100% for all HVAS sites in 2017.</p> <p>2018:</p> <p>2018 Annual Review indicated depositional dust exceedance at site 897, with an exceedance of 12.1g /m²/month. Dartbrook stated that "although this was an exceedance of DA231-07-2000 criteria for depositional dust, Dartbrook Care and Maintenance Activities during that year were not a significant contribution to this elevated result. Numerous gauges had contamination. It is noted that the exceedance of site 897 was not reported in Section 1 or 11 of the 2018 Annual Review which details non compliances. All exceedances, regardless of the cause should be reported in Section 1 and 11.</p> <p>TSP results were within criteria. Its noted there was full data capture.</p> <p>2019:</p> <p>No annual averages yet.</p>	All exceedances of dust goals, regardless of the cause should be reported in Section 1 and 11 of the Annual Review.
Dust Type	Standard/Goal	Source Agency																						
Total suspended particulate (TSP) matter	90 µg/m ³ (annual average)	NHMRC ¹																						
Existing dust fallout level (g/m ² /month)	Maximum acceptable increase over existing deposition levels (g/m ² /month)																							
	Residential	Other																						
2	2	2																						
3	1	2																						
4	0	1																						

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	<p>Dust Management Plan</p> <p>(a) The Applicant shall, prior to the commencement of construction or Mining Operations, prepare a Dust Management Plan detailing air quality safeguards and procedures for dealing with dust emissions from the Dartbrook Underground Mine Extension to the satisfaction of the Director-General. The Dust Management Plan shall be prepared in consultation with the EPA, MSC and SSC. The Plan shall include, but not be limited to, details of:</p> <p>(i) the identification of dust affected properties in accordance with the relevant air quality standards/goals in Tables 1 and 2;</p> <p>(ii) reporting of the dust emissions from the Mine in comparison to all of the air quality standards and goals provided in Tables 1 and 2.</p> <p>(iii) specification of the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations;</p> <p>(iv) outline the procedure to notify property owners and occupiers likely to be affected by dust from the mine in excess of standards/goals detailed in Tables 1 and 2;</p> <p>(v) measures to reduce the potential for wind erosion from exposed surfaces;</p> <p>(vi) methods for making dust monitoring data publicly available, such as the placement of monitoring details and results on the internet;</p> <p>(vii) measures to manage and mitigate short term episodic events including investigations into the relationships between short-term variations in dust levels (particularly TSP and dust deposition) and levels of complaints and annoyance, with a view to reviewing the monitoring approaches and criteria for acceptable levels of impact;</p> <p>(viii) the establishment of a protocol for handling dust complaints that include recording, investigating, reporting and acting on complaints, including where complaints are received and it is demonstrated dust levels are below the criteria contained in this consent;</p> <p>(ix) appropriate mechanisms for community consultation;</p> <p>(x) outlining proactive/predictive and reactive mitigation measures to be employed to minimise dust emissions;</p> <p>(xi) outlining mitigation measures to be employed to minimise dust emissions including dust from rejects emplacement area in dry and windy conditions;</p> <p>(xii) equipment to be available and used to control dust generation;</p> <p>(xiii) methods to determine when and how the mine operation is to be modified to minimise the potential for dust emissions, particularly from surface activities if the relevant criteria are exceeded;</p> <p>(xiv) identification of longer term strategies directed towards mitigating dust levels that exceed the air quality standards/goals in Tables 1 and 2;</p> <p>(xv) details of locations for dust monitoring and deposition gauges at the residential areas and frequency of monitoring, as agreed with the EPA;</p> <p>(xvi) a program to continue baseline monitoring undertaken prior to development consent; and</p> <p>(xvii) Monitoring and reporting protocol for PM10 (particulate matter less than 10 microns) and a comparison with the:</p> <ul style="list-style-type: none"> National Environment Protection Council PM10 goal of 50 $\mu\text{g}/\text{m}^3$ (24 hour average); and EPA PM10 goal of 50 $\mu\text{g}/\text{m}^3$ (annual average). 	Compliant	<p>Current approved Dust MP dated 2015. No evidence that consultation was completed apart from sending to DPIE for approval, therefore this is a historical Admin Non Compliance from the previous audit period. However this was prior to 2015, therefore its not applicable to this audit period. The Dust MP requirements outlined in the following sections:</p> <p>i) no dust affected properties;</p> <p>ii) S8</p> <p>iii. S6.3</p> <p>iv. S7</p> <p>v. S4</p> <p>vi. S8</p> <p>vii. S5.3</p> <p>viii. S7</p> <p>ix. S7</p> <p>x. S7 and 8</p> <p>xi. S5</p> <p>xii. S5</p> <p>xiii. S7</p> <p>xiv. Dust levels are low. S7 of Management Plan</p> <p>xv. S4</p> <p>xvi. S4</p> <p>xvii. S8</p> <p>Implementation: During the field inspection it was observed that the former coal stockpile area has been partially rehabilitated with a pasture mix, however there are several areas that have poor or no ground cover. Dust results have been generally low during the audit period.</p>	If a decision is made to recommence operations, bare areas on former coal stockpile at CHPP should be stabilised if not being used for coal storage. If decision is made to close the site, the areas should be rehabilitated as part of planned closure. Additional soil testing and advice from a rehabilitation specialist would be required for any stabilisation or final rehabilitation activities.
	<p>Air Quality and Dust Monitoring</p> <p>(b) The Applicant shall:</p> <p>(i) undertake monitoring at locations described in the Dust Management Plan (Condition 6.1(a));</p> <p>(ii) establish dust deposition, total suspended particulate (TSP) and PM10 monitoring locations for the mine operations, including sites for monitoring impacts of dust at the nearest non-mined owned residences, and locations as may be determined to be necessary by the Director-General and in accordance with the Dust Management Plan referred to in Condition 6.1(a);</p> <p>(iii) provide quarterly reporting on the performance of the control measures and of the monitoring system detailed in the EIS and conditions of this consent, unless otherwise agreed by the Director-General. The reports shall be provided to the Director-General, CCC and MSC; and</p> <p>(iv) provide all results and analysis of air quality monitoring in the AEMR including a determination of the dust deposition rate in $\text{g}/\text{m}^2/\text{month}$, which shall be plotted in the AEMR.</p>	Compliant	Dust monitoring implemented, and results summarised in the Annual Review and distributed to relevant stakeholders as part of Annual Review submission. Letter from Planning dated (07.09.2006) approved Annual Review reporting instead of quarterly reporting.	
	<p>(c) In the event that a landowner or occupier considers that dust from the project at their dwelling or over more than 25% of their vacant land is in excess of the criteria in Tables 1 and 2, and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:</p> <p>(i) consult with the landowner or occupants affected to determine their concerns;</p> <p>(ii) make arrangements for, and bear the costs of appropriate independent dust investigations in accordance with the Dust Management Plan, (which may involve an audit of the mine's monitoring program) and to the satisfaction of the Director-General, to quantify the impact and determine the source of any effect of Dartbrook Mine;</p> <p>(iii) modify the mining activity or take other steps in accordance with the Dust Management Plan if exceedances are demonstrated to result from the mine related activity. This shall include:</p> <ol style="list-style-type: none"> introduction of additional controls, either of dust generation from individual sources on the site or on site operations or modify operations to ensure that the dust criteria are achieved; and/or, enter into an agreement with the landowner or provide such forms of benefit or amelioration of the impact of dust as may be agreed between the parties as providing acceptable compensation for the dust levels experienced. <p>(iv) conduct follow up investigations to the satisfaction of the Director-General, where necessary.</p> <p>Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.</p>	Not Triggered	Not triggered during audit period. Site in Care and Maintenance.	
	<p>(d) If the independent dust investigations in sub-clause (c) above confirm that dust levels are in excess of the criteria in Tables 1 and 2 above, and if the measures in sub-clause (c)(iii) (1) above do not reduce the dust levels below the criteria in Tables 1 and 2, or if agreement in accordance with sub-clause (c)(iii) (2) above cannot be reached, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 11.3.</p>	Not Triggered	Not triggered during audit period. Site in Care and Maintenance.	
	<p>(e) If a landowner disputes any dust mitigation or other measures proposed by the Applicant in accordance with subclause (c)(iii)(2), the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with MSC and SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.</p>	Not Triggered	Not triggered during audit period. Site in Care and Maintenance.	
	<p>(f) Further independent investigations shall cease if the Director-General is satisfied that the criteria in Tables 1 and 2 are not being exceeded and are unlikely to be exceeded in the future.</p>	Not Triggered	Not triggered during audit period. Site in Care and Maintenance.	
	<p>Odour Monitoring</p> <p>(g) 14 The Applicant must not cause or permit the emission of offensive odours from the premises and must comply with section 129 of the Protection of the Environment Operations Act 1997.</p>	Compliant	<p>Based on the information provided to SLR, all gas drainage boreholes and plants that were previously utilised during operation have been decommissioned during Care and Maintenance. Letter sighted dated 14.04.14 requesting approval to seal gas boreholes. Approval letter dated 11.09.2014.</p> <p>No blasting under Care and Maintenance operations.</p>	
	<p>(h) 15 Prior to construction of each ventilation air discharge vent (ventilation shaft), the Applicant must submit a report to the EPA, which demonstrates, to the satisfaction of the EPA, that the new ventilation air discharge vents are located and designed in a manner that will not cause offensive odour impacts.</p>	Not Triggered	No vent shafts constructed during audit period.	
	<p>(i) 16 Within 90 days of commissioning each new ventilation air discharge vent (ventilation shaft), the Applicant must submit a report to the EPA, which includes the following site specific source emission test results:</p> <ul style="list-style-type: none"> Concentration of odour (OU/m^3); Emission rate of odour (OU/s); Concentrations and emission rates of all other relevant air pollutants; Volumetric flow rate (m^3/s); Discharge velocity (m/s); and Temperature ($^{\circ}\text{C}$). <p>If the above parameters are outside the range used in the dispersion modelling study of each ventilation air discharge vent (ventilation shaft), then the odour impacts must be assessed once more and the results submitted to the EPA.</p>	Not Triggered	No vent shafts constructed during audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(j) 17 The location of sampling points and source emissions sampling and analysis must be conducted strictly in accordance with the "Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales", NSW EPA, December 1999.	Not Triggered	Ventilation Shaft No. 1 is the only site still emitting. Tube bundles are used for monitoring. Management and performance is reported in the Annual Review.	
6.2	Dust Suppression and Control (a) The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas of the mine site to minimise the generation of wind erosion dust.	Compliant	Site inspection observed generally compliant. Some areas of poor ground cover establishment at CHPP former stockpile areas. Refer above.	As per recommendation from Condition 6.1a). If a decision is made to recommence operations, bare areas on former coal stockpile at CHPP should be stabilised if not being used for coal storage. If decision is made to close the site, the areas should be rehabilitated as part of planned closure. Additional soil testing and advice from a rehabilitation specialist would be required for any stabilisation or final rehabilitation activities.
	(b) The Applicant shall keep the surface of the coal stockpiles and any unsealed roads sufficiently damp to minimise the emission of wind blown or traffic generated dust.	Not Triggered	No coal stockpiled. Roads are rarely used as site is in Care and Maintenance. Due to Care and Maintenance a water cart is not considered necessary.	
6.3	Blast Management and Monitoring <u>Blasting Overpressure</u> (a) 18 The overpressure level from blasting operations on the premises must not: • exceed 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months; and • exceed 120dB (Linear Peak) at any time, at any residence or noise sensitive location (such as a school or hospital) that is not owned by the Applicant or subject to a private agreement between the owner of the residence or noise sensitive location and the Applicant as to an alternative overpressure level.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	<u>Ground Vibration</u> (b) 19 Ground vibration peak particle velocity from the blasting operations must not: • exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and • exceed 10mm/s at any time, at any residence or noise sensitive location (such as a school or hospital) that is not owned by the Applicant, or subject to a private agreement between the owner of the residence, or noise sensitive location and the Applicant, as to an alternative vibration level.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	<u>Time and Frequency of Blasting</u> (c) 20 Blasting operations may only take place between 9 am and 5 pm Monday to Friday inclusive;	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(d) 21 Blasting at the premises is limited to 1 blast on each day on which blasting is permitted; and	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(e) 22 The hours of operation for blasting operations specified in this condition may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.	Not Triggered	No blasting during the audit period.	
	<u>Blast Management Plan</u> (f) The Applicant shall prepare and implement a Blast Management Plan to the satisfaction of the Director-General, prior to the commencement of any blasting. The Plan must include, but need not be limited to, the following matters: • compliance standards; • mitigation measures; • remedial action; • monitoring methods and program; • monitoring program for flyrock distribution; • measures to be undertaken to demonstrate that Dartbrook Mine is achieving best practice in minimising both air blast overpressure and ground vibration levels; • measures to protect underground utilities (e.g.: rising mains, subsurface telecommunication and electric cables), native fauna and livestock nearby; • procedures for the notification of neighbours prior to detonation of each blast; and • measures to ensure no damage by flyrock to people, property, livestock and powerlines.	Not Triggered	Blast Management Plan (2002) sighted. No approval letter/consultation letters sighted. No blasting during audit period therefore condition was not triggered. The Plan would only be updated for MOD 7 if blasting is required.	
	(g) The Applicant shall as a minimum for large-scale blasts (with a maximum instantaneous charge greater than 20kg), advise residents within three (3) kilometres of blasting locations on a monthly basis and of any changes to monthly programs. For small-scale construction blasts (with a maximum instantaneous charge not greater than 20kg), the Applicant shall as a minimum advise residents within one (1) kilometre of blasting locations.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(h) Upon written request of the owner of any dwelling located within three (3) kilometres of large-scale blasting locations (with a maximum instantaneous charge greater than 20kg), or within one (1) kilometre of small-scale construction blasting locations (with a maximum instantaneous charge not greater than 20 kg), the Applicant shall arrange at its own costs, for the inspection by a technically qualified person agreed to by both parties, to record the material condition of any structure on such a property within 14 days of receipt of the request. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner within fourteen (14) days of receipt of the report.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(i) The Applicant shall ensure that blasting shall not take place within 500 metres of a public road while such road is open to traffic. Roads shall not be closed for blasting purposes during the times that school buses use the road.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(j) The Applicant shall prepare a Road Closure Management Plan to the satisfaction of the Director-General, and in consultation with MSC and SSC prior to the commencement of any blasting within 500 metres of a public road. The Plan shall include, but not be limited to, the following matters: (i) details of the proposed safety management measures during the period of the road closure and blast; (ii) details of the procedures for closing Dartbrook Road and the period which the road will be closed during blasting activities; (iii) methods for ensuring the safety of road users and the general public during the blast period; (iv) strategies for informing road users and the local community of the proposed road closure; (v) details of the procedures for permitting the passage of emergency vehicles during the road closure. This shall also include details of the proposed methods for sufficiently notifying emergency service providers of the proposed times and period of the road closures; (vi) methods for clearing the road of any debris resulting from a blast; and (vii) details of the disruptions that are likely to occur during the closure period.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(k) Notwithstanding subclause (j) above, if blasting is proposed within 500 metres of the New England Highway, The Applicant shall prepare a Road Closure Management Plan to the satisfaction of the Director-General, and in consultation with RTA, MSC and SSC, prior to the commencement of any blasting within 500 metres of the New England Highway. The Plan shall include, but not be limited to, the matters in subclause(i) above.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	<u>Blast Monitoring</u> (l) The applicant must monitor ground vibration and overpressure of all blasts.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	
	(m) Ground vibration or the overpressure must be measured at noise sensitive sites (e.g., residences, hospitals, schools etc), selected in consultation with the EPA.	Not Triggered	Based on Annual Reviews there has been no blasting during the audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)								
6.4	<p>Noise Control 6.4.1 Noise Levels Intrusive Noise Criteria (a) The Applicant shall undertake management measures as outlined in the Noise Management Plan at dwellings where the noise target criteria in Table 3 below is predicted to be exceeded, or is exceeded during normal operations.</p> <p>Table 3: Intrusive Noise Criteria for Dartbrook Mine L_{eq} (15 minute)</p> <table border="1"> <thead> <tr> <th>Location as identified in the EIS¹</th> <th>Intrusive Criteria^{2,3} [Day / Evening / Night]⁴ L_{eq} (15 minute)</th> </tr> </thead> <tbody> <tr> <td>East site receivers</td> <td>50/50/41 dB(A)</td> </tr> <tr> <td>West site receivers</td> <td>40/40/35 dB(A)</td> </tr> <tr> <td>Aberdeen</td> <td>49/42/40 dB(A)</td> </tr> </tbody> </table> <p>1 For the locations of East site and West receivers refer to Schedule A. 2 These criteria apply for winds up to 3 metres per second and Pascall Stability Classes of A, B, C, D, E, and F. 3 All measured or predicted noise levels to be rounded to the nearest decibel. 4 Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).</p>	Location as identified in the EIS ¹	Intrusive Criteria ^{2,3} [Day / Evening / Night] ⁴ L_{eq} (15 minute)	East site receivers	50/50/41 dB(A)	West site receivers	40/40/35 dB(A)	Aberdeen	49/42/40 dB(A)	Not Triggered	On 10 May 2012, the DPIE granted approval for Dartbrook not to undertake noise monitoring while under Care and Maintenance. The Care and Maintenance strategy involves low level equipment and machinery operation for maintenance activities only.	
Location as identified in the EIS ¹	Intrusive Criteria ^{2,3} [Day / Evening / Night] ⁴ L_{eq} (15 minute)											
East site receivers	50/50/41 dB(A)											
West site receivers	40/40/35 dB(A)											
Aberdeen	49/42/40 dB(A)											
	<p>Noise Acquisition Criteria (b) The acquisition zone for Dartbrook Mine is defined by predicted or demonstrated exceedance of noise levels (caused by Dartbrook Mine) at any non-mined owned dwellings of the dB(A) (L_{eq} (15 minute)) noise limits shown in Table 4 below.</p> <p>Table 4: Noise Acquisition Criteria for Dartbrook Mine L_{eq} (15 minute)</p> <table border="1"> <thead> <tr> <th>Location as identified in the EIS¹</th> <th>Dartbrook Mine Acquisition Criteria^{2,3} [Day / Evening / Night]⁴ L_{eq} (15 minute)</th> </tr> </thead> <tbody> <tr> <td>East site receivers</td> <td>greater than 55/55/46 dB(A)</td> </tr> <tr> <td>West site receivers</td> <td>greater than 45/45/40 dB(A)</td> </tr> <tr> <td>Aberdeen</td> <td>greater than 54/47/45 dB(A)</td> </tr> </tbody> </table> <p>1 For the locations of East site and West site receivers refer to Schedule A. 2 These criteria apply for winds up to 3 metres per second and Pascall Stability Classes of A, B, C, D, E, and F. 3 All measured or predicted noise levels to be rounded to the nearest decibel. 4 Daytime (between the hours of 7am and 6pm); evening (between 6pm and 10pm) and night time (between 10 pm and 7 am).</p>	Location as identified in the EIS ¹	Dartbrook Mine Acquisition Criteria ^{2,3} [Day / Evening / Night] ⁴ L_{eq} (15 minute)	East site receivers	greater than 55/55/46 dB(A)	West site receivers	greater than 45/45/40 dB(A)	Aberdeen	greater than 54/47/45 dB(A)	Not Triggered	Not required during Care and Maintenance.	
Location as identified in the EIS ¹	Dartbrook Mine Acquisition Criteria ^{2,3} [Day / Evening / Night] ⁴ L_{eq} (15 minute)											
East site receivers	greater than 55/55/46 dB(A)											
West site receivers	greater than 45/45/40 dB(A)											
Aberdeen	greater than 54/47/45 dB(A)											
	<p>(c) The properties in Table 5 are predicted to experience noise levels greater than the acquisition levels identified in Table 4 from Dartbrook Mine, and shall be acquired by the Applicant if requested by the landowner in accordance with Condition 11.3.</p> <p>Table 5: Dwellings Predicted to be Within the Intrusive Noise Acquisition Zone</p> <table border="1"> <thead> <tr> <th>Property Owner (as stated in the EIS)</th> </tr> </thead> <tbody> <tr> <td>Knights</td> </tr> <tr> <td>Day</td> </tr> <tr> <td>Gordon</td> </tr> </tbody> </table>	Property Owner (as stated in the EIS)	Knights	Day	Gordon	Not Triggered	Not required during Care and Maintenance					
Property Owner (as stated in the EIS)												
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Day												
Gordon												
	<p>(d) In the event that a landowner or occupier of a non-mine owned property, excluding those properties listed in Table 5 (refer also sub clause (l) below), considers that noise from the project once operational at their dwelling is in excess of:</p> <ul style="list-style-type: none"> the noise levels depicted in Tables 3 or 4 above; or that a landowner considers that the noise levels depicted in Table 4 is being exceeded over more than 25% of their vacant land, <p>and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:</p> <ol style="list-style-type: none"> consult with the landowner or occupants affected to determine their concerns; make arrangements for, and bear the costs of, in consultation with the owners of other mine operations in the vicinity where necessary, appropriate independent noise investigations in accordance with the noise management plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect; modify the Dartbrook Mine operations or take other steps in accordance with a noise reduction plan prepared as part of the noise management plan, if exceedances are demonstrated to result from Dartbrook Mine. This shall include: <ul style="list-style-type: none"> introduction of feasible and reasonable additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria in Table 3 are achieved, as far as possible; and/or with the agreement of the landowner, undertaking of noise control at the dwelling to achieve acceptable internal noise levels; and/or entering into an agreement with the landowner or provide such other forms of benefit or amelioration of the impact of noise as may be agreed between the parties, as providing acceptable compensation for the noise levels experienced; conduct follow up investigations to the satisfaction of the Director-General, where necessary. <p>Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.</p>	Not Triggered	Not required during Care and Maintenance.									
	<p>(e) If the independent noise investigations in sub-clause (d) above confirm that noise limits in Table 4 are being exceeded by Dartbrook Mine and the measures in Condition 6.4.1 (d) (iii) do not reduce the noise levels below the criteria in Table 4, the Applicant shall at the written request of the landowner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 11.3.</p>	Not Triggered	Not required during Care and Maintenance.									
	<p>(f) If continued complaints and noise investigations confirm that noise limits in Table 3 are being exceeded, but are less than the noise levels in Table 4, the Applicant shall continue to negotiate with the landowner until a resolution to the satisfaction of the Director-General is reached.</p>	Not Triggered	Not required during Care and Maintenance.									
	<p>(g) If a landowner disputes any noise mitigation or other measures proposed by the Applicant in accordance with sub-clause (d) above, the matter shall be referred by either the Applicant or landowner to the Director-General in consultation with MSC and SSC. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.</p>	Not Triggered	Not required during Care and Maintenance.									
	<p>(h) Further independent investigations shall cease if the Director-General is satisfied that the relevant criteria in Tables 3 and 4 are not being exceeded and are unlikely to be exceeded in the future.</p>	Not Triggered	Not required during Care and Maintenance.									
	<p>(i) The Applicant shall, after commencement of the mine extensions, undertake monitoring of affected residences to verify noise predictions, including management and acquisition zones to the requirements of the Director-General. Any alterations to predictions, management and acquisition zones, shall be provided to the affected resident(s) and to the Community Consultative Committee together with necessary action in accordance with this Condition.</p>	Not Triggered	Not required during Care and Maintenance.									
	<p>(j) 24EPA Applicable Noise Limits for EPA licence purposes (refer to Schedule B)</p>	Not Triggered	Not required during Care and Maintenance.									

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(k) For the purpose of noise measurement for subclause (j) above and this consent in general, the LAeq noise level must be measured or computed at the most affected area within 30 metres of the residence or at the boundary, if the boundary is closer than 30 metres to the residence, over a period/s of 15 minutes using "FAST" response on the sound level meter.	Not Triggered	Not required during Care and Maintenance.	
	(l) In the event a resident is identified in the acquisition zone by either subclause (c) or (e) above and does not wish to request acquisition, the Applicant shall: (a) take feasible and reasonable measures to minimise noise levels in the event of complaints from the resident in the acquisition zone; and (b) if requested to instigate noise mitigation measures in lieu of acquisition, shall consider the feasibility of such measures and instigate those measures at its discretion in consultation with the resident, unless otherwise agreed by the Director-General. Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.	Not Triggered	Not required during Care and Maintenance.	
	6.4.2 Noise Management Plan (a) The Applicant shall prior to commencement of mining operations, prepare and implement a Noise Management Plan for Dartbrook Mine, to the satisfaction of the Director-General. The EPA, MSC and SSC should also be consulted prior to the finalisation of the Management Plan. The Plan shall: (i) include details of the conduct of noise investigations at three monthly intervals, unless otherwise agreed by the Director-General, to evaluate, assess and report the L eq (15 minute) noise emission levels due to the normal operations of Dartbrook Mine; (ii) detail proposed methodologies including determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements; (iii) detail management measures where the Intrusive criteria in Table 3 of this consent is predicted to be exceeded, or is exceeded during mining operations; (iv) outline the design of any noise monitoring and modelling or other studies including the means for determining the noise levels emitted by the Dartbrook Mine operations;	Not Triggered	As site is on Care and Maintenance, noise sources are during daytime only and are very minor. The Care and Maintenance strategy involves low level equipment and machinery operation for maintenance activities only.	With MOD 7 now approved, all management plans are required to be updated prior to recommencing mining operations.
	(v) detail a monitoring program, mitigation measures, remedial action and measures demonstrating that Dartbrook Mine is achieving best practice in minimising low frequency noise, irrespective of set standards; (vi) particularly focus on the management of night time noise (10.00pm – 7.00am) for each year of operation; (vii) redefine both the noise acquisition and management zones for Dartbrook Mine on a yearly basis, unless otherwise agreed by the Director-General. This review shall draw upon the noise monitoring results obtained during the previous year and incorporate noise modelling to provide a forward plan of predicted noise levels for the year ahead to the satisfaction of the Director-General, and as otherwise agreed by the Director General; (viii) 25specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations; (ix) 26outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations; (x) establish a protocol for handling noise complaints that includes recording, investigating, reporting and acting on complaints, including where complaints are received and it is demonstrated that noise levels are below the criteria contained in this consent; (xi) record appropriate mechanisms for community consultation; (xii) outline proactive/predictive and reactive mitigation measures to be employed on the site to limit noise emissions; (xiii) identify longer term strategies directed towards mitigating noise levels that exceed the noise target levels in Table 3; (xiv) outline measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms); (xv) 27specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they lead to exceedance of the relevant noise criteria; and (xvi) 28survey and investigate noise reduction measures from plant and equipment at the conclusion of the first 12 months of coal processing operations and set targets for noise reduction taking into consideration valid noise complaints in the previous year. The Report shall also include remedial measures, to achieve compliance with the noise criteria in this consent.	Not Triggered	Monitoring Program - Not Applicable. On 10 May 2012, the DPIE granted approval for Dartbrook not to undertake noise monitoring while under Care and Maintenance. The Care and Maintenance strategy involves low level equipment and machinery operation for maintenance activities only.	
	(b) 29 The night-time section of the Noise Management Plan shall be prepared prior to the commencement of any night-time operations.	Not Triggered	Not applicable in Care and Maintenance.	
	(c) Prior to the commencement of construction, the Applicant must prepare, and subsequently implement, a Construction Noise Management Plan to the satisfaction of the Director-General. 31The Plan must include, but need not be limited to, the following matters: • compliance standards; • community consultation; • complaints handling monitoring/system; • site contact person to follow up complaints; • mitigation measures; • the design/orientation of the proposed mitigation methods demonstrating best practice; • construction times; • contingency measures where noise complaints are received; • monitoring methods and program.	Not Triggered	Not applicable in Care and Maintenance.	
	(d) The Applicant shall also: (i) make copies of the Noise Management and Construction Noise Management Plans available to the EPA, MSC, SSC and CCC within fourteen days of approval by DUAP, or as otherwise agreed to by the Director-General; and (ii) include a summary of noise monitoring results in the AEMR.	Not Triggered	Not applicable in Care and Maintenance.	
	(e) The Applicant shall ensure that the design, construction and operation of Dartbrook Extended shall not create amenity problem(s) associated with low frequency noise. The Applicant shall, in consultation with the EPA, investigate the cause of any low frequency noise causing amenity problems associated with Dartbrook and report to the Director-General the result of any such investigation and practical mitigation measures that can be adopted to eliminate such problem.	Not Triggered	Not applicable in Care and Maintenance.	
	(f) The Applicant shall ensure that construction activity does not result in noise emissions likely, in the opinion of the EPA, to cause annoyance at residences not owned by the Applicant, having regard to the volume, impact or tone of the noise.	Not Triggered	Not required during Care and Maintenance	
6.5	Lighting Emissions (a) The Applicant shall, prior to commencement of construction, prepare a Lighting Management Plan in consultation with MSC, SSC and to the satisfaction of the Director-General. The Plan shall include details of the implementation of visual controls to screen, direct or manage all on-site lighting from mine related activities in respect of residences and roadways. The Plan shall include, but not be limited to: i) details of the planting of vegetation screens along Dartbrook Road, to screen potential lighting impacts; ii) details of the tree screen on the north side of the access road at the corner north of the Dam to screen potential lighting impacts; iii) details of the tree and shrub screening around the Drift Access to reduce potential lighting impacts; iv) details of technical measures and work practices necessary to minimise the spillage of light from areas to be illuminated, and to minimise the total night time glow from the mine; v) details of the construction or placement of visual screens to screen lighting impacts; vi) details of the proposed process and measures to address complaints that may be received from residents or road users impacted by lighting from the mine site; and vii) details of any other effective operating practices to manage potential lighting impacts.	Compliant	2011 Lighting Plan sighted. Minimal lighting issues as the site is in Care and Maintenance and minimal lighting at night. Field inspection identified some visual screening/bunding around the site. No complaints received in relation to lighting (some enquires about lighting during 2019 however not attributed to site operations). Letter from Planning dated (07.09.2006) approved reducing tree screening monitoring from 2-3 times per year to once per year. Evidence of annual tree screen inspections.	
	(b) The Applicant shall report on the effectiveness of the lighting emission controls in the AEMR.	Compliant	Lighting has been summarised in the Annual Reviews.	
	(c) The Applicant shall ensure that on-site lighting does not directly emit light into the line of sight of nearby dwellings. The light emitted from any direct flood lighting and any vehicle headlights shall be directed away from dwellings and public roads.	Not Triggered	Minimal lighting issues as the site is in Care and Maintenance. No flood lighting at night (limited security lighting)	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(d) The Applicant shall ensure that light emitted from locomotive headlights whilst a locomotive is on or moving off the rail loop shall be screened from dwellings to the satisfaction of MSC or as otherwise agreed by the Director-General.	Not Triggered	No rail movements in Care and Maintenance.	
6.6	Vibration from Mine Operations (a) Ground vibration peak particle velocity from the rail loop and/or CHPP facility must not: • exceed 2.82 mm/s at any time, at any residence or noise sensitive location (such as a school or hospital) that is not owned by the Applicant, or subject to a private agreement between the owner of the residence, or noise sensitive location and the Applicant, as to an alternative vibration level.	Not Triggered	No rail movements in Care and Maintenance.	
	(b) Prior to the commencement of mining operations, the Applicant shall prepare and implement a Vibration Management Plan to the satisfaction of the Director-General which will include, but need not be limited to, the following matters: • compliance standards; • monitoring program; • mitigation measures; • remedial action in an event of exceedance of criteria in subclause 6.6(a) above; • monitoring methods and program; and • measures to be undertaken to demonstrate that Dartbrook Mine is achieving best practice in minimising vibration levels from the rail loop and/or CHPP, irrespective of set standards.	Not Triggered	2002 Vibration Management Plan sighted. No vibration issues as no train movements and CHPP not operating during audit period. Vibration Management Plan Section 4.2 states that "due to the absence of any detectable ground vibration from Dartbrook CHPP and Rail Loop at the closest residences, a regular ground vibration monitoring program is not proposed. Monitoring will be undertaken if necessary in response to complaints." The Management Plan was approved by the then DOP 9/12/02.	
	(c) The Applicant shall also: (i) make copies of the Vibration Management Plan available to the EPA, MSC, SSC and CCC within fourteen days of approval, or as otherwise agreed to be the Director-General; and (ii) include a summary of vibration monitoring results in the AEMR.	Not Triggered	Outside of audit scope. Also noted that vibration monitoring not required during Care and Maintenance.	
7. Transport and Utilities				
7.1	Rail Transport (a) All coal shall be transported from the CHPP by rail unless otherwise agreed by the Director-General and MSC.	Not Triggered	Not applicable in Care and Maintenance.	
7.2	Road Transport (a) The Applicant shall give prior written notice to MSC and SSC of the date of the commencement of the haulage of coal from the western site to the eastern site.	Not Triggered	Not applicable in Care and Maintenance.	
	(b) No coal shall be transported from the western site facilities to the CHPP by road haulage after twenty-one months from the start of mining operations.	Not Triggered	Not applicable in Care and Maintenance.	
	(c) The Applicant shall restrict road haulage of coal from the western site to the eastern site, to the hours of 7.00 am and 6.00 pm, Mondays to Fridays inclusive.	Not Triggered	Not applicable in Care and Maintenance.	
	(d) The Applicant shall not road haul coal on Saturday, Sunday and Public Holidays.	Not Triggered	Not applicable in Care and Maintenance.	
	(e) The Applicant shall not load coal onto trucks before 7.00 am on any day, except under emergency circumstances when short haulage to the emergency stockpile at the access slot is necessary and with notification of MSC and the Director-General as soon as practicable.	Not Triggered	Not applicable in Care and Maintenance.	
	(f) The Applicant shall ensure that: (i) All traffic associated with the construction of the Kayuga Mine, with the exception of employees approved by the Dartbrook General Manager and living in the local area most directly accessed by local roads; access the Kayuga Mine surface facilities via the New England Highway, Western Access Road, Stair Street, Kayuga Road and Dartbrook Road, until the completion of contract mine construction activities when all portable construction workers' amenities, workshop and store shall be removed. Approved employees may access the mine via local public roads and Stair Street; (ii) All mine personnel (including contractors) access the Dartbrook Mine facilities via the New England Highway and the Western Access Road, with the exception of employees approved by the Dartbrook General Manager and living in the local area most directly accessed by local roads. These employees can access the mine via local public roads and Stair Street; (iii) A list of approved employees under Conditions 7.2(f)(i) & (ii) be maintained by the Applicant, and made available to the Department upon request; (iv) Kayuga Road, from the Hunter River bridge to the Castlerock Road intersection, is not used to access the mine or mine satellite surface facilities. Limited use of local roads by mine related traffic for access to mine satellite surface facilities is permitted, with internal access roads to be utilised where practicable; and (v) The section of Kayuga Road between Stair Street and Dartbrook Road, and the section of Dartbrook Road between Kayuga Road and the entrance to the Kayuga Mine surface facilities, be maintained in consultation with MSC and to the satisfaction of the Director-General.	Not Triggered	Not applicable in Care and Maintenance. Minimal traffic as site is on Care and Maintenance.	
	(g) The Applicant shall submit all designs and specifications associated with the proposed access road and Blairmore Lane Underpass to MSC or SSC for approval, prior to the commencement of work. The proposed western access road shall be sealed in accordance with the requirements of MSC or SSC.	Not Triggered	Not applicable in Care and Maintenance.	
	(h) The Applicant shall provide advance signposting indicating "Trucks Turning" on the New England Highway, in both directions and shall be displayed during the eighteen month period of coal haulage activities across the New England Highway.	Not Triggered	Not applicable in Care and Maintenance.	
	(i) The Applicant shall ensure that no coal spillage associated with the road haulage of coal occurs on the New England Highway. In the case that coal is spilled onto the Highway, the Applicant shall bear all costs and liability associated with any incident or related clean up activities associated with the spill.	Not Triggered	Not applicable in Care and Maintenance.	
	(j) The Applicant shall ensure that any damage beyond normal wear and tear to the New England Highway, associated with the movement of coal from the mining operations to the CHPP, is repaired at the Applicant's expense and to the satisfaction of the RTA.	Not Triggered	Not applicable in Care and Maintenance.	
7.5	Road Closures (a) The Applicant shall maintain signs and give at least 24 hours notice of temporary road closures during construction. The location and wording of the signs are to be approved by MSC. A protocol is to be established in consultation with the emergency services during road closures. Notification shall also be provided to relevant emergency services via fax seven (7) days prior to the road closure.	Not Triggered	Not applicable in Care and Maintenance.	
7.6	Provision of Utility Services Refer Mining Operations Plan (Condition 2.1(c)).	Not Triggered	Not applicable in Care and Maintenance.	
7.7	Road and Rail Works The Applicant shall: (a) Install the pipeline crossings of Ely and Heir Streets (both undeveloped roads) to the satisfaction of Muswellbrook Council; (b) Install pipelines under the Main Northern Rail Line to the satisfaction of the Australian Rail Track Corporation; and	Not Triggered	Not applicable in Care and Maintenance.	
	(c) Prior to the commencement of any construction within the road reserve of the New England Highway the Applicant shall prepare and subsequently implement a Traffic Management Plan in accordance with the RTA's Traffic Control at Worksites guidelines, to the satisfaction of Muswellbrook Council and the RTA. The Plan must: (i) describes the schedule of the proposed road works; (ii) describe the measures that would be implemented to minimise traffic impacts associated with the construction of the proposed development; and (iii) include a Traffic Control Plan that describes the measures that would be implemented to control construction traffic access to the classified road network.	Not Triggered	Not applicable in Care and Maintenance.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(d) Bore pipelines under the New England Highway to the satisfaction of the RTA. Notes: (a) there will be no access from the New England Highway to the work site; the boring/ crossing locations shall be perpendicular to the New England Highway road reserve at a location which offers the shortest length possible, unless otherwise approved by the RTA; (b) the location of the pipeline crossing shall be in accordance with the RTA guideline and take into account the location of utilities another infrastructure; (c) the crossing shall be constructed to Australian Standards and allow for future widening requirements of the New England Highway; (d) the crossing shall be installed through trenchless technology unless otherwise approved by the RTA; (e) the crossings shall maintain a minimum vertical buffer of 1.5 metres between the pipeline and the highway within the road reserve; (f) where steel casings are not used a trace wire shall be provided to assist with the future location of the pipeline; (g) pipes installed under the road shall be sleeved and grouted; (h) permanent markers shall be provided at the entry and exist point of the road reserve; (i) any access points and valves shall be located outside of the road reserve; and (j) all areas within the road reserve that are disturbed by the development shall be restored to their original condition to the satisfaction of the RTA.	Not Triggered	Not applicable in Care and Maintenance.	
8. Monitoring/Auditing				
	(a) In addition to the requirements contained elsewhere in this consent, the Director-General may, at any time in consultation with the relevant government authorities and Applicant, require the monitoring programs in Conditions 3, 4 and 6 to be revised/updated to reflect changing environmental circumstances or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial monitoring programs. All monitoring programs shall also be made publicly available at MSC within two weeks of approval by the Director-General.	Not Triggered	No requirement during audit period.	
	(b) All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall be included in the relevant environmental management plan. Only accredited laboratories shall be used for laboratory analysis.	Compliant	Required as part of the Environmental Monitoring Contract with Carbon Based Environmental. Included in the Water Management Plan. Labs used included ALS and NATA.	
8.1	Third Party Monitoring/Auditing Independent Environmental Audit (a) Every three years from the date of this consent until completion of mining in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the mining and infrastructure areas of the development in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, MSC, SSC, EPA, DLWC, DMR, NPWS and CCC within two weeks of the report's completion for comment.	Compliant	SLR completed previous audit in 2016. Audit is dated 26 September 2016. Evidence of submission to DPIE on 30 September 2016. Evidence of audit submission to government agencies and the CCC on 5 October 2016. Audit for 2016 and 2019 completed in accordance with the DPIE Audit Guidelines.	
	(b) The audit shall: (i) assess compliance with the requirements of this consent, licences and approvals; (ii) assess the development against the predictions made in the EIS; (iii) review the effectiveness of the environmental management of the mine, including any mitigation works; (iv) be carried out at the Applicant's expense; and (v) be conducted by a duly qualified independent person or team approved by the Director-General in consultation with MSC and SSC. Such approval shall not be unreasonably withheld.	Compliant	Previous audit covered off on the requirements (noting comparison against EIS predictions not required as the site is in care and maintenance). SLR was endorsed by the DPIE for the 2016 audit and the 2019 audit. See letter from DPIE dated 8/7/2019 for this audit. SLR consulted with MSC and Upper Hunter Shire Council, the CCC during audit prep. There were other agencies consulted as well as part of the Audit Guidelines.	
	(c) The Director-General may, after considering any submission made by the relevant government agencies, MSC, SSC and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.	Compliant	No additional requirements provided.	
8.2	Meteorological Station(s) (a) The Applicant shall continue to maintain and operate a meteorological station in accordance with the requirements of AS 2922 1987 "Ambient Air Guide for Siting of Sampling Units" or its updated version or as directed by the EPA. The Meteorological station(s) must be capable of recording wind direction and speed, temperature and sigma theta and be operated in accordance with the requirements of AS 2923-1987 "Ambient Air Guide Horizontal Wind for Air Quality Application", or subsequent relevant standards. The Applicant shall analyse and document the meteorological data on a monthly basis to adequately characterise the site.	Compliant	Two meteorological sites currently exist at Dartbrook (Met01 and Met02). Meteorological reports are compiled by Carbon Based Environmental on a monthly basis. Section 6.2 of Annual Review outlines meteorological summary. Based on information provided to SLR the meteorological station appeared to be in working order. SLR provided copies of maintenance certificates.	
9. Reporting				
9.1	Reports on Operations (a) The Applicant shall report on mine operations in accordance with the mine operations plan (refer to Condition 2.1).	Compliant	MOP reporting conditions are reported on in the Annual Review.	
9.2	Environmental Reporting Annual Environmental Management Report (AEMR) (a) The Applicant shall, throughout the life of the mine and for a period of at least three years after the completion of mining in the DA area, prepare and submit an Annual Environmental Management Report (AEMR) to the satisfaction of the Director-General and DMR. The AEMR shall review the performance of the mine against the Environmental Management Strategy and the relevant Mining Operations Plans, the conditions of this consent, and other licences and approvals relating to the mine. To enable ready comparison with the predictions made in the EIS, diagrams and tables, the report shall include, but not be limited to, the following matters: (i) an annual compliance audit of the performance of the project against conditions of this consent and statutory approvals; (ii) a review of the effectiveness of the environmental management of the mine in terms of EPA, DLWC, DMR, MSC and SSC requirements; (iii) results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person; (iv) identify trends in monitoring results over the life of the mine; (v) an assessment of any changes to agricultural land suitability resulting from the mining operations; (vi) a listing of any variations obtained to approvals applicable to the subject area during the previous year; (vii) subsidence during the preceding twelve months; (viii) socio-economic impact of the development including the workforce characteristics of the previous year; (ix) the outcome of the water budget for the year, the quantity of water used from water storages and details of discharge of any water from the site; (x) rehabilitation report; (xi) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results; and (xii) a report on the surveillance of any prescribed dam on the site to the satisfaction of the DSC.	Compliant	Annual Reviews submitted each year during the audit period generally cover off on these requirements. Evidence of approval letters of Annual Reviews during the audit period. AEMR/Annual Review outlines, management, monitoring and reporting during the year. There is no specific rehabilitation report, but there is a section on rehabilitation. Little update is provided on the REA rehabilitation. There is little detail regarding trends in data for air and water. SLR notes this condition has been updated as part of MOD 7, with further detail on document requirements.	Ensure that future Annual Reviews are completed in accordance with the MOD 7 requirements. This includes additional detail regarding trends in environmental data and rehabilitation. Additional information is required in the Annual Review relating to historic subsidence areas at the site.

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(b) In preparing the AEMR, the Applicant shall: (i) consult with the Director-General and DMR during preparation of each report for any additional requirements; (ii) comply with any requirements of the Director-General or other relevant government agency; and (iii) ensure that the first report is completed and submitted within twelve months of this consent, or at a date determined by the Director-General in consultation with the DMR and the EPA. Reporting on the Dartbrook Extended Project may be included with the AEMR for the existing Dartbrook development consent.	Compliant	No evidence of specific consultation pre-submission. However the DPIE and the Resources Regulator have provided comment during the previous Annual Reviews. See Section 5 of the Annual Reviews. The auditor believes this constitutes consultation.	
	(c) The Applicant shall ensure that copies of each AEMR are submitted at the same time to the Director-General, DMR, EPA, DLWC, NPWS, MSC, SSC and CCC, and made available for public information at MSC within fourteen days of submission to these authorities and made available to any landowner within the vicinity of the development upon request.	Compliant	Distribution lists for Annual Reviews provided.	
10. Community Consultation/Obligations				
	Community Consultative Committee The Applicant shall: (i) ensure the continuation of the existing Dartbrook Mine Community Consultative Committee and ensure that a meeting is held prior to the submission of the Environmental Management Strategy (Condition 3.2). The Committee shall continue to be chaired by MSC and shall have regard to MSCs Code of Conduct for CCCs. 10.1 Representatives from relevant government agencies or other individuals may be invited to attend meetings as required by the Chairperson. The Committee may make comments and recommendations about the implementation of the development and environmental management plans, monitor compliance with conditions of this consent and other matters relevant to the operation of the mine during the term of the consent. The Applicant shall ensure that the Committee has reasonable access to the necessary plans for such purposes. The Applicant shall consider the recommendations and comments of the Committee and provide a response to the Committee and Director-General.	Compliant	Dartbrook CCC meetings were undertaken during the audit period. Minutes available on Dartbrook website. Letter from Planning dated (07.09.2006) approved cutting back the CCC meetings from 6 to 3 times per year. New chair during the audit period (now currently being Chaired by Upper Hunter Shire Councillor Kiwa Fisher).	
	(ii) The Applicant shall, at its own expense: 1) ensure two (2) representatives attend all meetings of the Committee; 2) provide to the Committee regular information on the progress of work and monitoring results; 3) promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the development; 4) provide access for site inspections by the Committee following reasonable prior notice; and 5) provide meeting facilities for the Committee, and take minutes of Committee meetings. These minutes shall be available for public inspection at MSC and SSC within 14 days of the meeting.	Compliant	Dartbrook CCC meetings were undertaken during the audit period. Minutes available on Dartbrook website. Letter from Planning dated (07.09.2006) approved reducing the number of company representatives on the CCC from 2 to 1. Meeting minutes are publically available at councils and on the Dartbrook website.	
	(iii) If required by the Committee, the Applicant shall establish a trust fund or other funding arrangement that may be agreed between the Applicant and Committee, to be managed by the Chair of the Committee to facilitate the functioning of the Committee, and pay \$2000 per annum to the fund or other arrangement, for the duration of mining in the DA area, or as otherwise directed by the Director-General. The monies are to be used only if required for the engagement of consultants to interpret technical information and the like. The annual payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting. A record of the finances of the trust fund during each year shall be provided to the Director-General and Applicant by the Chair on each anniversary of the first payment. Any unspent monies shall be returned to the Applicant each year.	Not Triggered	Not triggered during the audit period.	
	Community Consultation Complaints (a) The Environmental Officer employed by the mine (refer condition 3.1) shall be responsible: (i) for establishing and maintaining a system for recording complaints received with respect to construction works and mine operations on a dedicated and publicly advertised telephone line, 24 hours per day 7 days per week, entering complaints or comments in an up to date log book, or other suitable data base, and ensuring that an initial response is provided to the complainant within 24 hours. The complaints protocol shall be prepared and implemented to the satisfaction of the Director-General prior to commencement of construction or Mining Operations; and (ii) for providing a report of complaints received with respect to the construction and operation of the mine, every six months throughout the life of the project to the Director-General, MSC, SSC, EPA, DMR, and CCC, or as otherwise agreed by the Director-General. A summary of this report shall be included in the AEMR (condition 9.2(a)).	Compliant	No complaints during the audit period. This is noted in the Annual Reviews. A complaints phone is managed by the Environmental Officer. Letter from Planning dated (07.09.2006) approved cutting back the 24hr complaints line to a pager system that is responded to on weekdays, as well as removing the requirement for 6-monthly complaints reporting (now just included in Annual Review). Noted that site hasn't been operational during the audit period.	
	(b) The Applicant must nominate at least two persons (and their telephone numbers) who will be available to the EPA on a 24 hours basis, and who have authority to provide information and to implement such measures as may be necessary from time to time to address a pollution incident or to prevent pollution from continuing as directed by an authorised officer of the EPA.	Compliant	Annual Reviews list contacts, and document is submitted to the EPA annually. Letter from Planning dated (07.09.2006) approved reducing the number of site contacts from 2 to 1, who would be available via a pager system.	
11. Proponents Obligations				
	Cumulative Impact Management (a) In the event that the cumulative impact of noise or dust contributed by the operation of the Dartbrook Mine and any future mining activities, at dwellings, or vacant land (as described in Condition 6.1 and 6.4), in the vicinity of the operation, is in excess of the noise or dust acquisition criteria contained in these conditions of consent, the Applicant shall negotiate with the other companies and landowner to determine appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts to the satisfaction of the Director-General in proportion to their contributions to the impact.	Not Triggered	No noise or dust issues in Care and Maintenance.	
	(b) If agreement on appropriate contributions towards mitigation measures/acquisition cannot be reached from negotiations undertaken in accordance with subclause (a), then the matter is to be referred to the Director-General in consultation with MSC and SSC by either the Applicant or landowner. If the matter is not resolved within 21 days of the referral, the matter will be referred to an Independent Dispute Resolution Process as determined by the Director-General, and resolved as determined by the Director-General. The Independent Dispute Resolution Process shall determine the responsibilities of each of the mining companies in accordance with subclause (a) above and actions to be undertaken. The decision of the Independent Dispute Resolution Process shall be final, as determined by the Director-General.	Not Triggered	No noise or dust issues in Care and Maintenance.	
	Compensation and Land Acquisition and as a Result of Subsidence Note: Compensation and other measures for subsidence impacts, are also available under the provisions of the Mining Act 1992 and the Mine Subsidence Compensation Act 1961. (A) Compensation and Acquisition – Significant Structural Damage to Dwellings (a) Where a dwelling within the DA area is, or is likely to be (as identified in the Property Subsidence Management Plan referred to in Condition 3.3(g)(iii)), subject to damage beyond the safe, serviceable and repairable criteria as a result of the development, the landowner, after receiving notification from the Applicant in accordance with Condition 3.3(m)(ii), may request the Applicant in writing to: (i) carry out such works as agreed by the landowner to remedy or mitigate any damage; or (ii) compensate the landowner for such effects; or as a last resort and failing all other measures, (iii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(b) The Applicant shall comply with any such request for compensation or acquisition in accordance with Conditions 11.2(C) and (D). 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 Condition 3.3(f)(v). Any inspection or assessment under this Condition shall be conducted as if it were conducted under the relevant part of Condition 3.3(f)(viii).	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(c) Any disputes relating to compensation may be referred by either party to: <ul style="list-style-type: none"> the Mining Warden at any time in accordance with the provisions of the Mining Act; or the Mine Subsidence Board at any time in accordance with the provisions of the Mine Subsidence Compensation Act 1961. 	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(d) Any disputes relating to land acquisition (except those relating to valuation matters) may be referred by either party to the Director-General for consideration and advice if no agreement is reached within three months of receipt by the Applicant of the written request.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(B) Compensation and Acquisition – Land Capability Impacts (a) Where a landowner suffers, or is likely to suffer a loss of land capability or agricultural productivity (as identified in the Property Subsidence Management Plan referred to in Condition 3.3(g)), as a result of the development, the landowner, after receiving notification from the Applicant in accordance with Condition 3.3(m)(ii), may request the Applicant in writing to: (i) carry out such works as agreed by the landowner to rectify the problem; or (ii) compensate the landowner for such effects; or, as a last resort and failing all other measures, (iii) acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(b) Any disputes relating to compensation may be referred by either party to the Mining Warden at any time in accordance with the provisions of the Mining Act.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(c) Any disputes relating to acquisition (except those relating to valuation matters) may be referred by either party to the Director-General for consideration and advice if no agreement is reached within three months of receipt by the Applicant of the written request.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(d) If the matter is referred to the Director-General in accordance with subclause (c) above, the Director-General shall appoint an Independent Expert, in consultation with the Applicant and the landowner and in accordance with the "Evaluation Process for Land Acquisition due to Land Capability Impacts caused by Subsidence" (refer to Schedule C). The Applicant shall bear the costs of engaging the Independent Expert.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(e) The Independent Expert shall determine the level and extent of loss or impacts, and recommend whether acquisition is required, and in doing so, shall consider the following matters: <ul style="list-style-type: none"> the level of predicted or actual subsidence; the level of land capability and/or agricultural productivity as unaffected by underground mining; the assessment of agricultural utilisation, agricultural improvements and the underlying agricultural productivity of the relevant property prior to mining operations, as determined in the relevant Property Subsidence Management Plan (in accordance with Condition 3.3(f)(vi)); the impact of subsidence on the land capability and agricultural productivity of the land; the nature and extent of feasible mitigation measures; and previous issues considered by the Mining Warden in any compensation considerations under the Mining Act. A recommendation for acquisition of a property may only be made by the Independent Expert where the Expert is satisfied that after consideration of feasible mitigation measures the impact of subsidence is such as to significantly adversely affect the existing and future land capability and/or agricultural productivity.	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(f) Where it is determined by the Director-General that a property is eligible for acquisition, and acquisition is requested by the landowner, the Applicant shall comply with any such request in accordance with Conditions 11.2(C)-(D).	Not Triggered	No mining during audit period. No requests for acquisition. Subsidence inspections completed annually.	
	(C) Acquisition – Procedure (a) Upon receipt of a written request to purchase property in accordance with any part of condition 11.2, 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: (i) a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by Dartbrook Mine, having regard to: <ul style="list-style-type: none"> the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and 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. (ii) the owner's reasonable compensation for disturbance allowance and relocation within the Singleton, Scone or Muswellbrook Local Government Areas, or within such other location as may be determined by the Director-General in exceptional circumstances; (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 (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 DMR or MSB.	Not Triggered	No acquisitions during audit period.	
	(b) An offer by the Applicant to purchase a property under the conditions of this consent shall remain open to the landowner for the following periods from the date of the offer: (i) for damage to a dwelling beyond the safe, serviceable and repairable criteria (Condition 11.2(A)), three years after completion of mining of longwall panels that affect the property; and (ii) for land capability and/or agricultural productivity impacts (Condition 11.2(B)), five years after completion of mining of longwall panels that affect the property.	Not Triggered	No acquisitions during audit period.	
	(c) 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 project during the course of this consent on terms agreed to between the Applicant and the landowner.	Not Triggered	No acquisitions during audit period.	
	(D) Independent Valuation (a) 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	No acquisitions during audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	(b) 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: (i) the appointed independent valuer; (ii) the Director-General; and/or (iii) the President of the Law Society of NSW or nominee. The qualified panel shall, on the advice of the valuer, determine the issue referred to it and advise the valuer.	Not Triggered	No acquisitions during audit period.	
	(c) The Applicant shall bear the costs of any independent valuation or survey assessment requested by the Director-General.	Not Triggered	No acquisitions during audit period.	
	(d) 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	No acquisitions during audit period.	
11.3	Land Acquisition as a Result of Excessive Noise and/or Dust <i>Note: In Condition 11.3 (a)-(h) "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.</i> (a) The owner of any dwelling, or vacant land (as described in Condition 6.1 and 6.4) located in areas that exceed noise and/or air quality acquisition criteria established in accordance with conditions 6.1 and 6.4 of this consent, may request the Applicant in writing to purchase the whole of that property.	Not Triggered	No acquisitions during audit period.	
	(b) The Applicant shall negotiate and purchase a property, as identified in sub-clause (a) above, within six (6) months of a written request from the affected land owner.	Not Triggered	No acquisitions during audit period.	
	(c) In respect of a request to purchase land arising under this condition, the Applicant shall pay the landowners an acquisition price which shall take into account and provide payment for: (i) a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by Dartbrook Mine, having regard to: • the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and • the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date. (ii) the owner's reasonable compensation for disturbance allowance and relocation costs within the Singleton, Scone or Muswellbrook Local Government Area, or within such other location as may be determined by the Director-General in exceptional circumstances; (iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired. Notwithstanding any other condition of this consent, the landowner and the Applicant may, upon request of the landowner, acquire any property affected by the project during the course of this consent on terms agreed to between the Applicant and the landowner.	Not Triggered	No acquisitions during audit period.	
	(d) In the event that the Applicant and any owner referred to in this condition cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then: (i) either party may refer the matter to the Director-General, who shall request the President of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners, a fair and reasonable acquisition price for the land as described in sub-clause (b) and/or terms upon which it is to be acquired; (ii) in the event of a dispute regarding outstanding matters that cannot be resolved, the independent valuer shall refer the matter to the Director-General, recommending the appointment of a qualified panel. The Director-General, if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of: 1) the appointed independent valuer, 2) the Director-General or nominee, and 3) the President of the Law Society of NSW or nominee. The qualified panel shall determine a fair and reasonable acquisition price as described in sub-clause (b) above and/or the terms upon which the property is to be acquired.	Not Triggered	No acquisitions during audit period.	
	(e) The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in sub clauses (b) and (c).	Not Triggered	No acquisitions during audit period.	
	(f) Upon receipt of a determination pursuant to sub-clauses (b) and (c), the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the property shall cease, unless otherwise agreed by the Director-General.	Not Triggered	No acquisitions during audit period.	
	(g) In the event that the Applicant and the landowner agree that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.	Not Triggered	No acquisitions during audit period.	
	(h) The provisions of this condition do not apply to a landowner who is the holder of an authority under the Mining Act, 1992.	Not Triggered	No acquisitions during audit period.	
11.4	Contributions to Council (a) Community Enhancement – MSC Prior to the commencement of mining operations or within such other time as agreed by the Director-General, the Applicant shall negotiate an agreed outcome with MSC for an appropriate level of contribution (financial or in-kind) and as applicable, towards mitigating any cumulative social and/or community impacts as the result of the proposed development. Should such negotiated outcome not be reached, the Applicant shall abide with the reasonable requirements of the Director-General concerning community enhancement contribution in light of an independent investigation to establish community enhancement need as the result of the cumulative impact of the proposed development. The investigation to be carried out by an independent person(s) to be appointed by the Director-General in consultation with the Applicant and MSC, and paid for by the Applicant. The independent investigation to be based on the principles of nexus and reasonableness as to relevant cumulative social and/or community impacts.	Compliant	Outside of audit scope. Site remains on Care and Maintenance.	
	(b) S.94 Contribution – SSC Unless otherwise agreed between the Applicant and SSC, the Applicant shall comply with the reasonable requirements of the Director-General for an appropriate contribution (financial or in kind) under S.94 of the Environmental Planning and Assessment Act (EP&A Act) as the result of the proposed development. The Director-General's reasonable requirements, if any, will be based on the outcome of an independent evaluation as to whether the proposed development will result in the need for any community or related infrastructure requirements as per the provisions of S.94 of the EP&A Act, with emphasis on establishing a nexus as to impacts. The independent evaluation is to be undertaken by an independent person(s) to be appointed by the Director-General, in consultation with the Applicant and SSC, and paid for by the Applicant.	Compliant	Outside of audit scope. Compliance verified during previous audits.	
12. Further Approvals and Agreements				
12.1	Statutory Requirements (a) The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Local Government Act 1993, Protection of the Environment Administration Act 1991, Protection of the Environment Operations Act 1997, Rivers and Foreshores Improvement Act 1948, Water Act 1912, National Parks and Wildlife Act 1974, and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements issued pursuant to statutory powers by the MSC, EPA, DMR, NPWS, DLWC, RTA, NSW Agriculture, and NSW Fisheries, are fully met.	Note	Verification of all statutory requirements applicable to sites is outside the scope of this audit, however no non-compliance with relevant legislation and guidelines were identified during this audit, other than those noted.	
	(b) Structural Adequacy Detailed plans and specifications relating to the design and construction of each structural element associated with the proposed development are to be submitted to the Principal Certifying Authority prior to the construction of each particular building or structure. Such plans and specifications must be accompanied by certification provided by a practicing professional structural engineer or an accredited certifier certifying the structural adequacy of the proposed building design and compliance with the Building Code of Australia.	Not Triggered	No new construction during the audit period.	

Condition Number	Condition	Compliance Status	Evidence (2019)	Recommendation (2019)
	<p><u>(c) Verification of Construction</u> Upon completion of building works and prior to the issue of an occupation certificate, a certificate/s prepared by a suitably qualified person or a compliance certificate/s issued by an accredited certifier, is to be submitted to the Principal Certifying Authority certifying that the following building components, where relevant, have been completed in accordance with approved plans and specifications:</p> <p>(i) footings; (ii) concrete structures, including ground floor and any subsequent floors, retaining walls and columns; (iii) framing and roof structure; (iv) fire protection coverings to building elements required to comply with the Building Code of Australia; and (v) mechanical ventilation. The certificate/s shall demonstrate at what stage of construction inspections were undertaken.</p>	Not Triggered	No new construction during the audit period.	
12.2	<p>Approvals within a Mine Subsidence District (a) 32The Applicant shall seek the approval of the Mine Subsidence Board for the construction of any improvements, including those related to the mine buildings and associated works, any relocation or diversion of infrastructure or existing improvements, prior to undertaking the works.</p>	Not Triggered	No MSB approval required during the audit period.	
13 Revision of Management Plans				
	<p>(a) Prior to the commencement of any construction associated with the development described in the "Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant", dated 12 August 2005, the Applicant shall update its Erosion and Sediment Control Plan to take into account that development.</p>	Compliant	No construction during the audit period.	
	<p>(b) By the end of February 2006, the Applicant shall review, and if necessary update its:</p> <ul style="list-style-type: none"> • Site Water Management Plan; • Site Water Balance; • Dust Management Plan; and • Noise Management Plan. <p>to take into account the development described in the "Dartbrook Mine Statement of Environmental Effects for New ROM Coal Stockpiles, Underground Tailings Disposal & Nitrogen Injection Plant", dated 12 August 2005, to the satisfaction of the Director-General.</p>	Compliant	Compliance with this condition was verified as part of the 2010 audit.	

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		2019 Audit Outcomes								
Condition Number	Condition	Compliance Status	Evidence	Recommendation						
1. Administrative Conditions										
A1. What the licence authorise and regulates										
A1.1	<p>What the licence authorises and regulates</p> <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>Mining for Coal</td> <td>Mining for coal</td> <td>0 - 500000 T produced</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Mining for Coal	Mining for coal	0 - 500000 T produced	Compliant	The site has been on Care and Maintenance during the entire audit period. Annual production limits not exceeded.	
Scheduled Activity	Fee Based Activity	Scale								
Mining for Coal	Mining for coal	0 - 500000 T produced								
A2. Premises or plant to which this licence applies										
A2.1	<p>The licence applies to the following premises:</p> <table border="1"> <thead> <tr> <th>Premises Details</th> </tr> </thead> <tbody> <tr> <td>DARTBROOK MINE</td> </tr> <tr> <td>STAIR STREET</td> </tr> <tr> <td>MUSWELLBROOK</td> </tr> <tr> <td>NSW 2333</td> </tr> <tr> <td>PLAN OF PREMISES DEFINED BY PLAN TITLED "PLAN SHOWING DARTBROOK EPA LICENCE AREA AND UNDERGROUND WORKINGS EXTENT DWG 32677" DATED 12/12/16 INCLUDES UNDERGROUND MINING IN THE WYNN SEAM AND KAYUGA SEAM, SURFACE OPERATIONS, CHPP AND UNDERGROUND CONVEYOR FROM WORKINGS TO CHPP EPA REF DOC17/9694</td> </tr> </tbody> </table>	Premises Details	DARTBROOK MINE	STAIR STREET	MUSWELLBROOK	NSW 2333	PLAN OF PREMISES DEFINED BY PLAN TITLED "PLAN SHOWING DARTBROOK EPA LICENCE AREA AND UNDERGROUND WORKINGS EXTENT DWG 32677" DATED 12/12/16 INCLUDES UNDERGROUND MINING IN THE WYNN SEAM AND KAYUGA SEAM, SURFACE OPERATIONS, CHPP AND UNDERGROUND CONVEYOR FROM WORKINGS TO CHPP EPA REF DOC17/9694	Compliant	No works undertaken offsite based on information provided to SLR.	
Premises Details										
DARTBROOK MINE										
STAIR STREET										
MUSWELLBROOK										
NSW 2333										
PLAN OF PREMISES DEFINED BY PLAN TITLED "PLAN SHOWING DARTBROOK EPA LICENCE AREA AND UNDERGROUND WORKINGS EXTENT DWG 32677" DATED 12/12/16 INCLUDES UNDERGROUND MINING IN THE WYNN SEAM AND KAYUGA SEAM, SURFACE OPERATIONS, CHPP AND UNDERGROUND CONVEYOR FROM WORKINGS TO CHPP EPA REF DOC17/9694										
. Other Activities										
A3.1	<p>Other activities</p> <p>A3.1 This licence applies to all other activities carried on at the premises, including:</p> <table border="1"> <thead> <tr> <th>Ancillary Activity</th> </tr> </thead> <tbody> <tr> <td>Coal Works</td> </tr> <tr> <td>Reject disposal (bi-product of coal processing) into designated reject area</td> </tr> <tr> <td>Sewage Treatment Systems</td> </tr> </tbody> </table>	Ancillary Activity	Coal Works	Reject disposal (bi-product of coal processing) into designated reject area	Sewage Treatment Systems	Compliant	Based on the evidence provided no activities outside this scope occurred during the audit period. The site has been on Care and Maintenance since 2007. No mining or reject disposal.			
Ancillary Activity										
Coal Works										
Reject disposal (bi-product of coal processing) into designated reject area										
Sewage Treatment Systems										
A4. Information supplied to the EPA										
A4.1	<p>Works and activities must be carried out in accordance 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	Based on the evidence provided no works beyond the scope of the EPL were undertaken during the audit period.							
2. Discharges to Air and Water and Applications to Land										
P1. Location of monitoring/discharge points and areas										
P1.1	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.	Note	Noted							
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.									

Condition Number	Condition	Compliance Status	Evidence	Recommendation																		
	<table border="1"> <thead> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>Groundwater monitoring</td> <td></td> <td>At locations representative of where any predicted groundwater impacts caused by the mining operation may occur.</td> </tr> <tr> <td>4</td> <td>Hunter River Salinity Trading Scheme (HRSTS) Discharge water volume and water quality monitoring</td> <td>Hunter River Salinity Trading Scheme (HRSTS) Discharge water volume and water quality monitoring</td> <td>In the bypass line from the 1200mm concrete main line E298425 N6435860 shown as EPA4 on plan titled "Plan Showing Dartbrook EPA Licence Area & Surface Facilities DRG 32676" Dated 12/12/16 EPA Ref DOC17/9694</td> </tr> <tr> <td>5</td> <td>Irrigation area soil quality monitoring</td> <td></td> <td>Irrigation Area - Paddocks 1-4, shown as EPA 5 in Map titled "Plan Showing Dartbrook EPA Licence Area & Surface Facilities" TRIM Ref DOC17/9694-01</td> </tr> </tbody> </table>	EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	3	Groundwater monitoring		At locations representative of where any predicted groundwater impacts caused by the mining operation may occur.	4	Hunter River Salinity Trading Scheme (HRSTS) Discharge water volume and water quality monitoring	Hunter River Salinity Trading Scheme (HRSTS) Discharge water volume and water quality monitoring	In the bypass line from the 1200mm concrete main line E298425 N6435860 shown as EPA4 on plan titled "Plan Showing Dartbrook EPA Licence Area & Surface Facilities DRG 32676" Dated 12/12/16 EPA Ref DOC17/9694	5	Irrigation area soil quality monitoring		Irrigation Area - Paddocks 1-4, shown as EPA 5 in Map titled "Plan Showing Dartbrook EPA Licence Area & Surface Facilities" TRIM Ref DOC17/9694-01	Compliant	<p>LDP003 - Evidence of groundwater monitoring during the audit period.</p> <p>For LDP004 - One discharge during the audit period (22 Sept 2016). Evidence of monitoring reports for pH and TSS. Evidence of Hunter River Salinity Trading Scheme Discharge Sheet dated 9/8/2017 covering the period from 1/7/2016 - 30/6/2017. However little evidence in the 2016 Annual Review regarding the September 2016 discharge.</p> <p>LDP005 - For LDP005, it should be noted that due to reduced manning levels (Care and Maintenance) there is insufficient liquid generation to require irrigation. This was previously controlled automatically by CiTect system and system functionality maintained.</p>	<p>There is not enough information in the 2016 Annual Review regarding the September 2016 Hunter River Salinity Trading Scheme (HRSTS) discharge. Description of HRSTS discharges in future Annual Reviews should have:</p> <ul style="list-style-type: none"> Dates of discharge; Some more details about volumes (ie. Volumes over different days); Results of water quality testing for that discharge event compared against HRSTS Criteria and EPL Criteria; and Comparison to upstream and downstream data. <p>Include additional information in future Annual Reviews.</p>		
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																			
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3. Limit Conditions																						
L1. 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.	Compliant	Based on information provided there were no non-compliances with the POEO Act during the audit term. No 'environmental harm'.																			
L2 Concentration limits																						
L2.1	For each monitoring/discharge point or utilisation area specified in the table 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	No EPL criteria non-compliances during the audit period.	<p>As per Condition P1.2 of the EPL.</p> <p>There is not enough information in the 2016 Annual Review regarding the Sept 2016 discharge. This should have:</p> <ul style="list-style-type: none"> Dates of discharge; Some more details about volumes (ie. Volumes over different days); Results of water quality testing for that discharge event compared against Hunter River Salinity Trading Scheme Criteria and EPL Criteria; and Comparison to upstream and downstream data. <p>Include additional information in future Annual Reviews.</p>																		
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Compliant	No EPL criteria non-compliances during the audit period.																			
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	No EPL criteria non-compliances during the audit period.																			
L2.4	Water and/or Land Concentration Limits	Compliant	<p>All points monitored during the audit period.</p> <p>One discharge during the audit period (22 Sept 2016) Little details were outlined in the Annual Review hence additional discharge monitoring information was requested. Based on field and laboratory testing the site were within the discharge criteria at the licenced discharge point.</p> <p>There is little detail in the Water Management Plan about how discharge monitoring is completed.</p>	<p>As per Condition P1.2 of the EPL.</p> <p>There is not enough information in the 2016 Annual Review regarding the Sept 2016 discharge. This should have:</p> <ul style="list-style-type: none"> Dates of discharge; Some more details about volumes (ie. Volumes over different days); and Results of water quality testing for that discharge event compared against Hunter River Salinity Trading Scheme Criteria and EPL Criteria. <p>Summarise key aspects of discharge monitoring and management in new Water Management Plan.</p>																		
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Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit																	
pH	pH				6.5-9.5																	
Total suspended solids	milligrams per litre				120																	
L3 Volume and mass limits																						
L3.1	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.	Compliant	Evidence of Hunter River Salinity Trading Scheme Discharge Sheet dated 9/8/2017 covering the period from 1/7/2016 - 30/6/2017. The site discharged a total of 7.1675ML. This equates to 7167.5kL., well within the limits. Based on the information provided to SLR this was the only discharge during the audit period.																			
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L4 Blasting																						
L4.1	The air blast overpressure level from blasting operations in or on the premises must not exceed: (a) 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; and (b) 120 dB (Lin Peak) at any time. At any residence or noise sensitive location that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative overpressure level.	Not Triggered	No blasting during the audit period.																			
L4.2	L4.2 The ground vibration peak velocity from blasting operations carried out in or on the premises must not exceed: (a) 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period; and (b) 10mm/s at any time. At any residence or noise sensitive location that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative ground vibration level.	Not Triggered	No blasting during the audit period.																			

Condition Number	Condition	Compliance Status	Evidence	Recommendation
L4.3	L4.3 Blasting in or on the premises must only be carried out between 0900 hours and 1700 hours, Monday to Saturday. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.	Not Triggered	No blasting during the audit period.	
L4.4	L4.4 Blasting at the premises is limited to 1 blast on each day on which blasting is permitted.	Not Triggered	No blasting during the audit period.	
L5 Potentially offensive odour				
L5.1	The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises. Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.	Compliant	Odour monitoring has ceased under Care and Maintenance phase of operations. All gas drainage boreholes and plants that were previously utilised to extract gas from the mine goaf have been decommissioned. Gas drainage and ventilation (potential odour sources) management is reported in the Annual Review. There were no odour complaints during the audit period.	
4. Operating Conditions				
O1 Activities must be carried out in a competent manner				
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	The Annual Review states that contractors have undertaken waste management at Dartbrook for the entire audit period. Contractors are licensed for Non-thermal treatment of general waste, Recovery of general waste, Waste storage – Hazardous, restricted solid, liquid, clinical and related waste and Asbestos waste and Other types of waste (EPL 12297). The site was observed to be neat and tidy during site inspection. Evidence of waste segregation. It is noted an empty above ground tank is being stored outside a bunded area at the pit top.	As per Condition 5.2 of the Development Consent. Move the above ground tank to bunded area or remove from site. Once the tank has been moved, review the previous area for potential contamination from leaks.
O2. Maintenance of plant and equipment				
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	No plant/equipment utilised on site other than light vehicles and occasional running of CHPP for maintenance purposes. Evidence of Terraquip work order sighted, dated 11/04/2019 - full monthly electrical maintenance. Weekly general maintenance inspection also sighted, dated 27/04/2019. Evidence of calibration certificates for licenced discharge point 4 dated 22/7/2019.	
O3. Dust				
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises	Compliant	Field inspection observed no major dust generation issues. During the field inspection it was observed that the former coal stockpile area has been partially rehabilitated with a pasture mix, however there are several areas that have poor ground cover. Dust results have been generally low during the audit period.	As per Condition 6.1 of the Development Consent. If a decision is made to recommence operations, bare areas on former coal stockpile at CHPP should be stabilised if not being used for coal storage. If decision is made to close the site, the areas should be rehabilitated as part of planned closure. Additional soil testing and advice from a rehabilitation specialist would be required for any stabilisation or final rehabilitation activities.
O3.2	All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Compliant	Field inspection observed no major dust generation issues. Roads recently graded.	
O3.3	Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Compliant	Field inspection observed no major dust generation issues.	
O3.4	Trucks transporting coal from the premises must be covered immediately after loading to prevent wind blown emissions and spillage. The covering must be maintained until immediately before unloading the trucks.	Not Triggered	No coal transport during audit period.	
O3.5	The tailgates of all haulage trucks leaving the premises must be securely fixed prior to loading or immediately after unloading to prevent loss of material.	Not Triggered	No haulage trucks leaving the premises during audit period.	
O4. Processes and Management				

Condition Number	Condition	Compliance Status	Evidence	Recommendation																													
O4.1	Irrigation of wastewater must not be carried out if soil moisture conditions are such that surface runoff or ponding is likely to occur.	Not Triggered	Due to reduced manning levels (Care and Maintenance) there is insufficient liquid generation to require irrigation.																														
O4.2	No irrigation, application or storage of sewage effluent or sludge must be undertaken within 50 metres of any water course, or on any other area except the defined irrigation area.	Not Triggered	Due to reduced manning levels (Care and Maintenance) there is insufficient liquid generation to require irrigation.																														
O4.3	All runoff from the stockpiles and tailings cells and the area utilised for the operation of the stockpiles and tailings cells must be directed to the saline water management system.	Compliant	Site inspection verified runoff from stockpile areas is captured in the Eastern Holding Dam at the East Site. Former REA has been rehabilitated, with water management structures in this area in accordance with the SWMP required under the Development Consent. However, with the exception of the SDD, mine water dams on site were not assessed for engineering stability during the audit period.	As per Condition 3.6 of the Development Consent. Recommend geotechnical assessment of all major mine water dams (excepting the SDD) prior to recommencement of mining operations.																													
5. Monitoring and Recording Conditions																																	
M1. Monitoring records																																	
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	EPL Annual Returns sighted for the period.																														
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	EPL Annual Returns sighted for the period. Sighted monitoring records. Summary of monitoring outlined in Annual Reviews.																														
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	EPL Annual Returns sighted for the period. Raw monitoring results sighted with specialists completing monitoring for dust and water. Evidence of laboratory results for water and dust. Monitoring is completed by Carbon Based Environmental.																														
M2. Requirement to monitor concentration of pollutants discharged																																	
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	All monitoring points sampled during the audit period (last 3 annual returns sighted).																														
M2.2	Water and/ or Land Monitoring Requirements																																
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			<p>Monitoring results outlined in the Annual Review and Annual Return. This condition requires discharge sampling for EC (continuous), pH (daily during discharge) and TSS (daily during discharge) at LDP004.</p> <p>One discharge during the audit period (22 Sept 2016) Little details were outlined in the Annual Review hence additional discharge monitoring information was requested. Based on field and laboratory testing the site appeared to be within the discharge criteria at the licenced discharge point.</p> <p>For LDP005, it should be noted that due to reduced manning levels (Care and Maintenance) there is insufficient liquid generation to require irrigation. This was previously controlled automatically by CiTect system and system functionality maintained.</p>	<p>As per Condition P1.2 of the EPL.</p> <p>There is not enough information in the 2016 Annual Review regarding the Sept 2016 discharge. This should have:</p> <ul style="list-style-type: none"> * Dates of discharge; * Some more details about volumes (ie. Volumes over different days; and * Results of water quality testing for that discharge event compared against Hunter River Salinity Trading Scheme Criteria and EPL Criteria. <p>Summarise key aspects of discharge monitoring and management in new Water Management Plan.</p>																													

Condition Number	Condition	Compliance Status	Evidence	Recommendation						
M3. Testing methods - concentration limits										
M3.1	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.	Compliant	Automated (live) monitoring undertaken during discharge. Monthly monitoring of dams, river and Dartbrook also undertaken. Evidence of Hunter River Salinity Trading Scheme Discharge Sheet dated 9/8/2017 covering the period from 1/7/2016 - 30/6/2017. Evidence of pH and TSS results. There were no other discharges during the audit period. Sampling and monitoring appears to have been completed in accordance with the EPA requirements.							
M3.2	The location of sampling points and source emissions sampling and analysis must be conducted strictly in accordance with the "Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales" (EPA, December 1999).	Compliant	Evidence of air quality monitoring by HVAS and depositional dust. Monitoring appears to have been completed in accordance with the Dust Management Plan and EPA requirements.							
M3.3	Clause 18 (1), (1A) and (2) of the Protection of the Environment Operations (General) Regulation 2009 requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the testing method set out in the relevant load calculation protocol for the fee-based activity classification listed in condition A1.1.	Compliant	Automated (live) monitoring undertaken during discharge. Monthly monitoring of dams, river and Dartbrook also undertaken. There were no other discharges during the audit period.							
M4. Recording of pollution complaints										
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	Two queries about lighting received in April 2019. Additional groundwater query in March 2019 regarding a drop in the water level at a bore on their property. They were concerned that this was related to recommencement of Dartbrook activities. Dartbrook took a water reading and field pH and EC levels at the bore in March and had a follow up meeting with the landholder in April 2019. To confirm whether the impacts to water levels in their bore are related to Dartbrook, Dartbrook commissioned a GW review by AGE. This is still being finalised.	Ensure sufficient details of the queries/complaints (not including personal information) are provided in the Annual Review.						
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.									
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.									
M5. Telephone complaints line										
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	Letter (06/07/06) from Dartbrook to the then DoP regarding suspension of mining operations at Dartbrook and the upcoming Care and Maintenance status of the mine proposed "A pager system responded to on week days." Responding letter (07/09/06) from DoP stating that the department has approved the mine's program of proposed actions regarding Care and Maintenance. As of 2019 a public telephone line is advertised on the White Pages.							
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	Number available in white pages (confirmed by SLR). Number in newsletters and on website. Annual Reviews provided to CCC and nearby landholders with site contact details included in that document.							
M5.3	The preceding two conditions do not apply until 3 months after the date of the issue of this licence.	Note	Noted							
M6 Requirement to monitor volume or mass										
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. POINT 4 <table border="1"> <thead> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>megallitres per day</td> <td>Magnetic flow meter</td> </tr> </tbody> </table>	Frequency	Unit of Measure	Sampling Method	Continuous during discharge	megallitres per day	Magnetic flow meter	Compliant	Flow meter monitors discharges. Evidence of Hunter River Salinity Trading Scheme Discharge Sheet dated 9/8/2017 covering the period from 1/7/2016 - 30/6/2017. Evidence of live monitoring system shown to the audit team. Evidence of calibration certificates for LDP 4 dated 22/7/2019.	
Frequency	Unit of Measure	Sampling Method								
Continuous during discharge	megallitres per day	Magnetic flow meter								
M7 Blasting										

Condition Number	Condition	Compliance Status	Evidence	Recommendation
M7.1	To determine compliance with condition(s) L5.1 and L5.2 a) Airblast overpressure and ground vibration levels must be measured at the nearest residence or noise sensitive location that is most likely to be most affected by the blast and that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee for all blasts carried out in or on the premises; and b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard 2187.2 of 1993.	Not Triggered	No blasting during audit period.	
M8 Other monitoring and recording conditions				
M8.1	The Licensee must continuously operate and maintain communication equipment which makes the conductivity and flow measurements, taken at Point 4 available to the "Service Coordinator" within one hour of those measurements being taken and makes them available in the format specified in the report titled "Hunter River Salinity Trading Scheme Discharge Point Telemetry Specification - Rev V1.0 Released 4 October 2018" as published by WaterNSW.	Compliant	The 2016 discharge event was reported to the EPA. State Water carries out this role for the EPA, and that there is real time radio linkage for discharge rate, conductivity and pH to State Water. Evidence of live monitoring system shown to the audit team. Evidence of calibration certificates for LDP 4 dated 22/7/2019.	
M8.2	The licensee must ensure that all monitoring data is within a margin of error of 5% for conductivity measurements and 10% for discharge flow measurement.	Compliant	Annual calibration of the discharge equipment is undertaken to allow accurate monitoring by Endress Hauser. Evidence of calibration certificates for LDP 4 dated 22/7/2019.	
M8.3	The licensee must mark monitoring point(s) 4, with a sign which clearly indicates the name of the licensee, whether the monitoring point is up or down stream of the discharge point (s) and that it is a monitoring point for the Hunter River Trading Scheme.	Compliant	There is signage for point 4 with required information in place.	
6. Reporting Conditions				
R1. Annual Return documents				
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. 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 Returns sighted, with these signed and containing the information (1-7) required by this condition.	
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	Compliant	Annual Returns sighted, with these signed and containing the required information.	
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.	Note	Noted	
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.	Administrative Non-Compliance	Relevant EPL Annual Returns cover: * 1 Dec 2015- 30 Nov 2016 - Anglo Coal (Dartbrook Management) Pty Limited ; * 1 Dec 2016-30 Nov 2017 - AQC Dartbrook Management Pty Ltd; and * 1 Dec 2017-30 November 2018 - AQC Dartbrook Management Pty Ltd Next Annual Return is not yet due. The acquisition of the site by AQC Dartbrook Management Pty Ltd was finalised on 29 May 2017. Therefore separate EPL Annual Returns should have been completed for: * Anglo Coal (Dartbrook Management) Pty Limited from 1 December 2016 - 28 May 2017; * AQC Dartbrook Management Pty Ltd from 29 May 2017 - 30 November 2017. The EPL wasn't formally transferred to AQC Dartbrook Management Pty Ltd until the March 2019 revision. On 29 May 2017 when AQC Dartbrook Management Pty Ltd took ownership of the site, the EPA should have been contacted by AQC Dartbrook Management Pty Ltd to outline the change of owners and request a change to the licence holder. To complete 2 separate EPL Annual Returns for 2016-17 would now not be beneficial as Anglo Coal (Dartbrook Management) Pty Limited does not exist as a company. The required information was also provided to the EPA in the Annual Returns submitted during the audit period under Condition R1.2 above. Therefore no further recommendation.	

Condition Number	Condition	Compliance Status	Evidence	Recommendation
Note	An application to transfer a licence must be made in the approved form for this purpose.	Note	As above	
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	Not surrendered during audit period.	
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	EPL reporting period ends 30 November therefore Annual Returns are due 29 January each year. Date of receipt of Annual Returns noted on the EPA website and evidence of signed dates in the Annual Returns.	
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	Annual Returns sighted.	
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	Annual Returns sighted.	
R1.8	The licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	Not Triggered	Not triggered.	
R2. Notification of environmental harm				
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.	Not Triggered	No incidents threatening or causing material harm during the audit period.	
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.			
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.			
R3. Written Report				
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 incidents during the audit period that triggered this condition.	
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.			
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.			
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.			
Reporting of Exceedances of Blasting Limits				
R3.5	The licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	Not Triggered	No blasting during the reporting period.	
Hunter River Salinity Trading Scheme Reporting				
R3.6	The licensee must compile a written report of the activities under the Scheme for each scheme year. The scheme year shall run from 1 July to 30 June each year. The written report must be submitted to the EPA's regional office within 60 days after the end of each scheme year and be in a form and manner approved by the EPA. The information will be used by the EPA to compile an annual scheme report	Compliant	Hunter River Salinity Trading Scheme Reports provided. Annual Reviews note that there were nil discharges under Hunter River Salinity Trading Scheme during 2017 or 2018 however there was one in 2016. Evidence of 2016-17 and 2017-18 reports provided.	

Condition Number	Condition	Compliance Status	Evidence	Recommendation
7. General Conditions				
G1. Copy of licence kept at the premises or plant				
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Compliant	Copy available on-site. Also available online.	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.			
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.			
8. Special Conditions				
E1 Hunter River Salinity Trading Scheme				
E1.1	This licence authorises the discharge of saline water into the Hunter River Catchment from an authorised discharge point (or points), in accordance with the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.	Compliant	One Hunter River Salinity Trading Scheme discharge during the audit period (Sept 2016). Salinity results provided for these discharge events.	
E1.2	For the purposes of Clauses 23 and 29 of the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 the licensee must apply the conversion factor of 0.6.	Note	Noted	
E1.3	Saline water with an electrical conductivity greater than 400 microSiemens must only be discharged through Discharge Point 4 and in accordance with the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.	Note	Noted	
E1.4	During the licensee's next discharge under the rules of the Hunter River Salinity Trading Scheme (the Scheme) the licensee must monitor salinity levels at least at the following location, provided it is safe to do so: - at the nearest downstream irrigation offtake point. As far as practicable it should be timed to coincide with the peak flow of discharge water. The results of this monitoring must be reported to the Regional Manager within 30 days of being collected. The report should detail the exact location, time and method of monitoring. Note: - a handheld salinity probe is considered an adequate method of undertaking the monitoring. - this monitoring can be carried out in conjunction with other discharging participants in the Scheme.	Compliant	There is real time radio linkage for discharge rate, conductivity and pH to State Water.	
E1.5	The licensee must not exceed the hourly volume discharge limit calculated using the following formula, at all discharge point(s) on this licence titled "Discharge of saline water under the Hunter River Salinity Trading Scheme (HRSTS)": H = V / RRT Where: H is the hourly volume discharge limit (in megalitres per hour); V is the licence holder's volume discharge limit for the block (in megalitres) calculated in accordance with clause 23 of the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation (2002); and RRT is the difference between the discharge stop and start times shown on the river register for that block (in hours) Note 1: The intent of this condition is to prevent spikes of saline water in the Hunter River as a result of discharges of less than the duration permitted by the river register. Note 2: A river register is issued by the Service Co-ordinator and allows participants of the Hunter River Salinity Trading Scheme (HRSTS) to discharge saline to the Hunter River during a discharge period.	Compliant	No exceedances of discharge limit during audit period. Only one discharge in September 2016 and well within EPL limits.	
E2. Discontinuation of Mining				
Note	The EPA understands that the licensee has ceased coal mining activities at the premises. It is the EPA's intention to include a Pollution Reduction Program requiring the licensee to conduct a site specific determination of best management practices to reduce particulate emissions from coal mining activities, if coal mining recommences.	Not Triggered	No mining during audit period.	Provide an update on the status of the operation with this condition E2 Discontinuation of Mining) to be enacted by the EPA if mining recommences. SLR understands that it is the EPA's intention to include a Pollution Reduction Program requiring the licensee to conduct a site specific determination of best management practices to reduce particulate emissions from coal mining activities.
E2.1	The licensee must notify the EPA's Manager, Hunter Region in writing prior to mining or handling any coal on the premises.	Not Triggered	No mining during audit period.	

CCL 386 - Version Dated 5-12-2014 (inc variation made 19/02/18)

*It is noted that in a letter dated 30.10.2015 DRE approved an application for suspension of mining operations within CCL386, ML1381, ML1456, ML1497, until 31 Dec 2017.

		2019 Audit Outcomes		
Condition Number	Condition	Compliance Status	Evidence	Recommendation
1 (a)	<p>1. Notice to Landholders</p> <p>(a) Within a period of three months from the date of renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p>	Administrative Non-Compliance	<p>It is noted that in a letter dated 30.10.2015 Resources Regulator approved an application for suspension of mining operations within CCL386, ML1381, ML1456, ML1497, until 31 Dec 2017.</p> <p>Evidence of letter from the Resources Regulator dated 8 August 2019 indicates the approval to suspend mining leases had lapsed.</p> <p>Evidence of email correspondence from AQC dated 31 August 2018 stating "AQC is seeking further approval to suspend mining operations within Coal Lease 386, Mining Lease (ML) 1381, ML 1497, ML 1382 and ML 1456, pursuant to clause 7A of Schedule 1B of the Mining Act 1992. The existing approval to suspend mining operations expired on 13 December 2017 and as such, AQC would like to apply to for an extension to the abovementioned suspensions of operations and conditions for a period of up to another three years, up to the end of 2020".</p> <p>Assessment of this application by the Resources Regulator was pending at the time of the audit. The Resources Regulator confirmed in a meeting on 27 August 2019 that AQC had provided all information required for their assessment and determination of the application.</p>	
1(b)	(b) If there are ten or more landholders, 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 mining lease has been renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1 (b), compliance with condition 1 (a) is not required.	Not Triggered	Not applicable (no private landholders within CCL boundary).	
2	<p>2. Rehabilitation</p> <p>Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.</p>	Not Triggered	No disturbance during IEA period. Rehabilitation maintenance undertaken during audit. Site inspection noted no major issues with existing rehabilitation on site.	
3(a)	<p>3. Mining Operations Plan and Annual Rehabilitation Report</p> <p>(a) The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.</p>	Compliant	<p>The site operates in accordance with an approved Care and Maintenance MOP (sighted). Two MOPs applicable to the Audit period. This included a 2012 MOP and a 2018 MOP (both versions were approved). New MOP will be required if site was to recommence operations.</p> <p>No mining activities undertaken during audit period, however activities generally completed in accordance with the MOP.</p>	
(b)	(b) The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which: <ul style="list-style-type: none"> (i) identifies areas that will be disturbed; (ii) details the staging of specific mining operations, mining purposes and prospecting; (iii) identifies how the mine will be managed and rehabilitated to achieve the post mining land use; (iv) identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and (v) reflects the conditions of approval under: <ul style="list-style-type: none"> • 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 mining lease. 	Compliant	<p>No proposed disturbance during the MOP period. A new 2018 MOP was prepared during the reporting period in accordance with latest guidelines.</p> <p>The Care and Maintenance MOP identifies the proposed post-mining land use and rehabilitation strategy.</p> <p>The 2018 MOP has been approved and covers i - v requirements.</p>	

Condition Number	Condition	Compliance Status	Evidence	Recommendation
(c)	(c) The MOP must be prepared in accordance with the <i>ESG3: Mining Operations Plan (MOP) Guidelines September 2013</i> published on the Department's website at www.resources.nsw.gov.au/environment	Compliant	The 2012 MOP was prepared in accordance with the <i>Interim Mining Operations Plan (MOP) Guidelines (2012)</i> current at time of submission. The 2018 MOP prepared in accordance with ESG3.	
(d)	(d) The lease holder may apply to the Minister to amend an approved MOP at any time.	Not Triggered	No MOP amendments during the audit term.	
(e)	(e) It is not a breach of this condition if: (i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 I Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 I Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and (ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.	Not Triggered	Based on the information provided to SLR there were no breaches during the audit period.	
(f)	(f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must: (i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP; (ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and (iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment . Note: The Rehabilitation Report replaces the Annual Environmental Management Report.	Compliant	Addressed in Annual Review, which is submitted to the Resources Regulator annually. Section 8 of the Annual Reviews.	
4(a)	4. Non-Compliance Reporting (a) The lease holder must notify the Department upon becoming aware of any breaches of the conditions of this mining lease or breaches of the Mining Act or Regulations;	Not Triggered	No breaches during the audit period.	
(b)	(b) Notifications under condition 4(a) must be provided in the form specified on the Department's website within seven (7) days of the mining lease holder becoming aware of the breach.	Not Triggered	No breaches during the audit period.	
5	5. Environmental Incident Report The lease holder must provide environmental incident notifications and reports to the Secretary no later than seven (7) days after those environmental incident notifications and reports are provided to the relevant authorities under the Protection of the Environment Operations Act 1997.	Not Triggered	No environmental incidents during audit period.	
6(a)	6. Extraction Plan (a) In this condition: (i) approved Extraction Plan means a plan, being: A. an extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or B. a subsidence management plan relating to the mining operations subject to this lease: I. submitted to the Secretary on or before 31 December 2014; and II. approved by the Secretary. (ii) relevant development consent means a development consent or project approval issued under the Environmental Planning & Assessment Act 1979 relating to the mining operations subject to this lease.	Not Triggered	No mining operations undertaken during the audit period. No Extraction Plan required. Extraction Plan approval is required if mining recommences under MOD 7.	
(b)	(b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.	Not Triggered	No mining operations undertaken during the audit period. No Extraction Plan required.	

Condition Number	Condition	Compliance Status	Evidence	Recommendation
(c)	(c) The lease holder must ensure that the approved Extraction Plan provides for the effective management of risks associated with any subsidence resulting from mining operations carried out under this lease.	Not Triggered	No mining operations undertaken during the audit period. No Extraction Plan required.	
(d)	(d) The lease holder must notify the Secretary within 48 hours of any: (i) incident caused by subsidence which has a potential to expose any person to health and safety risks; (ii) significant deviation from the predicted nature, magnitude, distribution, timing and duration of subsidence effects, and of the potential impacts and consequences of those deviations on built features and the health and safety of any person; or (iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing: A built features; B. public safety; or C. subsidence monitoring.	Not Triggered	No mining operations undertaken during the audit period. No Extraction Plan required.	
7	7. Resource Recovery The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent economically feasible.	Not Triggered	No mining operations undertaken during the audit period.	
8	8. Group Security The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$9,195,000. The leases covered by the group security include: Coal Lease 386 (Act 1973) and Mining Lease No's 1381, 1456 & 1497 (Act 1992).	Compliant	<p>Security deposit revised and updated during 2018 MOP preparation. The most recent RCE is dated 20 November 2017 and costed at \$8,903,379.19. The RCE and associated MOP (see Condition 2.1 below) have been approved by the Resources Regulator.</p> <p>A document was provided (Notification of Security Assessment) was provided outlining the current security was entered into the Resources Regulator system on 13 August 2019 (therefore is compliant). It is noted that the RCE has several site specific costs from a demolition specialist (Liberty Industrial).</p> <p>The cost to decommission powerlines "Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations" was only \$5,235 for 6.65kms of powerlines. This seems very low for the amount of infrastructure to be removed, however this is due to removal of the powerlines being included as part of a full site decommissioning program by a demolition specialist. The RCE currently states:</p> <p><i>"Includes 1.45km from Metering Point to West Site and 5.2km from Metering Point to CHPP. Quotation for removal of powerpoles and footings Ref. DAR34 in Liberty Industrial Dartbrook Coal Mine Fixed Plant and Infrastructure Decommissioning Study 10 October 2015 as revised October 2017".</i></p> <p>As this is covered by the full site decommissioning there are no additional recommendations relating to the powerline cost.</p>	<p>As per Condition 1.4 of the Development Consent.</p> <p>If mining recommences a full review of the RCE should be completed, in consultation with the Resources Regulator.</p>


Condition Number	Condition	Compliance Status	Evidence	Recommendation
9	<p>9. Cooperation Agreement The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as:</p> <ul style="list-style-type: none"> • access arrangements • operational interaction procedures • dispute resolution • information exchange • well location • timing of drilling • potential resource extraction conflicts; and • rehabilitation issues. 	Not Triggered	No Cooperation agreements in place. No mining undertaken during audit period.	
Note	<p>SPECIAL CONDITIONS Note: The standard conditions apply to all mining leases. The Division of Resources & Energy (DRE) reserves the right to impose special conditions, based on individual circumstances, where appropriate.</p>	Note	Noted.	
10	<p>10. Barriers Unless with the consent of the Minister first had and obtained and subject to such conditions as he may impose the registered holder 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:- <i>The land within the zone beneath and adjacent to The Main Northern Railway enclosed by an angle of draw of 35 degrees 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.</i></p>	Not Triggered	No mining undertaken during the audit period.	
	<p>Exploration Reporting Note: Exploration Reports (Geological and Geophysical) The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010. Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Trade and Investment; Regional Infrastructure and Services 2010).</p>	Compliant	<p>One exploration borehole in EL 4574 was drilled during the audit period (2018).</p> <p>Exploration Report for period dated 20 December 2016 - 19 December 2017. No exploration in that period.</p> <p>Exploration Report dated 20 Dec 2017-19 December 2018. 9 boreholes were drilled across Dartbrook mining authorities (one exploration hole only within EL 4574) with 26 historic drill hole sites rehabilitated.</p>	

EIS (2000)

2019 Audit Outcomes			
Aspect	Compliance Status	Evidence	Recommendation
Air Quality	Compliant	<p>A comparison of the total annual average PM10 dust concentrations with the levels predicted in the EIS and subsequent modifications is summarised in each Annual Review (2016-2018).</p> <p>These comparisons shows that during the audit period most of the sites were below the predictions made in the EIS and subsequent modifications. It should also be noted that the site isn't operating and elevated dust levels in the area cannot be solely attributed to site operations. EIS predictions related to an operating site, not a Care and Maintenance operation.</p>	Nil
Groundwater	Compliant	<p>An annual assessment of the accuracy of the groundwater model predictions contained in the Dartbrook EIS is undertaken by comparing the results of actual monitoring with predictions under the model.</p> <p>In 2016-2018, this assessment was carried out by Australasian Groundwater and Environmental Consultants Pty Ltd (AGE).</p> <p>The groundwater assessment in the EIS is for an operational mine, therefore its not directly comparable to the site being on care and maintenance.</p> <p>Its not that the 2018 AGE Groundwater Report states:</p> <p><i>"Groundwater levels in the alluvium measured in 2018 confirm the statement in the EIS and MER (2000) that "existing bores and wells in the alluvial lands will remain unaffected by depressurisation within the coal measures".</i></p>	See Section 5.1 of the Audit Main Document
Gas Drainage	Compliant	<p>Greenhouse gas volumes cannot be compared to the predictions made in the EIS, because of the changes in the mine area that is being ventilated during the Care and Maintenance phase of operations.</p>	Nil

APPENDIX C

IEA Certification Form

Independent Audit Certification Form	
Development Name	Dartbrook Mine
Development Consent No.	DA 231-07-2000
Description of Development	Underground coal mine in Care and Maintenance
Development Address	Stair Street, Kayuga NSW 2333
Operator	Australian Pacific Coal Limited
Operator Address	Stair Street, Kayuga NSW 2333
Independent Audit	
Title of Audit	Dartbrook 2019 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:	17 October 2019

ASIA PACIFIC OFFICES

BRISBANE

Level 2, 15 Astor Terrace
Spring Hill QLD 4000
Australia
T: +61 7 3858 4800
F: +61 7 3858 4801

CANBERRA

GPO 410
Canberra ACT 2600
Australia
T: +61 2 6287 0800
F: +61 2 9427 8200

DARWIN

Unit 5, 21 Parap Road
Parap NT 0820
Australia
T: +61 8 8998 0100
F: +61 8 9370 0101

GOLD COAST

Level 2, 194 Varsity Parade
Varsity Lakes QLD 4227
Australia
M: +61 438 763 516

MACKAY

21 River Street
Mackay QLD 4740
Australia
T: +61 7 3181 3300

MELBOURNE

Suite 2, 2 Domville Avenue
Hawthorn VIC 3122
Australia
T: +61 3 9249 9400
F: +61 3 9249 9499

NEWCASTLE

10 Kings Road
New Lambton NSW 2305
Australia
T: +61 2 4037 3200
F: +61 2 4037 3201

PERTH

Ground Floor, 503 Murray Street
Perth WA 6000
Australia
T: +61 8 9422 5900
F: +61 8 9422 5901

SYDNEY

2 Lincoln Street
Lane Cove NSW 2066
Australia
T: +61 2 9427 8100
F: +61 2 9427 8200

TOWNSVILLE

Level 1, 514 Sturt Street
Townsville QLD 4810
Australia
T: +61 7 4722 8000
F: +61 7 4722 8001

TOWNSVILLE SOUTH

12 Cannan Street
Townsville South QLD 4810
Australia
T: +61 7 4772 6500

WOLLONGONG

Level 1, The Central Building
UoW Innovation Campus
North Wollongong NSW 2500
Australia
T: +61 404 939 922

AUCKLAND

68 Beach Road
Auckland 1010
New Zealand
T: +64 27 441 7849

NELSON

6/A Cambridge Street
Richmond, Nelson 7020
New Zealand
T: +64 274 898 628