

MOUNT THORLEY WARKWORTH

INDEPENDENT ENVIRONMENTAL AUDIT REPORT

for
Yancoal Mount Thorley Warkworth
July 2020

MOUNT THORLEY WARKWORTH

INDEPENDENT ENVIRONMENTAL AUDIT REPORT

Prepared by:

HANSEN BAILEY
6/127-129 John Street
SINGLETON NSW 2330

July 2020

for:

Yancoal Mount Thorley Warkworth
PO Box 267
SINGLETON NSW 2330

EXECUTIVE SUMMARY

Hansen Bailey was approved by Department of Planning, Industry & Environment (DPIE) to conduct an Independent Environmental Audit (IEA) against the conditions of both Development Consent SSD 6464 and SSD 6465 for Yancoal Mount Thorley Warkworth (MTW).

The IEA also assessed compliance with other licences. Warkworth required compliance with: Environment Protection Licence (EPL) 1376, Consolidated Coal Lease (CCL) 753 and Mining Lease (ML) 1751. Mount Thorley required compliance with: EPL 1976 and Coal Lease (CL) 219.

The IEA was conducted by Dianne Munro (Exemplar Global Certified Auditor 107622) and Theresa Folpp from Hansen Bailey with the field visit component completed between 27 April to 30 April 2020. Ecology specialist Alex Cockerill from WSP contributed to the IEA.

The IEA consisted of a detailed desktop review of documentation, both structured and opportunistic interviews with MTW staff and a field inspection of relevant activities and processes. The IEA was conducted generally consistent with the '*Independent Audit Guideline, October 2015*' (Audit Guidelines) (DPIE, 2015).

The field inspection revealed that that housekeeping in and around the workshop, storage areas and CHPP were good. The office complex, store and workshop were in good condition and constructed generally consistent with infrastructure proposed within the relevant approvals. Water carts were observed during the main pit inspection with low visible dust observed.

A comparison of the proposed mine plans between the Mining Operations Plan and relevant approval documents showed that the progression of mining is generally consistent with the progression shown in MTW's Planning Approvals.

There were four blast non-compliances during the IEA period under SSD 6464. Two blasts exceeded the blast criteria of 120 dBA (28/12/18, 4/4/19). One blast was an administrative non-compliance for failure to capture the blast at the monitor (5/7/18). One blast was a non-compliance for its resultant dust that left the premises (7/8/19). Penalty notices were issued for the blast exceedances occurring on the 4/4/19 (DPIE) and 7/8/19 (EPA).

For the blast dust incident on 7/8/19. The blast dust travelled to the east over land associated with Warkworth Coal Mine, Putty Road, and the Mount Thorley Industrial Estate before dissipating over farmland east of the licenced premises.

All noise monitoring results complied with the LAeq,15minute criteria during the IEA period.

All air quality short term and annual average results were compliant with the impact assessment criteria in accordance with the approved air quality management plan.

Weed control is an ongoing management issue for both rehabilitation and biodiversity offset areas (BOAs). Significant infestations of a variety of pasture and exotic high threat weeds were observed within the Southern and Northern BOAs in areas, predominately in disturbed condition areas including WSW Transition sites. The current weed management controls on site are generally acceptable and in accordance with key guidelines. However, successful management and tracking of improvement in these areas against performance and long-term completion criteria may require more intensive control actions.

Annual heritage inspections were conducted during the IEA period. There were three salvages undertaken in accordance with ACHMP methodologies and in consultation with Upper Hunter Aboriginal Cultural Heritage Working Group (CHWG) for which final salvage reports are yet to be finalised.

The NSW Resources Regulator undertook an inspection of rehabilitation areas at MTW which identified there were ongoing delays in the progression of rehabilitation areas. As a result of the observation, MTW was directed via two section 240 notices to undertake corrective actions. These are being progressed.

Four reportable incidents occurred during the audit period, including: 30 March 2019 Water Discharge Incident, 4 April 2019 Blast Incident, 28 Dec 2018 Blast Incident and 4 Dec 2017 Water Incident. All were reported in accordance with relevant conditions. Outstanding actions are being progressed.

Key actions and recommendations from the previous IEA completed for MTW in 2017 were reviewed and have generally been completed as described in **Section 4**. There is one outstanding item from the previous audit which should be addressed as soon as possible.

This IEA identified some non-compliances against conditions of Development Consent SSD 6464 and SSD 6565, and other licences and approvals. Non-compliances to be addressed are summarised in **Section 6** and detailed in **Appendix E** of this report.

Of the 28 non-compliances against a condition of a licence or approval was identified, 12 were low risk and eight were identified as administrative in nature. The remaining seven non-compliances were assessed to be medium risk, of which three were duplicative in two or more licences or approvals. Of the 13 low risk non-compliances, three were duplicative of two or more licences and approvals.

At the time of the audit, MTW staff were aware of the identified non-compliances against conditions, licences and approvals and were actively working to address a number of the issues identified in this report.

Recommendations arising from a review of environmental management documentation, the IEA site inspections and identified non-compliances is provided in **Section 7**.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	<i>i</i>
LIMITATIONS OF REPORT	<i>vi</i>
1 INTRODUCTION	1
1.1 BACKGROUND	1
1.2 REPORT STRUCTURE.....	2
2 SITE DESCRIPTION	3
2.1 WARKWORTH MINE	3
2.2 MOUNT THORLEY MINE.....	5
2.3 OTHER APPROVALS AND LICENCES.....	5
2.4 AUDIT PERIOD SUMMARY OF MINING AND REHABILITATION	5
3 AUDIT REQUIREMENTS	7
3.1 DEVELOPMENT CONSENT	7
3.2 AUDIT GUIDELINES	8
3.3 AGENCY CONSULTATION	10
4 MANAGEMENT PLANS, PROGRAMS AND STRATEGIES	14
5 PREVIOUS AUDIT RECOMMENDATIONS AND STATUS	15
6 NON-COMPLIANCES AGAINST APPROVALS AND LICENCES	19
7 AUDIT RECOMMENDATIONS	22

LIST OF TABLES

Table 1	Warkworth SSD 6464 IEA Requirements.....	7
Table 2	Mount Thorley SSD 6465 IEA Requirements.....	8
Table 3	Audit Guidelines Requirements.....	9
Table 4	Audit Guidelines Risk Levels for Non-Compliances	10
Table 5	Agency Requirements and Where Addressed	11
Table 6	Status of 2017 IEA Recommendations	15
Table 7	Non-Compliances Identified.....	19
Table 8	IEA Recommendations	22

LIST OF APPENDICES

Appendix A	Regulatory Correspondence
Appendix B	Plates from Site Inspection
Appendix C	Audit Itinerary
Appendix D	DPIE Certification Form
Appendix E	Compliance Tables
Appendix F	WSP Table

LIMITATIONS OF REPORT

In preparing this IEA report, Hansen Bailey has assessed all activities appropriate and necessary to evaluate the environmental status of the site and operations on it. Hansen Bailey has addressed all technical matters which might reasonably be considered to be relevant to such an assessment conducted to standards which apply in NSW.

Based on observations of the site, interviews with appropriate staff and a review of available documentation, it is Hansen Bailey's opinion that the potential critical environmental issues associated with the site and operations are those discussed in this report. However, Hansen Bailey can only advise on the basis of the information available to them and therefore cannot dismiss absolutely the possibility that parts of the site, or adjacent properties, may give rise to additional issues.

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

Opinions presented in this report apply to the site's conditions and features as they existed at the time of Hansen Bailey's site visit from 27 April to 30 April 2020, and those reasonably foreseeable. They necessarily cannot apply to conditions and features which Hansen Bailey is unaware of and has not had the opportunity to evaluate.

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

**MOUNT THORLEY WARKWORTH
INDEPENDENT ENVIRONMENTAL AUDIT
for
Yancoal Mount Thorley Warkworth**

1 INTRODUCTION

1.1 BACKGROUND

Hansen Bailey was commissioned by Yancoal Mount Thorley Warkworth (MTW) to conduct an Independent Environmental Audit (IEA) against Development Consent SSD 6464 (Warkworth Mine) and SSD 6465 (Mount Thorley), collectively referred to as Mount Thorley Warkworth. Yancoal Mount Thorley Warkworth manages the operations on behalf of joint venture partners.

The original supporting documentation for Warkworth SSD 6464 is the 'Warkworth Continuation 2014 EIS' (EMM, June 2014) (Warkworth EIS).

The original supporting documentation for Mount Thorley SSD 6465 is the 'Mount Thorley Operations 2014 EIS' (EMM, June 2014) (Mount Thorley EIS).

The timeframe that this IEA Report applies to is from 5 May 2017 to 30 April 2020 (IEA period). The IEA was conducted by Dianne Munro (DM) (Lead Auditor – Exemplar Global Certified Auditor 107622), and Theresa Folpp (TF) (Auditor) from Hansen Bailey.

Ecology specialist Alex Cockerill from WSP audited the ecological performance of MTW operations in relation to his specialist area.

The IEA team was approved by the Department of Planning, Industry and Environment (DPIE) on 24 February 2020 (see **Appendix A**).

The IEA consisted of a detailed desktop review of documentation and scheduled and opportunistic interviews with a significant number of available staff including:

- Brendan Behringer (BB) - Operations Support & Projects (OS&P) Manager (Acting);
- John Campbell (JC) - Technical Services Manager;
- Paul Davis (PD) – Coal Handling & Preparation Plant (CHPP) Manager;
- Craig Sheedy (CS) - CHPP Superintendent Production North;
- John Burgess (JB) - CHPP Superintendent Production South;
- David Bennett (DB) - Mine Manager;
- Damian Prance (DP) - Maintenance Manager;
- Martin Phillips (MP) - Maintenance Superintendent Support;
- Adam Rice (AR) - Health and Safety Manager;

- Thomas Holz (TH) - Tenements and Land Access Manager;
- Gary Mulhearn (GM) - Environment & Community Manager;
- Douglas Fenton (DF) - Environmental Advisor (Monitoring);
- Olivia Lane (OL) - Environment and Community Coordinator;
- Wade Covey (WC) - Environment and Community Coordinator;
- Bill Baxter (BB) - Environmental Specialist Rehabilitation;
- Jessica Blair (JB) – Environmental Advisor (Land Management); and
- Kelly Adamthwaite (KA) – Specialist, Tenements and Land Access.

A field inspection of the mining area and other infrastructure areas was undertaken generally in accordance with ‘ISO 14010 – Guidelines and General Principles for Environmental Auditing’, and ‘ISO 14011 – Procedures for Environmental Auditing’.

The field inspection was conducted between 27 April to 30 April 2020 by Hansen Bailey and a one-day site inspection was undertaken by WSP on 28 April 2020. Stringent COVID19 practices were in place during the site visit, including social distancing.

Photos from the field inspection are shown in **Appendix B**.

There was 97 mm of rainfall recorded in March 2020. During the site inspection there was light rainfall and temperatures were mild (19-22°).

An Opening and Closing Meeting was held at site with the Senior Management Team (SMT) and Environmental staff in attendance. A significant number of MTW employees attended the closeout meeting via web service. The Audit Itinerary is presented in **Appendix C**.

1.2 REPORT STRUCTURE

Section 1 provides an introduction, background, describes and provides a guide to the structure of the report;

Section 2 describes approved operations, approvals documents for SSD 6464 and SSD 6465, and provides a site description and layout of MTW;

Section 3 outlines audit requirements and applicable auditing guidelines;

Section 4 summarises recommendations made during the previous IEA (2017);

Section 5 outlines the identified non-compliances and the status against SSD 6464 and SSD 6465, its supporting documents and other licences and approvals. It also includes a high level risk assessment in accordance with the ‘Independent Audit Guideline, October 2015’ (Audit Guidelines) (DPIE, 2015);

Section 6 lists required management plans, programs and strategies; and

Section 7 summarises key recommendations from the IEA.

2 SITE DESCRIPTION

This section provides a description of each of Warkworth Mine and Mt Thorley Mine.

2.1 WARKWORTH MINE

Warkworth Mine is an open cut mine located approximately 8 km south west of Singleton in the Hunter Valley. It has been continuously operating since 1981.

The area immediately surrounding the mine is dominated by coal mines and associated infrastructure, agriculture and other mining-related industry. Hunter Valley Operations, the now disused Redbank Power Station and Wambo Mine are to the north and north-west, respectively. Mount Thorley and the Bulga Coal Complex are located to the south. Mount Thorley Industrial Estate (MTIE) is to the east.

The nearest settlement is the Bulga village, which is located approximately 5 km to the west. The majority of residents are located off The Inlet Road. The residences at the western limit of The Inlet Road are slightly elevated and have direct views of the Bulga and Mt Mount Thorley mine overburden emplacement areas. There are also several rural-residential properties in proximity to Warkworth Mine.

Warkworth Mine currently operates under SSD 6464 issued by the then Planning Assessment Commission (PAC) on 26 November 2015 which allows for the following activities:

- An extension of the approved mining disturbance footprint by approximately 698 ha to the west;
- Extraction of a further 230 million tonnes of coal over 21 years;
- Continued extraction of up to 18 million tonnes of run of mine coal per year;
- Existing use of coal transportation infrastructure;
- Tailings and overburden to be transferred to Mount Thorley's final landform;
- The closure of Wallaby Scrub Road;
- An option to develop an underpass beneath Putty Road for the third bridge crossing;
- Minor changes to the design of the Northern out-of-pit dam; and
- The continued use of secondary access gates to the mine site and offsets for activities such as drilling, offset management, and equipment shutdown pad access;

Warkworth Mine is shown in **Figure 1** reproduced from Appendix 2 of SSD 6464.

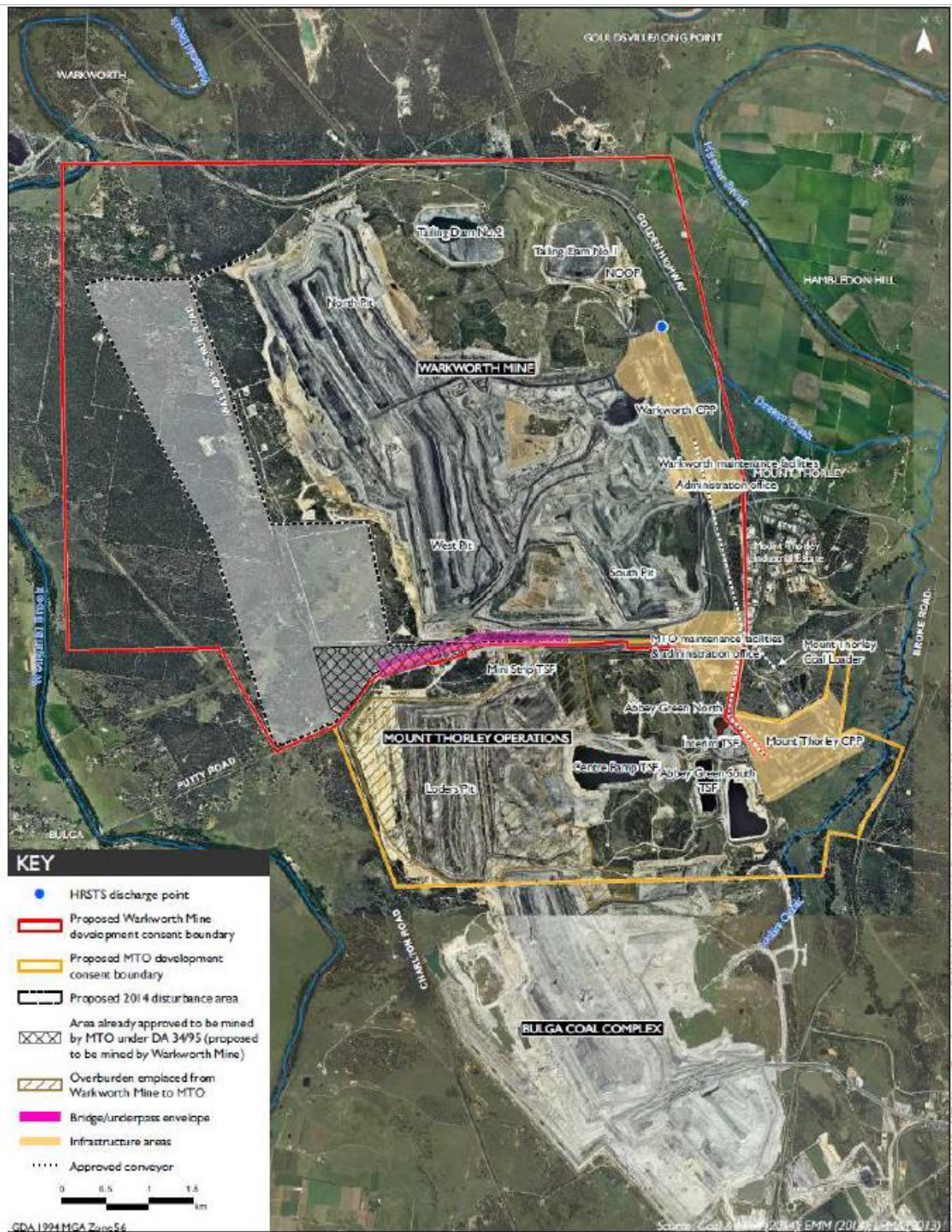


Figure 1
 Warkworth SSD 6464 Project Layout

2.2 MOUNT THORLEY MINE

Mount Thorley Mine (Mount Thorley) is an open cut mine located approximately 10.5 km south-west of Singleton.

Mount Thorley currently operates under SSD 6465 issued by the then Planning Assessment Commission (PAC) on 26 November 2015 which allows for the following activities:

- Maintain existing extraction rate of 10 million tonnes per year (Mtpa) of ROM coal;
- Completion of mining in Lodgers Pit;
- Maintain integrated MTW water management and tailings management systems; and
- Continuation of coal transfer between Warkworth Mine and Mount Thorley and transportation of coal to the Port of Newcastle.

Mount Thorley is shown in **Figure 2** reproduced from Appendix 2 of SSD 6465.

2.3 OTHER APPROVALS AND LICENCES

Warkworth operates in accordance with EPL 1376 under the *Protection of the Environment Operations Act 1997* (POEO Act). Mount Thorley operates in accordance with EPL 1976.

Key MLs considered in this IEA include: CCL753, CL219, ML1412, ML1590, ML1751, ML1752.

2.4 AUDIT PERIOD SUMMARY OF MINING AND REHABILITATION

Mining activities at Warkworth advanced in a westerly direction in both North and West Pits. Within Mount Thorley, two small areas in the northern and southwestern extents of the mining lease are anticipated to reach their final limits during 2020 with remaining reserves to be mined to depth during 2020.

Exploration drilling was conducted within the relevant mining leases: Consolidated Coal Lease (CCL 753) and Mining Lease (ML) 1751; ahead of mining and within the pit to gain further information on the resource.

As per Section 7.3 of the 2019 Annual Review (AR), progressive rehabilitation commitments are outlined in the Warkworth Continuation 2014 and Mt Thorley Operations 2014 Environmental Impact Statements. These documents modelled a total of 1,103 ha of rehabilitation to be completed by the end of 2017, and a further 505.8ha to be completed by the end of 2023. At the end of the 2019 there had been 1,282 hectares of rehabilitation completed across MTW, 179 ha ahead of the EIS forecast for the end of 2017 and tracking well to achieve the forecast total rehabilitation area at the end of 2023.

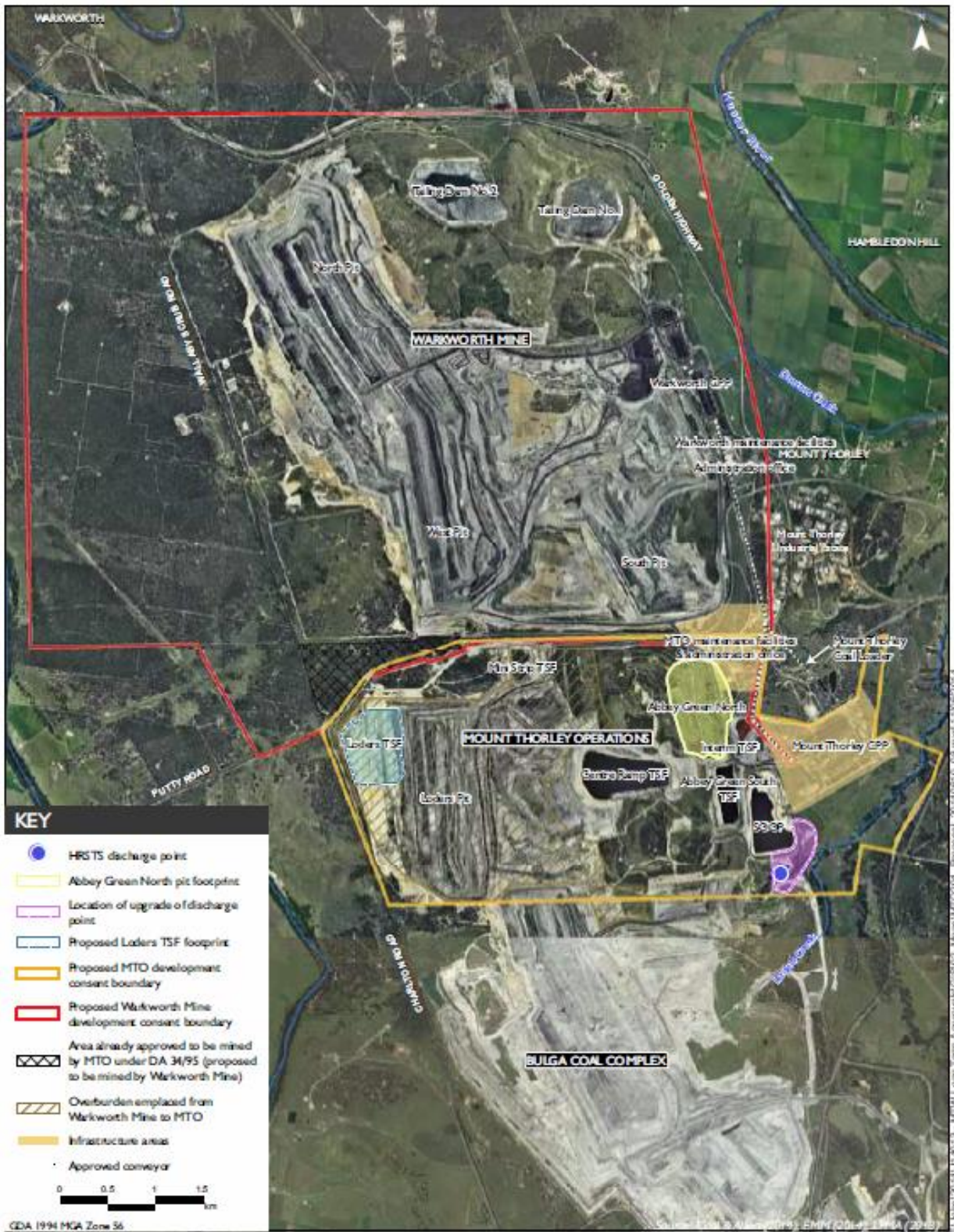


Figure 2
 Mount Thorley SSD 6465 Project Layout

3 AUDIT REQUIREMENTS

This section describes the IEA requirements for Warkworth (SSD 6464) and Mount Thorley (SSD 6465) and where each is addressed in this report.

3.1 DEVELOPMENT CONSENT

This assessment and subsequent report have been compiled pursuant to Schedule 5 Condition 9 of SSD 6464 and Schedule 5 Condition 9 of SSD 6465.

Each requirement is listed for the respective conditions is in **Table 1** and **Table 2** along with where each is addressed in this report.

Table 1
Warkworth SSD 6464 IEA Requirements

Description	Where Addressed
Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	
a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Appendix A Appendix D
b) include consultation with the relevant agencies;	Appendix A
c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	Appendix E
d) include an assessment - undertaken by an independent expert whose appointment has been endorsed by OEH - of the progress towards implementation of the biodiversity offset strategy in particular the regeneration of the Warkworth Sands Woodland against the detailed performance and completion criteria under the Biodiversity Management Plan (see condition 36 of schedule 3);	Appendix F
e) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	Section 4 Appendix E
f) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the above-mentioned approvals.	Section 7
Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.	Appendix A Appendix D

Table 2
Mount Thorley SSD 6465 IEA Requirements

Description	Where Addressed
Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	
(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Appendix A Appendix D
(b) include consultation with the relevant agencies;	Appendix A
(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	Appendix E
(d) review the adequacy of strategies, plans or programs required under the above mentioned approvals; and	Section 4 Appendix E
(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.	Section 7
Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.	Appendix A Appendix D

3.2 AUDIT GUIDELINES

This audit report has also been prepared generally in accordance with the ‘*Independent Audit Guideline, October 2015*’ (Audit Guidelines) (DP&E, 2015). **Table 3** lists key requirements from the Audit Guidelines, the relevant Section of the Guidelines which references the requirement and indicates where each is addressed in this report.

Table 4 reproduces the “risk levels” from Section 4.1 of the Audit Guidelines which were attributed to the non-compliances identified during the audit period as described in **Section 6**.

Table 3
Audit Guidelines Requirements

Section	Description	Where Addressed
2	Assess the operator's compliance with the requirements of regulatory approvals, including (as applicable): <ul style="list-style-type: none"> • Development Consent; • Environment Protection Licence; • Mining Lease; and • Water licences and approvals. 	Section 6 & Appendix E
2, 3	The scope of the audit and the audit team (including any technical specialists) to be determined by the lead regulator.	Section 1.1
3.3	The auditor team must be independent of the development being audited and audit findings must be based on verifiable evidence.	Section 6 & Appendix D
4.1	The compliance status of each requirement or commitment should be assessed in accordance with the compliance assessment criteria and risk levels in the audit guidelines.	Section 6
4.2	Consultation with key regulatory agencies prior to commencement of the audit site inspection.	Section 3.3
5.1	The audit outcomes to be documented in a thorough, accessible and accurate audit report that is written in a neutral tone reflecting facts gathered by the audit team.	This IEA Report
5.1	The audit report should include the following sections: <ul style="list-style-type: none"> • Introduction, providing a brief overview of the development, audit scope and objectives; • Methodology, describing the audit team, methodology applied, document reviews, site inspections and interviews; • Audit findings, including documentation of consultation, response to actions from the previous audit, assessment of compliance status against the conditions and commitments in relevant documents and a discussion of environmental incidents and performance; and • Recommendations, identifying any opportunities for improvement identified in the audit. 	This IEA Report
5.2	Audit reports submitted to the lead regulator must be certified by the lead auditor on an attached 'Independent Audit Submission Form'.	Appendix D
5.3	Copies of the final audit report to be distributed to regulatory agencies within two weeks of finalisation and placed on the development's website.	MTW
6	The operator of the development to respond to the lead regulator responding to the audit findings and recommendations with an action plan within four weeks of receiving the final audit report.	MTW

Table 4
Audit Guidelines Risk Levels for Non-Compliances

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

3.3 AGENCY CONSULTATION

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

- DPIE;
- DPIE Resources Regulator;
- Environment and Protection Authority (EPA);
- Natural Resources Access Regulator (NRAR);
- Biodiversity and Conservation Division (BCD);
- Heritage Council;
- Transport for NSW (TfNSW);
- MTW Community Consultative Committee (CCC) and
- Singleton Shire Council (SSC).

Where issues were raised during consultation, these are listed in **Table 5** and where each has been addressed. DPIE, BCD, EPA and TfNSW replied with no issues to address.

Table 5
Agency Requirements and Where Addressed

Ref	Key Requirement	Where Addressed
Resources Regulator		
1.	Review relevant mining leases and exploration licences as agreed with Resources Regulator (CCL753, CL219, ML1412, ML1590, ML1751, ML1752)	Appendix E Table C
2.	Undertake an assessment of compliance against the conditions of title related to environmental management	Appendix E Table C
3.	Verify that there is a current Mining Operations Plan (MOP) in place and it has been approved by the Regulator – review compliance against any conditions of approval of the MOP	Appendix E Table A & C
4.	Undertake a critical review of the MOP, including an assessment of its compatibility with the description of operations contained in the planning approval. In particular: <ul style="list-style-type: none"> Review the rehabilitation strategy as outlined in the MOP to determine if it is consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s); and Review the rehabilitation objectives and completion criteria as outlined in the MOP to determine if they have been developed in accordance with the proposed final land use(s) as outlined in the Project Approval 	Appendix E Table A Cond 56 & 57
5.	Review the development and implementation of any rehabilitation monitoring programs to assess performance against the nominated objectives and completion criteria – verified by reviewing monitoring reports and rehabilitation inspection records	Appendix E Table A Cond 56 & 57
6.	Determine if a rehabilitation care and maintenance program has been developed and implemented based on the outcomes of monitoring program – verified by reviewing Annual Rehabilitation Programs or similar documentation	Viewed 'Rehabilitation Maintenance Program 201719' which shows native vegetation rehabilitation monitoring listing number of species, stems per hectare and natives sown. The presentation also shows evidence of tree thinning in response to high stem densities and weed control conducted on high exotic plant cover levels.

Ref	Key Requirement	Where Addressed
		Vegetation cover scores and habitat features are recorded against MOP criteria.
7.	Confirm that mining operations are being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary – to be verified by site plans and site inspection	Appendix E Table A Sch 2 Cond 2 & Cond 57
8.	Confirm that rehabilitation progress is consistent with the approved MOP as verified by site plans and a site inspection. This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in the Project Approval	Appendix E Table A Cond 57
9.	Based on a visual inspection, determine if there are any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation outcomes	Appendix E Table A Cond 57
10.	Note observations where rehabilitation procedures, practices and outcomes represent best industry practice	Appendix E
NRAR		
11.	Review any approved and/or in draft Groundwater/Water Management Plans	Appendix E Table A Sch 3 C.27 (b)(iii)
12.	Review relevant site monitoring and incident reporting	Appendix E Table A Cond.26-27 & Sch 5 C.7
13.	Review of Water Access Licences, associated conditions and current take of water	Appendix E Table A Sch 3 C.22
14.	Review all Conditions of Approval	Appendix E
Heritage Council		
15.	Whether the proponent complied with mitigation measures relating to heritage issues discussed in: <ul style="list-style-type: none"> The letter from the Heritage Council to DPIE dated 24 July 2014 titled 'Heritage Council comments on Environmental Impact Statement for Warkworth Continuation Project (SSD 6464)' and The letter from OEHL dated 3 July 2017 titled 'SSD-6464/6465 – Coal & Allied - Mount Thorley Warkworth Project Approvals – Historic Heritage Management Plan (SSD 6464, Schedule 3, Condition 46)' 	Appendix E Table A Sch3 C.38-46
16.	Ensure that if any historic heritage was uncovered during the operation of the mines, the unexpected finds protocol for historical	Appendix E Table A Sch 3 C.46

Ref	Key Requirement	Where Addressed
	archaeology was complied with in accordance with s146 of the <i>Heritage Act 1977</i> (notification of discovery of relics)”	
SSC		
-	Council would like to see evidence that the following matters have been satisfactorily addressed by the Applicant in the audit report, particularly the extent to which the Applicant has considered and adopted advice and/or recommendations from council.	-
17.	S94 contributions	Appendix E Table A Sch 2 C.15
18.	Community enhancement contribution	Appendix E Table A Sch 2 C.15
19.	Blast management, including planning and management within 500m of a council road	Appendix E Table A Sch 3 C.8-16
20.	Car parking (specific to Warkworth only)	Appendix E Table A Sch 3 C.2
21.	Coal haulage on public roads	Appendix E Table A Sch 2 C.7
22.	Bushfire management	Appendix E Table A Sch 3 C.54
23.	Rehabilitation management planning	Appendix E Table A Sch 3 C.56 & 58
24.	Visual screening (Mount Thorley only)	Appendix E Table A Sch 3 C.52

4 MANAGEMENT PLANS, PROGRAMS AND STRATEGIES

SSD 6464 and SSD 6465 requires preparation of management plans and strategies. All currently approved management plans developed for MTW in accordance with the requirements of SSD 6464 and SSD 6465 were reviewed during this IEA, including:

- Air Quality Management Plan (AQMP) (August, 2019);
- Noise Management Plan (NMP) (August, 2019);
- Blast Management Plan (BMP) (August, 2019);
- Water Management Plan (WMP) (September, 2018);
- WML Biodiversity Management Plan (WML BMP) (September, 2018);
- Rehabilitation Management Plan (addressed in MOP) (RMP) (June, 2019)
- Environmental Management Strategy (EMS) (August, 2018);
- MTW Historic Heritage Management Plan (HHMP) (October, 2017);
- MTW Aboriginal Heritage Management Plan (AHMP) (August, 2019);
- Wollombi Brook Aboriginal Cultural Heritage Conservation Area Conservation Management Plan (ACHCAMP) (October, 2017);
- Management Plan for Goulburn River Biodiversity Area (June, 2017) (DP&E)
- Management Plan for Bowditch Biodiversity Area (June, 2017) (DP&E);
- Management Plan for Southern Biodiversity Area (June, 2017) (DP&E);
- Management Plan for Northern Biodiversity Area (June, 2017) (DP&E);
- Management Plan for North Rothbury Biodiversity Area (June, 2017) (DP&E);
- Warkworth Sands Woodland Integrated Management Plan Pending (Submitted to OEHL July, 2018); and
- Warkworth Sands Woodland Performance Criteria (Pending (Submitted to OEHL July, 2018)).

The status of each plan and any relevant recommendations in relation to each is provided in **Appendix E** at the relevant condition.

EPL 1376, EPL1976 and the 'Mount Thorley Warkworth Mining Operations Plan Amendment B' (23 May 2019 – 30 November 2021) (MOP) documents relevant to MTW operations during the audit period were also reviewed.

5 PREVIOUS AUDIT RECOMMENDATIONS AND STATUS

The key recommendations from the 2017 IEA and the status of each at the time of this IEA are summarised in **Table 6**.

Table 6
Status of 2017 IEA Recommendations

Ref	Reference and Response	Status	Status
2017 IEA NON-COMPLIANCE RECOMMENDATIONS			
1.	<p>SSD 6464 Sch. 3 C24(a), WMP 7.4.3.1</p> <p>An internal investigation was undertaken in response to an incident in the previous audit period (on 6/1/2016 a sediment dam overtopped resulting in an uncontrolled discharge). The investigation and subsequent action plan has been completed to rectify the issues at this dam and to prevent reoccurrence not only at this dam but other dams being constructed or modified. No further action is required in response to this finding.</p>	Compliant	Complete (2019 AR, Appendix 8).
2.	<p>SSD 6464 Sch.3 C.27(b)(ii) SSD 6465 Sch.3 C.25(b)(ii)</p> <p>MTW to update the WMP to include further detail on the performance objectives and management objectives for Final Voids, as indicated in the development consents and the EIS commitments.</p>	Compliant	<p>The MTW Mining Operations Plan (MOP) includes detailed plans and rehabilitation objectives for the site, including for final voids. To address this item, a link to the MOP was included in an update to the Water Management Plan (WMP) approved by DP&E on 20 September 2018 (2019 AR, Appendix 8).</p> <p>Viewed Section 7.6 of the WMP which includes link to MOP. Reviewed MOP, see response to Sch 3 Cond 58(g) of SSD 6464 (Appendix E)</p>

Ref	Reference and Response	Status	Status
3.	<p>MT EIS 2.4.4 (iii)</p> <p>Extensive geochemical testing of overburden has been carried out across MTW with results showing very low risk of Acid Rock Drainage (ARD) in the overburden material being mined at MTW. The results of sampling conducted to date will be presented to DP&E to justify why ongoing characterisation of overburden materials across MTW is not required.</p>	Compliant	<p>As stated in the 2019 AR, Appendix 8, a “Presentation made to DP&E Compliance Team on 09/10/2018 to present results of overburden and interburden ARD assessments and testing conducted at MTW to illustrate why ongoing characterisation of overburden materials across MTW is not required. No further action required.”</p> <p>During the IEA, the presentation was viewed. DPIE were satisfied (BB pers comms).</p>
4.	<p>AHMP 9</p> <p>MTW to ensure that the AHMP and the MTW induction will cover all specific Cultural Heritage awareness requirements and that suitable training records are maintained</p>	Compliant	See response to Sch 3 Cond 43(b) of SSD 6464 (Appendix E)
5.	<p>BMP 5.2.3</p> <p>An internal investigation identified the cause of the data loss to be isolated to a GPS fault on a single blast monitoring unit. This fault has since been corrected and no further action is required in response to this finding.</p>	Compliant	Complete (2019 AR, Appendix 8)
6.	<p>BMP 5.2.2</p> <p>MTW to review process for documenting training records for training required by BMP to ensure that suitable training records are maintained.</p>	Compliant	Viewed BMP training procedures listing the role and purpose for Drill and Blast Engineer, Environment and Community Coordinator and Drill Coordinator.

Ref	Reference and Response	Status	Status
7.	<p>NMP 6.2</p> <p>Car-pooling occurs however MTW do not run programs to specifically encourage car-pooling nor is it deemed to be necessary to do so. The Noise Management Plan will be revised to reflect this.</p>	Compliant	<p>The NMP was updated on 31/3/2014 (Secretary approval on 6/8/2014) to include this requirement. The NMP was updated on 30/11/2017 (Secretary approval on 6/8/2018) to remove this requirement as it is not an EIS requirement and MTW considers it impractical as all traffic travels via the Golden Highway (which is a busy road).</p>
8.	<p>20BL170012 C.9, 20BL170011 C.9, 20BL171930 C.8, 20BL171932 C.8.</p> <p>Following commencement of the North Coast Fractured and Porous Rock Groundwater Sources Water Sharing Plan on 1/7/2016, Licences 20BL170011 and 20BL170012 have been converted to Water Access Licences (WALs 40464 and 40465 respectively). Revised licence conditions issued by DPI Water are to be reviewed; to reflect that groundwater inflows to a pit excavation cannot be measured using a flow meter.</p> <p>Licences 20BL171930 and 20BL171932 are related to a historical methane extraction project; the bores are not in use. An investigation will be undertaken to determine if the bores should be formally abandoned and the licences relinquished, or if used for monitoring, an application sought to modify the licence purpose and conditions to reflect no water is to be abstracted.</p>	Compliant	<p>20BL170011 was cancelled and replaced by WAL40464 (GM pers comms). Viewed WAL40464 Certificate of Title. Revised licences do not include a condition that groundwater inflows to pit excavation require to be measured using a flow meter.</p> <p>No flow meter is installed to measure in pit water take. EIS predictions based on a numerical model are used (MTW Annual Groundwater Review 2019).</p> <p>In regards to Licences 20BL171930 and 20BL171932, one was mined and the other not in use, therefore, no action required (GM pers comms).</p>

Ref	Reference and Response	Status	Status
9.	20BL170011 C.8 and C.10 20BL170012 C.8 and C.10 Following commencement of the North Coast Fractured and Porous Rock Groundwater Sources Water Sharing Plan on 1/7/2016, Licences 20BL170011 and 20BL170012 have been converted to Water Access Licences (WALs 40464 and 40465 respectively). Revised licence conditions issued by DPI Water are to be reviewed; to reflect that groundwater inflows to a pit excavation cannot be measured using a flow meter.	See response to Ref 8	
2017 IEA CONTINUAL IMPROVEMENT RECOMMENDATIONS			
10.	A final report will be compiled to bring together the results and completed compliance actions relating to the MTW 2016 ACH salvage	Compliant	As stated in Appendix 8 of the 2019 AR, the 2016 Compliance and Salvage Report was updated and finalised on 21/8/18. There were 19 cultural heritage sites within the Stage 1 AHMP area. Viewed 2016 Cultural Heritage Site Compliance Inspections and Salvage Fieldwork Report.
11.	Determine the Wollombi Brook Probable Maximum Flood (PMF) RL at the Charlton levee and ensure there is 500mm of freeboard (from PMF to levee top RL).	Compliant	See response to Sch 3 Cond 26 of SSD 6464 (Appendix E).
12.	Review process for documenting training records for training required by approvals. Implement process for documenting these training records as required.	Not Compliant	Review of process has been completed by MTW, and progress has been made but not finalised (e.g. Viewed BMP training procedures listing the role and purpose for Drill and Blast Engineer, Environment and Community Coordinator and Drill Coordinator). See response to Sch 5 Cond 1 of SSD 6464 (Appendix E).

6 NON-COMPLIANCES AGAINST APPROVALS AND LICENCES

This section provides a discussion on the identified non-compliances and status against SSD 6464, SSD 6465 and other licences approvals available for review at the time of the IEA.

Table A and B of **Appendix E** provides a complete tabulated list of conditions of SSD 6464 and SSD 6465, respectively with the compliance status and comments against each. Table C in **Appendix E** provides a list of the other licences and approvals assessed as part of this IEA, with the compliance status and comments against each.

A summary of the non-compliances against each document is summarised in **Table 7**. Recommendations arising from the non-compliances are included in **Section 7**.

Table 7
Non-Compliances Identified

Ref	Non-Compliance	Risk
SSD 6464		
Sch 2 Cond 2(b)	Some non-compliances identified in SSD 6464 as described below.	N/A
Sch 2 Cond 9	The application to surrender DA-300-9-2002-i has not been approved by DPIE. Email from DPIE dated 3/3/20 states that DPIE does not have capacity to complete the surrender and will complete in "the near future".	Administrative
Sch 3 Cond 8	Three blast non-compliances during the IEA period. Two blasts exceeded the blast criteria of 120 dBA (28/12/18, 4/4/19). One blast was an administrative non-compliance for failure to capture the blast at the monitor (5/7/18). A penalty notice was issued from DPIE for the blast exceedance occurring on the 4/4/19.	Medium
Sch 3 Cond 14(a)	Blast dust incident on 7/8/19. The blast dust travelled to the east over land associated with Warkworth Coal Mine, Putty Road, and the Mount Thorley Industrial Estate before dissipating over farmland east of the licenced premises. A penalty notice was issued by the EPA for the blast dust incident.	Medium
Sch 3 Cond 26	Two water management incidents (4/12/17 and 30/3/19) which incurred MTW three penalty notices and one caution.	Medium
Sch 3 Cond 28	The condition requires retirement of the required biodiversity credits within 3 years of the development commencing (i.e. by 14 February 2019). Although correspondence with regulators has occurred regarding progress to date, including issues with changing biodiversity legislation, possible timelines to complete, and correspondence on impending administrative non-compliance with this condition, there is no evidence available that the timelines proposed for the retirement of biodiversity credits has been achieved. No formal extension to the 3 year timeframe can be granted by DPIE as the condition does not allow the Secretary to grant one.	Administrative

Ref	Non-Compliance	Risk
Sch 3 Cond 30	No evidence that offset areas listed in Table 12 have been secured under an in-perpetuity conservation mechanism in accordance with the relevant provisions of the <i>Threatened Species Conservation Act</i> .	Low
Sch 3 Cond 34	2017 audit confirmed it sighted evidence of consultation with neighbouring mines and OEH. OEH has not confirmed whether the Integrated Management Plan for the Warkworth Sands Woodland EEC is to their satisfaction.	Low
Sch 3 Cond 43(c)	The research program as part of the AHMP has not been progressed and was due to be implemented in August 2017.	Low
Sch 3 Cond 51b	At the time of the IEA site visit, coal transport amounts were not reported on the website or in the Annual Review. The Annual Review has since been updated and coal transport amounts are now included in Section 4.3.	Administrative
Sch 3 Cond 55(c)	No evidence that waste minimisation and management measures are reported in the Annual Review.	Administrative
Sch 3 Cond 57	There were ongoing delays in the progression of rehabilitation areas identified by the Resources Regulator for which MTW received a Section 240 notice.	Low
Sch 5 Cond 5(a)	No evidence that a revision of the strategies, plans and programs was undertaken following the: <ul style="list-style-type: none"> • 4 Dec 2017 Water Incident; and • 28 Dec 2018 Blast Incident. 	Administrative
Sch 5 Cond 7	In regards to the 4 December 2017 Water Incident, no evidence that Secretary was notified within 7 days.	Low
SSD 6465		
Sch 2 Cond 2(b)	Some non-compliances identified in SSD 6464 as described below.	N/A
Sch 3 Cond 6	At the end of the 12 month 2019 calendar year, one Mt Thorley blast at the Wollemi Peak Road monitoring location exceeded 5 mm/s. This represented 6.3% of blasts which is greater than the allowable 5% of blasts. DPIE have advised that no further action would be taken at this time regarding the incident.	Low
Sch 3 Cond 27	No evidence that the Loders Creek Aboriginal Cultural Heritage Conservation Area has been entered into a Conservation Agreement.	Medium
Environment Protection Licence (EPL) 1376		
L.5	As reported in the EPL Annual Returns, during the IEA period, there were two non-compliances against L5.2 for blast events on 4/4/19 and 28/12/18, discussed in Sch 3 Cond 8 of SSD 6464). A further Non-compliance in 2017 for low level fume emitted from West Pit. This is the same non-compliance as for SSD 6464 Sch 3 Cond 8 and 14a.	Medium

Ref	Non-Compliance	Risk
O1.1	As reported in the EPL Annual Returns, during the IEA period, there were two non-compliances against O1.1 for sediment dam overtop at Dam 53N and for separate water incident on 4/12/17. This is the same non-compliance as for SSD 6464 Sch 3 Cond 26.	Medium
M2.1 M2.2	As reported in the EPL Annual Returns, during the IEA period, there was a non-compliance against M2.2 for non-continuous data capture and non-compliance against M2.3 for not providing quarterly effluent monitoring samples.	Low
M4.1	As reported in the EPL Annual Returns, during the IEA period, there was one non-compliance against M4.1 for failure to capture continuous data at the Charlton Ridge met station. This has been resolved.	Low
G2 E1	As reported in the EPL Annual Returns, during the IEA period, there was one non-compliance against E1.1 for dam 46N. This is the same non-compliance as for SSD 6464 Sch 3 Cond 26.	Low
EPL 1976		
L5	Non-compliance for 5% of blasts <5mm/sec in EPL reporting period, reported in Annual Return for MTO 1976 submitted to EPA on 29/5/20. Discussed further in SSD 6465 Sch 3 Cond 6. This is the same non-compliance as for SSD 6465 Sch 3 Cond 6.	Low
M2	As reported in the EPL Annual Returns, during the IEA period, there was one non-compliance against M2.2 for non-continuous data capture and against M2.3 for failure to sample at monitoring point 3. There were also non-compliances against Condition M.2 for failure to sample at monitoring point 3. This has been resolved.	Low
M4	As reported in the EPL Annual Returns, during the IEA period, there were two non-compliances against M4.1 for failure to capture continuous data at the Charlton Ridge met station. This has been resolved.	Low
Consolidated Coal Lease (CCL) 753		
Cond 56	Dam 48N was constructed in 2017 within CCL 753 to control sediment within Warkworth Pit in accordance with the Water Management Plan. The Water Management Plan (WMP) states that erosion and sediment controls will be designed generally in accordance with the 'Blue Book': Managing Urban Stormwater: soils and construction, but there is no evidence that Mining, Exploration and Geoscience (MEG) (or the District Inspector of Coal Mines) approved the WMP or the construction of Dam 48N. It is noted that this temporary sediment Dam 48N has been mined through during the audit period.	Administrative
Mining Lease (ML) 1751		

Ref	Non-Compliance	Risk
Cond 5	No evidence that the Secretary or was notified within seven days of the 4/12/17 Water Incident. This is the same non-compliance as for SSD 6464 Sch 5 Cond 7	Low
Coal Lease (CL) 219		
Cond 21	Section 240 notice received from the Resources Regulator during the IEA period. This is the same non-compliance as for SSD 6464 Sch 3 Cond 57.	Medium

7 AUDIT RECOMMENDATIONS

Table 8 includes a consolidated list of recommendations relating to non-compliances identified during this IEA (as shown in **Table 7**). Outstanding actions for non-compliances from the 2017 IEA are discussed in **Section 4**.

Table 8 also includes recommendations that are related to continuous improvement.

Table 8
IEA Recommendations

Ref	Recommendation
NON-COMPLIANCE RECOMMENDATIONS	
Previous IEA	
Table 6	No outstanding recommendations from previous IEA.
SSD 6464	
Sch 2 Cond 2(b)	Work with relevant regulators to resolve non compliances in this table.
Sch 2 Cond 9	Follow up with DPIE to seek surrender notice.
Sch 3 Cond 8	Implement continuous improvement practices with the aim to avoid any blast exceedances.
Sch 3 Cond 14(a)	Implement continuous improvement practices with the aim to avoid dust blast events.
Sch 3 Cond 26	Implement continuous improvement practices with the aim to avoid any water management incidents and implement improvements.
Sch 3 Cond 28	At next modification consider to request amendment to condition to facilitate extension to time by adding "or with the agreement of the Secretary" after "approval" consistent with other contemporary approvals.
Sch 3 Cond 30	Continue to progress long term security mechanism for ecology offset areas with relevant regulators.

Ref	Recommendation
Sch 3 Cond 34	Follow up with OEH to confirm that Integrated Management Plan for the Warkworth Sands Woodland EEC is to their satisfaction.
Sch 3 Cond 43(c)	Access to the sand bodies with HVO should be resolved. If access cannot be granted, discussions should occur with relevant regulators and modify the ACHMP to relocate the Research Program requirement. The Research Program on MTW should be progressed.
Sch 3 Cond 51b	Continue to report coal transport amounts in Section 4.3 of the Annual Review.
Sch 3 Cond 55(c)	Waste minimisation and management measures should be described in future ARs.
Sch 3 Cond 57	Complete undertaking actions described in Section 240 notice issued by the Resource Regulator. Actions are being processed as described in Appendix E.
Sch 5 Cond 5(a)	Records should be kept that review undertaken after each AR (could be included in AR), incident report (could be included in report) and audit to fulfil this condition in future.
Sch 5 Cond 7	Ensure future incidents are reported to DPIE within 7 days.
SSD 6465	
Sch 2 Cond 2(b)	Work with relevant regulators to resolve non compliances in this table.
Sch 3 Cond 6	Implement continuous improvement practices with the aim to avoid blasting events that generate unacceptable dust.
Sch 3 Cond 27	Progress establishment of the Lodgers Creek Heritage Conservation Area Agreement with relevant regulators.
Environment Protection Licence (EPL) 1376	
L.5	As per recommendation for Sch 3 Cond 8 of SSD 6464.
O1.1	As per recommendation for Sch 3 Cond 26 of SSD 6464.
M2.1 M2.2	Ensure non continuous data capture for quarterly effluent monitoring samples is collected.
M4.1	Implement continuous improvement practices with the aim to capture all met station data.
G2 and E1	Implement continuous improvement practices with the aim to meet water quality monitoring criteria.
EPL 1976	
L.5	As per recommendation for SSD6465 Sch 3 Cond 6.
M2	Implement continuous improvement practices with the aim to capture all monitoring data.
M4	Implement continuous improvement practices with the aim to capture all met station data.
Consolidated Coal Lease (CCL) 753	

Ref	Recommendation
Cond 56	Seek approval from District Inspector of Coal Mines for any new dams required to be constructed within this lease prior to construction. This may form part of a revised MOP.
Mining Lease (ML) 1751	
Cond 5	As per recommendation for Sch 5 Cond 7 of SSD 6464.
Coal Lease (CL) 219	
Cond 21	As per recommendation for Sch 3 Cond 57 of SSD 6464.
CONTINUAL IMPROVEMENT RECOMMENDATIONS	
Previous IEA	
Table 6	As per recommendation for Sch 5 Cond 1 of SSD 6464.
SSD 6464	
Sch 2 Cond 14	Recommend that where a management plan is updated and WML can justify that consultation with all parties under another condition is not required, ensure that written approval from DPIE is granted.
Sch 3 Cond 6(c)	Due to the higher percentage of invalid results in the sample of monthly attended noise results reviewed, although trending downwards, it is recommended that % of valid results be regularly reviewed to ensure that a high percentage of invalid readings are not being received.
Sch 3 Cond 6(d)	Recommend toolbox talk (or similar) distributed to relevant personnel in relation to reminder for need for sound suppression on mobile fleet.
Sch 3 Cond 7(e)	Undertake a regular comparison of real time monitoring as part of regular, external noise monitoring to validate real time monitoring results and discuss in Annual Review which is the intent of this condition. Recommend showing maximum monitored result from the three quarterly readings (LAeq 15 min) in all tables in section 6.5 of the Annual Reviews, instead of an average of the three. The link in the AR should also be updated to facilitate ease of finding detailed noise results to https://insite.yancoal.com.au/document-library/monthly-reporting-mtw .
Sch 3 Cond 13(a)	If modification to SSD 6464 is sought, recommend consideration to apply to modify condition to within 2km consistent with condition 12.
Sch 3 Cond 16(c)	Add statement in Road Closure Management Plan at next update that occupancy licences are updated annually.
Sch 3 Cond 17	The Warkworth TEOM (OEH operated) is located adjacent three receptors (77, 102 and 264). As such, we recommend that the monitor be moved outside the predicted exceedance zone, or only utilised for internal monitoring and another monitor be utilised as representative for the closest receivers to the north which are not predicted to be impacted above criteria. If modification to SSD 6464 is sought, amend (a) "total impact" criteria of 50 ug/m2 to (b) "incremental impact" for PM10 24 hr consistent with other NSW coal mine consent conditions

Ref	Recommendation
Sch 3 Cond 18(a)	Tenant and landowner or mine owned land be re-notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this consent; at least 5 yearly (i.e. 2020).
Sch 3 Cond 18(c)	MTW's TEOM's are located in positions that are representative of privately owned properties. The TEOM results should be utilised to calculate results for the closest tenant to be available should a regulator, tenant or landholder request this data.
Sch 3 Cond 19(c)	Ensure equipment downtime logging includes all environmental alerts.
Sch 3 Cond 19(d)	Process to co-ordinate the air quality management on site with the air quality management at nearby mines (including the Mt Thorley, Bulga, Wambo and Hunter Valley Operations mines) to minimise any cumulative air quality impacts is formalised and included in next revision to AQMP as per condition Sch 3 Cond 20f below.
Sch 3 Cond 19(d)	Document protocols to minimise the cumulative air quality with neighbouring mines within the AQMP
Sch 3 Cond 22	Annual Review should state for each category what the Warkworth EIS water take prediction was, then the annual calculated impact from the project and confirmation of water licences held for that volume, where required. The water balance recommended at condition 27 should be updated cognisant of actual data.
Sch 3 Cond 27(b)(i)	Site water balance update commenced in April 2020, this should be completed and validated with onsite results in the next IEA period.
Sch 3 Cond 27(b)(ii)	Progress the SLR recommendations in the annual Stream Health and Channel Stability report.
Sch 3 Cond 27(b)(iii)	<p>The recommendations in the 2019 Annual Groundwater Review conducted by SLR Consulting should be progressed:</p> <ul style="list-style-type: none"> • MTW changed its sampling methodology during the 2019 reporting period following recommendations in the 2018 review. It is recommended that a review of the trigger be undertaken in light of the revised sampling methodology. • Further investigation into the ground conditions, bore construction and loggers at PZ7S and PZ7D is recommended. • Grab samples have been taken for monitoring bores WOH1239A, WOH2141A, WOH2153A, WOH1254A, WOH2155A, WOH2156A, WD622P, MBW02 and MBW03 within the network. This approach is not in line with industry standards and may not provide a representative water quality sample. The justification for this methodology should be reviewed to determine if more suitable methods (i.e. full purge or low flow) can be applied. A review into the requirement of these bores for the collection of water quality data for the WMP should be undertaken. If it is found that the continued collection of water quality data is required from a bore and suitable sampling methods cannot be adopted, then bore rectification works should be considered. • A review of the construction details and lithological logs for each bore should be undertaken to confirm that each bore is targeting the Blakefield Seam." <p>At the next Annual Groundwater Review, bore GW98MTCL2 is reviewed and discussed in the AR.</p>

Ref	Recommendation
Sch 3 Cond 28	<p>Adding a table to Section 4 of the Biodiversity MP summarising the specific ecosystem/species credit obligations and where they are being met across each offset property to confirm all credit obligations are being met by the offset package.</p> <p>At next modification, to ensure compliance, consider seeking to amend the mechanism as NSW Biodiversity Offsets Policy for Major Projects no longer applies (in this and subsequent relevant conditions).</p>
Sch 3 Cond 32	<p>Collect attributes as part of monitoring include additional measures such as stem classes and groundcovers. Given data is available, suggest adding some of these to the performance criteria or provide discussion on using data to aid in adaptive mgt e.g. stem class count threshold to aid in determining whether future thinning actions are required to increase vegetation in groundcover.</p>
Sch 3 Cond 35	<p>Follow up Saving Our Species contribution with OEH by end July 2020, to seek evidence that contribution received in Saving Our Species program.</p>
Sch 3 Cond 36(e)	<p>Implement the monitoring reports recommendations for the restoration of WSW and generally the Biodiversity Offset Area (BOA)s including:</p> <p>Habitat restoration monitoring for the southern and northern BOAs (Niche 2018).</p> <ul style="list-style-type: none"> • A more finely detailed assessment of management zones (Warkworth Sands Grassland (Management Zones 2 and 4) be undertaken in order to target management works appropriately; • Direct seeding of grassland areas may be required; and • An assessment of the canopy recruitment at each transition site should be undertaken to determine if further planting or seeding is required. <p>Vegetation and habitat monitoring for the Goulburn and Condon View BOAs (Niche 2016 and 2018).</p> <ul style="list-style-type: none"> • Management intervention involving increased weed management should be considered to prevent weed incursions impacting on vegetation; and • For intensive management including intensive weed would be needed to assist in regeneration. <p>Provide information relating to salinity in Biodiversity Management Plan or link to Plan where this is addressed.</p>
Sch 3 Cond 39	<p>Progress and complete conservation agreement relating to Wollombi Brook Aboriginal Cultural Heritage Conservation Area prior to entering the area beyond the "Proposed Initial Mining Area" west of Lot 1/2 DP 124545.</p>
Sch 3 Cond 42	<p>No reports were available for the first and second salvages (defined in Table A of Appendix E) were available at the time of this IEA. Recommend these are finalised asap and submitted to BCD to update AHIMS Register.</p>
Sch 3 Cond 43(a)	<p>In future version of AHMP, evidence of consultation with OEH and/or approval not to consult should be included.</p>

Ref	Recommendation
Sch 3 Cond 43(b)	<ul style="list-style-type: none"> Original GDP forms and spreadsheet are updated following field inspection by Environmental team to confirm that all GDPs actions are completed and signed off. A requirement of the AHMP is for the long-term management of Aboriginal Objects. The objects are in storage at HVO. A new care agreement has been approved with OEH, 26 April 2019, and communicated to the Registered Aboriginal Parties in October 2019, however the objects are yet to be relocated. Recommend this is progressed.
Sch 3 Cond 46(d)	<ul style="list-style-type: none"> Add labels for the RAAF Base Bulga, Great Northern Road, the Brickhouse and Springwood Homestead to figures in the HHMP at next review. Action recommendations from '<i>Archaeological Investigations of the Former RAAF Base Bulga</i>' report dated March 2018 and report on in Annual Review. Action recommendations from '<i>Mount Thorley Warkworth Historic Heritage Management Plan 2019 Compliance Audit Inspection</i>' in the next period and report on in Annual Review.
Sch 3 Cond 52(a)	Amend internal Procedures and CRO Work Instruction to refer to revised ' <i>Lighting and Management Leaders document</i> ' and training rolled out to relevant personnel.
Sch 3 Cond 52(b)	Additional plantings designed and undertaken to reduce view at the third crossing into Mt Thorley.
Sch 3 Cond 56	<p>Update rehabilitation procedures to include requirements of biosolids guidelines. Recommend fly ash and other waste conditions from EPL are also included.</p> <p>As per Appendix F, the current weed management controls on site is generally acceptable and in accordance with key guidelines. However, successful management and tracking of improvement in these areas against performance and long term completion criteria may require more intensive control actions. Potential options for investigation may include:</p> <ul style="list-style-type: none"> Additional trials areas and analysis of spoil compost Vs no compost VS topsoils in weed cover and density;
Sch 3 Cond 58(d)	<p>The TARP is shown in Table 44 of the MOP, and does not clearly delineate between tier one and tier two trigger values, recommend this is amended to clarify.</p> <p>Within the MOP, it is also unclear how the rehabilitation of the site is integrated with the implementation of the biodiversity offset strategy, the next amendment should clarify this.</p>
Sch 3 Cond 58(e)	Update topsoil inventory record to include topsoil establishment date, volume of topsoil and maintenance activities (i.e. soil amelioration, weed control etc.)
Sch 3 Cond 58(g)	Although the MOP is approved, no relevant level of mine closure strategy is included. Recommend this is undertaken and included at next Amendment.
Sch 4 Cond 2(a)	Tenants are advised of the potential health and amenity impacts associated with living on the land, and provided a copy of the NSW Health fact sheet regularly (e.g. five yearly).

Ref	Recommendation
Sch 5 Cond 1	As proposed, prepare a risk based environmental training program focusing on high priority areas. Program should be completed regularly as toolbox talks (or other preferred methods) and training recorded.
Sch 5 Cond 9(d)	<p>Northern Biodiversity Area</p> <p>The current weed management controls on site is generally acceptable and in accordance with key guidelines. However, successfully management and tracking of improvement in these areas against performance and long term completion criteria may require more intensive control actions. Potential options for investigation may include:</p> <ul style="list-style-type: none"> • A digitised register of application area linked to proposed return frequency prior to consecutive seed set may further assist in medium to long term planning of weed control on site; • Trials of dedicated repeat control Vs non control to determine effort reward improvements; and • Trail areas of scalping, burning and or supplementary native seeding in BOAs with significant pasture and understorey weed infestations. <p>To ensure year 15 performance targets of 75% survival and minimum number of tube stock are met, increased number of plantings are proposed. These additional plantings should reflect the survival rates for species diversity across each of the different structural layers of the WSW.</p>
EPL 1376	
P1.3	Update Water and Land Table as follows: Location Description for Discharge to pipe (EPA Identification No. 24), is required by Special Condition E2, not E3. Include mine name where discharge of mine water will occur to.
O4	Inspection / maintenance forms required under this condition be updated to specifically refer to ponding (O4.3).
EPL 1976	
U1.1	Recommend to remove completed condition if EPL varied.

* * *

for
HANSEN BAILEY



Theresa Folpp
 Environmental Scientist



Dianne Munro
 Principal

APPENDIX A
Regulatory Correspondence



Gary Mulhearn
Environment and Community Manager
Mount Thorley Warkworth
Yancoal Australia Ltd
PO Box 267
Singleton NSW 2330

Contact: Ann Hagerthy
Phone: 02 6575 3407
Email: ann.hagerthy@planning.nsw.gov.au
compliance@planning.nsw.gov.au
Our ref: SSD 6464, SSD 6465

Email: Gary.Mulhearn@yancoal.com.au

Dear Mr Mulhearn

MT THORLEY WARKWORTH COMPLEX (SSD 6464 AND SSD 6465) – 2020 INDEPENDENT ENVIRONMENTAL AUDIT

Reference is made to correspondence from Yancoal Mount Thorley Warkworth (MTW) submitted to the Department of Planning, Industry and Environment (the Department) on 19 February 2020 seeking endorsement of the proposed audit team for the upcoming Independent Environmental Audit (IEA) required by Schedule 5, Conditions 9 and 10 of development consents SSD 6464 and SSD 6465 (the consents) for the Mount Thorley Warkworth mine complex (the site).

The Secretary has considered MTW's request and endorses the following audit team from Hansen Bailey for the 2020 IEA:

- Ms Dianne Munro – Lead auditor (including a review of blast and water management);
- Ms Theresa Folpp – Assistant auditor; and
- Mr Alex Cockerill - Ecological specialist.

The IEA is to be conducted in accordance with the conditions of the consents, and the Department's *Independent Audit Guideline* (October 2015). Further, the Secretary requests that in undertaking the IEA, the Auditor:


- Only use the compliance status descriptors "compliant", "non-compliant" or "not triggered". The terms "partial compliance", "partial non-compliance", "not verified" or other similar terms are not to be used.

The IEA period shall be from 5 May 2017 to the IEA audit inspection date, which shall coincide with the end of the audit period, and be completed on or around 1 May 2020 and no later than 4 May 2020, unless otherwise agreed by the Secretary.

The IEA report, together with responses to any recommendations (RAR) contained in the IEA report, should be submitted to the NSW Government's Major Project Website (<https://www.planningportal.nsw.gov.au/major-projects>) by **15 June 2020**.

Should you need to discuss the matter, please contact Ann Hagerthy, Senior Compliance Officer, as per the details provided above.

Yours sincerely

 24/2/2020

Heidi Watters
**Team Leader Northern
Compliance, Planning & Assessments**

Sonya Eather

From: Dianne Munro
Sent: Friday, 24 April 2020 4:57 PM
To: Theresa Folpp
Subject: FW: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

From: Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>
Sent: Friday, 24 April 2020 4:53 PM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Subject: RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Hi Dianne,

No, nothing additional.

Thanks,

Ann Hagerthy
Senior Compliance Officer

(Mon-Thu)

Planning & Assessment - Compliance | Department of Planning, Industry and Environment

T 02 6575 3407 | **M** 0428 976 540 | **E** ann.hagerthy@planning.nsw.gov.au

PO Box 3145 | Singleton NSW 2330

Please direct all email correspondence to compliance@planning.nsw.gov.au

www.dpie.nsw.gov.au



**Planning,
Industry &
Environment**

The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

From: Dianne Munro <DMunro@hansenbailey.com.au>
Sent: Friday, 24 April 2020 8:23 AM
To: Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>
Subject: RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Good morning Ann,

Just a follow-up on our email below.

We are heading out to site on Monday. Please let us know if you have any instructions.

AREQ0008022

Ms Dianne Munro
Hansen Bailey
6/127-129 John Street
Singleton NSW 2330
By email: dmunro@hansenbailey.com.au

Dear Ms Munro

Subject: Mount Thorley Warkworth Mine

Thank you for your email dated 23 April 2020 requesting consultation on the independent audit to be undertaken of the Mount Thorley Warkworth Mine.

The Mount Thorley Warkworth Mine is covered by the titles listed below.

- CCL753
- CL219
- ML1412
- ML1590
- ML1751
- ML1752

The Resources Regulator requires that the following issues be addressed in independent environmental audits undertaken in accordance with a planning consent condition.

- Review relevant mining leases and exploration licences as agreed with Resources Regulator;
- Undertake an assessment of compliance against the conditions of title related to environmental management;
- Verify that there is a current Mining Operations Plan (MOP) in place and it has been approved by the Regulator – review compliance against any conditions of approval of the MOP;
- Undertake a critical review of the MOP, including an assessment of its compatibility with the description of operations contained in the planning approval. In particular:
 - Review the rehabilitation strategy as outlined in the MOP to determine if it is consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s);

- Review the rehabilitation objectives and completion criteria as outlined in the MOP to determine if they have been developed in accordance with the proposed final land use(s) as outlined in the Project Approval;
- Review the development and implementation of any rehabilitation monitoring programs to assess performance against the nominated objectives and completion criteria – verified by reviewing monitoring reports and rehabilitation inspection records;
- Determine if a rehabilitation care and maintenance program has been developed and implemented based on the outcomes of monitoring program – verified by reviewing Annual Rehabilitation Programs or similar documentation;
- Confirm that mining operations are being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary – to be verified by site plans and site inspection;
- Confirm that rehabilitation progress is consistent with the approved MOP as verified by site plans and a site inspection. This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in the Project Approval; and
- Based on a visual inspection, determine if there are any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation outcomes.

In addition to the above, the audit should note observations where rehabilitation procedures, practices and outcomes represent best industry practice.

Yours sincerely

Jenny Ehmsen
Principal Compliance Auditor

30 April 2020



DOC20/274517, EF13/3817 and EF16/906

Hansen Bailey
Email: dmunro@hansenbailey.com.au
Attention: Ms Dianne Munro

6 April 2020

Dear Ms Munro

Mount Thorley Warkworth Environmental Audit

I refer to your email dated 6 April 2020 regarding input to the Independent Environmental Audit of Mount Thorley Warkworth ("MTW").

MTW hold three environment protection licences ("EPL") under the Protection of the Environment Operations Act 1997 ("the Act") which are:

- EPL 24 – Mount Thorley Coal Loading Ltd;
- EPL 1376 – Warkworth Mining Ltd; and
- EPL 1976 – Mount Thorley Operations Pty Ltd.

The Environment Protection Authority ("EPA") encourages independent audit towards proponents improving their environmental performance. We do not provide input as our role is to set environmental objectives for environmental/conservation management and manage outcomes.

I refer you to the EPA's public register <http://www.epa.nsw.gov.au/prpoeo/index.htm> where you can search for regulatory activity undertaken by the EPA for EPLs 24, 1376 and 1976 for MTW.

If you require any further information regarding this matter, please me on (02) 4908 6833.

Yours sincerely

NATASHA RYAN
Operations Officer – Regional North
Environment Protection Authority

Sonya Eather

From: Dianne Munro
Sent: Friday, 24 April 2020 9:52 AM
To: Theresa Folpp
Subject: FW: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

From: Ellie Randall <ellie.randall@dpi.nsw.gov.au>
Sent: Friday, 24 April 2020 9:50 AM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Cc: Alison Collaros <alison.collaros@nrar.nsw.gov.au>
Subject: Re: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Hi Dianne,

Can you please include a review of the following:

1. Any approved and/or in draft Groundwater/Water Management Plans;
2. Relevant site monitoring and incident reporting;
3. Review of Water Access Licences, associated conditions and current take of water;
4. All Conditions of Approval;

Thank you.

Kind regards,

Ellie Randall | Water Regulation Officer

Natural Resources Access Regulator | Water Regulation (East)

Level 0 | 84 Crown Street | Wollongong NSW 2500

PO Box 53 Wollongong NSW 2520

T: +61 2 4275 9308 | F: +61 2 4224 9740

E: ellie.randall@nrar.nsw.gov.au

W: www.industry.nsw.gov.au



From: Alison Collaros <alison.collaros@nrar.nsw.gov.au>
Sent: Friday, 24 April 2020 8:39 AM
To: Ellie Randall <ellie.randall@dpi.nsw.gov.au>
Subject: Fw: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Sonya Eather

From: Dianne Munro
Sent: Tuesday, 7 April 2020 2:08 PM
To: Theresa Folpp
Subject: FW: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

From: Steven Cox <Steven.Cox@environment.nsw.gov.au>
Sent: Tuesday, 7 April 2020 1:45 PM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Subject: RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Hi Dianne,

Thank you for the opportunity to provide input into the audit process, however in this case we don't have any specific concerns to raise for the audit.

Good luck with the audit.

Also, please send any future requests for advice to rog.hcc@environment.nsw.gov.au rather than directly to individual team members or me. Such emails will be saved in our document management system and will be forwarded to me within 24 hrs. If I'm on leave they will go to the Acting Team Leader (so they can't be missed or lost if someone is away).

Regards
Steven

Steven Cox
Senior Team Leader Planning, Hunter Central Coast Branch

Biodiversity and Conservation Division | Department of Planning, Industry and Environment
T 02 4927 3140 | **M** 0472 800 088 | **E** steven.cox@environment.nsw.gov.au
Level 4/26, Honeysuckle Drive Newcastle NSW 2309
Locked Bag 1002, Dangar NSW 2309
www.dpie.nsw.gov.au

Currently working from home and can be contacted on both above phone numbers.

***We work flexibly.** I'm sending this message now because it's a good time for me. I don't expect that you will read, respond to, or action this message outside of your own regular hours.*

The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

From: Dianne Munro <DMunro@hansenbailey.com.au>
Sent: Monday, 6 April 2020 11:08 AM
To: Steven Cox <Steven.Cox@environment.nsw.gov.au>

Sonya Eather

From: Dianne Munro
Sent: Monday, 20 April 2020 7:30 AM
To: Theresa Folpp
Subject: FW: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation
Attachments: Heritage Council comments - EIS Warkworth Extension Project - SSD 6464 - July 2014.pdf; Heritage Council Division - Comment on EIS - Mount (Mt) Thorley Continuation Project - July 2014.pdf; OEH response - Review of Historic Heritage Management Plan Mt Thorley Warkworth.pdf

From: Gary Hinder <Gary.Hinder@environment.nsw.gov.au>
Sent: Friday, 17 April 2020 6:25 PM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Cc: Adrian Hohenzollern <Adrian.Hohenzollern@environment.nsw.gov.au>
Subject: RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Dear Ms Munro,

The Heritage Council of NSW provided DPIE with comments on the Mount Thorley Continuation Project (SSD 6465) on 14 July 2014. The Heritage Council agreed with the statement on page 246 of the supporting EIS that read 'as the proposal is not anticipated to impact any registered, or non-registered, historic heritage items or places... no mitigation measures specific to the proposal are warranted'. It was considered appropriate that implementing a 'Chance Finds Procedure' (currently referred to as the Unexpected Finds Protocol) in the unlikely event that sites of potential historic heritage value are encountered or uncovered unexpectedly during operation. I have attached a copy of that correspondence for your information.

The Heritage Council was requested to provide comment on the Historic Heritage Management Plan (HHMP) for the project in accordance with condition 46 of the consent. The review of the HHMP by the Heritage Division indicated that it provided appropriate mitigation measures for the historic items identified within the already Approved Project. I have attached a copy of that correspondence for you also.

The Heritage Council provided comment on the exhibition of the EIS for the Warkworth Extension project (SSD 6464) on 24 July 2014. I won't paraphrase those comments here, but I have attached a copy of that correspondence also.

From our records I cannot see any further recommendations made to DPIE in relation to these projects.

As part of the audit, I would consider it appropriate to focus on whether the proponent complied with mitigation measures relating to heritage issues discussed in the documentation referenced in the attached correspondence, and also ensure that if any historic heritage was uncovered during the operation of the mines, the unexpected finds protocol for historical archaeology was complied with in accordance with s146 of the Heritage Act 1977 (notification of discovery of relics).

Please do not hesitate to contact me should you require any clarification.

Regards

Gary Hinder

From: Dianne Munro <DMunro@hansenbailey.com.au>
Sent: Monday, 6 April 2020 11:10 AM



Contact: Katrina Stankowski
Phone: (02) 9873 8569
Fax: (02) 9873 8550
Email: Katrina.Stankowski@environment.nsw.gov.au
File No: EF14/9876
Job ID: DOC14/18618
Your Ref:SSD6464

Ms Elle Donnelley
Planner- Mining Projects
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Donnelley

RE: Heritage Council comments on Environmental Impact Statement for Warkworth Continuation Project (SSD 6464).

I refer to your email of the 25th of June inviting the Heritage Council to provide any comments it may have on the Environmental Impact Statement (EIS) by EMGA Mitchell McLennan (dated 15th June 2014) for the Warkworth Continuation project. It is noted that hard copies of the EIS and its Appendices were forward to the Heritage Council under separate cover.

It is noted that the Heritage Council has provided comments on this proposal (the Warkworth Extension Project) on several occasions when it was under a previous approval pathway.

The current EMGA Mitchell McLennan EIS identifies 50 historic features within the surrounding area of the proposal. However within the proposed 2014 disturbance area there are four non-registered historic features, two with local significance (P1 Huts) and two which have been assessed as being of State significance (former RAAF Base Bulga Complex and a section of the Great North Road- Wallaby Scrub Road).

The proposed works will impact these four items. In addition, there are a number of other locally significant items surrounding the proposal which may be indirectly impacted via exploration blasting and vibration from blasting such as former Springwood Homestead and the Brick Farm House.

Accordingly, after a thorough reading of the EIS, the following comments are provided to the Department of Planning & Environment:

1. The Proposed Warkworth Mine Development Consent Boundary appears to abut the State Heritage Listed Wambo Homestead in Figures 19.1 and 19.2 in the EIS. The impacts of this, if any, have not been considered within the EIS and this must be rectified.
2. Table 19.2 in the EIS states that the impacts to the two state significant items will be a 'partial direct impact (mining)', however Section 19.3 states that the heritage impacts on these two items 'are likely to be minor'. The Heritage Council is unable

to understand how impacts to these two items will be minor when they are going to be directly mined. Furthermore, given that other sections of the Great North Road have also been impacted by mining in this locality, it would appear that the cumulative impacts on the expansion of the Warkworth Mine over Wallaby Scrub Road would be major and this should be discussed in the EIS.

3. Given the cumulative impact which mining has had on sections of the Great North Road alignment in this area, and the significance of the road alignment, the Heritage Council considers that the Warkworth Continuation Project should be redesigned around Wallaby Scrub Road so that the road alignment can be left in situ.
4. The mitigation measures proposed in Section 19.4 of the EIS to manage the impacts on this heritage range from conservation management plans (CMPs) for specific heritage items, archaeological investigations, salvage of moveable heritage items, a chance find procedure, heritage interpretation, community participation and heritage conservation funds.
 - These mitigation measures are not considered inappropriate, however, they lack specific detail such as who will be undertaking the archaeological investigations and will they appropriately qualified and experienced? If the Singleton Local Historical Society and Museum do not want the moveable heritage items, where will they go? What does the chance finds procedure comprise? How much funding will the two Conservation Funds have?
 - This detail should be provided so that a fuller understanding of the mitigation measures can be obtained with meaningful comments then made, prior to any project approval.
 - It is also considered that any heritage interpretation should be undertaken by suitably qualified individuals with specific experience in the heritage interpretation field to ensure that the interpretation is fully able to help a variety of users understand the significance of the heritage in the area which the proposed mine will destroy.
5. The proposed archaeologist undertaking any historical archaeological excavations they should be able to meet the Heritage Council's Excavation Directors Criteria for excavation of state significant sites.
6. A review of the Conservation Management Plans supplied as Annex B and C of Appendix N (Historic heritage Study by ERM) show that they have not been updated to reflect the current planning pathway that the project now finds itself in as their reference Conditions of Approval issued in 2012.

The CMPs do not appear to comply with Heritage Council guidelines in terms of their methodology and do not reference relevant pieces of legislation such as the 'relics' provisions of the Heritage Act.

The management policies in both CMPs are predicated on the fact that these items will be destroyed and do not contain relevant long term policies such as interpretation which might potentially offset this destruction.

Overall, the two CMPs presented as Annex B and C are not considered to be adequate and should be extensively revised to ensure that they are useful and relevant management documents.
7. There are discrepancies between the mitigation measures outlined in Section 19.4 of the EIS and the measures outlined in Table 22.1. Section 19.4 states that CMPs have been undertaken for the Great North Road Complex, the former RAAF Base Bulga Complex and the Brick Farm House. Table 22.1 states that it will adopt the measures of the existing CMPs for the GNR and the RAAF base, but does not

mention the CMP for the Brick Farm House and nor is this CMP present as an Annex to Appendix N as the other two CMPs are. This should be rectified.

8. A review of Appendix N and its Annexures (Historic Heritage Study by ERM) to the EIS also shows a number of issues such as incorrect terminology.
 - The use of NSW Heritage Office is incorrect. This Office has not existed since 2008. The correct term is the Heritage Division of the Office of Environment & Heritage. This should be fixed in all instances.
 - The ERM report also leaves out pertinent detail regarding the 'relics' provisions of the Heritage Act in Chapter 2 (Legislation)
 - Despite proposing a number of archaeological programmes as mitigation measures, it is unclear if a historical archaeologist has been consulted regarding the viability of these mitigation measures.
9. The Heritage Division is pleased with the increased area set aside for the proposed Wollombi Brook Cultural Heritage Conservation Area which includes the Bulga Bora Ground. The proponents statement of commitments outlined in Section 18.4.1 of the EIS are considered very positive and will ensure that the site is protected and accessible to the Aboriginal community in the long term
The Heritage Division particularly applauds the commitment to continue to engage with Wambo Coal regarding a collaborative management protocol for the area and would be happy to provide comment on this, once the protocol is finalised.

If you have any questions regarding the above advice, please feel free to contact Katrina Stankowski at Katrina.Stankowski@environment.nsw.gov.au.

Yours sincerely



24/07/2014

Dr Siobhan Lavelle, OAM
A/Manager, Conservation
Heritage Division
Office of Environment & Heritage

As Delegate of the NSW Heritage Council



Mr Joel Deacon
Specialist Cultural Heritage
Rio Tinto
PO Box 315
SINGLETON NSW 2330

Sent by e-mail to: joel.deacon@riotinto.com

Dear Mr Deacon

RE: SSD-6464/6465 – Coal & Allied - Mount Thorley Warkworth Project Approvals – Historic Heritage Management Plan (SSD 6464, Schedule 3, Condition 46)

Reference is made to your letter dated 19 June 2017 which attached a draft of the Mount Thorley Warkworth Historic Heritage Management Plan Prepared by Rio Tinto Coal Australia, June 2017, for the review and comment by the Heritage Division. It is understood that a Historic Heritage Management Plan (HHMP) is required under Condition 46 of the Approval and the plan is prepared in consultation with the Heritage Division, Council and relevant historical and community heritage advisory groups.

The HHMP notes that Comprehensive Historic Heritage impact assessments were undertaken to inform the Warkworth Continuation and Mount Thorley Operations 2014 Environmental Impact Statements. The purpose of the HHMP is to set out the principles, processes and measures through which Historic Heritage will be managed at Mount Thorley Warkworth (MTW) with respect to all lands that are subject to the consent conditions of the Warkworth Continuation SSD-6464 and Mount Thorley Operations SSD-6465.

The Historic Heritage Management Plan is supported by a detailed Inventory that documents the identification number, location, attributes and specific management for each historic heritage site subject to the HHMP. The Inventory works as a 'live' database recording each site as management actions are implemented (such as salvage mitigation) and it is updated over time including inclusion of chance finds.

Review of the HHMP indicates it contains a comprehensive range of measures for site management. These include measures to control Ground Disturbance, Relocation & Management of Historical Objects, Photographic Recording, Sub-Surface Investigations, Fencing and Barricading Historic Heritage Sites, Places and Areas, Signage for Historic Heritage, HHMP Compliance Inspections, Procedural Breaches and Incident Reporting and Minimisation of Blasting Impacts. The HHMP also identifies places within the approved project areas for which Conservation Management Plans will be prepared. These include a number of rural homesteads or complexes.

It is noted that some items such as the former RAAF Base at Bulga and the Wallaby Scrub Road are also subject to additional consent conditions and that Interpretation Plans for those items are not currently included in the HHMP.

The HHMP has included methodologies for Further Survey, Archaeological Excavations and Conservation, for Wallaby Scrub Road, Well 2 and the Former RAAF Base Bulga Complex although mining impacts on the complex would be minor.

The HHMP identifies (page 46) that there is potential for the northern section of Wallaby Scrub Road to remain undisturbed by the mine extension. Where this occurs, a program of maintenance and conservation is to be implemented to ensure the future preservation of the Great North Road in this location. The Heritage Division strongly supports preservation and conservation of Wallaby Scrub Road where possible.

During review of the HHMP some errors were noted. These are as follows:

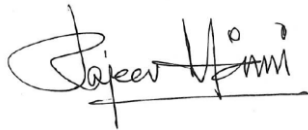
Page 11 – Definition of Historic Heritage. This definition is not given in the NSW Heritage Act, 1977. The Heritage Act, 1977 defines ‘environmental heritage’.

Page 43 – reference to the Heritage Office Guidelines for Management of Human Skeletal Remains (2008) should be 1998, which is the date of the publication.

Review of the HHMP by the Heritage Division indicates that it provides appropriate mitigation measures for the historic items identified within the already Approved Project.

If you have any questions arising from this letter, please contact Siobhan Lavelle, Senior Team Leader, Archaeological Heritage at the Heritage Division, Office of Environment and Heritage on telephone (02) 9873 8546 or by e-mail: siobhan.lavelle@environment.nsw.gov.au.

Yours sincerely



Rajeev Maini
Acting Manager, Conservation
Heritage Division
Office of Environment & Heritage
3 July 2017

Sonya Eather

From: Dianne Munro
Sent: Monday, 20 April 2020 7:30 AM
To: Theresa Folpp
Subject: FW: TfNSW Response - RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

From: Development hunter <Development.hunter@rms.nsw.gov.au>
Sent: Saturday, 18 April 2020 8:09 PM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Subject: TfNSW Response - RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Hi Dianne,

Transport for NSW have no specific environmental areas we require focus on in the IEA.

Regards,

Land Use Assessment Hunter
Regional and Outer Metropolitan
Transport for NSW

T 02 4908 7688 | M 0428 260 461
Level 8, 266 King Street Newcastle NSW 2300



Use public transport... plan your trip at transportnsw.info

From: Dianne Munro [<mailto:DMunro@hansenbailey.com.au>]
Sent: Monday, 6 April 2020 11:14 AM
To: Development hunter <Development.hunter@rms.nsw.gov.au>
Cc: Theresa Folpp <TFolpp@hansenbailey.com.au>
Subject: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Attention: Jamie Toole

Good morning Jamie,

Hansen Bailey has been approved by the Department of Planning, Industry & Environment to conduct the 2020 Independent Environmental Audit (IEA) for Mount Thorley Warkworth in accordance with Schedule 5 Condition 9 of Development Consent SSD 6464 and SSD 6465 which states:

“Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Audit of the development. This audit must:

- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- (b) include consultation with the relevant agencies;*
- (c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);*
- (d) include an assessment – undertaken by an independent expert whose appointment has been endorsed by OEH – of the progress towards implementation of the biodiversity offset strategy, in particular the regeneration of Warkworth Sands Woodland against the detailed performance and completion criteria under the biodiversity management plan (see condition 36 of schedule 3);*
- (e) review the adequacy of strategies, plans or programs required under the abovementioned approvals;*
- (f) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.*

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

In accordance with condition (9b), as part of consultation with key regulators, could you please provide any request you have in relation to any specific environmental areas you require any particular focus on as part of the IEA.

Douglas Fenton at Yancoal has kindly provided your email address to facilitate this email.

If you could respond by **17 April**, it would be appreciated. Please do not hesitate to call to discuss.

Kind Regards,
Dianne.

Dianne Munro
Principal Environmental Scientist
MEnvLaw BSc

HANSEN BAILEY
Tel: 02 6575 2000
Mobile: 0428 772 566
Email: dmunro@hansenbailey.com.au



Before printing, please consider the environment

IMPORTANT NOTICE: This email and any attachment to it are intended only to be read or used by the named addressee. It is confidential and may contain legally privileged information. No confidentiality or privilege is waived or lost by any mistaken transmission to you. Roads and Maritime Services is not responsible for any unauthorised alterations to this email or attachment to it. Views expressed in this message are those of the individual sender, and are not necessarily the views of Roads and Maritime Services. If you receive this email in error, please immediately delete it from your system and notify the sender. You must not disclose, copy or use any part of this email if you are not the intended recipient.

Sonya Eather

From: Dianne Munro
Sent: Friday, 24 April 2020 10:53 AM
To: Theresa Folpp
Subject: FW: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

From: Mary-Anne Crawford <mcrawford@singleton.nsw.gov.au>
Sent: Friday, 24 April 2020 10:41 AM
To: Dianne Munro <DMunro@hansenbailey.com.au>; Mark Ihlein <mihlein@singleton.nsw.gov.au>
Subject: RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Hi Dianne

Thanks for touching base on this reminder. On quick review of the two approvals, council is required to be consulted on a number of different conditions, including:

- S94 contributions
- Community enhancement contribution
- Blast management, including planning and management within 500m of a council road
- Car parking (specific to Warkworth only)
- Coal haulage on public roads
- Bushfire management
- Rehabilitation management planning
- Visual screening (Mount Thorley only)

Council would like to see evidence that these matters have been satisfactorily addressed by the Applicant in the audit report, particularly the extent to which the Applicant has considered and adopted advice and/or recommendations from council.

FYI - the NSW Department of Planning use the Major Projects Planning Portal for post approval management actions for state significant development, particularly when seeking responses from agencies. This tool is really helpful to ensure that requests to council aren't directed to one individual, and we can track our response.

MAC

From: Dianne Munro <DMunro@hansenbailey.com.au>
Sent: Friday, 24 April 2020 8:27 AM
To: Mark Ihlein <mihlein@singleton.nsw.gov.au>
Cc: Mary-Anne Crawford <mcrawford@singleton.nsw.gov.au>
Subject: RE: Mount Thorley Warkworth Mine - Independent Environmental Audit Consultation

Good morning,

Just a follow-up on our email below.

We are heading out to site on Monday. Please let us know if you have any instructions.

Kind Regards,
Dianne.

APPENDIX B
Plates from Site Inspection



Plate 1
Warkworth North Pit in foreground, West Pit in background



Plate 2
Mount Thorley Lodgers Pit



Plate 3
Mount Thorley CHPP and CHPP mid sized circuit

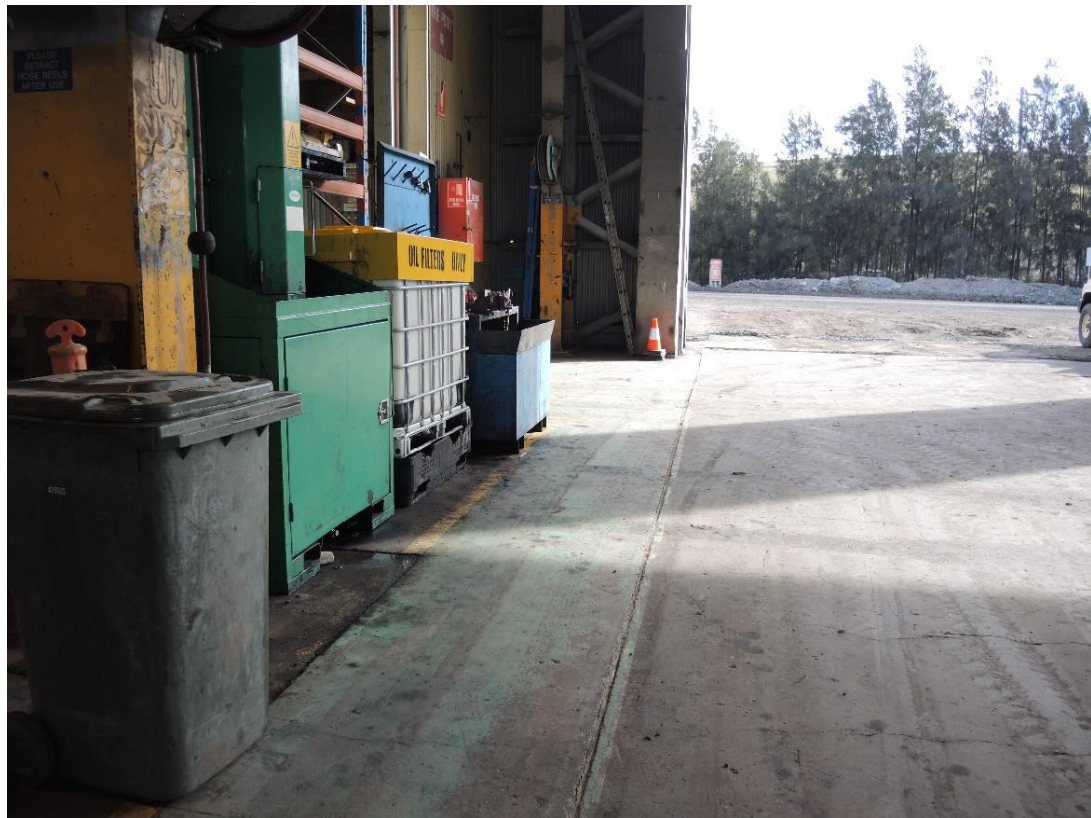


Plate 4
Hydrocarbon bunding and waste management at the Warkworth Mine workshop



Plate 5
Waste management bin near Warkworth workshop



Plate 6
Warkworth haul roads



Plate 7
ROM Hopper in use, sprays operating



Plate 8
Warkworth Watered haul roads



Plate 9
Operating mobile plant fitted with noise attenuation (front grill panel)



Plate 10
A second water pump installed at Dam46N in response to incident 30/3/19



Plate 11
Western sediment dams constructed in 2018



Plate 12
Newly constructed water management system south of Dam 9s



Plate 13
Creek stability improvement works at Dam 9s HRSTS discharge location



Plate 14
Protection of Aboriginal Heritage sites west of North Pit



Plate 15

Fencing and signage around Cultural Heritage sites associated with a tributary of Loders Creek at MTO



Plate 16

Putty Road tree screening, including newly planted vegetation



Plate 17
Putty Road third underpass constructed during the IEA period



Plate 18
Mature rehabilitation along the south side Putty Road



Plate 19
Areas of Geofluv and natural habitat construction on rehabilitation



Plate 20
Area of rehabilitation adjacent to the explosive's facility

APPENDIX C
Site Itinerary

**Mount Thorley Warkworth
Department of Planning, Industry & Environment
Independent Environmental Audit**

ITINERARY

**Site Component to be held from
Monday, 27 April to Thursday, 30 April 2020**

INVITEES

Jason McCallum		General Manager
Brendan Behringer		Operations Support & Projects (OS&P) Manager (Acting)
John Campbell		Technical Services Manager
Paul Davis (PD)		CHPP Manager
Craig Sheedy		CHPP Superintendent Production North
John Burgess		CHPP Superintendent Production South
David Bennett (DB)		Mine Manager
Damian Prance		Maintenance Manager
Martin Phillips (MP)		Maintenance Superintendent Support
Adam Rice		Health and Safety Manager
Thomas Holz (TH)		Tenements and Land Access Manager
Gary Mulhearn (GM)		Environment & Community Manager
Douglas Fenton (DF)		Environmental Advisor (Monitoring)
Olivia Lane (OL)		Environment and Community Coordinator
Wade Covey (WC)		Environment and Community Coordinator
Bill Baxter (BB)		Environmental Specialist Rehabilitation
Jessica Blair (JB)		Environmental Advisor (Land Management)
Dianne Munro (DM)	Hansen Bailey	Lead Auditor
Theresa Folpp (TF)	Hansen Bailey	Assistant Auditor
Alex Cockerill (AC)	WSP	Ecology Specialist Auditor

DAY 1 – Monday, 27 April

Time	Description	Location	Attendees
8 – 8:30am	Opening Meeting <ul style="list-style-type: none"> • Introductions (GM) • IEA scope and purpose (DM) • Confidentiality Arrangements (DM) • IEA process and timing (DM) • Meeting Confirmation (All) 	Teleconference (WW Boardroom for Auditor)	All
8:30 – 9am	MTW Presentation <ul style="list-style-type: none"> • Overview of current operations by site personnel 	WW Boardroom	<i>Auditors:</i> (DM, TF), GM, DF,

Time	Description	Location	Attendees
			OL, WC, BB, JB
9am – 12pm	Compliance Review <ul style="list-style-type: none"> Warkworth Continuation (SSD-6464) Individual Conditions 	WW Boardroom	<i>Auditors:</i> (DM, TF), DF, OL
12 – 12:15pm	Lunch	WW Boardroom	<i>Auditors:</i> (DM, TF),
12:15 – 5pm	Compliance Review (cont.) <ul style="list-style-type: none"> SSD-6464 Individual conditions (cont.) Supporting documents review (EIS) 	WW Boardroom	<i>Auditors:</i> (DM, TF), DF, OL

DAY 2 – Tuesday, 28 April

Time	Description	Location	Attendees
8 – 8:15am	Day 2 Overview Meeting <ul style="list-style-type: none"> Confirm arrangements for Day 2 	WW MR1	<i>Auditors:</i> (DM, TF), DF, OL
8am – 3pm	Specialist Site Visit - Ecology <ul style="list-style-type: none"> EIS Conditions Management Plan / MOP Procedures Field review 	Field	<i>Ecologist:</i> AC, BB, JB
8:15am – 11.45pm	Compliance Review (cont.) <ul style="list-style-type: none"> Mt Thorley Continuation (SSD-6465) Individual Conditions Supporting documents review (EIS) 	WW MR1	<i>Auditors:</i> (DM, TF), DF, OL
11:50am – 12pm	Lunch	WW MR1	<i>Auditors:</i> (DM, TF),
12 – 3:30pm	Site Inspection <ul style="list-style-type: none"> Mining Areas Main Infrastructure Areas Rehabilitation Noise, blast, visual and air quality management Water and tailings management Onsite Ecological Offsets Heritage Monitoring Key private neighbours 	Field	<i>Auditors:</i> (DM, TF), DF, DB (or delegate), MP (or delegate), WC, JB, BB, OL
3:30 – 3:45 p:m	Auditor Brief discussion with Specialist	WW MR1	<i>Auditors:</i> (DM, TF, AC)
3:45 – 4:30 pm	Compliance Review (cont.) <ul style="list-style-type: none"> Actual, EA and MOP Comparison 	WW MR1	DM, TF, GM, DF, BB, OL
4:45 – 5pm	Auditors Revision Day 2	WW MR1	DM, TF


DAY 3 – Wednesday, 29 April

Time	Description	Location	Attendees
8 – 8:15am	Day 3 Overview Meeting <ul style="list-style-type: none"> Confirm arrangements for Day 3 	WW MR1	DM, TF, GM, DF, OL
8:15am – 12pm	Compliance Review <ul style="list-style-type: none"> Management Plan Commitments 	WW MR1	DM, TF, DF, OL, BB, JB, WC
12 – 12:15pm	Lunch	WW MR1	-
12:15 – 1:15pm	CHPP Discussion <ul style="list-style-type: none"> Processing Waste Management Water / Tailings Management Dust and Noise Management (Alarm and trigger responses) Rehabilitation Training and Communications CHPP Site Inspection 	CHPP/ Field	DM, TF, DF, PD (or delegate), BB, OL,
1:15 – 4:30pm	Compliance Review (cont.) <ul style="list-style-type: none"> Mining Tenements EPLs 	WW MR1	DM, TF, DF, OL, TH (or delegate)
4:30 – 5pm	Auditors Revision Day 3	WW MR1	DM, TF

DAY 4 – Thursday, 30 April

Time	Description	Location	Attendees
8 – 8:15am	Day 4 Overview Meeting <ul style="list-style-type: none"> Confirm arrangements for Day 4 	WW MR1	DM, TF, GM, DF, OL, WC, BB,
8:15 – 10:00am	Mining/Technical Services Discussion <ul style="list-style-type: none"> Processing Waste Management Water and Tailings Management Dust and Noise Management (Alarm and trigger responses) Rehabilitation Training and Communications 	WW MR1	DM, TF, DF, OL, WC, BB, PD (or delegate), MP (or delegate),
9:30am – 1pm	Outstanding Items <ul style="list-style-type: none"> Discussion of outstanding issues 	WW MR1	DM, TF, GM, DF, OL
1 – 2pm (TBC)	Closeout Preparation <ul style="list-style-type: none"> Lunch Auditors Revision and Preparation for Closeout Meeting 	WW MR1	DM, TF
2 – 2:30 pm (TBC Day 3)	Close Out Meeting <ul style="list-style-type: none"> Overview of preliminary findings Outstanding items or documents required Confirm Audit Completion Process 	Teleconference (WW Boardroom for Auditors)	All

APPENDIX D
DPIE Certification Form

Independent Environmental Audit Submission Form	
Project	
Consent No.:	Development Consent SSD-6464 and SSD-6465
Description of Project:	Mount Thorley Warkworth
Project Address:	Putty Rd, Mt Thorley, NSW, 2330
Proponent	Warkworth Mining Ltd and Mount Thorley Operations Pty Ltd
Proponent Address:	PO Box 267, Singleton NSW, 2330
Independent Audit	
Title of Audit:	Mount Thorley Warkworth Independent Environmental Audit
Certificate	<p>I certify that I have prepared the contents of the attached independent audit and to the best of my knowledge:</p> <ul style="list-style-type: none"> • It is in accordance with relevant approval condition(s) • I have acted professionally, accurately and in an unbiased manner in conducting the audit • I am not related to any owner or operator of the project as a spouse, partner, parent, child, sibling, employer, employee, business partner, in sharing a common employer, or in a contractual arrangement outside the audit • I do not have any pecuniary interest in the project, including where there is a reasonable likelihood or expectation of appreciable financial gain or loss to me or to a person to whom I am related • Neither I nor my employer have provided consultancy services for the project that were subject to this audit • 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 project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.
Signature:	
Name:	Dianne Munro
Address:	6/127-129 John Street, Singleton NSW 2330
Email Address:	dmunro@hansenbailey.com.au
Auditor Certification (Body, No. Grade):	Auditor for Environmental Management, EMS, Compliance and ISO14001:2015 Audit. Exemplar Global No. 107622
Date:	17 July 2020

APPENDIX E
Compliance Tables

Table A
Warkworth SSD 6464

Condition	Requirement	Status	Evidence
Warkworth Continuation Project (SSD-6464), November 2015			
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS			
Obligation to Minimise Harm to the Environment			
1	<i>In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.</i>	Complaint	No incidents resulted in material harm to the environment during the audit period.
Terms of Consent			
2	<i>The Applicant shall carry out the development:</i>		
(a)	<i>generally in accordance with the EIS; and</i>	Compliant	Within Warkworth, during the IEA period, mining activities advanced in a westerly direction in both North and West Pits (Plate 1). South Pit has reached its final limit with regards to excavation and the area is currently being utilised for dumping activity. Exploration drilling was conducted within the relevant mining leases: Consolidated Coal Lease (CCL 753) and Mining Lease (ML) 1751; ahead of mining and within the pit to gain further information on the resource. Viewed email from Yancoal Resource Knowledge Superintendent dated 22/8/19 which states exploration within approved development areas within CCL753 and ML1751 are approved, and viewed an email from Manager of Environmental Operations of the Resource Regulator dated 28/8/19 agreeing to that position providing drilling is detailed in the current Mining Operations Plan. Warkworth EIS reviewed, 2017-2020 represents approximately years 3-6 of the mine plan. Only Year 3 and Year 9 are included as progress plans in the EIS. It was agreed that the year 3 mine plan is most representative year for audit period. Plan 3F of the 'Mount Thorley Warkworth Mining Operations Plan Amendment B' (23 May 2019 – 30 November 2021) (MOP) shows the expected mining area and rehabilitation phases for 2020. Mining progression within the North, West and South Pits, as viewed on an aerial image dated 21/1/20, is generally consistent with mining areas shown in the MOP and Year 3 (see condition 56 for further discussion). During the IEA site visit, a Mine Services Technical Discussion was held with the Technical Service Manager who described methods for the mining process to remain in alignment with the EIS and MOP. The Northern out of pit (NOOP) dam is proposed to be constructed in the next period and is shown in Figure 2.3 of the Warkworth EIS, can be constructed at any time over the life of the Project and its construction noise was modelled with Year 3 mining (Warkworth EIS). On the day of the site visit, adequate parking was available at the main Warkworth offices building with no vehicles observed in non designated areas
(b)	<i>in accordance with the conditions of this consent</i> <i>Note: The general layout of the development is shown in Appendix 2.</i>	Not Compliant	Some non-compliances identified in this table. Recommend to work with relevant regulators to resolve non compliances in this table.
3	<i>If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.</i>	Not Triggered	There are no inconsistencies with the above documents (GM pers comms).
4	<i>The Applicant shall comply with any reasonable requirement/s of the Secretary arising from:</i>		
(a)	<i>any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent;</i>	Not Triggered	During the IEA period, all directives from the Department were discussed in the Annual Review (GM pers comms).
(b)	<i>any reports, reviews or audits commissioned by the Department regarding compliance that are submitted in accordance with this consent;</i>	Not Triggered	During the IEA period, all directives from the Department were discussed in the Annual Review (GM pers comms).
(c)	<i>the implementation of any actions or measures contained in these documents.</i>	Not Triggered	During the IEA period, all directives from the Department were discussed in the Annual Review (GM pers comms).
LIMITS ON CONSENT			
Mining Operations			
5	<i>The Applicant may carry out mining operations on site for 21 years from the date of commencement of development under this consent.</i> <i>Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and the DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.</i>	Compliant	Commencement of development 15 February 2016 (2017 IEA), therefore operations can take place until 15 February 2037.
Coal Extraction			
6	<i>The Applicant shall not extract more than 18 million tonnes of ROM coal from the Mt Thorley mine in a calendar year.</i>	Compliant	Section 4.3 2017 AR - 13.59 Mtpa ROM Section 4.3 2018 AR - 14.59 Mtpa ROM Section 4.3 2019 AR - 16.90 Mtpa ROM It is anticipated that 17.57 Mtpa will be extracted from Warkworth in 2020 (Section 4.3 2019 AR).
Coal Transport			
7	<i>The Applicant Shall:</i>		
(a)	<i>not transport any coal produced at the development by public road; and</i>	Compliant	There was no coal transported via public road during the IEA period (GM pers comms).
(b)	<i>ensure that the coal produced on site is only sent to Mt Thorley Coal Loader for transport by rail to export and/or domestic markets</i>	Compliant	Coal is transported via conveyor to the Mount Thorley Coal Loader and railed to Port (Section 4.1 2017, 2018 and 2019 AR). There is no other method to transport the coal (GM, pers comms).
COMMENCEMENT OF DEVELOPMENT UNDER THIS CONSENT			
8	<i>The Applicant shall:</i>		
(a)	<i>notify the Secretary in writing of the date of commencement of development under this consent; and</i>	Not Triggered	2017 IEA viewed letter from Coal and Allied to DPE dated 3/2/2016, with a commencement date of 15 February 2016.
(b)	<i>may only commence development under this consent once the Secretary has agreed in writing that all prerequisites to the commencement of development under this consent have been met.</i>	Not Triggered	As per the 2017 IEA, "Sighted letter from DP&E dated 8/2/16 notifying MTW that all required documentation was in place"
SURRENDER OF EXISTING DEVELOPMENT CONSENT			

Condition	Requirement	Status	Evidence
9	By the end of January 2017, unless the Secretary agrees otherwise, the Applicant shall surrender the existing development consent (DA-300-9-2002-i) for the Warkworth mine in accordance with Section 104A of the EP&A Act. Following the commencement of development under this consent, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of DA-300-9-2002-i.	Not Compliant	Viewed letter from DPE dated 11/10/17 rejecting the surrender of DA-300-9-2002-I and DA 34/95 as there was no signed statement from each landowner. In the same letter, the surrender deadline was extended till end January 2019 . The applications to surrender both consents were resubmitted to DPE on 4/6/19. In regards to SSD 6465, viewed letter from DPE dated 13/6/19 accepting surrender of development consent DA 34/95. In regards to SSD 6464, the application to surrender DA-300-9-2002-i made on 4/6/19 contains signed statements from each of the following landholders; <ul style="list-style-type: none"> Warkworth Mining Limited; Miller Pohang Coal Company Ptd Ltd Roads and Maritime Service; Singleton Shire Council; and Department of Industry -Lands At the time of this IEA, the application to surrender DA-300-9-2002-i has not been approved by DPIE. Email from DPIE dated 3/3/20 states that DPIE does not have capacity to complete the surrender and will complete in "the near future". Recommend to follow up with DPIE to seek surrender notice.
STRUCTURAL ADEQUACY			
10	The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA and MSB. Notes: • Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates (where applicable) for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the development. The development is located in the Patrick Plains Mine Subsidence District, and under Section 15 of the Mine Subsidence District, and under Section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the MSB's approval before constructing any improvements on the site.	Compliant	The following activities under this condition occurred during the audit period <ul style="list-style-type: none"> SSD 6464 - "Construction Putty Road underpass commenced in 2017 with planned project completion in May 2018" (Section 4, 2017 AR). RMS owned infrastructure. Viewed works authority deed dated 21/7/16. Viewed letter from RMS "Notice of Practical Completion" dated 21/5/18. See response to Sch 3 Cond 49 for further discussion. See Plate 17. SSD 6465 - A mid-sized circuit was installed at the Warkworth Coal Handling and Preparation Plant (CHPP). Viewed certification from AcroCert dated 5/11/19, requiring a Structural Certificate (Completed Works) and an Application for an Occupation Certificate be submitted to council following completion of the works. Viewed Design Certification – Structural Engineering certificate dated 22/9/19 and Application for a Construction Certificate dated 15/10/19. Viewed Occupation Certificate for the completed works issued 19/5/20. Works sighted during site visit (Plate 3).
DEMOLITION			
11	The applicant shall ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	Not Triggered	No demolition works occurred during the IEA period (GM, pers comms).
PROTECTION OF PUBLIC INFRASTRUCTURE			
12	Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:		
(a)	repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and	Not Triggered	No public infrastructure was damaged by the development during the IEA period (GM, pers comms).
(b)	relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	Not Triggered	No public infrastructure was relocated as a result of the development during the IEA period (GM, pers comms).
	Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.		
OPERATION OF PLANT AND EQUIPMENT			
13	The Applicant shall ensure that all plant and equipment used on site, or to monitor the performance of the development, is maintained and operated in a proper and efficient manner	Compliant	<u>Assets</u> Viewed Mine Maintenance and CHPP List of Assets spreadsheet. Viewed Plant Register. <u>Procedures</u> Viewed the following procedure documents: <ul style="list-style-type: none"> Lifecycle Principal Control Plan (PCP), document controlled by Manager Maintenance, last revised 18/6/19; Mechanical Engineering PCP, last revised 18/6/19; Electrical Engineering, last revised 20/6/19; Defect Management, last revised 30/8/18; and Planned Maintenance and Maintenance Inspection, last revised 30/8/18. <u>Routine Work Orders (Maintenance)</u> Viewed routine Work Maintenance orders dated 29/03/20 for Matsu Truck 3,000-hour routine maintenance: brake checks, fluid sampling. Viewed Fixed Plant Maintenance Register that outlines timing of when maintenance due. Allocated via work orders. Viewed CHPP Maintenance Register: lubrication of C92 conveyor work order 1/4/2020. Notes a corrective work order required. Viewed SPL Equipment Supply Agreement contracts for sound attenuation on excavator, 793 trucks purchased in IEA period. Viewed sound testing schedule, listing plant and year since last SPL test. See Sch 4 Cond 6d) for discussion on Sound Power Level (SPL) testing conducted during the IEA period.
UPDATING & STAGING STRATEGIES, PLANS AND PROGRAMS			
14	With the approval of the Secretary, the Applicant may:		
(a)	submit any strategy, plan or program required by this consent on a progressive basis; and	Not Triggered	There have been various updates to management plans throughout the IEA period in response to incidents and Annual Review reporting (GM pers comms). See Section 4 for a full list of management plans.
(b)	combine any strategy, plan or program required by this consent with any similar strategy, plan or program required for the Warkworth mine.	Not Triggered	There were no strategies, plans or programs requested to be submitted on a progressive basis or combined during the IEA period (GM pers comms).

Condition	Requirement	Status	Evidence								
	<p>To ensure these strategies, plans or programs are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.</p> <p>Notes:</p> <ul style="list-style-type: none"> While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program. 	Compliant	<p>See below for revised strategies.</p> <p>The following management plans were updated during the IEA period and required consultation with other parties. No approval from DPIE was received for the following where consultation was required but not undertaken:</p> <ul style="list-style-type: none"> AQMP (28/6/17 and 28/6/18) BMP (26/8/16, 17/7/17 and 20/7/18) NMP (25/7/17, 18/7/18) WMP (27/7/18) <p>Recommend that where a management plan is updated and WML can justify that consultation with all parties under another condition is not required, ensure that written approval from DPIE is granted.</p>								
COMMUNITY ENHANCEMENT											
15	<p>Within 6 months of the date of this consent, unless the Secretary agrees otherwise, the Applicant shall enter into a VPA with Council in accordance with:</p> <p>(a) Division 6 of Part 4 of the EP&A Act; and</p> <p>(b) the terms of Applicant's offer in its letter to the Department dated 4 May 2015</p> <p>The VPA shall include provisions for the payment, collections, management and distribution of the contributions under the agreement, with a focus on funding community infrastructure and services in the area surrounding, including Bulga Village.</p> <p>Note: The Applicant's offer comprises a total contribution of \$11 million over 21 years for both the development and the Warkworth Continuation Project (SSD-6464).</p>	Compliant	<p>Not completed at last audit.</p> <p>Viewed letter from DPIE dated 29/6/17, extending the date that Coal and Allied was required to enter into a VPA with Council until 31/12/17.</p> <p>Viewed signed VPA, dated 5/6/17 signed by MTW and SSC.</p> <p>The VPA payment schedule is outlined in Schedule 4 of the VPA which allocates financial contribution to the Bulga Community Project Fund and the Singleton Economic Development Fund.</p> <p>At the time of the IEA, the VPA Contribution Timing was at Year 4 (i.e Year 1 was immediately on VPA signing in 2017).</p> <p>Viewed SSC VPA Community Committee Minutes dated 5 February 2020 which states that the Bulga Community Project Fund contributions were to the value of \$2,821,836.70. This is generally consistent with Schedule 4 of the VPA i.e \$2.9M at Year 4.</p> <p>Viewed tax invoice from SSC dated Dec 2017 (\$1.1M), Jan 2018 (\$1.1M), Jan 2019 (\$385k) and Dec 2019 (\$385k)</p> <p>As per clause 5 of the VPA, "the payment of subsequent Contribution Amounts is to be made within 28 days of the start of the relevant Calendar Year, in accordance with the Contribution Timing". Schedule 4 and clause 5 of the VPA requires \$2.7M to be contributed to the Singleton Economic Development Fund by Year 4 (i.e 28 Jan 2020).</p>								
SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS											
ACQUISITION UPON REQUEST											
1	<p>Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.</p> <p>Table 1: Land subject to acquisition upon request</p> <table border="1"> <thead> <tr> <th>Acquisition Basis</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Noise & Air</td> <td>77, 102, D, E, F</td> </tr> <tr> <td>Noise</td> <td>34, 81, 148, 150, 190, 192, J</td> </tr> <tr> <td>Air</td> <td>A, B</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 1, see the applicable figures in Appendix 3.</p>	Acquisition Basis	Land	Noise & Air	77, 102, D, E, F	Noise	34, 81, 148, 150, 190, 192, J	Air	A, B	Compliant	<p>Land 34 and J were acquired during the IEA period, on 22/8/19 and 31/1/18 respectively.</p> <p>Viewed certificate of titles provided in email from Property team for</p> <p>Property 34 – Lepisto, settled 22/8/2019 and</p> <p>Property J – Berry, settled 31/1/2018.</p> <p>Land 190 and F were acquired prior to the IEA period.</p>
Acquisition Basis	Land										
Noise & Air	77, 102, D, E, F										
Noise	34, 81, 148, 150, 190, 192, J										
Air	A, B										
2	<p>The applicant is only required to acquire property 77 if the owner no longer has voluntary land acquisition rights under the planning approvals for Wambo mine or its associated rail facilities.</p>	Not Triggered	<p>Property 77 is located in Warkworth Village; this property is identified as Property 19 in the United Wambo EIS that supports Development Consent SSD 7142.</p> <p>Property 19 holds Acquisition Rights under Wambo Mine (DA 305-7-2003) Part C but not under United Wambo Open Cut SSD 7142.</p> <p>In August 2019, Property 19 had not been acquired by Wambo Mine (refer to DA 305-7-2003 Notice of Modification signed 29 August 2019).</p> <p>No approach for acquisition from Property 77 to MTW has occurred (GM pers comms).</p>								
3	<p>Upon receiving a written request from the owner of any residence on the land listed in Table 1 or Table 2, the Applicant shall implement additional noise and/or air quality mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the Voluntary Land Acquisition and Mitigation Policy. They must also be reasonable and feasible and proportionate with the level of predicted impact.</p> <p>If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>Table 2: Land subject to additional mitigation upon request</p> <table border="1"> <thead> <tr> <th>Mitigation Basis</th> <th>Characterisation of Impact</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>Moderate</td> <td>12, 14, 15, 126, 128, 130, 139, 152, 183, 191, 192, 217, 262, 263</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> To interpret the land referred to in Table 2, see the applicable figures in Appendix 3. Definitions of marginal and moderate mitigation are given in the Voluntary Land Acquisition and Mitigation Policy. 	Mitigation Basis	Characterisation of Impact	Land	Noise	Moderate	12, 14, 15, 126, 128, 130, 139, 152, 183, 191, 192, 217, 262, 263	Compliant	<p>All landholders have been notified of their mitigation rights (GM pers comms).</p> <p>Viewed example Notification of Mitigation Rights to landholder's letter dated 17/12/15 to property ID 130.</p> <p>Viewed example Mitigation Agreement with ID 12 dated 19/11/18, includes list of mitigation measures such as double glazing, air conditioning and reimbursement of cost of electricity used by air conditioning system.</p> <p>Viewed Zone of Mitigation maintenance schedule spreadsheet.</p> <p>Two residents have requested mitigation in the IEA period; ID 130 and 12 (GM pers comms).</p> <p>In 21 Feb 2020 (ID 217) triggered mitigation. A discussion around mitigation under consent is ongoing. A response to landowner ID 217 was provided 27 March 2020 and a meeting with lawyer scheduled for May 2020.</p> <p>Viewed MTW Noise and Dust Mitigation Maintenance tracking spreadsheet showing property, system type and date of installation, and date of contract commencement.</p>		
Mitigation Basis	Characterisation of Impact	Land									
Noise	Moderate	12, 14, 15, 126, 128, 130, 139, 152, 183, 191, 192, 217, 262, 263									

Condition	Requirement	Status	Evidence																																																																																																																																						
NOISE																																																																																																																																									
Noise Criteria																																																																																																																																									
4	<p>Before 1 January 2017, except for the land in Table 1, the Applicant shall ensure that the noise generated by the development does not exceed the noise criteria in condition 18 of DA-300-9-2002-i.</p> <p>Notes:</p> <ul style="list-style-type: none"> The referenced noise criteria in condition 18 of DA-300-9-2002-i are reproduced in Appendix 9. These noise criteria apply in the interim period until the completion of the Applicant's noise attenuation program, which is to be completed by the end of 2016 (see condition 6(d) below). From 1 January 2017, the noise criteria in condition 5 will apply. 	Not Triggered	1 January 2017 is outside the IEA period. Condition 18 of DA-300-9-2002-i was audited in 2016 and deemed not compliant.																																																																																																																																						
5	<p>From 1 January 2017, except for the land in Table 1, the Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 3 at any residence on privately-owned land.</p> <p>Table 3: Noise criteria d) (A)</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Land</th> <th>Day (LAeq/16hr)</th> <th>Evening (LAeq/16hr)</th> <th>Night (LAeq/16hr)</th> <th>Night (LAeq/16hr)</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Bulga</td> <td>17, 19</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>37, 43, 52, 62, 63, 64, 66, 71, 72, 73, 75, 82, 210, 211, 236, 252, 920</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td>12, 14, 15, 16, 18, 20, 21, 22, 23, 24, 26, 28, 31, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 60, 61, 67, 70, 74, 80, 84, 89, 215, 217, 229, 231, 234, 235, 237, 238, 243, 253, 254, 903, 917, 918, 919, 921, 929</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>8, 9, 225, 226, 227, 228, 230, 266, 922</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td>4, 6, 7, 10, 221, 222, 223</td> <td>36</td> <td>36</td> <td>36</td> <td>46</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="2">Milbrodale</td> <td>111</td> <td>36</td> <td>36</td> <td>36</td> <td>46</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Warkworth</td> <td>All other residences on privately owned land</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>Maison Dieu</td> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="3">Gouldsville, Long Point</td> <td>126, 262</td> <td>41</td> <td>41</td> <td>41</td> <td>51</td> </tr> <tr> <td>128</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td>130, 139</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td rowspan="7">Hambledon Hill/ Wylies Flat</td> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>192</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>152, 191, 263</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td>183</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>181, 182, 184, 185, 186, 187, 937a, 937b</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td>155, 156, 157, 180, 937d, 937e</td> <td>36</td> <td>36</td> <td>36</td> <td>46</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="3">Mount Thorley</td> <td>^a144, ^a915</td> <td>43</td> <td>43</td> <td>43</td> <td>53</td> </tr> <tr> <td>^a146</td> <td>42</td> <td>42</td> <td>42</td> <td>52</td> </tr> <tr> <td>148, 188</td> <td>36</td> <td>36</td> <td>36</td> <td>46</td> </tr> <tr> <td></td> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> To interpret the land referred to in Table 3, see the applicable figures in Appendix 3. ^a Noise limits developed relative to current acquisition criteria. 	Location	Land	Day (LAeq/16hr)	Evening (LAeq/16hr)	Night (LAeq/16hr)	Night (LAeq/16hr)	Bulga	17, 19	40	40	40	50	37, 43, 52, 62, 63, 64, 66, 71, 72, 73, 75, 82, 210, 211, 236, 252, 920	39	39	39	49	12, 14, 15, 16, 18, 20, 21, 22, 23, 24, 26, 28, 31, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 60, 61, 67, 70, 74, 80, 84, 89, 215, 217, 229, 231, 234, 235, 237, 238, 243, 253, 254, 903, 917, 918, 919, 921, 929	38	38	38	48	8, 9, 225, 226, 227, 228, 230, 266, 922	37	37	37	47	4, 6, 7, 10, 221, 222, 223	36	36	36	46	All other residences on privately owned land	35	35	35	45	Milbrodale	111	36	36	36	46	All other residences on privately owned land	35	35	35	45	Warkworth	All other residences on privately owned land	38	38	38	48	Maison Dieu	All other residences on privately owned land	35	35	35	45	Gouldsville, Long Point	126, 262	41	41	41	51	128	39	39	39	49	130, 139	38	38	38	48	Hambledon Hill/ Wylies Flat	All other residences on privately owned land	35	35	35	45	192	40	40	40	50	152, 191, 263	39	39	39	49	183	38	38	38	48	181, 182, 184, 185, 186, 187, 937a, 937b	37	37	37	47	155, 156, 157, 180, 937d, 937e	36	36	36	46	All other residences on privately owned land	35	35	35	45	Mount Thorley	^a 144, ^a 915	43	43	43	53	^a 146	42	42	42	52	148, 188	36	36	36	46		All other residences on privately owned land	35	35	35	45	Compliant	<p>2017 (Source: Section 6.2.3, 2017 AR) In 2017, there were no non-compliances.</p> <p>2018 (Source: Section 6.2.2 2018 AR) “The application of the modifying factor resulted in one (1) exceedance of the WML LAeq Impact Assessment Criteria during the reporting period. A subsequent measurement was taken on 10 August 2018 at 00:23. The re-measure confirmed compliance was achieved with the LAeq,15minute criteria. Follow up monitoring was conducted at Bulga Village on the night of 13 August 2018. MTW complied with the LAeq,15minute criteria and no further action was required. As both there-measure and follow up monitoring were compliant, the initial exceedance does not constitute a non-compliance, as per MTW’s approved Noise Management Plan. DP&E was notified in writing of the exceedance on 10 August 2018.” Viewed email to DPE letter 10 Aug 2018 which notes exceedance was not a non-compliance against consent. At the time of the IEA, no response from DPIE has been received (GM pers comms). As per section 5 of the Noise Monitoring Program, the procedure for this exceedance was appropriately followed.</p> <p>2019 (Source: Section 6.2.2 2019 AR) “The application of the modifying factor resulted in one (1) exceedance of the WML LAeq Impact Assessment Criteria during the reporting period on 17 January 2019 at 21:41 at Inlet Road. A subsequent measurement was taken at 22:40, on the same night. The re-measure confirmed compliance was achieved with the LAeq,15minute criteria. Follow up monitoring was conducted on the night of 24 January 2019, which complied with the LAeq,15minute criteria and no further action was required. As both the re-measure and follow up monitoring were compliant, the initial exceedance does not constitute a non-compliance, as per MTW’s approved Noise Management Plan. DPIE was notified in writing of the exceedance on 18 January 2019, and the result of follow up monitoring on 25 January 2019.” Viewed notification to DPIE dated 18/1/19, and follow up notification on 24/1/19. At the time of the IEA, no response from DPIE has been received (GM pers comms). As per section 5 of the Noise Monitoring Program, the procedure for this exceedance was appropriately followed.</p> <p>2020 (Source: Jan, Feb 2020 MEMR and March Attended Noise Results, Global Acoustics)). A review of monthly results from WML’s website confirmed that all measurements complied with the relevant criteria.</p>
Location	Land	Day (LAeq/16hr)	Evening (LAeq/16hr)	Night (LAeq/16hr)	Night (LAeq/16hr)																																																																																																																																				
Bulga	17, 19	40	40	40	50																																																																																																																																				
	37, 43, 52, 62, 63, 64, 66, 71, 72, 73, 75, 82, 210, 211, 236, 252, 920	39	39	39	49																																																																																																																																				
	12, 14, 15, 16, 18, 20, 21, 22, 23, 24, 26, 28, 31, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 60, 61, 67, 70, 74, 80, 84, 89, 215, 217, 229, 231, 234, 235, 237, 238, 243, 253, 254, 903, 917, 918, 919, 921, 929	38	38	38	48																																																																																																																																				
	8, 9, 225, 226, 227, 228, 230, 266, 922	37	37	37	47																																																																																																																																				
	4, 6, 7, 10, 221, 222, 223	36	36	36	46																																																																																																																																				
	All other residences on privately owned land	35	35	35	45																																																																																																																																				
Milbrodale	111	36	36	36	46																																																																																																																																				
	All other residences on privately owned land	35	35	35	45																																																																																																																																				
Warkworth	All other residences on privately owned land	38	38	38	48																																																																																																																																				
Maison Dieu	All other residences on privately owned land	35	35	35	45																																																																																																																																				
Gouldsville, Long Point	126, 262	41	41	41	51																																																																																																																																				
	128	39	39	39	49																																																																																																																																				
	130, 139	38	38	38	48																																																																																																																																				
Hambledon Hill/ Wylies Flat	All other residences on privately owned land	35	35	35	45																																																																																																																																				
	192	40	40	40	50																																																																																																																																				
	152, 191, 263	39	39	39	49																																																																																																																																				
	183	38	38	38	48																																																																																																																																				
	181, 182, 184, 185, 186, 187, 937a, 937b	37	37	37	47																																																																																																																																				
	155, 156, 157, 180, 937d, 937e	36	36	36	46																																																																																																																																				
	All other residences on privately owned land	35	35	35	45																																																																																																																																				
Mount Thorley	^a 144, ^a 915	43	43	43	53																																																																																																																																				
	^a 146	42	42	42	52																																																																																																																																				
	148, 188	36	36	36	46																																																																																																																																				
	All other residences on privately owned land	35	35	35	45																																																																																																																																				
<p>Note: To interpret the land referred to in Table 2, see the applicable figures in Appendix 3. Noise generated by the development is to be measured in accordance with the relevant requirements</p>																																																																																																																																									

Condition	Requirement	Status	Evidence
	of the NSW Industrial Noise Policy (as may be updated from time-to-time) or an equivalent NSW Government noise policy, as amended by Appendix 7 which sets out the metrological conditions under which these criteria apply. However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.		
Operating Conditions			
6	The Applicant shall:		
(a)	implement all reasonable and feasible measures to minimise the operational, low frequency and road noise of the development;	Compliant	Section 6 of the NMP describes mitigation measures and management control. Mobile equipment is fitted with sound attenuation (see Plate 9) and response to Sch 3 Cond 6d). There have been no complaints about road and traffic noise (GM pers comms). Traffic speed is limited coming into site which is via the Golden Highway (a major road) with limited private receivers in close proximity to the road i.e. there is limited opportunity to control road noise (OL pers comms). MTW utilises personnel (Community Response Officers) (CRO) to undertake proactive and reactive noise monitoring in the neighbouring communities. CRO attended monitoring data is published on the website daily and includes details on operational changes when these are required (controlled by the OCE). Viewed example of CRO shift report dated 8/10/19 sent out to relevant mining personnel. Viewed CRO Training Letter of Competency dated 1/4/20. Viewed CRO Work Instruction last revised 7/1/19. The IEA site visit included a discussion with PK (CRO) which included the following topics: receiving of alarms (includes dust, noise, blast and community complaints), reporting hierarchy, procedure for responding to alarms, training, CRO shift handover (which includes highlighting issues throughout the previous shift).
(b)	operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of consent;	Compliant	The CRO, OCE, shift coordinator and drill blast team receives daily metrological forecasts e.g daily dust alert (wind, rain). If dust / noise risk high, operational controls required (orange or red cell) and additional management required. A weather report is also delivered showing inversions and verified on-site. Data and response entered into software "Insight" which was viewed. Viewed Calibration Certificate C19029 from Acoustic Research Labs for the attended noise Sound Calibrator
(c)	minimise the noise impacts of the development during meteorological conditions when the noise limits in this consent do not apply (see Appendix 7); and	Compliant	CRO's in use 24/7. Between January and April 2020 sample reports reviewed (inclusive), the noise criteria did not apply to nine out of the 32 attended noise monitoring results (4 times at 8 locations 28% of results), due to adverse weather conditions. If exceedance occurs during adverse meteorological conditions, noise consultant currently does not re-monitor. During winter 2019 (June and July), only one result out of 16 (6%) was invalid (i.e. the noise criteria did not apply due to adverse weather conditions). The number of times when noise limits do not apply due to meteorological conditions are not reported in the Annual Review, but is reported in the Monthly Environmental Monitoring Reports on the company website. Although trending downwards, it is recommended that % of valid results be regularly reviewed to ensure that a high percentage of invalid readings are not being received.
(d)	ensure that; • all new trucks, dozers, drills and excavators purchased for use on the site after the date of this consent are commissioned as noise suppressed (or attenuated) units; and • the existing fleet of trucks, dozers, drills and excavators on site at the date of this approval is progressively fitted with suitable noise attenuation packages to ensure that 100% of the fleet being used on site is attenuated by the end of 2016; and	Compliant	There were some additional and replacement heavy equipment purchased during the IEA period including five 320t haul trucks, one 500t and one 360t excavator (Section 4.4, 2018 AR). Viewed SPL Equipment Supply Agreement contracts for sound attenuation on excavator, 793 trucks purchased in IEA period. Viewed sound testing schedule, listing plant and year since last SPL test. Viewed Standard Build Specification for Emeco CAT 793D OHT, Sound Power level (SPL) measurement of Caterpillar 793D and Hitachi EX3600 performed by Global Acoustics in 2019. Reviewed Sound Attenuation Inspections: there has been work completed on equipment exhaust systems in regards to cracked mufflers and components. However, as per email from Maintenance dated 20/4/20 "there were a few sound attenuation panels that appear to be missing". Recommend toolbox talk (or similar) distributed in relation to reminder for need for sound suppression on mobile fleet. Reviewed Sound Testing Schedule, majority plant tested in the last three years. All key fleet have been tested in the IEA period. This is noticeably best practice. Viewed email from MTW Maintenance Mechanical Engineer dated 3/6/20 which states all RTD's have been tested except 577 due being parked up with a hole in transmission. Two dozers have not been tested but will be captured in the 2020 campaign. Viewed Global Acoustics report dated 6/11/17 - Hitachi 3600 review. Viewed contract to purchase equipment from Hitachi, contain section on SPL (Schedule 2 of contract describes sound suppression devices required).
(e)	carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent and, if necessary, adjust the scale of operations on site to meet the criteria in this consent	Compliant	As reported in Section 6.2 of the 2019 AR, Community Response Officers' (CRO's) validate real-time noise alerts through supplementary handheld noise measurement and audible observations. A summary of supplementary attended noise monitoring conducted by the CRO is shown in Table 6.1 of the AR. As reported in Section 6.2 of the Annual Review, in 2019 there were 4,239 noise assessments, which resulted in up to 1,203 hours of equipment downtime "to manage noise". As per the Monthly Environment Monitoring Report (MEMR), the actions taken in response to exceedances are commensurate with the nature and severity of the noise event but can include; changing the haul route to a less sensitive haul, reducing equipment numbers and shutting down of a task. Equipment downtime is recorded in the AR and the MEMR. There were 293 compliance measurements undertaken by an independent acoustic specialist in 2017, 2018 and 2019. The results are discussed under part a of this condition. For the potential noise exceedance of 10 Aug 2018, "MTW undertook actions in response to the elevated measurement including the parking up of some exploration drill and trucks" (Aug 2018, MEMR) The following community complaints were made in relation to noise: <ul style="list-style-type: none"> • 191 complaints in 2017 • 171 complaints in 2018 • 112 complaints in 2019 • eight complaints in 2020 (Jan, Feb only) Results for March, as presented in the MEMR, was not available at the time of the IEA. Noise complaints have been reducing during the audit period. Majority of complaints are from Bulga receivers, west of the operation. Operations are proposed to continue to the west towards Bulga and ongoing diligence will be required.

Condition	Requirement	Status	Evidence											
			Each complaint is responded to by the CRO. The CRO is the primary contact with complainants.											
Noise Management Plan														
7	The Applicant shall prepare a Noise Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must:		Reviewed NMP.											
(a)	be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the commencement of any development under this consent;	Compliant	Viewed EPA consultation letter dated 19 July 2018. Viewed approval letter from Secretary dated 28 Aug 2018.											
(b)	describe the measures that would be implemented to ensure compliance with the relevant noise criteria and operating conditions of this consent;	Compliant	Section 6 of the NMP											
(c)	describe the proposed noise management system in detail;	Compliant	Section 8.1.3 of the NMP											
(d)	include provisions for keeping the local community informed about the operation of the noise management system and monitoring programs (including any correction factors under the NSW Industrial Noise Policy), including regular briefings and a public information session within 6 months of granting this development consent;	Compliant	Appendix A of the NMP Stakeholder consultation includes the CCC (discussed further in Sch 5 Cond 6)											
(e)	include a noise monitoring program that: <ul style="list-style-type: none"> •evaluates and reports on: <ul style="list-style-type: none"> - the effectiveness of the noise management system; - the effectiveness of the noise attenuation program (see condition 6(d)); - compliance against the noise criteria in this consent; and - compliance against the noise operating conditions; • includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time monitoring program can be used as a trigger for further attended monitoring where there is a risk of non-compliance with the Noise criteria in this consent); and • defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents. 	Compliant	The noise monitoring program is outlined in Appendix A of the NMP. The noise monitoring program is evaluated and reported in Section 6.2 of the 2017,2018 and 2019 AR. Real time monitoring uses Barn Owls (since 2000) and 'noise compass'. There is no formal process for comparing attended noise monitoring to real-time (GM pers comms). As stated in Section 6.4.5, real time validation surveys are undertaken on an as required basis . Surveys are conducted upon request by way of either attended or unattended monitoring to enable comparison with measured levels at the corresponding real time monitoring location. GM noted that the CROs monitor regularly. Handheld noise monitoring results are shown in the Annual Review Table 6.5 as averages. CRO noise measurements provide feedback on the real-time noise measurements which GM stated is a validation. The CRO's react to alerts provided on noise levels from the real-time monitoring system, which trigger them to take a reading in the area that the alert from the real-time system is located, and a noise level is recorded. Feedback on real time noise level vs CRO reading is used to modify how the real time system records noise from MTW (they are directional noise monitors at present), in an attempt to improve the alerts provided to the CRO team. In any event, the real time system is used presently for triggering an inspection and measurement, and is not the primary tool used for managing operations. The CRO handheld and feedback to operations is used for that purpose. Recommend to undertake a regular comparison of real time monitoring as part of regular, external noise monitoring to validate real time monitoring results and discuss in Annual Review which is the intent of this condition. Recommend showing maximum monitored result from the three quarterly readings (LAeq 15 min) in all tables in section 6.5 of the Annual Reviews. Viewed spreadsheet for 2019 Compliance Noise Monitoring, reviewed for Bulga Village and inlet Road, and compared attended results to criteria. Results are generally consistent.											
BLASTING														
Blasting Criteria														
8	The Applicant shall ensure that the blasting on site does not cause exceedances of the criteria in Table 4. However, these criteria do not apply if the Proponent has a written agreement with the relevant owner, and has advised the Department in writing of the terms of this agreement. Table 4: Blasting criteria <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Residence on privately owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> </tbody> </table>	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land	120	10	0%	115	5	5% of the total number of blasts over a period of 12 months	Not Compliant	There were three incidents and one penalty notice issued in relation to blast during the IEA period. In 2017 "All blasts returned results below the relevant airblast overpressure / ground vibration criteria for all monitoring locations". (Source: 2017 AR Section 6.3.2) 1. "One (1) blast event on 28 December 2018 recorded an air blast overpressure result of 120.1 dB(L) , exceeding the 120 dB(L) threshold for air blast overpressure at the Bulga Village blast monitor (2018 AR, Section 6.3.2). The event was reported to the DP&E and to the EPA on 28 December 2018 as a precautionary measure based on the monitored results at this monitor. A written report was subsequently provided to DP&E and to the EPA for this blast which noted that wind gusts produced substantial air pressure peaks both before and during the blast. The investigation determined that it is probable that a wind gust during the period of air blast arrival increased the air pressure level recorded by the Bulga Village monitor. In December 2018, there were six complaints for blast, date unknown (Dec 2018 MEMR). At the time of the IEA, there had been no response from DPIE (GM, pers comms). 2. On 5 July 2018 an administrative non-compliance was recorded when a blast monitor failed to capture blast data from a small magnitude blast event (2018 AR, Section 6.3.2). The data was unavailable as the peak vibration level was below the trigger threshold of 0.2mm/sec which triggers the automated capture of blast results. Blast results were also not manually captured within 20 days of the blast event, which is the storage limit of the blast monitors." In response MTW doubled the software memory which the Drill and Blast team are required to validate daily. Noted email from O.Lane reviewing blast data from March 2019. 3. One (1) blast event on 4 April 2019 recorded an air blast overpressure result of 121.2 dB(L) (Source 2018 AR, Section 6.3.2). A preliminary notification of the suspected airblast overpressure exceedance was reported to the DPIE and to the EPA on 5 April 2019. A written report was subsequently provided to DPIE and to the EPA for this blast which concluded that "The reason that the AOP level that resulted at the Warkworth monitoring station was greater than predicted was due to the fact that the actual meteorological data, and hence the actual effects of meteorology, were different from that predicted." WML received a penalty notice for the AOP exceedance incident, which was received in September 2019. The penalty notice was issued by DPIE for a non-compliance of the blasting limits of the Warkworth Development Consent (SSD 6464). EPA directed MTW to investigate internally and externally. An internal meeting was held to discuss blast findings, blast processes and predictive meteorology. Meeting attendees included experts in blast. An outcome of the meeting was a number of blast control recommendations detailed in a report dated 18/9/18 (included nine changes to blast procedure) Viewed EnvMET image of predictions for 4 April 2019 and confirmed meteorological data within blasting limits. Recommend to implement continuous improvement practices with the aim to avoid any blast exceedances. There have been no exceedances in January and February 2020 (MEMR). Results for March, as presented in the MEMR, was not available at the time of the IEA.
Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance											
Residence on privately owned land	120	10	0%											
	115	5	5% of the total number of blasts over a period of 12 months											
Blasting Hours														

Condition	Requirement	Status	Evidence
9	<i>The Applicant shall only carry out blasting on site between 7am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.</i>	Compliant	“Warkworth Mining Limited carried out blasting on site between 7am and 5pm Monday to Saturday inclusive. No blasts occurred on Sundays or on public holidays” (Section 6.3.2 – 2018 and 2019 AR). Note that Blasting Hours within EPL 1376 differ (7am – 6pm). Mt Thorley Operations Limited carried out blasting on site between 7am and 5pm Monday to Saturday inclusive. No blasts occurred on Sundays or on public holidays” (Section 6.3.2 – 2018 and 2019 AR). Viewed Blasting Data Spreadsheets for the IEA period at six blast locations. All blasts were carried out between 7am and 5pm. No blasting was carried out on a public holiday.
Blasting Frequency			
10	<i>The Applicant may carry out a maximum of:</i>		
(a)	<i>3 blasts a day; and</i>	Compliant	“Warkworth Mining Limited carried out not more than 3 blasts per day and not more than 12 blasts per week (averaged over a calendar year)”. (Section 6.3.2 - 2018 2019 AR) Mt Thorley Operations carried out not more than 2 blasts per day and not more than 6 blasts per week (averaged over a calendar year) (Section 6.3.2 - 2018 2019 AR).
(b)	<i>12 blasts a week, averaged over a calendar year, at the site.</i>	Compliant	Warkworth Mining Limited carried out not more than 3 blasts per day and not more than 12 blasts per week (averaged over a calendar). Mt Thorley Operations carried out not more than 2 blasts per day and not more than 6 blasts per week (averaged over a calendar year) (Section 6.3.2 - 2018 2019 AR).
	<i>This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blasts misfires or blasts required to ensure the safety of the mine, its workers or the general public.</i>	Noted	
	Notes: • For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine. • For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast. • In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Applicant may seek agreement from the Secretary for additional blasts to be fired on a given day.	N/A	
11	<i>The Applicant shall not carry out more than 1 blast a day within 500 metres of the Putty Road/ and or Golden Highway.</i>	Compliant	Viewed figure MTW Blast Radius Review” which shows 500 m buffer from active mining areas to roads. Two areas potentially affected in audit period: Putty Road between Mt Thorley and Warkworth and short section of Golden Highway immediately north of Warkworth Mine. Reviewed “Ref #33 Blasts within 500m public roads spreadsheet (2017 – 2020)”, there were no more than one blast event within 500m of the Putty Road and Golden Highway. Both of these roads are also closed when dust is predicted to be within 500m (GM pers comms).
Property Inspections			
12	<i>If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant shall:</i>	Not Triggered	This was not requested during the IEA period (GM pers comms)
(a)	<i>Commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:</i> • establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and • identify measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and		
(b)	<i>give the landowner a copy of the new or updated property inspection report.</i>		
	<i>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the property inspection report, either party may refer to the Secretary for resolution.</i>		
Property Investigations			
13	<i>If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant shall:</i>		
(a)	<i>commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and</i>	Compliant	There have been six claims made to MTW within the IEA period (GM pers comms). Majority of claims came from within the township of Bulga. To ensure independence, landholders were afforded choice of four engineering companies. Viewed signed selection forms for six residents: Inlet Rd (20/6/19), Inlet Road (13/5/19), Putty Rd (21/5/19), Wambo Rd (6/8/19), Milbrodale Rd (17/11/17), Turnball Rd (1/8/18). Note that there is no distance limit on this condition and if modification to SSD 6464 is sought, recommend consideration to apply to modify condition to within 2km consistent with previous condition.
(b)	<i>give the landowner a copy of the property investigation report.</i>	Compliant	Six property investigation reports were prepared for the claims outlined in part a and provided to the landholder (GM pers comms) Viewed evidence that Blast Damage Investigation Report emailed to Inlet Rd (20/9/19), Inlet Road (4/7/19), Putty Rd (2/9/19), Wambo Rd (26/8/19), Turnball Rd (6/12/18) One dispute (for Milbrodale Rd) went to DPIE. Viewed letters showing that property investigation report was issued and DPIE response dated 5/3/2020. DPIE response accepted the conclusions of the property investigation report that the landholder had not been damaged by blast and no further action was required.
	<i>If this independent property investigation confirms the landowner’s claim, and both parties agree with these findings, then the Applicant shall repair the damage to the satisfaction of the Secretary.</i>		

Condition	Requirement	Status	Evidence
	<i>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution</i>		
Operating Conditions			
14	<i>During mining operations on site, the Applicant shall:</i>		
(a)	<p><i>implement all reasonable and feasible measures to:</i></p> <ul style="list-style-type: none"> • <i>protect the safety of people and livestock in the surrounding area;</i> • <i>protect public or private infrastructure/property in the surrounding area from any damage; and</i> • <i>minimise the dust and fume emissions of any blasting;</i> 	Not Compliant	<p>No livestock has had to be removed (GM pers comm). Kaboom blast software used at site. No damage to private property within the IEA period (see response to Sch 3 Cond 12 and 13). During the IEA period, no blasts produced visible post-blast fume with a post-blast ranking Level 4 or higher according to the AEISG Scale (Section 6.3.2.1, 2018 and 2019 SR, Section 6.3.3 2017 AR). On 7 August 2019 a blast was detonated in the North Pit of the Warkworth Mine. The resulting blast dust travelled to the east over land associated with Warkworth Coal Mine, Putty Road, and the Mount Thorley Industrial Estate before dissipating over farmland east of the licenced premises (Source 2018 AR, Section 6.3.2). No fume was associated with this blast (GM pers comms). The blast issue was raised via a community complaint. A Penalty Infringement Notice (PIN) was received from the EPA. MTW responded by updating Blast Permissions (addition of wind direction toward Mount Thorley Industrial Estate (MTIE)) and prior blast approval from Mine Manager. The North Warkworth MET station was installed Jan 2020 and is being trailed as an input into Blast Permissions. There is also an external review of the Blast Permissions being undertaken.</p> <p>The following community complaints were made in relation to blasting:</p> <ul style="list-style-type: none"> • 68 complaints in 2017, • 69 complaints in 2018 • 94 complaints in 2019 • 14 complaints 2020 (Jan/Feb) <p>Results for March, as presented in the MEMR, was not available at the time of the IEA. Significant increase in blast complaints was noted in 2019 - One regular complainant made 38 blast complaints. Complainants have also made property investigation complaints (see Sch 3 Cond 13) and are mainly located in Bulga (GM pers comms). Viewed Bulga blast results and all within criteria except exceedance listed in Sch Cond 8. Some blast results with an Airblast overpressure between 115dB and 120dB are not investigated because under Sch 3 Cond 8. MTW have a 5% allowable exceedance. If the allowable exceedance percentage is tracking high, MTW will investigate. In 2019, the annual average allowable exceedance was 2.4%. Other years were unable to be determined. 2019 Annual Review report has been updated and revised AR viewed. During the IEA site visit, the Mine Services Technical Discussion included blasting procedures between Mine Manager, Technical Services Manager and Environment and Community Manager. The discussion included procedures for pre-strip as per the MOP, GDP process (majority of GDP's originate from Technical Services Team) and procedures for checking between Environment and Blast teams to ensure all blasts captured. Recommend to Implement continuous improvement practices with the aim to avoid any blast exceedances</p>
(b)	<p>(b) ensure that blasting on the site does not damage historic heritage sites outside the disturbance area including the Wambo Homestead, Bulga Bridge, St Phillips Church or the following Aboriginal grinding groove sites:</p> <ul style="list-style-type: none"> • MTW-266~WSW-09-22; • MTW-267~WSW-09-22; • MTW-268~WSW-209-23; and • Aboriginal grinding groove site Mt Thorley M 37-6-0163 (prior to its relocation); 	Compliant	<p>The impacts to heritage features in this condition are determined by ground vibration limits. All ground vibration limits were within the criteria (see response to Sch 3 Cond 8). <u>St Phillips Church</u> As per Section 4.3.1 of the BMP, a ground vibration limit of 5mm/sec is applied and the impacts will be assessed at the "Warkworth" monitoring location. <u>Wambo Homestead</u> As per Section 4.3.2 of the BMP, to ensure MTW blasts do not approach the criteria of 5mm/s limit with 5% allowable exceedances during a 12-month period, there will be an internal threshold of 4 mm/s. Monitored at Warkworth. <u>Bulga Bridge</u> As per section 4.2 of the BMP, the Bulga Bridge is monitored at the existing "Bulga Village" monitoring location, allowing for assessment of impacts with nearby receptors simultaneously. The limits for privately owned residents have been assigned (5mm/sec and 10mm/sec). <u>Grinding Grooves</u> M 37-6-0163 was relocated during 2018 (Section 4.3.3 of the BMP). For the remaining grinding grooves, as per Section 4.3.3 of the BMP, the proposed management measures are that the grinding grooves will remain in-situ, and they are "not considered at risk of ground vibration or flyrock impacts"</p>
(c)	<i>minimise the frequency and duration of any road closures, and</i>	Compliant	<p>Road closures are managed by the Road Closure Management Plan. There is a commitment to set up for road closure if fume event predicted or potential to occur. To minimise the impact of road closures, speed limits are not minimised where road closures have the potential to occur. Duration of the road closure is documented in a Road Closure Checklist. Viewed example of the Road Closure Checklist dated 23/9/19, which shows time road closed and re-opened. Road closed for 13 minutes. Roads are closed most days of the week (3-4 closures / week). Road closures are discussed frequently during CCC meetings. Most common issue raised is providing community with accurate road closure times. Community notifications include: Web services, text services and blast hotline. Section 7.2 of the BMP does not outline the process for how community notifications are updated.</p>
(d)	<i>operate a suitable system (including a hotline and website updates) to enable the public to get up-to-date information on the proposed blasting schedule on site.</i>	Compliant	<p>Viewed MTW website 27 April 2020. Road Closure Plans available. Internally, up-to-date information is available through Drill and Blast team sending daily updates to CRO. Drill and Blast Notifier updates the Blast team and text messaging service. Viewed letter dated 7/1/2020 to near neighbours which contains road closure info, how to subscribe to blast text notification. Newsletters not available on website to confirm if blasting schedule included.</p>

Condition	Requirement	Status	Evidence																							
	Note: To identify the historic heritage sites referred to in this condition, see the applicable figure in Appendix 4	N/A																								
15	The Applicant shall not undertake blasting on site within 500 metres of: (a) any public road; or (b) any land outside the site that is not owned by the Applicant, unless: • the Applicant has a written agreement with the applicable infrastructure authority or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement; or • the Applicant has: - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the road or land.	Complaint	During the IEA period, WML undertook blasting in the northern out of pit dam (NOOP) which was within 500m of Putty Road and Golden Highway (letter to DPE dated 21/8/19). WML contacted RMS, Transgrid and DPIE to obtain relevant approvals. Transgrid and RMS approved the blasting works on 6/8/18 and 9/8/18 respectively. Two applications were also made to SSC on 20/8/18 for works within the road reserve for blasting purposes, consent was granted by SSC on 21/8/18. Viewed Application for the use of a Council Road approval from SSC for the purpose of Mine Blasting Road Closure dated 26/6/19.																							
Blast Management Plan																										
16	The Applicant shall prepare a Blast Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. This plan must:																									
(a)	be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to carrying out any development under this consent;	Compliant	Viewed approval letter from Secretary dated 28 Aug 2018. Viewed consultation letter to EPA dated 19 July 2018.																							
(b)	describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;	Compliant	Appendix D of the BMP. During the IEA site visit, a discussion was held with the Dragline, Drill and Blast Superintendent who confirmed the meteorological considerations from the BMP are utilised. MTW are developing a new system to improve metrological forecasting to assist with blast. During the IEA period, Transgrid requested that towers be monitored for blasting near NOOP (GM pers comms). As part of development of the NOOP, a Blast Impact Monitoring Plan dated 6 May 2019 was developed to enable monitoring of potentially impacted infrastructure in the area including the TransGrid Powerline (included in Section 8 of the monitoring plan) and Ausgrid Poles (included in Section 9 of the monitoring plan).																							
(c)	include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the RMS and Council;	Compliant	The Road Closure Management Plan is located in Appendix D of the BMP and covers Charlton, Wallaby Scrub Road, Golden Highway and Putty Road (Council own the road reserve). Viewed letter of consultation to SSC dated 26/6/19. Consultation with RMS validated through Occupancy Licences included in Road Closure Management Plan. Recommend adding statement in Road Closure Management Plan at next update that occupancy licences are updated annually.																							
(d)	include a monitoring program for evaluating the performance of the development, including: • compliance with the applicable criteria; • avoiding any blasting impacts on the historic heritage items referred to in condition 12 above; and • minimising the fume emissions from the site.	Compliant	The Blast Monitoring Program is outlined in Appendix E of the BMP. Section 6.3 of the Annual Review reports on blasting compliance with the assessment criteria. A blast impact assessment on Wambo Homestead, St Phillips Church and Bulga Bridge is located in Appendix G of the BMP. MTW Post blast fume generation mitigation and management plan is located in Appendix C of the BMP. Notifications to Bulga mine is completed prior to blasting. An internal BMP for Blast Permissions associated with the NOOP has been prepared. It includes a temporary monitor at the main powerline. MTW has fired test shots for the NOOP in April and May 2019. Viewed monitoring results for the NOOP test shots at BMP locations which were within limits.																							
AIR QUALITY																										
Air Quality Criteria																										
17	Except for the land in Table 1, The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any residence on privately owned land. Table 5: Long term impact assessment criteria for particulate matter <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> Table 6: Short term impact assessment criterion for particulate matter <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> Table 7: Long term impact assessment criteria for deposited dust <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase^c in deposited dust level</th> <th>Maximum total^d deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> Notes to Tables 5-7 Notes to Tables 5-7 • ^a Total impact (i.e. incremental increase in concentrations due to the development plus background	Pollutant	Averaging period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase ^c in deposited dust level	Maximum total ^d deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	Compliant	<u>Particulate Matter</u> (Source: Section 6.4.3.3 2017 AR, Section 6.4.2.4 2018 and 2019 AR) During 2017, 2018 and 2019, all short term and annual average results were compliant with the impact assessment criteria. During 2020 (Jan, Feb) all short-term particulate matter exceedances were determined compliant as consistent with Section 7 and Appendix A of the AQMP the potential contributions from MTW were less than 75%. A review of data shows 59 for 2018 (16% of recordings) and 11 for 2019 (3%) PM ₁₀ measurement results exceeded the 24-hour short-term impact assessment criteria. The origin and justification for the 75% is unclear. A review of the EIS (2014) AQIA at section 8 states that a background of 6.9 ug/m ³ for PM ₁₀ (i.e. non modelled dust sources) was utilised in the model. Against a criteria of 30 ug/m ³ this leaves 23.1 ug/m ³ for modelled sources (including Warkworth and other mines) or 77%. If Warkworth is required only to report where the contribution is more than 75%, this leaves only 2% contribution for other mines. Table 5.2 of the EIS AQIA shows modelled contributions from other mines which total 30 kg TSP at Year 3. Table 5.1 shows Warkworth's contributions at Year 3 of 9.7 kg of TSP. Of the total 39.7 kg TSP burden at Year 3, the other mine's contribution is 76% of the total. It is acknowledged that TSP is not directly proportional to PM ₁₀ . None of the above exceedances were reported as incidents which is consistent with Section 7 and Appendix A of the approved AQMP. An email from the Department of Planning and Environment, dated 7/11/16 states that the Department requires sites to only report where their own contribution exceeds the 24 hour criteria. MTW report exceedances as non compliances, where the Mines Contribution is greater than 75% and/or where the mines own contribution exceeds 50 ug/m ³ . The compliance evaluation section of the AQMP will be revised with the next update to clarify this and to remove reference to 75% (GM pers comms). We note that the EIS AQIA predicts exceedances over 30 ug/m ³ at: <ul style="list-style-type: none"> • Receptor 77 in Year 3, 9 and 14. This receptor is in Warkworth's ZOA; • Receptor 102 in Year 3 and Year 9. This receptor is the Warkworth Hall; and • Receptor 264 in Year 3 and Year 9.
Pollutant	Averaging period	^d Criterion																								
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																								
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																								
Pollutant	Averaging period	^d Criterion																								
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³																								
Pollutant	Averaging period	Maximum increase ^c in deposited dust level	Maximum total ^d deposited dust level																							
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month																							

Condition	Requirement	Status	Evidence
	<p>concentrations due to all other sources);</p> <ul style="list-style-type: none"> ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own); ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and ^d Excludes extraordinary events such as bushfire, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary. 		<p>The Warkworth TEOM (OEH operated) is located adjacent all three receptors mentioned above. As such, we recommend that the monitor be moved outside the predicted exceedance zone, or only utilised for internal monitoring and another monitor be utilised as representative for the closest receivers to the north which are not predicted to be impacted above criteria.</p> <p>TSP (Source: Section 6.4.3.2, 2017 AR, Section 6.4.2.3 2018 and 2019 AR) There were three exceedances of the TSP annual impact assessment criteria during 2017, 2018 and 2019:</p> <ul style="list-style-type: none"> 2017 at Long Point HVAS, 95 µg/m³; 2018 at Long Point HVAS, 106 µg/m³; and 2019 at Warkworth HVAS, 98.6 µg/m³. <p>Each exceedance was investigated to determine the level of contribution from MTW activities and all were determined to be compliant with the relevant criterion. There was a round horse stable at Long Point which was expected to be causing the exceedance. During the IEA period 15 out of 910 TSP measurements were not able to be collected on the scheduled sampling date (based on a sampling frequency of every six days) due to power failure and equipment issues with the monitors. Long term assessment criteria results for 2020 (Jan, Feb and Mar) will be reported in the 2020 Annual Review.</p> <p>Deposited Dust (Source: Section 6.4.2.2, 2018 and 2019 AR, Section 6.4.3.1 2017 AR) During 2017, 2018 and 2019, there were four exceedances of long-term impact assessment criteria. 2017 at the DW20A and Warkworth Monitors; 2018 and 2019 at the Warkworth Monitor. Each exceedance was investigated to determine the level of contribution from MTW activities and all were determined to be compliant with the relevant criterion. Monthly dust deposition rates equal to or greater than the long-term impact assessment criteria of 4g/m²/month were recorded at multiple sites. This is consistent with well below average rainfall totals recorded in 2017 (444 mm), 2018 (457 mm) and 2019 (304 mm). Long term assessment criteria results for 2020 (Jan, Feb and Mar) will be reported in the 2020 Annual Review. Deposited dust is monitored in accordance with AS3580.10.1 (2003) (Section 6.4.2.2, 2019 AR) Recommend that if modification to SSD 6464 is sought, amend (a) "total impact" criteria of 50 ug/m2 to (b) "incremental impact" for PM₁₀ 24 hr consistent with other NSW coal mine consent conditions</p>
Mine owned Land			
18	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any occupied residence on mine-owned land (including land owned by another mining or petroleum company, unless and to the extent that:		
(a)	the tenant and landowner by another mining or petroleum company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this consent;	Compliant	Viewed Tenancy Agreement letter to Wambo Mine dated 17/12/15 requesting tenant notification. No evidence that Wambo has notified the tenants. Recommend that tenant and landowner or mine owned land be re-notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this consent; at least 5 yearly (i.e. 2020).
(b)	the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice and cause;	Compliant	Viewed Residential Tenancy Agreement dated 3/4/20 for property (ID 1 Wambo Rd Bulga) which outlines mining impacts and agreement that tenants can vacate any time.
(c)	air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining or gas company) of the particulate emissions at the residence; and	Compliant	MTW's TEOM's are located in positions that are representative of privately owned properties. MTW also has HVAS monitors that are considered representative of occupied residences on mine owned land. The particulate emissions as recorded by the HVAS are provided in the monthly environmental monitoring reports. All HVAS and TEOM results were compliant during the audit period, as per MTW's approved Air Quality Management Plan. Recommended that this existing network's results be utilised to calculate results for the closest tenant so that to be available should a regulator, tenant or landholder request this data.
(d)	date from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property.	Compliant	See response to Sch 3 Cond 18(c)
Operating conditions			
19	The Applicant shall:		
(a)	implement all reasonable and feasible measures to minimise the: <ul style="list-style-type: none"> odour, fume and dust emissions of the development; and release of greenhouse gas emissions from the development; 	Compliant	<p>As per the approved AQMP, in order to mitigate potential impacts from dust generating activities, MTW implement a number of controls including minimising disturbed areas, use of correct handling of materials, imposing speed limits on roads (see Plate 6), conducting blast in favourable conditions (as discussed in Sch 3 Cond 14), design of the CHPP, truck activated sprays on ROM coal stockpiles, transfer and rotor breaker sprays (Plate 7), water sprays on haul roads (Plate 8) and proactive measure discussed in part b of this condition. During topsoil stripping, and as committed to the AQMP, the Projects Team organise dust suppression options to increase soil moisture if significant dust lift occurs (GM, pers comms). In 2019, MTW undertook a \$200k upgrade on suppression sprays, a further \$500k in capital is required to complete the works (JB pers comms). Additionally, and as per committed to in the AQMP, rehabilitation of the following obsolete roads has occurred during the audit period: CD Haul road and South Pit Ramp (MTW-IEA 2020 RFI36 Rehab of Obsolete Roads, Environmental Specialist Rehabilitation, 8 May 2020), and long-term stockpiles have been re-vegetated (MTW-IEA 2020 RFI18 Rehab and Visual Screening, Environmental Specialist Rehabilitation, 8 May 2020). In 2017 and 2018, an aerial seeding programme was undertaken to reduce airborne dust from inactive waste dumps and ahead of mining areas. The area (as shown in Figure 12 of the 2018 AR) was seeded using an exotic pasture grass and legume mix suitable for autumn sowing. A starter fertiliser was mixed with the seed prior to loading to provide sufficient nutrients for plant growth". (Section 6.4.1.2 2018 AR, Section 6.4.2.2, 2017 AR) Mobile plant is regularly serviced as discussed in Sch 2 Cond 13. During the IEA period, the EPA requested specific information in relation to dust control and the following community complaints were made in relation to dust:</p> <ul style="list-style-type: none"> 80 complaints in 2017,

Condition	Requirement	Status	Evidence
			<ul style="list-style-type: none"> 76 complaints in 2018 146 complaints in 2019 Ten complaints in Q1 2020 (Jan only) <p>During the site inspection, spontaneous combustion was sighted in Loders Pit (Plate 2). Spontaneous combustion is reported to the OCE who details in shift report. Viewed OCE shift report for 28 April 20 describing spon com, plan to monitor and cap when clay becomes available. As discussed during the Mine Services Technical Discussion, Spontaneous combustion is managed through a Hazard and Control Plan and reported to Mine Safety. Reporting in the Annual Review would be in relation to Mine Safety Reporting.</p>
(b)	operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;	Compliant	<p>The air quality management system uses Real Time PM10 monitors that continuously log information and transmit data to a central database, generating internal alerts when particulate matter levels exceed internal trigger limits. The MTW TEOMS have been recently upgraded (GM pers comms).</p> <p>In Q1 2020, the Wambo Road TEOM was replaced and moved to a representative location west of Wollombi Brook (Jan 2020, Monthly Environmental Report). The new location is representative of the nearest privately owned receptor, and is further from the active mine area (with mine advancement to the west). The location also reduces the need for contractors to access the Southern Biodiversity Area given fire risk etc. (Feb 2020, CCC Minutes). This relocation of the TEOM was submitted to DPIE on 31 July 2019 during an update to the MTW Air Quality Management Plan and was subsequently approved by DPIE on 28 August 2019 (Jan 2020, Monthly Environmental Report).</p> <p>Pre-start inspections include dust predictions and a daily .ppt is distributed to Mine Planning, CROs, Mine Manager, Tech Services, OCEs (GM pers comms). The hourly delays are entered into Minview and OCEs keeps a diary.</p> <p>MTW also utilise CRO's to undertake proactive and reactive dust monitoring. The role of the CROs is discussed in Sch 3 Cond 6.</p> <p>As discussed in Sch 3 Cond 6 The CRO, OCE, shift coordinator and drill blast team receives daily met forecast e.g daily dust alert (wind, rain). If dust / noise risk high, operational controls required (orange or red cell) and additional management required. A weather report is also delivered showing inversions and verified on-site.</p> <p>Data and response entered into software "Insight".</p> <p>Viewed examples of DustTrak, Met Station and TEOM calibration certificates. The Warkworth OEH and Bulga OEH TEOM's are maintained and operated by OEH, as part of the industry funded Upper Hunter Air Quality Monitoring Network. Certificates for these TEOM's can be made available upon request. MTW have a direct data feed to these TEOM's.</p>
(c)	minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 5-7 above); and	Compliant	There were 43 alerts for adverse meteorological conditions in December 2019. Viewed dust summary showing red alerts. Red alerts require additional management. As reported in the Dec MEMR, there was 4900 hours of equipment downtime logged. Recommend this is updated to record and categorise for dust, noise or other.
(d)	co-ordinate the air quality management on site with the air quality management at nearby mines (including the Mt Thorley, Bulga, Wambo and Hunter Valley Operations mines) to minimise any cumulative air quality impacts	Compliant	<p>This condition is managed in response to a complaint and documented as a complaint / trigger (GM pers comms).</p> <p>MTW share data with HVO and Bulga mine if there is a power outage or equipment being repaired. Viewed email dated 9/11/16 in relation to sharing dust data with Glencore.</p> <p>Viewed email from E&C Coordinator to Wambo Mine, showing photos of dust over North Pit</p> <p>Recommend process to co-ordinate the air quality management on site with the air quality management at nearby mines (including the Mt Thorley, Bulga, Wambo and Hunter Valley Operations mines) to minimise any cumulative air quality impacts is formalised for each operation in next revision to AQMP as per condition Sch 3 Cond 20f below.</p>
Air Quality Management Plan			
20	The Applicant shall prepare a detailed Air Quality Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. This plan must:		
(a)	be prepared in consultation with the EPA, and be submitted to the Secretary for Approval prior to carrying out any development under this consent;	Compliant	Viewed approval letter from Secretary dated 28 Aug 2018. Appendix C of the approved AQMP includes consultation with the EPA.
(b)	describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;	Compliant	Section 5 and 6 of the AQMP describes management and mitigation measures to ensure compliance with criteria (as discussed in Sch 3 Cond 19).
(c)	describe the project air quality management system;	Compliant	Section 5 and 6 of the AQMP
(d)	include provisions for keeping the local community informed about the operation of the air quality management system and monitoring programs, including regular briefings and a public information session within 6 months of the granting of this development consent;	Compliant	Section 8 of the AQMP
(e)	include an air quality monitoring program that: <ul style="list-style-type: none"> adequately supports the proactive and reactive air quality management system; evaluates and reports on: <ul style="list-style-type: none"> the effectiveness of the air quality management system; and compliance against the air quality operating conditions; and defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents; and 	Compliant	<p>Section 7 and Appendix A of the AQMP describes the air quality monitoring program.</p> <p>Air quality results are reported in Table 6.13 of the AR and compared to the Year 3 Mine Plan (Warkworth EIS). The exceedances identified in Sch 3 Cond 17, were reported in MEMR and an external consultant reviewed.</p> <p>As per Section 7 and Appendix A of the AQMP, MTW is considered non-compliant with the short term impact assessment criteria for particulate matter when investigation into a measured PM10 exceedance determines WML or MTO to have been a significant contributor (estimated contribution of >75%) to the measured result. See recommendations at Sch 3 Cond 17.</p> <p>MTW will be considered non-compliant with the long term impact assessment criteria for deposited dust where the annual average deposited dust concentration (as measured by Depositional Dust gauges), (excluding contaminated gauges and extraordinary events) exceeds the relevant annual average criterion, or the maximum allowable increase in deposited dust criterion, and the non-compliant result is attributable to either of WML or MTO.</p>
(f)	include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Thorley, Bulga, Wambo and Hunter Valley Operations) to minimise the cumulative air quality impacts of these mines and the development.	Compliant	<p>Section 3.2 of the AQMP states that neighbouring mines were consulted to create communications protocol however these protocols are not documented within the AQMP (although included internally in the CROs work instruction). As discussed in Sch 3 Cond 19d, MTW share data with HVO and Bulga mines to control dust.</p> <p>Recommend protocols to minimise the cumulative air quality with neighbouring mines is documented within the AQMP.</p>
METEOROLOGICAL MONITORING			
21	For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:	Compliant	As per Section 6 of the 2019 AR "MTW operates a real time meteorological (weather) station which is located on Charlton Ridge. The meteorological station measures wind speed, wind direction, temperature, humidity, solar radiation, rainfall, and sigma theta. The meteorological station instruments are installed, calibrated, and maintained according to the relevant Australian Standard AS 3580.14 (2011)."

Condition	Requirement	Status	Evidence
			"A new meteorological station has been installed at North Warkworth, and is being integrated into MTW's systems. Once sufficient data review and comparison has occurred, the wind speed and direction data from the met station will be tested with the sites blast permissions pages. This is intended to assist the Drill and Blast team with decisions regarding firing blasts. The rainfall data from the new met station will also assist relevant site personnel by providing better visibility of the variability in rainfall received across the site." (Feb 2020, CCC Presentation).
(a)	complies with the requirement in the Approved Methods for Sampling of Air Pollutant in New South Wales guidelines; and	Compliant	Viewed Benchmark Monitoring calibration certificate dated 2/4/20 which states that Charlton Ridge monitor complies with AS 3580. 14-2011 "Methods for sampling and analysis of ambient air Meteorological monitoring for ambient air quality monitoring applications". The maintenance cycle is 6 monthly.
(b)	is capable of continuous real-time measurement of temperature inversions in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.	Compliant	Viewed Section 2.4 of Global Acoustic's Attended Environmental Noise Monitoring Report dated Feb 2020 which states "meteorological data was obtained from Charlton Ridge automatic weather station which allowed correlation of atmospheric parameters and measured noise levels". The met station measures the standard deviation of wind direction, from which a stability class can then be determined, in accordance with the NSW Industrial Noise Policy ('MTW June 2020 Evidence Spreadsheet')The Charlton Ridge meteorological station datalogger program will be updated by the sites monitoring contractor so that stability class is calculated continuously.
WATER			
Water Supply			
22	<p>The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply.</p> <p>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licenses for the development.</p>	Compliant	<p>Hunter River Take Table 17.3 of the Warkworth EIS predicted 1,251 ML take at year 0, 1,807 ML take at Year 3 and 1,720 ML at Year 9. Viewed minutes for MTW Monthly Water Management Meeting dated 20/4/20. The Hunter River Water Licence Status was 1,470ML extracted from a River Allocation of 1,801ML (to 30 June 2020). In Dec 2019, MTW purchased a number of high security licences via the market mechanism for future requirements. SSC has operated a joint venture system on the Hunter River since 10/12/81. SSC operate the system and charge MTW for water take from the Hunter River. MTW has a share of the water allocation licence of the joint venture, and if MTW reach allocation they can transfer other water in. This arrangement does not include sharing with surrounding mines. As per Table 3.6 of the 2019 AR, MTW hold four Water Access Licences (WALs) for the Hunter River under the Hunter Regulated River Water Sharing Plan (WSP). The total water allocation under these licences is 3,257 ML consisting of 243ML (WAL963), 1,009ML (WAL10543), 2,000ML (WAL43056) and 5ML (WAL10544). This comprises how much water has been transferred into the Council WAL for the reporting period by MTW. As MTW does not have its own pump station water is temporarily traded into the MTJV WAL as required from its other holdings.</p> <p>Lemington Underground (HVO) Take Table 17.3 of the Warkworth EIS does not include this take. Condition 25 facilities take of water from HVO. The LUG Bore Water Licence Status was 1,362ML extracted from an allocation of 1,800ML (MTW Monthly Water Management Meeting 20/4/20). Licence to reset July 2020. Water licence accounting is responsibility of HVO.</p> <p>Groundwater Take Table 17.3 is the water balance from the Warkworth EIS which predicted groundwater take of 187 ML take at year 0, 10 ML take at Year 3 (2023) and 0 ML at Year 9. Section 16.3.2 of the Warkworth EIS states there would be a maximum water take of 736 ML/year from the Permian strata. This is inconsistent with Table 17.3. Key findings from the independent groundwater report summarised in the Annual Review (2019) state take of: <ul style="list-style-type: none"> North Coast Fractured and Porous Rock – 270 ML (2019). As per table 3.6 of the 2019 AR, MTW holds two WALs for the North Coast Fractured and Porous Rock under the Sydney Basin North Coast Groundwater Source. The total water allocation under these licences is 930ML, consisting of (WAL40464, previously 20BL170011, 180ML) and WAL40465, previously 20BL170012, 750ML.</p> <p>Alluvial Take As predicted in the Warkworth EIS (Section 16.3.2), there would be a maximum water take from the Wollombi Brook Alluvium of 124 ML/year, 68 ML/year from the Hunter River Alluvium. Key findings from the independent groundwater report summarised in the Annual Review (2019) state take of: <ul style="list-style-type: none"> Hunter Regulated – 1,597.5 ML (2019); and Hunter Unregulated – 11 ML (2019). It is unclear what maximum Hunter Regulated and Unregulated takes for Wollombi Brook and Hunter River Alluvium occurred in the audit period. MTW holds one licence for the Hunter River Alluvium under the Hunter Unregulated and Alluvial Water Sources WSP (WAL18233) with a licence allocation of 60ML. It holds another licence for the Wollombi Brook under the same WSP, WAL18558, with a licence allocation of 50ML. Both are less than EIS predictions.</p> <p>MTW also hold another WAL under for the Unregulated River under the Hunter Unregulated and Alluvial Water Sources WSP, WAL19022, with a licence allocation of 60ML</p> <p>Harvestable Use Rights As per Section 5.5 of the WMP, "The MTW contiguous land holdings for the harvestable rights calculation are 4,007 ha in the Hunter River catchment and 2,667 ha in the Wollombi Brook catchment. At a harvestable right of 0.07ML/year, this equates to a volume of 280ML and 187ML in the Singleton and Lower Wollombi Brook Water Sources respectively". The WMP states "Dams solely for the capture, containment and recirculation of mine affected water consistent with best management practice to prevent the contamination of a water source are "excluded works" and are exempt from the requirement for water supply works approvals and WALs under the Water Management Act 2000. On this basis, water captured in the site water management structures, with the exception of rainfall runoff from undisturbed natural catchments, is not subject to licensing."</p>

Condition	Requirement	Status	Evidence
			Recommend Annual Review clearly state for each category what the Warkworth EIS prediction was (if none, state so), then the annual calculated impact from the project and confirmation of licences held for that volume, where required. The water balance recommended at condition 27 should be updated cognisant of actual data.
Compensatory Water Supply			
23	<i>The Applicant shall provide a compensatory water supply to the owner of any privately-owned land whose basic landholder water rights as defined in the Water Management Act 2000 are adversely and directly impacted as a result of the development. This supply must be provided in consultation with NOW, and to the satisfaction of the Secretary. The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the development. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable from the loss being identified, unless otherwise agreed with the landowner. If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution. If the Applicant is unable to provide an alternative long-term supply of water, the Applicant shall provide alternative compensation to the satisfaction of the Secretary. Note: The Water Management Plan (see condition 25) is required to include trigger levels for investigation potentially adverse impacts on water supplies.</i>	Not Triggered	There were ten-privately owned groundwater bores identified in the Warkworth EIS (Section 16.2.5). The modelling undertaken for the Warkworth EIS predicted that water levels at all privately owned water supply bores would reduce by less than 2m. No basic landholder rights were identified as impacted during the audit period (GM pers comms).
Water Discharges			
24	<i>Unless an EPL or the EPA authorises otherwise, the Applicant shall ensure that all surface water discharges from the site comply with the:</i>		
(a)	<i>discharge limits (both volume and quality) set for the development in any EPL; and</i>	Not Triggered	MTW maintains two licenced HRSTS discharge monitoring locations: <ul style="list-style-type: none"> • Dam 1N, located at WML North, which discharges to Doctor's Creek • Dam 9S, located at MTO South, which discharges to Loders Creek. MTW did not discharge in 2017, 2018 or 2019 (Section 7.2.3 2017 AR, Section 6.7.2.2 2018 and 2019 AR) or during 2020 (GM pers comms).
(b)	<i>relevant provisions of the POEO Act or Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i>	Not Triggered	No discharge, see response to part a.
	<i>Note: For the avoidance of doubt, it is noted that the EPA will determine the cumulative allowable salinity discharges to the Hunter River catchment, according to rules of the Hunter River Salinity Trading Scheme and the respective quantities of tradeable salinity credits held by participants in the scheme (including the Bulga mine and other nearby mining operations).</i>		
Water Transfers			
25	<i>The Applicant may receive water from, and transfer water to, the Mt Thorley mine, Hunter Valley Operations mine, Bulga mine and Redbank Power Station.</i>	Complaint	Water is transferred between Mt Thorley and Warkworth, and Warkworth and HVO. Figures are reported in the Annual Review Redbank Power Station is not operating and no water was transferred to Bulga Mine in the audit period. In 2017, 2018 and 2019 there was 4,139ML imported from the LUG Bore (Lemington Underground Bore located at HVO). There was also 215ML outputted to another mine in 2018. The Annual Review does stipulate which mine the water was transferred to.

Condition	Requirement	Status	Evidence																
Water Management Performance Measures																			
26	<p>The Applicant shall comply with the performance measures in Table 8 to the satisfaction of the Secretary.</p> <p>Table 8: Water management performance measures</p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Water management – General</td> <td> <p>Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site</p> <p>Minimise the need for make-up water from external supplies (apart from permissible mine water transfers)</p> <p>Maximise the use of mine water</p> </td> </tr> <tr> <td>Construction and operation of infrastructure</td> <td> <p>Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</p> <p>Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version</p> <p>Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions</p> </td> </tr> <tr> <td>Clean water diversion & storage infrastructure</td> <td> <p>Design, install and maintain the clean water system to capture and convey the 100 year ARI flood</p> <p>Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site</p> </td> </tr> <tr> <td>Sediment dams</td> <td>Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i></td> </tr> <tr> <td>Mine water storages</td> <td> <p>Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 20)</p> <p>On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability</p> <p>Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters</p> </td> </tr> <tr> <td>Flood mitigation measures</td> <td> <p>Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollombi Brook and the crest levee or peak of the flood mitigation infrastructure</p> <p>Residual impacts downstream must be managed in an appropriate manner</p> </td> </tr> <tr> <td>Overburden emplacements</td> <td> <p>Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material</p> <p>Design, install and maintain emplacements to prevent offsite migration of saline groundwater seepage</p> </td> </tr> </tbody> </table>	Feature	Performance Measure	Water management – General	<p>Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site</p> <p>Minimise the need for make-up water from external supplies (apart from permissible mine water transfers)</p> <p>Maximise the use of mine water</p>	Construction and operation of infrastructure	<p>Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</p> <p>Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version</p> <p>Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions</p>	Clean water diversion & storage infrastructure	<p>Design, install and maintain the clean water system to capture and convey the 100 year ARI flood</p> <p>Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site</p>	Sediment dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>	Mine water storages	<p>Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 20)</p> <p>On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability</p> <p>Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters</p>	Flood mitigation measures	<p>Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollombi Brook and the crest levee or peak of the flood mitigation infrastructure</p> <p>Residual impacts downstream must be managed in an appropriate manner</p>	Overburden emplacements	<p>Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material</p> <p>Design, install and maintain emplacements to prevent offsite migration of saline groundwater seepage</p>	Not Compliant	<p>The WMP quotes this table and states that its requirements are addressed in Sections 5.2, 7.4.2 and 8.3. Water management includes clean water, catch drains and sediment drains for pre-strip areas. The segregation of clean and dirty water was observed in the site inspection. Clean water is diverted around the site (as far as reasonable and feasible). MTW have not discharged during the IEA period. Mine water is used for the operation.</p> <p>Three sediment basins and associated diversion drains were constructed in 2018 (see Plates 11). Erosion and sediment controls have been employed within the pre-strip areas and designed in accordance with Blue Book (GM pers comms). Viewed GDP for "WML sediment dam geo testing" which confirms water management procedures adhered to at MTW. The GDP specifically states "A formal ESCP will be required as the area is located within the sites clean water catchment.....it is noted that clean water diversion drains are required to be crossed for access into these areas and care must be taken to ensure drains not obstructed... no ground disturbance to be undertaken within any clean water catchment area without an endorses ESCP".</p> <p>The previous IEA recommended that MTW determine the Probable Maximum Flood (PMF) RL at the Charlton Levee and ensure there is a 500mm freeboard. Viewed email from Darren Lyons dated 17/10/18 confirming flood levee is 70.5m AHD and PMF is 70.0.</p> <p>The overburden emplacements and tailings storage facilities were reviewed during the site inspection. Design was discussed. No evidence was sighted in the inspection to suggest any non-compliance.</p> <p>No evidence of unbanded hydrocarbons or other environmentally harmful chemicals were noted during the site inspection (see Plate 4)</p> <p>During the IEA period, there were two incidents, which incurred MTW three penalty notices and one caution issued in relation to water management. There have been no community complaints (Section 8.1, 2019 AR).</p> <ol style="list-style-type: none"> 4 December 2017 Water Incident Stormwater had pooled across a light vehicle gravel road. An operator opened a hole in the windrow intending the water to report to a sediment dam via a contour drain. The contour drain overtopped and the water reported through a culvert under Wallaby Scrub Road and contained in a farm dam and gully on mine owned land within the EPL boundary. All water (23KL) was recovered (Section 11.1, 2017 AR). EPA, DP&E and DRG were notified and MTW received a Penalty Notice from the EPA in May 2018 for breach of Condition 0.1.1 of EPL 1376 (Section 11.1, 2017 AR). This incident was discussed during the IEA. The cause of the incident was a communications issue, as there was no prior contact with the environmental department. MTW undertook a site-wide communications on this issue and penalty notice to share learnings on this water management regulatory action to prevent reoccurrence (GM per comms). 30 March 2019 Water Discharge Incident Discharge from two boundary dams at Warkworth (Dam 46N and Dam 53N) as a result of a greater than design rainfall event. A total of 52mm of rainfall was recorded on the day of the incident (Section 10, 2019 AR) "WML received two Penalty Notices for the water discharge incident dated 30 March 2019 during August 2019 and an official caution from the EPA in September 2019. One penalty notice was issued by the EPA for a breach of EPL 1376 and a second Penalty Notice was issued by DPIE for a breach of the Warkworth Development Consent". (Section 10, 2019 AR). In response, MTW updated the water management plan and undertook the actions in AR table 10.1 including installation of two additional manual pumping units (Plate 10), camera monitoring system which relays information to pumping crew and Environmental Department. If heavy rainfall predicted, pre-emptive planning includes pre-pumping. Regular pump inspections undertaken, viewed example inspection checklist dated 17/1/20. The sediment dam has also been reclassified in the WMP to a mine dam water. Earth works regrade may be required at North Pit Crib park up area to prevent the issue re-occurring. Final design due in 2020. <p>Additionally, the overtopping of surface water from two sedimentation dams (Dam 50N and Dam 53N) occurred on 9/2/20 as a result of a rainfall event. Viewed letter from WML dated 17/2/10 outlining incident details, incident notifications to regulators and actions taken as a result of the incident.</p> <p>Note - The 2017 IEA identified a non-compliance in "relation to uncontrolled discharge of sediment water from site on 6th January 2016. A regulatory investigation into unauthorised release of water from a failure in a dam wall located at MTW on 6th January 2016 was also concluded in the Land and Environment Court during the 2017 reporting period. MTW was ordered to pay a penalty of \$50,000 plus investigation costs for the breach of license conditions. Resulting actions in response to the incident indicated no further action necessary to satisfy the finding" (Section 7.3.4 2017 AR). In response, MTW updated the dam construction standards.</p> <p>Future Works North Out of Pit Dam (NOOP) works will commence in Q2 2020 to provide improved water security / balance position at MTW.</p> <p>Recommend to implement continuous improvement practices with the aim to avoid any water management incidents and implement improvements.</p>
Feature	Performance Measure																		
Water management – General	<p>Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site</p> <p>Minimise the need for make-up water from external supplies (apart from permissible mine water transfers)</p> <p>Maximise the use of mine water</p>																		
Construction and operation of infrastructure	<p>Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</p> <p>Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version</p> <p>Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions</p>																		
Clean water diversion & storage infrastructure	<p>Design, install and maintain the clean water system to capture and convey the 100 year ARI flood</p> <p>Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site</p>																		
Sediment dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>																		
Mine water storages	<p>Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 20)</p> <p>On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability</p> <p>Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters</p>																		
Flood mitigation measures	<p>Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollombi Brook and the crest levee or peak of the flood mitigation infrastructure</p> <p>Residual impacts downstream must be managed in an appropriate manner</p>																		
Overburden emplacements	<p>Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material</p> <p>Design, install and maintain emplacements to prevent offsite migration of saline groundwater seepage</p>																		
Water Management Plan																			
27	The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must:																		
(a)	be prepared in consultation with the EPA, NOW and OEH and submitted to the Secretary for approval prior to carrying out any development under this consent; and	Compliant	Evidence of consultation provided in Appendix A of the WMP. WMP approved by DPE in letter dated 20/9/18.																
(b)	in addition to the standard requirements for management plans (see condition 3 of schedule 5), include a:																		
	<p>(i) Site Water Balance that:</p> <ul style="list-style-type: none"> includes details of: sources and security of water supply, including contingency planning for future reporting periods; water use and management on site, including details of water sharing between neighbouring mining 	Compliant	Section 6 of the WMP The site water balance model has not been updated since late 2015 , however WRM has commenced an update (MTW Monthly Water Management Meeting minutes dated 20/4/20). This should be completed and validated with onsite results in the next audit period. Section																

Condition	Requirement	Status	Evidence
	<p>operations;</p> <ul style="list-style-type: none"> - any off-site water transfers and discharges; - reporting procedures, including the preparation of a site water balance for each calendar year; and • investigates and implements all reasonable and feasible measures to minimise water use on site; 		6.5 of the WMP, states that the site water balance will be reviewed annually, with the results to be presented in the AR. The water balance performance is presented in Section 6.7.2 of the AR.
	<p>(ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the watercourses that could potentially be affected by the development; • a detailed description of the water management system on site, including the: <ul style="list-style-type: none"> - clean water diversion systems; - erosion and sediment controls (mine water system); and - mine water management systems including irrigation areas; • detailed plans, including design objectives and performance criteria, for: <ul style="list-style-type: none"> - design and management of final voids; - design and management for the emplacement of coal reject materials; - reinstatement of drainage lines on the rehabilitated areas of the site; and - control of any potential water pollution from the rehabilitated areas of the site; • performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the development: <ul style="list-style-type: none"> - mine water management system; - surface water quality of Loaders Creek; and - channel stability, stream and riparian vegetation health of Loaders Creek; • a program to monitor and report on: <ul style="list-style-type: none"> - the effectiveness of the mine water management system; and - surface water flows and quality, stream and riparian vegetation health in Loaders Creek potentially affected by the development; • a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development; and 	Compliant	<p>Section 6, 7 and 9 of the WMP.</p> <p>Routine surface water monitoring was undertaken from 21 sites in 2017 (Section 7.3.2 AR) and 12 sites in 2018 and 2019 (Section 6.7.4 AR). Due to well below average rainfall only two sampling runs were completed in each year. Water quality in all years was evaluated through the assessment of pH, electrical conductivity and total suspended solids. There are three surface water monitoring sites with elevated results:</p> <ul style="list-style-type: none"> • W28 Wallaby Scrub – pH trend has decreased since 2016 (See Figure 26, 2019 AR) and exceeded the pH 5th percentile and TSS ANZECC criteria trigger limit in 2017 and 2019. Results presented in MEMR. • W5 Loaders Creek - exceeded the EC 95th and pH 5th percentile criteria trigger limit multiple times in 2017 (3 times for EC and 6 time for pH) (see results in Table 28 of the 2017 AR). W5 also exceeded the TSS ANZECC criteria trigger limit four times in 2018 and 2019 (see Section 6.7.4 of the Annual Review). MTW undertook an investigation into the elevated TSS readings at W5 (Loder Creek) during the reporting period (Section 6.7.4 2019 AR). The investigation concluded that the elevated results were most likely attributed to the sampling methodology at this location as samples were taken from a shallow pooled section on the creek bed. This sampling location was moved slightly downstream of this location to avoid this issue. • Wollombi Brook – multiple exceedances of EC in all years. “It is expected that the readings were a result of the prolonged dry climatic conditions with minimal flow recorded within Wollombi Brook during the reporting period and not related to mining impacts” (Section 6.7.4 2019 AR). MTW does not discharge to Wollombi Brook, the Wollombi Brook is located on the west site of the mining areas, the discharge points are located on the east. • Wollombi Brook Upstream - multiple exceedances of EC and pH in all years. See response to Wollombi Brook. <p>There is an annual Stream Health and Channel Stability programme to monitor and report on the stream and riparian vegetation health in Loaders Creek and Wollombi Brook. The 2019 Report prepared by SLR concluded that “some sections of Loder Creek are currently eroding and are vulnerable to further erosion with areas of significant erosion observed.....The RARC stream health assessment identified that the monitoring points on Loder Creek were classified as poor and average.... It is recommended that MTW adopt a risk based approach to determine whether mitigation measures and/or improvement works are required at the monitoring points where erosion was observed.”</p> <p>There was no evidence at this IEA that the SLR recommendations contained within the annual Stream Health and Channel Stability report have been progressed. This should be documented and progressed.</p> <p>During 2018, MTW undertook creek stability improvements works at the HRSTS discharge location to improve the stream health and channel stability (Section 6.7.4.1, 2018 AR). (See Plate 13)</p> <p>Further, electrical conductivity showed an increasing trend during 2017 in internal mine water Dams 6S and 9S which was attributed to drier weather conditions that resulted in evapo-concentration of salts in mine water, combined with reduced fresh-water inputs from rainfall runoff (Section 7.3.2 2017 AR). Figure 30 of the 2019 AR shows that EC has continued to increase in these two dams and is approximately 1,000 µs/cm higher than end 2017. In March 2020 Dam 6S or the SOOP was at 50% capacity (MTW Monthly Water Management Meeting dated 20/4/20). There has been an upgrade to the water system seepage from the SOOP which was viewed during the IEA. The overflow from Dam 9S was also viewed during the audit (see Plate 12). As per the Surface Water Monitoring Program, Dam 9s is required to monitored quarterly for EC, pH and TSS (when no discharge), and annually for a Comprehensive Analysis. Results are presented un Figures 29-31 of the AR.</p>
	<p>(iii) Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> • detailed baseline data on groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the development; • groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; • a program to monitor and report on: <ul style="list-style-type: none"> - groundwater inflows to the open cut pits; - the seepage/leachate from water storages, emplacements, backfilled voids, and final voids; - the impacts of the development on: <ul style="list-style-type: none"> o regional and local (including alluvial) aquifers; o groundwater supply of potentially affected landowners; o groundwater dependent ecosystems and riparian vegetation; o base flows to Loaders Creek; • a plan to respond to any exceedances of the groundwater assessment criteria; and • a program to validate the groundwater model for the development, including an independent review of the model with every independent environmental audit, and compare the monitoring results with modelled predictions. 	Compliant	<p>Section 8 and 9 of the WMP detail the baseline data and assessment criteria respectively. The groundwater monitoring program is provided in Appendix C of the WMP.</p> <p>In accordance with this condition, the WMP includes requirements to review the numerical groundwater model every 3 years comparing monitoring results with modelled predictions. The original numerical model was developed in 2014 and updated in 2015. An independent review of the model was conducted in the 2019 and reported in the Annual Groundwater Review conducted by SLR Consulting Pty Ltd (Appendix 4 of the 2019 AR). As part of this review, SLR recommended further works be undertaken to refine the model predictions. The required works are outlined in Section 6.5 of the 2019 Annual GW Review. The review of recommendations and action plan development is not yet complete (WC pers comms).</p> <p>Additionally, the results of the Annual GW Review are discussed as follows:</p> <ul style="list-style-type: none"> • MTW changed its sampling methodology during the 2019 reporting period following recommendations in the 2018 review. It is recommended that a review of the trigger be undertaken in light of the revised sampling methodology. • Further investigation into the ground conditions, bore construction and loggers at PZ7S and PZ7D is recommended. • Grab samples have been taken for monitoring bores WOH1239A, WOH2141A, WOH2153A, WOH1254A, WOH2155A, WOH2156A, WD622P, MBW02 and MBW03 within the network. This approach is not in line with industry standards and may not provide a representative water quality sample. The justification for this methodology should be reviewed to determine if more suitable methods (i.e. full purge or low flow) can be applied. A review into the requirement of these bores for the collection of water quality data for the WMP should be undertaken. If it is found that the continued collection of water quality data is required from a bore and suitable sampling methods cannot be adopted, then bore rectification works should be considered. <p>Recommend that the above-mentioned recommendations are actioned and also those included in Section 7.2 of the Annual GW Review.</p> <p>During the IEA, the bores within the Bayswater Seam and Blakefield Seam were reviewed and results discussed below.</p> <p><u>Bayswater Seam Bores</u></p> <p>Bore GW98MTCL2 has been consistently below the pH – 5th percentile Trigger Limit during the audit period (Figure 33, 2019 AR). The results at this bore are not discussed in the 2019 Annual Groundwater Review. The WMP (Section 9.2) states that MTW will initiate a site-specific investigation if professional judgement determines that a developing trend could result in environmental harm. It is recommended at the next Annual Groundwater Review, bore GW98MTCL2 is reviewed and discussed in the AR.</p> <p><u>Blakefield Seam Bores</u></p>

Condition	Requirement	Status	Evidence																																																		
			pH values for WOH2139A exceeded the pH 95th percentile trigger limit almost every month in 2019 . It also recorded a 5.7m decline in 2019. "Groundwater quality trends outside of historical trends were observed for bore OH1138 and WOH2139A, which likely relate to declining groundwater levels" (2019 Annual GW Monitoring Report, SLR). The 2019 Annual GW Monitoring Report recommended that "a review of the construction details and lithological logs for each bore should be undertaken to confirm that each bore is targeting the Blakefield Seam." This should be undertaken and reported on in the Annual Review.																																																		
Biodiversity																																																					
Retirement of Credits																																																					
28	Within 3 years of the date of commencement of development under this approval, the applicant will retire biodiversity credits of a class and number specified in Tables 9 and 10 below to the satisfaction of OEH.	Not Compliant	<p>WSP Date of commencement was 15 Feb 2016, therefore biodiversity credits to be retired by 14 February 2019 (i.e. within 3 years of commencement). This condition does not permit an extension to the 3 year period. However, letter dated 26 November 2018 submitted to Department of Planning and Environment acknowledging the issues with changes in legislation outside of the proponent control and need for extension. This letter included an extension timeframe and timeline that estimated register of conservation agreements and retiring of credits by 1 March 2020. No evidence this timeline has been met or achieved. Cited Email from the Department of Environment dated 29 November 2018 acknowledging this letter and the impending administrative non-compliance. Currently Not Compliant however actions are being undertaken to fulfil this condition i.e. Letter to DPIE acknowledging issues with BBAM to BAM conversion, changes in the permissible conservation agreements specified in conditions and need for extension of timeframe required to secure in perpetuity conservation agreement. Cited a Letter to BCD on equivalence drafted but not submitted, including a revised time line to secure conservation agreements and credits by April 2021. Viewed letter to the Biodiversity Conservation Division (BCD) dated 1/6/20 which outlines WML's approach for securing offset properties and retiring biodiversity credits. Page 11 outlines proposed approach to securing offset properties using Biodiversity Stewardship Agreements rather than VCAs. No response received as at 9 July 2020. Recommend at next modification, request amendment to condition "or with the agreement of the Secretary" after "approval".</p>																																																		
	<p>The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Policy for Major Projects and can be achieved by :</p> <p>(a) acquiring or retiring credits under the BioBanking Scheme in the TSC Act; (b) making payments into an offset fund that has been developed by the NSW Government, or (c) providing supplementary measures.</p> <p>Table 9: Ecosystem credit requirements</p> <table border="1"> <thead> <tr> <th>Vegetation Community</th> <th>Code (BVT)</th> <th>Biometric Vegetation Type</th> <th>Area (ha)</th> <th>Endangered Ecological Community (EEC)</th> <th>*Credits required</th> </tr> </thead> <tbody> <tr> <td>Warkworth Sands Woodland</td> <td>HU572</td> <td>Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area</td> <td>72.12</td> <td>Warkworth Sands Woodland in the Sydney Basin Bioregion EEC</td> <td>3,043</td> </tr> <tr> <td>Warkworth Sands Grassland</td> <td>HU572</td> <td>Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area</td> <td>0.57</td> <td>N/A</td> <td>16</td> </tr> <tr> <td>Central Hunter Grey Box - Ironbark Woodland</td> <td>HU517</td> <td>Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter</td> <td>614.5</td> <td>Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC</td> <td>¹ 12,100</td> </tr> <tr> <td>Regenerating Central Hunter Grey Box - Ironbark Woodland</td> <td>HU517</td> <td>Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter</td> <td>6.43</td> <td>Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC</td> <td>100</td> </tr> <tr> <td>Central Hunter Grey Box - Ironbark Derived Grassland</td> <td>HU517</td> <td>Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter</td> <td>375.5</td> <td>N/A</td> <td>4,516</td> </tr> <tr> <td>Central Hunter Ironbark - Spotted Gum - Grey Box Forest</td> <td>HU515</td> <td>Narrow-leaved Ironbark - Grey Box - Spotted Gum shrub - grass woodland of the central and lower Hunter</td> <td>16.01</td> <td>Central Hunter Ironbark-Spotted Gum-Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions EEC</td> <td>633</td> </tr> </tbody> </table> <p>Notes: <ul style="list-style-type: none"> * Or as otherwise determined by OEH as part of its detailed consideration of credits retirement. ¹ This must be read in conjunction with the similar figure in Table 11. It reflects the fact that some of these credits may be retired through mine rehabilitation. </p> <p>Table 10: Species credit requirements</p> <table border="1"> <thead> <tr> <th>Species</th> <th>*Credits Required</th> </tr> </thead> <tbody> <tr> <td>Regent Honeyeater</td> <td>18,929</td> </tr> <tr> <td>Southern Myotis</td> <td>18,222</td> </tr> <tr> <td>Large-eared Pied Bat</td> <td>139</td> </tr> </tbody> </table> <p>Note: <ul style="list-style-type: none"> * Or as otherwise determined by OEH as part of its detailed consideration of credits retirement. </p>	Vegetation Community	Code (BVT)	Biometric Vegetation Type	Area (ha)	Endangered Ecological Community (EEC)	*Credits required	Warkworth Sands Woodland	HU572	Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area	72.12	Warkworth Sands Woodland in the Sydney Basin Bioregion EEC	3,043	Warkworth Sands Grassland	HU572	Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area	0.57	N/A	16	Central Hunter Grey Box - Ironbark Woodland	HU517	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	614.5	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	¹ 12,100	Regenerating Central Hunter Grey Box - Ironbark Woodland	HU517	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	6.43	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	100	Central Hunter Grey Box - Ironbark Derived Grassland	HU517	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	375.5	N/A	4,516	Central Hunter Ironbark - Spotted Gum - Grey Box Forest	HU515	Narrow-leaved Ironbark - Grey Box - Spotted Gum shrub - grass woodland of the central and lower Hunter	16.01	Central Hunter Ironbark-Spotted Gum-Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions EEC	633	Species	*Credits Required	Regent Honeyeater	18,929	Southern Myotis	18,222	Large-eared Pied Bat	139	Not Triggered	<p>WSP Credits will be retired using the BioBanking Scheme and providing additional funds for supplementary measures as specified in: <ul style="list-style-type: none"> - Section 4.3 of WML BMP – overview of biodiversity credits generated by the BioBanking Agreements lodged. Refer above for details. - Section 5.3 of WML BMP – Saving our Species – Regent Honeyeater' conservation program. Contribution of \$1 million. Refer to Condition 35a. Receipt of payment to DPIE for the regent honeyeater signed. No receipt provided by DPIE acknowledging payment. Table 11 of WML BMP provides an overview of the area of each offset area and Table 19 provides a summary of ecosystem/species credits generated by each offset. Tables 2 and 3 of Letter to BCD 1/6/20 outline credits supplied by each offset to meet the requirements of the development consent. Table notes detail variation rules that have been used to provide sufficient credits generated by the site e.g. over 30,000 credits generated for Eastern cave Bat, Little-bent-wing Bat and Large-eared Pied-bat. <ul style="list-style-type: none"> - Actions are being undertaken to progress this condition i.e. Letter to DPIE acknowledging issues with BBAM to BAM conversion, changes in the permissible conservation agreements specified in conditions and need for extension of timeframe required to secure in perpetuity conservation agreement. Cited a Letter to BCD on equivalence drafted but not submitted, including a revised time line to secure conservation agreements and credits by April 2021. Recommend adding a table to Section 4 of the WML Biodiversity MP summarising the specific ecosystem/species credit obligations and where they are being met across each offset property to confirm all credit obligations are being met by the offset package. At next modification, to ensure compliance, consider seeking to amend the mechanism as NSW Biodiversity Offsets Policy for Major Projects no longer applies (in this and subsequent relevant conditions).</p>
Vegetation Community	Code (BVT)	Biometric Vegetation Type	Area (ha)	Endangered Ecological Community (EEC)	*Credits required																																																
Warkworth Sands Woodland	HU572	Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area	72.12	Warkworth Sands Woodland in the Sydney Basin Bioregion EEC	3,043																																																
Warkworth Sands Grassland	HU572	Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area	0.57	N/A	16																																																
Central Hunter Grey Box - Ironbark Woodland	HU517	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	614.5	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	¹ 12,100																																																
Regenerating Central Hunter Grey Box - Ironbark Woodland	HU517	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	6.43	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	100																																																
Central Hunter Grey Box - Ironbark Derived Grassland	HU517	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	375.5	N/A	4,516																																																
Central Hunter Ironbark - Spotted Gum - Grey Box Forest	HU515	Narrow-leaved Ironbark - Grey Box - Spotted Gum shrub - grass woodland of the central and lower Hunter	16.01	Central Hunter Ironbark-Spotted Gum-Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions EEC	633																																																
Species	*Credits Required																																																				
Regent Honeyeater	18,929																																																				
Southern Myotis	18,222																																																				
Large-eared Pied Bat	139																																																				

Condition	Requirement	Status	Evidence																
Rehabilitation Offsets																			
29	<p>Within 10 years of the completion of mining operations under this consent, the Applicant shall retire ecosystem credits of a number and class specified in Table 11 to the satisfaction of OEH.</p> <p><i>Table 11: Ecosystem Credit Requirements.</i></p> <table border="1"> <thead> <tr> <th>Vegetation Community</th> <th>Code (BVT)</th> <th>Biometric Vegetation Type</th> <th>Area (ha)</th> <th>Endangered Ecological Community (EEC)</th> <th>^aCredits Required</th> </tr> </thead> <tbody> <tr> <td>Central Hunter Grey Box - Ironbark Woodland</td> <td>HU817</td> <td>Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter</td> <td>2,100</td> <td>Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC</td> <td>11,204</td> </tr> </tbody> </table> <p><i>Note:</i></p> <ul style="list-style-type: none"> ^a Or as otherwise determined by OEH as part of its detailed consideration of credits retirement. 	Vegetation Community	Code (BVT)	Biometric Vegetation Type	Area (ha)	Endangered Ecological Community (EEC)	^a Credits Required	Central Hunter Grey Box - Ironbark Woodland	HU817	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	2,100	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	11,204	Not triggered	<p><u>WSP</u></p> <p>Will be delivered through the implementation of progressive rehabilitation of the site in accordance with the RMP contained in the MOP. Condition 29 will be fulfilled by the 'Rehabilitation Area – Woodland EEC' secondary domain. This will include:</p> <ul style="list-style-type: none"> - Re-creating approx. 2100 ha of EEC Woodland to a standard similar to that reference sites - Establishing network of trees to connect woodland areas - Provide additional habitat for threatened species. <p>The Rehab and Disturbance Summary (Ref#6 MTW_AR_2019_APP7) states that 82.6 ha was rehabilitated during the 2019 period. Rehabilitation works have included landform construction, insertion of erosion controls, surface preparation, topsoil application (as required), soil amelioration and direct seeded with native woodland seed mix (15.7 kg/ha).</p> <p>The Annual Review (Ref#6 MTW_Annual Review_2019) notes that the 82.7 ha (0.1 ha discrepancy from Rehab and Disturbance Report – assume due to rounding) was higher than the projected 79.2 ha which was planned for 2019.</p> <p>The Rehab Report Summary (Ref6# MTW_AR_APP6) document identifies that 64 ha is planned for rehabilitation during the next period which continue to add to the progress outlined above. Additionally, the 80 ha of rehab established in 2019 will receive maintenance activities such as weed management in the coming period.</p> <p>Table 7.1 of the Annual Review details that at the end of 2019:</p> <ul style="list-style-type: none"> - 159.1 ha of land is being prepared for rehabilitation – landform construction and prep for seeding - 1142.3 ha of land is under active rehabilitation i.e. being managed for relinquishment. <p>Based on the above mine rehabilitation is progressing towards achieving Condition 29. This is supported by field inspections within rehabilitation undertaken for this audit.</p> <p>An Independent review of rehabilitation undertaken in 2019 following discrepancies in the areas of ecosystem development and ecosystem establishment specified in the MOP. Largely reflects interpretation of phase of rehabilitation development. See response to Sch 3 Cond 57 for further discussion.</p> <p>All findings were addressed and or adopted and presented in revised 2020 MOP Amendment B submitted approved by the Resources Regulator on 11/6/19.</p>				
Vegetation Community	Code (BVT)	Biometric Vegetation Type	Area (ha)	Endangered Ecological Community (EEC)	^a Credits Required														
Central Hunter Grey Box - Ironbark Woodland	HU817	Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter	2,100	Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions EEC	11,204														
	<p>The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Policy for Major Projects and can be achieved by:(a) retiring credits generated by mine rehabilitation;(b) acquiring or retiring credits under the biobanking Scheme in the TSC Act;(c) making payments into an offset fund that has been developed by the NSW Government; or(d) providing supplementary measures.</p>	Not triggered	<p><u>WSP</u></p> <p>Section 1.3 of WML BMP identified that BioBanking Agreement or equivalent will be used as a mechanism to secure and retire mine rehabilitation offsets within 10 years of completion of mining operations (i.e. 2027).</p> <p>Note that these mechanisms to retire credits may have changed due to recent biodiversity reforms. Suggest that this section be revised to discuss new legislation and conservation mechanisms available to retire credits such as conservation agreements or Biodiversity Stewardship Agreements through BAM. Based on experience establishing BioBanking Agreements are no longer an option for existing projects to retire credits. See response to condition Sch 3 Cond 28 of SSD 6464.</p>																
Direct Land-Based Offsets																			
30	<p>Within 3 years of the date of commencement of the development under this consent, the Applicant shall secure offset areas listed in Table 12 under an in perpetuity conservation mechanism such as entering into a biobank agreement, in accordance with the relevant provisions of the TSC Act. The direct land-based offsets may be used as offsets for any approval required under the EPBC Act for this development.</p> <p><i>Table 12: Direct Land-based Offsets</i></p> <table border="1"> <thead> <tr> <th>Offset Area</th> <th>Minimum Size (hectares)</th> </tr> </thead> <tbody> <tr> <td>Northern Biodiversity Area</td> <td>303</td> </tr> <tr> <td>Southern Biodiversity Area</td> <td>705</td> </tr> <tr> <td>Goulburn River Biodiversity Area</td> <td>1,063</td> </tr> <tr> <td>Bowditch Biodiversity Area</td> <td>520</td> </tr> <tr> <td>Putty Road Biodiversity Area</td> <td>94</td> </tr> <tr> <td>2003 Warkworth Sands Woodland Area</td> <td>155.8</td> </tr> <tr> <td>North Rothbury Biodiversity Area (Hanwood Estate)</td> <td>40</td> </tr> </tbody> </table> <p><i>Note: To identify the areas referred to in Table 12 see the applicable figures in Appendix 4.</i></p>	Offset Area	Minimum Size (hectares)	Northern Biodiversity Area	303	Southern Biodiversity Area	705	Goulburn River Biodiversity Area	1,063	Bowditch Biodiversity Area	520	Putty Road Biodiversity Area	94	2003 Warkworth Sands Woodland Area	155.8	North Rothbury Biodiversity Area (Hanwood Estate)	40	Not Compliant	<p><u>WSP</u></p> <p>Date of commencement was 15 Feb 2016, therefore biodiversity credits to be retired by 14 Feb 2019 (i.e. within 3 years of commencement)</p> <p>WML BMP states BioBanking Agreements will be prepared (during 2015-2017) for all offsets sites. Table 19 provides an overview of the class and number of credits generated. Table 20 details that applications to retire credits were proposed to be lodged in 2018. The letter to BCD 1/6/20 provides updated details as stated above.</p> <p>MTW Audit Protocol Spreadsheet specifies that MTW are still going through the process of securing the offsets through voluntary conservation agreements (VCAs). BARs were completed and submitted through the Biodiversity Portal.</p> <p>No evidence supplied that these applications have been lodged/approved</p> <p>Currently Not Compliant however actions are being undertaken to fulfil this condition i.e. Letter to DPIE acknowledging issues with BBAM to BAM conversion, changes in the permissible conservation agreements specified in conditions and need for extension of timeframe required to secure in perpetuity conservation agreement.</p> <p>Sighted a Letter to BCD to on equivalence drafted but not submitted, including a revised time line to secure conservation agreements and credits by April 2021</p> <p>Some minor changes to the areas and properties in Table 12 due to Land survey, and easement removed cut out. However total revised areas have increased to 2934.2 vs 2880. The letter to BCD 1/6/20 provides updated details as stated above.</p>
Offset Area	Minimum Size (hectares)																		
Northern Biodiversity Area	303																		
Southern Biodiversity Area	705																		
Goulburn River Biodiversity Area	1,063																		
Bowditch Biodiversity Area	520																		
Putty Road Biodiversity Area	94																		
2003 Warkworth Sands Woodland Area	155.8																		
North Rothbury Biodiversity Area (Hanwood Estate)	40																		
31	<p>The Applicant may use the ecosystem and species credits generated by the establishment of an in perpetuity conservation mechanism such as a biobank agreement for all of these offset areas, apart from those credits generated for Putty Road Biodiversity Area and 2003 Warkworth Sands Woodland Area, to retire the biodiversity credit requirements of the development under Condition 28. All ecosystem and species credits generated by the establishment of an in perpetuity conservation mechanism for the Putty Road Biodiversity Area and 2003 Warkworth Sands Woodland Area shall be retired permanently upon the establishment of an in perpetuity conservation mechanism of these areas, and may not be used to retire any other credit requirements.</p>	Noted	<p><u>WSP</u></p> <p>Ecosystem/species credits for Putty Road BA and 2003 WSW Area have been separated in Table 19 of the WML BMP as not being available for retirement.</p> <p>Assume this means they will be established under an in-perpetuity conservation mechanism and no credits from these direct land-based offsets will be generated.</p>																
Additional Warkworth Sands Woodland Measures																			

Condition	Requirement	Status	Evidence
32	Within 6 months of the commencement of development under this consent, the Applicant shall: (a) develop suitable performance criteria to the satisfaction of OEH for determining the successful regeneration of the Warkworth Sands Woodland EEC in the Northern Biodiversity Area within 15 years from the commencement of development under this consent; and (b) lodge a bond (in the form of a bank guarantee) of \$1 million (indexed to CPI) with OEH. Note: The Applicants biodiversity offset strategy involves the regeneration of 159 hectares of Warkworth Sands Woodland in the Northern Biodiversity Area, and the production of an additional 19.5 hectares of existing Warkworth Sands Woodland in the Southern Biodiversity Area.	Compliant	<u>WSP</u> a) Performance criteria developed and submitted for approval on time (this was triggered in previous audit where auditor received message and documents relating to submission). WSW Performance Criteria document (Dec 2017) supplied which details performance criteria for regenerating WSW in the Northern Offset within 15 years of commencement. The performance criteria are suitable in their alignment with BBAM benchmarks and reference sites. Recommend attributes collected as part of monitoring include additional measures such as stem classes and groundcovers. Given data is available, suggest adding some of these to the performance criteria or provide discussion on using data to aid in adaptive mgt e.g. stem class count threshold to aid in determining whether future thinning actions are required to increase vegetation in groundcover. b) evidence of bond provided and cited
33	If, at the end of 15 years from the commencement of development under this consent, the regeneration of Warkworth Sands Woodland EEC in the Northern Biodiversity Area meets the performance criteria to the satisfaction of OEH, the OEH shall refund the bond to the applicant. If, however, the regeneration does not meet the performance criteria to the satisfaction of OEH, then the Applicant will forfeit the bond to OEH for use by OEH for the regeneration of Warkworth Sands Woodland EEC in the local area, or equivalent strategic conservation initiatives in the region.	Not Triggered	<u>WSP</u> Required by year 2031. Only three rounds of monitoring completed to date and another scheduled for 2020 (Table 4 of WSW Performance Criteria doc).
34	Within 12 months of the commencement of the development under this consent, the Applicant shall prepare an Integrated Management Plan for the Warkworth Sands Woodland EEC to the satisfaction of OEH. This plan must be prepared in consultation with the owners of Wambo and Bulga Mines, and outline the measures that would be implemented to coordinate management and recovery efforts for the EEC.	Not Compliant	<u>WSP</u> The 2017 IEA response stated, the plan "developed and consultation and meetings with other parties is underway". Plan developed (Feb 2017 Integrated MP provided) in consultation with relevant parties - Section 1 of the MP states that consultation on the plan was undertaken in 2016 via meetings with Bulga Coal Complex, Wambo Coal Mine and OEH. Annual WSW forum has been established to integrate management actions and knowledge to coordinate recovery efforts. Viewed email from RTCA dated 9/2/17 confirming consultation with Peabody Energy, and Glencore. As per email from Environmental Specialist Rehabilitation dated 24/4/20, OEH has not confirmed whether the management plan is to their satisfaction. A copy of the Integrated Management Plan for the Warkworth Sands Woodland EEC was provided to OEH on 24/4/20 to request confirmation that it is to their satisfaction. No response has been received as at 9/7/20. Recommend re-providing plan and follow up with OEH to confirm that Integrated Management Plan for the Warkworth Sands Woodland EEC is to their satisfaction.
35	Within 6 months of the commencement of development under this consent, the Applicant shall contribute \$1 million to OEHs Saving Our Species - Regent Honeyeater conservation program. The Contribution may be used as a supplementary measure for any approval required under the EPBC Act for this development.	Compliant	Viewed MTW Regent Honeyeater Conservation Program internal proposal, no date, requesting payment contribution be made prior to 15/8/16. As per 2017 audit, money was sent and collected. PO raised 6/7/16. Recommend the contribution is followed up with OEH by end July 2020, to seek evidence that contribution received in Saving Our Species program.
Biodiversity Management Plan			
36	The Applicant shall prepare a Biodiversity Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The Plan must:	Compliant	<u>WSP</u> MTW currently operates under the 2018 BMP, viewed approval letter from DPE dated 20/9/18.
	(a) be prepared in consultation with OEH and submitted to the Secretary for approval prior to the commencement of any development under this consent;	Compliant	In Section 1.3.1 it states that consultation with OEH commenced on 3 December 2015 and OEH provided comments in January 2016 (Attachment B). It notes that these comments were incorporated.
	(b) describe the short, medium and long term measures that would be implemented to: - manage the remnant vegetation and fauna habitat on the site; - implement the biodiversity offset strategy described in the EIS; - regenerate and conserve Warkworth Sands Woodland EEC in the biodiversity areas; - integrate the implementation of the biodiversity offset strategy to the greatest extent practicable within the rehabilitation of the site;	Compliant	Short term measures described in Section 4 of the WML BMP. Specific measures thereafter provided in OMP for each offset area. Actions to implement BOS (including rehab) provided in Section 2.5, 4 and 5 of BWML BMP. WSW regeneration measures detailed in Section 4 of BMP. Specific measures are provided in WSW Integrated MP and Northern and Southern OMPs.
	(c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy (including the regeneration of Warkworth Sands Woodland) and triggering remedial action if necessary;	Compliant	Provided in Section 3.3.2 for operational lands (mine rehabilitation) and Section 4 for biodiversity offset areas. Trigger, response and remedial actions provided in Attachment A. Specific performance criteria also given in each OMP. WSW specific performance criteria detailed in WSW Performance Criteria 2017 document as discussed above.
	(d) include a detailed description of the measures that would be implemented over the next 3 years for: - regenerating Warkworth Sands Woodland in the biodiversity offset areas; - protecting vegetation and fauna habitat outside the approved disturbance area on-site; - enhancing the quality of existing vegetation and fauna habitat on the site and in the biodiversity offset areas; - minimising clearing and avoid unnecessary disturbance; - maximising the salvage of resources within the approved disturbance area - including vegetative and soil resources - for beneficial use in the enhancement of any land based offsets or the rehabilitation of the site; - collecting and propagating seed; - minimising the impacts on fauna on-site, including undertaking pre-clearance surveys; - managing salinity using best practise dryland salinity management revegetation measures; - controlling weeds and feral pests; - controlling erosion; - managing grazing and agriculture on site;	Compliant	WML BMP details measures to be implemented over first three years for: - WSW – Section 4 and 5 - Enhancement – Section 3 and 4 - Minimise clearing – Section 3.2 - Salvaging resources – Section 3.2.3 - Seed collection Section 3.2.3 - Clearing impacts – Section 3.2 Progressive clearing - Weeds and pests – Section 3.2.4 (in accordance with MTW Enviro Procedure 10.4 and quarterly pest reports) - Erosion – Section 3.2.6 (in accordance with 'Blue Book') - Grazing – Section 3.2.7 - Controlling access – Section 1.3.4 and Section 4 - Bush fire management – Section 3.2.5 (in accordance with MTW Bushfire MP (2015) not supplied. An overview of these measures for offsets is provided in Table 17. Specific measures are provided in each OMP. Measures for regeneration of WSW in offset areas provided in WSW Integrated MP and Southern and Northern OMP. BMP and OMPs do not appear to provide any specific measures for controlling salinity. Recommend providing information relating to salinity in BMP or link to Plan where this is addressed.

Condition	Requirement	Status	Evidence
	- controlling access; and - bushfire management.		Many of the performance criteria are general in nature e.g 'Ecological monitoring demonstrates a trajectory to benchmark values for all attributes over three consecutive assessments (the average of all plots)'. Recommend a measurable target needs to be added to the performance criteria of the BMP and OMPs so that it is clear to what condition it must reach as a minimum not just a trajectory, comparable to Table 6 of the WSW Performance Criteria document
	(e) include a seasonally based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria; and	Compliant	Summarised in Section 3.3.2.3 and Section 4.2.3 of BMP. Specific monitoring programs for offset areas provided in OMPs. All monitoring requirements have been undertaken and reports cited. The audit site inspection observed areas of the southern and northern BOAs with supplementary habitat stockpiled for placement. However, it is unclear of the timing of placement and or need to trigger the post 12 month monitoring for habitat use is provided. It is recommended the Annual Summary Report clearly identified when and where supplementary habitat is placed within BOAs and subsequent monitoring is undertaken in accordance with the Table 18 of BMP. A number of the monitoring reports incorporate recommendations for the restoration of WSW and generally the BOAs. It is recommended that these are implemented, specifically; Habitat restoration monitoring for the southern and northern BOAs (Niche 2018). <ul style="list-style-type: none"> recommended that a more finely detailed assessment of management zones (Warkworth Sands Grassland (Management Zones 2 and 4) be undertaken in order to target management works appropriately; Direct seeding of grassland areas may be required; and An assessment of the canopy recruitment at each transition site should be undertaken to determine if further planting or seeding is required. Vegetation and habitat monitoring for the Goulburn and Condon View BOAs (Niche 2016 and 2018). <ul style="list-style-type: none"> recommended management intervention involving increased weed management should be considered to prevent weed incursions impacting on vegetation; and recommendations for intensive management including intensive weed would be needed to assist in regeneration.
	(f) identify the potential risks to the successful implementation of the biodiversity offset strategy (including regeneration of the Warkworth Sands Woodland), and to include a description of the contingency measures that would be implemented to mitigate these risks; a	Compliant	Risk assessment and corrective actions to mitigate these risks are provided in Section 6 of each OMP.
	(g) include details of who would be responsible for monitoring, reviewing, and implementing the plan. Note: management measures relating to the biodiversity offset strategy may be addressed via equivalent measures required by OEH as part of a Biobanking Agreement or similar conservation agreement.	Compliant	Provided in Section 1.3.3 of the WML BMP.
Conservation Bond			
37	Within 3 months of the approval of the Biodiversity Management Plan, unless otherwise agreed by the Secretary, the Applicant shall lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity management Plan. The sum shall be determined by: (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary. If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond. If the offset strategy is not completed in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works. Notes: - Alternative funding arrangements for long-term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a biobanking agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond. - The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Management Plan.	Compliant	<u>WSP</u> Bank Guarantee number 802/GTE/7738 dated 29 July 2016 sighted for proposed conservation bond and acknowledged as appropriately calculated by DP&E dated 10/5/16.
HERITAGE			
Wollombi Brook Aboriginal Cultural Heritage Conservation Area			
38	The Applicant shall prepare a conservation Management plan for the Wollombi Brook Aboriginal Cultural Heritage Conservation Area to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must: (a) be prepared in consultation with OEH and aboriginal stakeholders, and submitted to the Secretary for approval prior to any development to the west of Wallaby Scrub Road under this consent unless otherwise agreed by the Secretary; (b) describe the measures that would be implemented to provide for the protection, conservation and enhancement of aboriginal values in the area;	Compliant	a) Viewed approval 11/10/17. Viewed letter of consultation with OEH dated June 2017. Consultation included an ad in the newspaper 8 June 2017 for the Cultural Heritage Working Group meeting. Viewed ppt. presentation which outlines management plan contents, RAPS invited to provide feedback on MP. There were ten groups registered. b) Measures are outlined in Section 4.2, 7 and 10.2 of the Wollombi Brook ACHCA. MTW are currently determining a mechanism for locking area in Conservation Agreement for cultural heritage. (GM pers comms). Stakeholders have been identified and an initial meeting was held. The Southern Biodiversity Offset area overlays this area, land management plan activities have been occurring in the area and the area is safe and protected (GM pers comms).

Condition	Requirement	Status	Evidence
	<p>(c) include a program/procedures for:</p> <ul style="list-style-type: none"> - protection and management of aboriginal sites, including protocols for the establishment of strictly controlled non-access zones and protocols around culturally sensitive areas; - maintaining and managing access to the area by the relevant Aboriginal stakeholders, including establishment of areas for active Aboriginal cultural heritage and landscape management; and - ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage in the area. <p>(d) investigate the potential for collaborative management of the Aboriginal heritage values of the land within the Southern Biodiversity Area and the adjoining Wambo-owned land adjacent to the conservation area, in consultation with the owner of the Wambo mine; and</p> <p>(e) include an action plan for the implementation of the plan, including establishment and ole of the Wollombi Brook Aboriginal Cultural Heritage Conservation Area management committee in overseeing implementation of the plan.</p>		<p>c) Program and procedures are outlined in Section 7, 3, 5 and 5 of the Wollombi Brook ACHCA. Viewed GDP for "WML sediment dam geo testing" which confirms Cultural Heritage authorisation was undertaken and that there were "no known cultural heritage sites within the GDP area"</p> <p>d) Section 4.2.2 and 5 of the Wollombi Brook ACHCA.</p> <p>e) Section 8 of the Wollombi Brook ACHCA.</p> <p>During the IEA, viewed examples of signage and fencing protecting cultural heritage sites at MTW (Plate 15).</p>
39	<p>Prior to carrying out any development to the west of Wallaby Scrub Road under this consent, unless the Secretary agrees otherwise, the Applicant shall enter into a conservation agreement or agreements pursuant to section 69B of the National Parks and Wildlife Act 1974 relating to the Wollombi Brook Aboriginal Cultural Heritage Conservation Area, recording the obligations assumed by the Applicant under the conditions of this consent in relation to the conservation area, and register the agreement/s pursuant to section 69F of the National Parks and Wildlife Act 1974.</p>	Compliant	<p>Outlined in Section 3.2.1 of the Wollombi Brook ACHCA.</p> <p>Viewed letter from DPIE dated 12/1/18 which notes that MTW is currently negotiating the terms of the VCA with OEH. The letter permits minor development (non mining activities) west of Wallaby Scrub Road. MTW has constructed a powerline, water infrastructure and RFS track west of Wallaby Scrub Road within ML 1751.</p> <p>Viewed letter from DPIE dated 30/11/18 which permits mining in the Proposed Initial Mining Area west of Lot 1 and 2 in DP1245465. The Aboriginal Heritage Conservation Agreement (CA) is in progress (GM pers comms). MTW met with BCD on 11/3/20 to discuss. Viewed CA plans showing lot/dp and draft CA. In order to register the CA on relevant land titles, a standard form (Form 13NP) is required to be signed by all relevant landowners and the Minister (being progressed). Recommend this should be progressed and completed prior to entering the area beyond the "Proposed Initial Mining Area" west of Lot 1/2 DP 124545.</p>
Human remains			
40	<p>This consent does not allow the Applicant to disturb any in-situ human remains on site.</p>	Not Triggered	<p>There were no human remains found during the IEA period (GM pers comm).</p>
Protection of Heritage Items			
41	<p>Applicant shall protect the heritage items identified in Table 1 of Appendix 5.</p>	Not Triggered	<p>There were no items required to be protected during the IEA period (GM, pers comm)</p> <p>Viewed figure of cultural heritage showing mitigated and non-mitigated sites dated 31/7/19. Figure is shown in Schedule 1 of the ACHMP. Plate 14 provides evidence of protection of Aboriginal Heritage sites west of North Pit.</p>
Salvage			
42	<p>Prior to carrying out any development on site that could affect the heritage items identified in Table 2 of Appendix 5, the Applicant shall salvage those items in accordance with the approved program under the Aboriginal Heritage Management Plan.</p>	Compliant	<p>During the IEA period, there were three salvage programs conducted at MTW (from Annual Reviews):</p> <ol style="list-style-type: none"> 1) 22 – 23/07/17 - salvage covering 25 isolated artefact sites to the west of the existing West Pit (Section 6.5 2017 AR) 2) 26/02 -1/03/18 – salvage covering 37 isolated artefact sites to the west of Wallaby Scrub Road (WSR) along with the removal and relocation of Site M grinding grooves (Section 6.5, 2018 AR); 3) 9 -12/10/18 – salvage covering 14 isolated artefact sites within the WSR corridor and to its west (Section 6.5, 2018 AR). <p>The following sites, as shown in Table 2 of Appendix 5, were salvaged during the third salvage (MTW-2, MTW-3, MTW-51, MTW-52, MTW-53, MTW-54, MTW-61, MTW-67, MTW-68, MTW-77, MTW-87, MTW-128, MTW-130, MTW-103, MTW-60, MTW-65)</p> <p>Salvages were undertaken in accordance with ACHMP methodologies and in consultation with CHWG (GM pers comms).</p> <p>No reports were available for the first and second salvages were available at the time of the IEA. Recommend these are finalised asap and submitted to BCD to update AHIMS Register.</p> <p>Viewed "Wallaby Scrub Road Aboriginal Cultural Heritage Assessment and West of Wallaby Scrub Road Aboriginal Site Salvage and Excavation Program" (Salvage Report) dated October 2018. As per Section 9 of the Salvage Report, "there are no outstanding actions".</p> <p>MTW utilises hand held tablets with cultural heritage layers on GIS to refer to in the field. Reviewed GDP for North Pit Pre-Strip and West Pit Pre-strip which shows the location of Cultural Heritage Sites.</p>
Aboriginal Heritage Management Plan			
43	<p>The Applicant shall prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must:</p>		
(a)	<p>be prepared in consultation with OEH and Aboriginal stakeholders. and submitted to the Secretary for approval prior to carrying out any development under this consent;</p>	Compliant	<p>Viewed approval letter from Secretary dated 28 August 2018. Schedule 18 in the AHMP provides presentation and newspaper articles to stakeholders.</p> <p>Recommend in future version, evidence of consultation with OEH and/or approval not to consult should be included in ACHMP.</p>
(b)	<p>include a program to:</p> <ul style="list-style-type: none"> • salvage, investigate and/or manage Aboriginal sites and potential archaeological deposits within the project disturbance area; • assess and remove scarred trees within the disturbance area; • protect and monitor Aboriginal sites outside the project disturbance area; • manage the discovery of any new Aboriginal objects or skeletal remains during the development; • facilitate access to archaeological sites on site for Aboriginal stakeholders; and • Aboriginal stakeholders are consulted and involved in the conservation and management of Aboriginal cultural heritage on the site. 	Compliant	<p>The program described in this condition is outlined within the provisions of the AHMP.</p> <p>In 2018, there were two salvage programs and an Aboriginal and Cultural Heritage inspection. The results of the October 2018 Salvage Program are discussed in Sch 3 Cond 42.</p> <p>In 2019 there was one new cultural heritage site (artefact scatter) identified and recorded.</p> <p>The site was barricaded and MTW arranged for an inspection by a qualified archaeologist to record and document the site. An AHIMS site card was developed and submitted in accordance with the provisions outlined in the ACHMP and the site was added to the MTW cultural heritage management GIS layer. The Site was subsequently placed on AHIMS, (<u>Section 6.5.2 2019 AR</u>).</p> <p>Viewed GDP 0011, dated 22/11/ 2017 for the salvage of grinding grooves. GDP includes instructions for salvage and salvage area however it has not been signed off. Viewed GDP spreadsheet showing GDP close out section was not always completed.</p> <p>Recommend that original GDP forms and spreadsheet are updated following field inspection by Environmental team to confirm that all GDPs actions were completed and signed off.</p> <p>A requirement of the AHMP is for the long-term management of Aboriginal Objects. The relevant objects are still in storage at a HVO facility (GM pers comms). A new care agreement has been approved with OEH, 26 April 2019, and communicated to the Registered Aboriginal Parties in October 2019, however the objects are yet to be relocated. Recommend this is progressed.</p> <p>The 2017 Audit identified "One administrative non-compliance in relation to Cultural Heritage Awareness Training materials not meeting the requirements of consents SSD-6464 and SSD-6465 and associated Aboriginal Heritage Management Plan" (Section 6.5,1, 2017 AR). Viewed</p>

Condition	Requirement	Status	Evidence
			current new employee induction presentation dated 16/3/2020 and confirmed if contains cultural heritage section process. Further discussion on training is provided in Sch 5 Cond 1.
(c)	Include a research program, that has been prepared by suitable qualified and experienced persons whose appointment has been approved by the Secretary, for locating and evaluating sand bodies of likely early Pleistocene and early Holocene age that may contain evidence of Aboriginal habitation in the Upper Hunter Valley.	Not Compliant	The Research Program is described in Provision 38 and Schedule 17 of the ACHMP as required by this condition. However, the Research Program required within the plan has not progressed (GM pers comms). As per Section 17 of the ACHMP, the Research Program was due to be implemented in August 2017. The sand bodies are located on both Warkworth and HVO land. MTW has discussed approval to access the sand bodies on HVO land however agreement on the access has not been granted to date (GM pers comms). Recommend that access to the sand bodies on HVO be resolved. If access cannot be granted, discussions should occur with relevant regulators and modify the ACHMP to relocate the Research Program requirement. The Research Program on MTW should be progressed.
Mount Thorley Warkworth Historic Heritage Conservation Fund			
44	The Applicant shall establish and contribute \$500,000 under the Mount Thorley Warkworth Historic Heritage Conservation Fund in consultation with Council and the CHAG to the satisfaction of the Secretary.	Compliant	Viewed Partnering Agreement (PA1) with SSC dated 21/2/17. Schedule 2 of the PA1 describes Funding Allocation (\$100k/year over five years). At the time of the IEA, three invoices had been issued from SSC. Viewed third tax invoice from SSC dated 25/11/19 for the sum of \$113,911.12 (including GST). MTW has funding obligations for two more years, with invoices being due on 26/11/20 and 26/11/2021.
Mount Thorley Warkworth Great Northern Road Conservation Fund			
45	The Applicant shall establish and contribute \$200,000 under the Mount Thorley Warkworth Great Northern Road Conservation Fund to be administered by the Applicant in consultation with Council, CHAG, Convict Trail Project and Heritage Branch, to the satisfaction of the Secretary.	Compliant	Viewed Partnering Agreement with the Convict Trail Project Incorporated dated 3/5/17. Viewed letter from Project Director of the Convict Trail Project Incorporated dated 24/01/20 confirming that \$203k has been paid. The letter also stated that "at this stage, no funds have been utilised from the trust account established for the fund".
Historic Heritage Management Plan			
46	The Applicant shall prepare a Historic Heritage Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. This plan must:		
	(a) be prepared by suitable qualified and experienced persons whose appointment has been endorsed by the Secretary;	Compliant	2017 IEA, sighted approval letter. Approval letter for manager Heritage and Aboriginal Relations sighted.
	(b) be prepared in consultation with the Heritage Branch, Council, CHAG and local historical organisations;	Compliant	Recital J of the HHMP states that consultation was undertaken with DPE, Heritage Division of OEH and SSC. Viewed email to CHAG participants dated 6/5/16 inviting participants to a HHMP meeting discussion.
	(c) be submitted to the Secretary for approval prior to carrying out any mining to the west of Wallaby Scrub Road;	Compliant	Mining through Wallaby Scrub Road was approved by DPIE 30/11/18. HHMP was submitted on 7/7/17. Viewed approval letter from DPIE dated 11/10/17 stating HHMP satisfied the requirements under this condition.
	(d) Include the following: - conservation management plans for the former RAAF Base Bulga, Great Northern Road (Wallaby Scrub Road portion), Brick House and Springwood Homestead, and - a program/procedures for: - archaeological investigations of Wallaby Scrub Road, Well 2, and the former RAAF Base Bulga Complex; - photographic recording of all historic heritage sites within the disturbance areas prior to disturbance; - relocation and storage of moveable heritage items; - managing the discovery of any new heritage items during the development; - ongoing consultation and involvement of the relevant historical groups in the conservation and management of historic heritage on the site; - developing an interpretation programme of the heritage values of the RAAF Base Bulga Complex and the Great Northern Road Complex; - establishing the Mount Thorley Warkworth Historic Heritage Conservation Fund and the Mount Thorley Warkworth Great Northern Road Conservation Fund; and - protecting the other heritage items outside the disturbance area. Note: It is accepted that the conservation Management plan for the Springwood Homestead and interpretation programme for the RAAF Base Bulga Complex and the Great Northern Road Complex will not be submitted with the initial Historic Heritage Management Plan. These should be progressively added to the plan once completed.	Compliant	The program and procedures as required under this condition are outlined in various Schedules and Provisions including Schedule 5, 6, 12, 14, 19. RAAF Base Bulga is located west of the approved mining area; Great Northern Road is located within the northern portion of Wallaby Scrub Road; the Brickhouse is located east of WW Preparation Plant on the eastern side of the Golden Highway; and Springwood Homestead is located north west of the approved mining area, near Wambo Rail Loop. Recommend adding labels for the abovementioned features to figures in the HHMP at next review. The management plans for the abovementioned features, describes the process for survey only. There are no requirements to restore infrastructure. Maintenance actions include regular rehab, slashing and replacement of degraded plywood (GM pers comms). A commitment of the HHMP, is to conduct annual compliance inspections with members of the community through the CHAG on the RAAF Base Bulga, Brick House and Springwood Homestead. The results of these inspections are provided in the Mount Thorley Warkworth Historic Heritage Management Plan 2019 Compliance Audit Inspection', appended to the Annual Review. One historic heritage survey and investigation was conducted during the IEA, in 2018 – following the closure of Wallaby Scrub Road an archaeological survey of the road corridor was conducted followed by a sub-surface investigation of an area identified as having high archaeological potential (Section 6.5.2, 2018 AR). See response to Sch 3 Cond 42. Viewed the RAAF Bulga Archival Recording dated Nov 2013; Archaeological Investigations of the Former RAAF Base Bulga dated March 2018. There are a number of required actions detailed on page 7 of the March 2018 report. Viewed Report Covering Excavations at Mt Thorley Warkworth Well 2 Historic Site dated Nov 2017, no actions; and Great North Road Archaeological Works: Excavation Results dated Dec 2018, no actions. The IEA site visit confirmed that there are no corrective actions register for Heritage. Recommend action recommendations from Archaeological Investigations of the Former RAAF Base Bulga report dated March 2018 in the next period and report on in Annual Review; 1. Thorough and comprehensive survey of the potential disturbance area to identify any historic objects or features that may be present; 2. Where items of movable heritage value are located and likely to be impacted, salvage will be undertaken to ensure that any items of significance are collected prior to the area being impacted; 3. Where heritage features are identified and likely to be impacted, and where archaeological excavation would be beneficial in obtaining further information on those features, excavations will be considered to mitigate any impacts on those features; and 4. Where movable items of historical interest are located within the potential disturbance area, they will be offered to the Singleton Historical Society and Museum for retention in their collection. And Mount Thorley Warkworth Historic Heritage Management Plan 2019 Compliance Audit Inspection' recommendations: 1. Install or reinstall/repair barricade, wire and/or signage at sites MTW-4; 8; 69; 71; 72; 86; 89; 90; 138; 142; 144; 145; 163-5; 167-71; 177-80; and WS7; 2. Consider rebarricading if activity increases in the area sites MTW-140; 141; 143; 146-62; and 172-6 if activity increases in their vicinity; 3. Discuss and plan the salvage with CHWG of sites: MTW-4; 69; 71; 72; 86; 89; 90; 222; 724; and WS7; 4. In consultation with the CHWG and an arborist, remove and relocate scarred trees MTW-8; 70; 80; and 523, considering the Wollombi Brook ACH Conservation Area as a relocation destination; and 5. Update the site co-ordinates within the MTW ACH GIS of site WB3 to those noted in the report.

Condition	Requirement	Status	Evidence
			6. Increase the extent of the barricade around the new find at Charlton Ridge (MTW-724). There were no incidents nor any unauthorised disturbance caused to historic heritage sites at MTW during the IEA period (Section 6.5.2, 2017, 2018 and 2019 AR). Heritage items have not been required to be relocated or stored during the EIA period (GM pers comms).
TRANSPORT			
Wallaby Scrub Road			
47	<i>This consent allows open cut mining through the existing alignment of Wallaby Scrub Road.</i> <i>Note: the Applicant also required other related approvals in order to undertake mining within the existing road alignment including an approval under the Roads Act 1993 to close Wallaby Scrub Road. It also needs to obtain mining lease over the Road under the Mining Act 1992 for mining from surface to 20 metres depth.</i>	Compliant	See response to Sch 3 Cond 39 regarding the Proposed Initial Mining Area. A portion of Wallaby Scrub Road was gazetted as closed by the Minister for Lands and Forestry on 7 September 2018, and subsequently purchased from Singleton Shire Council (SSC) on the same date (Section 4.4, 2018 AR). No Section 138 approval under the <i>Roads Act 1993</i> was required as the parcel of land was no longer a road after the gazettal of road closure (GM pers comms). Mining has progressed through Wallaby Scrub Road in the northern end of CCL 753 down to the Redbank Creek coal seam (email from mine planning superintendent dated 17 April 2020). In total, there has been 76.9 ha of disturbance west of Wallaby Scrub Road (Feb 2020, CCC minutes).
Intersections			
48	<i>Unless the Secretary agrees otherwise, the Applicant shall:</i> <i>(a) close the intersection of Lydes Lane and the Golden Highway in consultation with Council and to the satisfaction of RMS, within 6 months of the date of this consent; and</i> <i>(b) pay the RMS \$375,000 towards the upgrade of the intersection of the Golden Highway (Putty Road) and Mitchel Line of Road within 12 months of the date of this consent.</i>	Compliant	a) Lydes Lane is located adjacent to the MTW admin building and has been physically closed. The gate was installed on 14/7/16 to close the intersection and was completed seven weeks post the requirement to close it. Viewed approval letter from SSC to install a gate within the road reserve of Lydes Lane, Singleton dated 21 June 2016. An extension to close the intersection was sought and approved by DP&E to 29-07-16 (Letter 19-06-16). The letter stated that a section 138 approval under the <i>Roads Act</i> was required. Viewed council minutes dated 26/5/16 which discussed installation of the gate and recommending that council approve. Viewed email to RMS to P.Smith (at RMS) dated May 2016, requesting review of report and feedback. RMS had no objections. No evidence that a section 138 approval under the <i>Roads Act 1993</i> has been acquired, SSC letter 21/6/16 noted that "installation is in accordance with s138 of the <i>Roads Act</i> ". b) As stated in the 2017 IEA, \$374,100 was paid towards RMS dated 21st December 2016, a further \$900 was paid on 7 February 2017. Delays due to change in invoicing systems.
Putty Road Crossing			
49	<i>If the Applicant decides to construct a third crossing of Putty Road between the Warkworth and Mount Thorley Mines, then this crossing must be constructed to the satisfaction of the RMS, and the Applicant shall bear all the costs associated with the construction, maintenance and subsequent removal of this crossing during rehabilitation of the site.</i>	Compliant	Construction activities completed in 2018 included the Putty Road third crossing (Section 4.4, 2018 AR). See response to Sch 2 Cond 10.
Rural Fire Service - Emergency Access Track/Fire Trail			
50	<i>Prior to the closure of Wallaby Scrub Road, the Applicant shall do the following in consultation with Council, RMS and the RFS:</i> <i>(a) develop a suitable emergency access track/fire trail to the west of the approved mining pit in general accordance with the indicative trail/track shown in Appendix 8, and ensure that this track/trail complies with the relevant standards in the RFS Planning for Bush Fire Protection publication and the Bushfire Coordinating Committees Fire Trails Policy No. 2/2007, or its latest version;</i> <i>(b) develop a protocol with RFS that:</i> <i>- provided for ongoing access and use of the new emergency access track/fire trail following the closure of Wallaby Scrub Road;</i> <i>- provides for access to the site during emergencies on site to assist with any emergency response; and</i> <i>- provides for the Applicant to use the emergency response equipment and appropriately trained personnel on site to assist the RFS (and any other emergency agencies) respond to emergencies in the surrounding area, to the satisfaction of the Secretary.</i> <i>Following approval, the Applicant shall carry out the development in accordance with this protocol.</i>	Compliant	a) As described in Sch 3 Cond 47, a portion of Wallaby Scrub Road was gazetted as closed by the Minister for Lands and Forestry on 7 September 2018. The RFS Emergency Access Track / Fire Trail was constructed in 2018 (Section 4.4, 2018 AR.). Viewed fire trail on aerial at site visit, its alignment is generally consistent with the file trail shown in Appendix 8 of SSD 6464. Viewed email from RFS dated 16/10/17 with fire trail standards attached. RMS and SSC were consulted 17/10/17 and 14/11/17 respectively, and both stakeholders provided no comment. Correspondence from RFS dated Aug 2017 directed MTW to use the Fire Trail Standards (GM pers comms). b) Viewed email to RFS dated 7/9/18 detailing protocol and access arrangements. There were two protocols, one prior to closure and one after, RMS were consulted for both protocols and approved the access protocol's on 7/9/18. MTW maintains the entire trail.
Monitoring of Coal Transport			
51	<i>The Applicant shall:</i>		
(a)	<i>keep records of the amount of coal transported from the development in each calendar year; and</i>	Compliant	MTW keep records of the amount of coal transported from the development in each calendar year (MTW June 2020 Evidence Spreadsheet). Spreadsheets were sighted during the IEA.
(b)	<i>make these records available on its website at the end of each calendar year.</i>	Not Compliant	At the time of the IEA, coal transport amounts were not reported on the website or in the Annual Review. The 2019 Annual Review has since been updated and coal transport amounts are now included in Section 4.3. Recommend to Continue to report coal transport amounts in Section 4.3 of the Annual Review.
VISUAL			
Operating Conditions			
52	<i>The Applicant shall:</i>		
(a)	<i>implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development, including lighting impacts on road users and impacts of mining voids;</i>	Compliant	The following community complaints were made in relation to lighting <ul style="list-style-type: none"> • 33 complaints in 2017 • 32 complaints in 2018 • 27 complaints in 2019 • No complaints in Jan or Feb 2020 (MEMR) Results for March, as presented in the MEMR, was not available at the time of the IEA. During the IEA site visit, the Mine Services Technical Discussion included procedures for how lighting impacts are managed. Lighting issues have increased since mining through Saddle Ridge towards Bulga. There is two way interaction between Mine Manager and the CROs. Stoppages due to lighting impacts are individually recorded by the CROs. The CRO Work Instruction includes a lighting check for issues.

Condition	Requirement	Status	Evidence
			The Mine Manager is aware of the increased lighting complaints which is due a decrease in topography ahead of mining and height of dumps have increased. A revised lighting procedure has been drafted. Viewed Tipping and Dumping Work Procedure" which is the lighting operational control, has procedure for operating plant, where focus of lighting should be directed on pit dumps. MTW currently working on finalising plan to include sensitive receivers. Internal lights incident register viewed with acknowledgement that lighting plant was not consistently positioned in accordance with existing Procedures. Recommend amending internal Procedures and CRO Work Instruction to refer to revised Lighting and Management Leaders document and training rolled out to relevant personnel.
(b)	establish and maintain vegetated bunds, vegetative screening and/or screen fencing along the boundary of the site including adjoining public roads where appropriate;	Compliant	Viewed Visual Screening Plan dated June 2016. Additional improvements planned for screening are outlined in Section 3 of the Visual Screening Plan. In 2019, a visual screen planting of tube stock (360) and seed plots (440) was planted along Putty Road (Nov 2019, CCC Minutes) (see Plate 16). Recommend additional plantings designed and undertaken to reduce viewed at the third crossing into Mt Thorley pit (see Plate 17-18).
(c)	ensure that all external lighting associated with the development complies with Australian Standard AS4282 (NT) 1997 - Control of Obtrusive Effects of Outdoor Lighting, or its latest version; and	Compliant	Viewed draft Lighting Audit Review dated March 2020 which was completed against AS4282 (NT) 1997. No improvements were required as a result of the audit, however recommended that temporary lighting plant be inspected to ensure that all lighting is directed below the horizontal, where safe to do so and inspections documented.
(d)	monitor and report on the effectiveness of these measures.	Compliant	Two main controls used to minimise visual amenity are lighting management and visual screening (Section 6.6 2019 AR). These are reported in Section 6.6 of the AR.
	Initial works to establish the vegetative bunds and/or screening referred to in condition 30(b) must be undertaken within 6 months of the date of commencement of development under this consent (unless otherwise agreed by the Secretary), in accordance with a tree screening plan that has been prepared in consultation with Council and to the satisfaction of the Secretary. The use of screen fencing shall be limited to areas where vegetative screening is not feasible, or as an interim measure prior to establishment of vegetation.	Not Triggered	Required prior to audit period. Vegetation bunds/screening in condition 30(b) are illustrated on page 2 of the Rehab and Visual Screening Presentation provided by MTW during the IEA. The initial works began in 2016 with a shade cloth fitted to security fences from Dragline Crossing to Wallaby Scrub Road intersection. A Stage 1 bund was also constructed along a section of Putty Road. The 2017 audit sighted consultation with Singleton Council. No evidence that the Tree Screening Plan was prepared to the satisfaction of the Secretary.
Additional Visual Impact Mitigation			
53	Upon receiving a written request from the owner of any residence on privately-owned land who has, or would have, significant direct views of the mining operations from this residence and/or its associated facilities (such as pool or barbeque area) during the development. the Applicant shall implement additional visual mitigation measures (such as landscaping or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the visibility of mining operations from the residence and/or its associated facilities. If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	Not Triggered	No written request has been received during the IEA period (GM pers comms).
	Notes: • The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties. • The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts). • Except in exceptional circumstances, the Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 5 kilometres from the mining operations.	Noted	
BUSHFIRE MANAGEMENT			
54	The Applicant shall:		
(a)	ensure that the development is suitably equipped to respond to any fires on site; and	Compliant	Viewed Bushfire Management Plan revised 17/9/19. Protocol for RFS fire trail (as described in Sch 3 Cond 50) also describes fire equipment required on site and a list of trained personnel.
(b)	assist the Rural Fire Service and emergency services as much as practicable if there is a fire in the vicinity of the site.	Not Triggered	No request to assist (GM pers comms).
WASTE			
55	The Applicant shall:		
(a)	implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;	Compliant	General waste contractor is Remondis. Viewed waste reconciliation spreadsheet for 2019 which shows targets and volumes. Recycling bins located around site. During the IEA site visit, the Mine Services and CHPP Discussions included current and future planning for the tailings dam and how it relates to mine safety, the team responsible for life of main planning, emplacement of fine and coarse rejects. The CHPP is managed to avoid waste. Coarse rejects are mixed with waste rock and not placed within 5m of the final landform. Stability testing is undertaken by geotechnical contractors and there are currently no issues in the dump. Coarse reject is not mixed with poorer quality material. Historic tailing is managed by the geotechnical contractors. The Coal and Allied Waste Classification procedures as outlined in the EIS have been replaced (GM pers comms).
(b)	ensure that the waste generated by the development is appropriately stored, handled and disposed of; and	Compliant	Waste streams at MTW include: coal reject material, waste tyre and general waste. Coal reject and general waste is discussed in part a, waste tyre is discussed below. Warkworth EIS describes waste tyre procedure which is linked to EPL condition L4.3. Tyre waste is managed by the Technical Services team who identifies burial location and survey location depending on burial depth. There have been no issues with tyre placement. EPL reporting of

Condition	Requirement	Status	Evidence				
			tyre placement has recently changed (see EPL 1376 Cond R5.7). During the IEA site inspection, it was confirmed that MTW were not storing more than 30 heavy plant-tyres on the premises. Tyre waste is recorded in register which describes tyre type and x,y coordinates. Viewed Scrap Tyre Processing Procedure.				
(c)	monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.	Not Compliant	No evidence that waste minimisation and management measures are reported in the Annual Review. Recommend that waste minimisation and management measures are described in future ARs.				
REHABILITATION							
Rehabilitation Objectives							
56	The Applicant shall rehabilitate the site to the satisfaction of the DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS (and depicted conceptually in the figure in Appendix 6), and comply with the objectives in Table 13	Compliant	<u>WSP</u> Annual Review details progress of mine rehabilitation progress against MOP plans.				
	<p>Table 13: Rehabilitation objectives</p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole)</td> <td> <ul style="list-style-type: none"> • Safe, stable and non-polluting • Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site • Final landforms to: <ul style="list-style-type: none"> ○ sustain the intended land use for the post-mining domains; ○ be designed to minimise the visual impacts of the development; ○ be in keeping with the natural terrain features of the area; ○ be integrated with the rehabilitated landforms of </td> </tr> </tbody> </table>	Feature	Objective	Mine site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site • Final landforms to: <ul style="list-style-type: none"> ○ sustain the intended land use for the post-mining domains; ○ be designed to minimise the visual impacts of the development; ○ be in keeping with the natural terrain features of the area; ○ be integrated with the rehabilitated landforms of 	Compliant	<u>WSP</u> Annual Review details progress of mine rehabilitation progress against MOP plans at section 7 and states "A total of 82.7 ha rehabilitation was completed during 2019 against a MOP target of 82.1 ha. Total disturbance undertaken was 99.7 ha, higher than the 2019 MOP projection of 79.2 ha. The additional reported disturbance was due to re-classification of topsoil stockpiles from rehabilitation to disturbed land. This re-classification of rehabilitation resulted from an independent review of rehabilitation progress at MTW that was commissioned in response to section 240 notices issued by the Resources Regulator on 5 July 2019. Tailings Dam 2 closure activities continued with capping completed on a portion of the southern area of the tailings beach. This allowed for 2.2 ha of rehabilitation to be completed on the Tailings Dam 2 footprint. The net rehabilitation progress (i.e. rehabilitation minus rehabilitation disturbance) for the current MOP period (2015 to 2019) is 347.8ha, which is 35.6ha lower than the MOP target of 383.4ha. The net rehabilitation result has also been affected by the reporting of rehabilitation disturbance to account for the re-classification of topsoil stockpiles from rehabilitation to disturbed land. Cumulative new disturbance over the MOP period is 377.9ha which is lower than the MOP forecast of 388.5ha for the same period."
Feature	Objective						
Mine site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site • Final landforms to: <ul style="list-style-type: none"> ○ sustain the intended land use for the post-mining domains; ○ be designed to minimise the visual impacts of the development; ○ be in keeping with the natural terrain features of the area; ○ be integrated with the rehabilitated landforms of 						

Condition	Requirement	Status	Evidence																
	<table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td></td> <td> <ul style="list-style-type: none"> surrounding mines; ○ backfill the gap between the two main emplacements in accordance with the dozer (and dragline) option shown on the applicable figure in Appendix 6; ○ incorporate micro-relief; and ○ incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible </td> </tr> <tr> <td>Water quality</td> <td> <ul style="list-style-type: none"> • Water retained on site is fit for the intended land use(s) for the post-mining domains • Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance • Water management is consistent with the applicable regional catchment strategy </td> </tr> <tr> <td>Final voids</td> <td> <ul style="list-style-type: none"> • Designed as long term groundwater sinks and to maximise groundwater flows across back-filled pits to the final void • Minimise: <ul style="list-style-type: none"> ○ the size and depth of final voids ○ the drainage catchment of final voids ○ any high wall instability risk • risk of flood interaction for all flood events up to and including the 1% AEP </td> </tr> <tr> <td>Biodiversity</td> <td> <ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species • Vegetation to be established, with the restoration of at least 1,617 hectares of Central Hunter Grey Box – Ironbark Woodland EEC • Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats • Species are selected that re-establishes and complements regional and local biodiversity </td> </tr> <tr> <td>Surface Infrastructure</td> <td> <ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise </td> </tr> <tr> <td>Agriculture</td> <td> <ul style="list-style-type: none"> • Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years of land use establishment (first planting vegetation) </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> • Ensure public safety • Minimise the adverse socio-economic effects associated with mine closure </td> </tr> </tbody> </table>	Feature	Objective		<ul style="list-style-type: none"> surrounding mines; ○ backfill the gap between the two main emplacements in accordance with the dozer (and dragline) option shown on the applicable figure in Appendix 6; ○ incorporate micro-relief; and ○ incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible 	Water quality	<ul style="list-style-type: none"> • Water retained on site is fit for the intended land use(s) for the post-mining domains • Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance • Water management is consistent with the applicable regional catchment strategy 	Final voids	<ul style="list-style-type: none"> • Designed as long term groundwater sinks and to maximise groundwater flows across back-filled pits to the final void • Minimise: <ul style="list-style-type: none"> ○ the size and depth of final voids ○ the drainage catchment of final voids ○ any high wall instability risk • risk of flood interaction for all flood events up to and including the 1% AEP 	Biodiversity	<ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species • Vegetation to be established, with the restoration of at least 1,617 hectares of Central Hunter Grey Box – Ironbark Woodland EEC • Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats • Species are selected that re-establishes and complements regional and local biodiversity 	Surface Infrastructure	<ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise 	Agriculture	<ul style="list-style-type: none"> • Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years of land use establishment (first planting vegetation) 	Community	<ul style="list-style-type: none"> • Ensure public safety • Minimise the adverse socio-economic effects associated with mine closure 		<p>HB</p> <p>The Rehabilitation Table is shown in Section 5 'Post Mining Land Use' and Section 5.3 'Project Rehabilitation Objectives' of the MOP. The objectives of the defined management practices and re-establishment programs contained within the MOP is to increase the quality of the vegetation, increase the long term fauna habitat and improve ecosystem function and resilience of up to 2,419 ha of land in a landscape presently being utilised for agricultural purposes or without conservation management initiatives (MOP, Section 5.3).</p> <p>Section 6 of the MOP details how the MOP objectives (consistent with this condition) will be met. Section 6.4 outlines the performance criteria, measures and indicators reported. The Annual Review details progress of mine rehabilitation progress against MOP plans at section 7.</p> <p>The Environmental Specialist Rehabilitation described the use/procedure for biosolids. Biosolids are used onsite contained within the soil segregated green waste compost. The biosolid compost is analysed pre-inspection and has a statement attached that it meets specific guidelines. Soil testing is undertaken prior to applying the compost which determines biosolid amount application to meet the biosolid guidelines. Soil testing also calculates contaminant levels pre-application and threshold levels. The procedure for biosolid application (and gypsum) has not been added to a procedure manual. Viewed compliance letter dated 10/12/19 confirming compost meets requirements of biosolid quality and letter references guideline.</p> <p>Nitrogen level in compost is controlling application rate to avoid nutrient run off. Application rate of 100t/ha of compost approved but are only applying 50t/ha. Compost used on spoil and topsoil. Topsoil contains weed and is in shortfall, only 30% of what is disturbed, the compost fills shortfall. There is the possibility that the new compost will not contain the required amounts of nutrient.</p> <p>Viewed soil sample results March 2020 for CD Dump. During the IEA site visit, viewed fencing and signposting.</p> <p>Recommend to update rehabilitation procedures to include requirements of biosolids guidelines. Recommend fly ash and other waste also included.</p>
Feature	Objective																		
	<ul style="list-style-type: none"> surrounding mines; ○ backfill the gap between the two main emplacements in accordance with the dozer (and dragline) option shown on the applicable figure in Appendix 6; ○ incorporate micro-relief; and ○ incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible 																		
Water quality	<ul style="list-style-type: none"> • Water retained on site is fit for the intended land use(s) for the post-mining domains • Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance • Water management is consistent with the applicable regional catchment strategy 																		
Final voids	<ul style="list-style-type: none"> • Designed as long term groundwater sinks and to maximise groundwater flows across back-filled pits to the final void • Minimise: <ul style="list-style-type: none"> ○ the size and depth of final voids ○ the drainage catchment of final voids ○ any high wall instability risk • risk of flood interaction for all flood events up to and including the 1% AEP 																		
Biodiversity	<ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species • Vegetation to be established, with the restoration of at least 1,617 hectares of Central Hunter Grey Box – Ironbark Woodland EEC • Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats • Species are selected that re-establishes and complements regional and local biodiversity 																		
Surface Infrastructure	<ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise 																		
Agriculture	<ul style="list-style-type: none"> • Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years of land use establishment (first planting vegetation) 																		
Community	<ul style="list-style-type: none"> • Ensure public safety • Minimise the adverse socio-economic effects associated with mine closure 																		
Progressive Rehabilitation																			
57	<p><i>The Applicant shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.</i></p>	Not Compliant	<p>As per Section 7.3 of the AR, progressive rehabilitation commitments are outlined in the Warkworth Continuation 2014 and Mt Thorley Operations 2014 Environmental Impact Statements. These documents modelled a total of 1,103 ha of rehabilitation to be completed by the end of 2017, and a further 505.8ha to be completed by the end of 2023. At the end of the 2019 there had been 1,282 hectares of rehabilitation completed across MTW, 179ha ahead of the EIS forecast for the end of 2017 and tracking well to achieve the forecast total rehabilitation area at the end of 2023. As discussed in Section 7.12 of the 2019 Annual Review, on the 17 June 2019, the NSW Resources Regulator undertook an inspection of rehabilitation areas at MTW which identified there were ongoing delays in the progression of rehabilitation areas. As a result of the observation, MTW was directed via two section 240 notices to undertake the following corrective actions: conduct an independent review of the rehabilitation progress to assess the adequacy of progressive rehabilitation strategies and performance in implementation of those strategies to date and provide a plan displaying the status of progressive rehabilitation. In response, an independent review of the rehabilitation progress was undertaken by Emergent Ecology and report submitted to the Resources Regulator on 30 September 2019. Resources Regulator issued two subsequent section 240 notices stating that the independent review had met the requirements of the original section 240 notices and directed MTW to submit a MOP amendment by 31 March 2020 incorporating the recommendations of the independent review.</p> <p>The Emergent Ecology report dated 30/9/19 defined and mapped the current domain and phase for each area of active rehabilitation across the MTW site and compared the results to those reported in the 2018 AR.</p> <p>The results indicate that the actual areas of each rehabilitation domain/phase differ from the reported 2018 Annual Review and MOP targets. Significant areas of rehabilitation were previously allocated to the Ecosystem and Land Use Development phase, however have now</p>																

Condition	Requirement	Status	Evidence
			<p>been re-allocated to the Ecosystem and Land Use Establishment phase. Additionally, areas of legacy sugar gum forest that were previously allocated to grassland have been allocated to Woodland Other. Of the 1,207 ha of rehabilitation assessed, 1,067 ha occur in Ecosystem and Land Use Establishment phase and 140 ha occurs in Growth Medium Development phase.</p> <p>Section 7 of the Emergent Ecology report recommended a number of short-and long-term recommendations including short term:</p> <ol style="list-style-type: none"> 1. Continue to implement annual weed management programs targeting galenia, Rhodes grass, golden wreath wattle and prickly/tiger pear; 2. Modify MOP criteria so that commitments in relation to the exotic component of Woodland-Other are achievable, while still ensuring the overall objectives of the domain are maintained; 3. Include more detail on the techniques used for each stage of rehabilitation, including surface preparation, organic material spreading rates and seed sowing techniques. Consider developing a rehabilitation guideline document, outlining detailed on all aspects of the rehabilitation process. <p>And long term:</p> <ol style="list-style-type: none"> 4. Installation of nest boxes to satisfy completion criteria in development phase. Nest boxes can be installed when trees are >10cm DBH; 5. Consider supplementary seeding/planting/translocation of ground cover species in areas that monitoring determines diversity or cover to be low; 6. Monitor tree and shrub density and consider thinning if they are determined to be a threat to understorey/ground cover diversity. <p>At the time of the audit, the following progress on the above recommendations had been made:</p> <ol style="list-style-type: none"> 1. Implemented. Weed control in rehabilitation areas is ongoing. Maps showing weed control conducted in rehabilitation areas in 2018 and 2019. 2. Implemented. MTW MOP Amendment C included change to performance criteria so that previous reference to Exotic Plant Cover levels has been changed to High threat Exotics (as specified under the Biodiversity Assessment Method (BAM) (Office of Environment and Heritage 2017). 3. Still to be implemented. 4. Still to be implemented. Woodland EEC rehabilitation areas still too immature to erect nest boxes. 5. Still to be implemented. 6. Implemented. Thinning will be undertaken in response to high overstorey stem densities. <p>Recommended the actions be documented and progress documented for review at next IEA.</p> <p>The Rehabilitation Cost Estimate was also updated as a result of the independent review (BB pers comms). The RCE has increased around -10% as a result of the re-classification (BB pers comms). Viewed email from Resources Regulator dated 28/4/20 acknowledging RCS and MOP applications uploaded. Both applications have been deemed administratively complete. No further update as at 6/7/20.</p> <p>For geofluv construction (see Plate 19), mining team has initial responsibility for dumping at the correct RL using surveys. Construction then handed to Project Team to bulk push. Drainage work is contracted.</p> <p>Viewed figure titled "Actual v EIS Rehab Progress 2019" (Rehabilitation Figure) supplied by BB on 11/5/20. The figure shows a comparison of the Rehabilitation Progress of the 2017 Mine Plan vs Rehabilitation at 2019. The Rehabilitation Figure shows three phases of rehabilitation: Landform Establishment, Ecosystem Establishment and Growth Medium Development. It is unclear of the status of the "Ecosystem and Land Use Sustainability" phase as shown in Plan 3E of the MOP (which shows rehabilitation at 2019). The physical location of the rehabilitation at 2019 shown in the Rehabilitation Figure appears to be generally consistent with that shown in the 2017 Mine Plan. However, the area of rehabilitation immediately north of Putty Road and adjacent to the West Pit at Warkworth is tracking behind the 2017 Mine Plan. GM indicated Rehabilitation progress on Woodlands Dump area has been delayed by move to partially back fill South Pit Void. Autobahn Haulroad will be required to be kept open for longer to allow access for waste trucks to dump into South Pit Void. Closure of the Autobahn Haulroad is required to progress rehabilitation on the south facing slope of Woodlands Dump. Alternative rehabilitation areas have been found in other parts of Warkworth Pit to allow rehabilitation progress to keep pace with EIS projections."</p> <p>The Rehabilitation Figure was also compared to Plan 3E of the MOP. Differences are the rehabilitation at the:</p> <ul style="list-style-type: none"> • Southern most edge of the Mt Thorley consent boundary. According to Plan 3E of the MOP, this area was placed to be within the Ecosystem and Land Use Sustainability phase by 2019. The Rehabilitation Figure shows this section to be classified as Growth Medium Development and Ecosystem Establishment; and • Area adjacent to the explosives facility. According to Plan 3E of the MOP, this area was placed to be within the Ecosystem and Land Use Sustainability phase by 2019. The Rehabilitation Figure shows this section to be classified as Growth Medium Development. This area is visible from the Golden Highway.
	<p><i>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.</i></p>		
	<p>Rehabilitation Management Plan</p>		
58	<p><i>The Applicant shall prepare a Rehabilitation Management Plan for the development to the satisfaction of the DRE. and carry out the development in accordance with this plan. The plan must:</i></p>		<p>As per Section 1 of the approved MOP, the 'Mount Thorley Warkworth Mining Operations Plan Amendment B' has been prepared to satisfy this condition.</p>
(a)	<p><i>be prepared in consultation with the Department, NOW, OEH and Council and the CCC;</i></p>	Compliant	<p>Section 1.4.4 states that consultation with these groups occurred. Viewed letter from OEH dated 29/1/16 stating that MOP was provided for review and OEH provided recommendations for updating matters in the MOP and Biodiversity MP to which WML have incorporated (Section 1.3.1 of BMP).</p>
(b)	<p><i>be prepared in accordance with any relevant DRE guideline, including any NSW government policy regarding voids;</i></p>	Compliant	<p>The ESG3: <i>Mining Operations Plan (MOP) Guidelines, September 2013 guidelines</i> and Director General's Report are referenced in Section 6.4 of the MOP. This section outlines the Performance Criteria, Measures and Indicators. MOP also makes reference to Guidelines for ecological rehabilitation of recognisable and self-sustaining plant community types: Guidance for the Upper Hunter Strategic Assessment' (OEH 2015).</p>

Condition	Requirement	Status	Evidence
			No NSW government policy exists on voids at the time of the audit.
(c)	be submitted to the DRE for approval prior to carrying out any development under this consent;	Compliant	Viewed MOP Amendment B approval letter from Resources Regulator dated 11/6/19.
(d)	Describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;	Compliant	Section 4.2.5 of the MOP outlines biodiversity management including the designation of offset areas under both the state and federal approvals. However, it is unclear how the rehabilitation of the site is integrated with the implementation of the biodiversity offset strategy. As the MOP is approved, this is compliant, however the next amendment should clarify this.
(e)	include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);	Compliant	Section 6.3 outlines Domain Rehabilitation Objectives and Section outlines Rehabilitation Performance Criteria, Measures and Indicators. Section 7 of the Annual Review provides a summary of rehabilitation and rehabilitation performance over the previous year, The Rehabilitation TARP is outlined in Section 9 of the MOP and identifies proposed strategies in the event of unexpected variations or impacts to rehabilitation outcomes. It provides management responses for lower (first tier) and upper (second tier) trigger values. First tier trigger values identify opportunities for closer monitoring or early intervention that may mitigate potential impacts before notable impact to rehabilitation occurs. Second tier trigger values identify when indicators have reached a threshold that requires more substantive or widespread remedial actions to remediate or mitigate rehabilitation failure. The TARP is shown in Table 44 of the MOP, and does not clearly delineate between tier one and tier two trigger values recommend this is amended to clarify. As a result of the NSW Resources Regulator inspection on 30/5/18, it was noted that the mine operators 'did not maintain records of topsoil monitoring and TARP intervention' and they recommended the following corrective action "Develop and implement a strategy for developing procedures for topsoil stripping, management, monitoring, TARP intervention and record keeping of topsoil activities". As reported in Section 7.12 of the 2018 AR, in response, "Topsoil stockpile inventory records are now being maintained to provide the following information for MTW stockpiles: <ul style="list-style-type: none"> topsoil source (including description of stripping area i.e. weed loads etc.); and stockpile establishment date, stockpile location, quantity, maintenance activities (i.e. soil amelioration, weed control etc.). Rehabilitation records are now being maintained to track the source of topsoil being applied to rehabilitation areas. This information is used to inform decisions about the timing of sowing of native seed mixes (i.e. delayed sowing of native seed mixes in weedy topsoils to allow for presowing weed control). Viewed topsoil inventory records for 2018/2019 showing topsoiled area and source. Recommend topsoil inventory record include topsoil establishment date, volume of topsoil and maintenance activities (i.e. soil amelioration, weed control etc.)
(f)	describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including timeframes for achieving specified rehabilitation objectives;	Compliant	Rehabilitation implementation is described in Section 7 of the MOP and describes the status of each domain at the start of the MOP period. Plans 3a – 3g shows mining and rehabilitation timeframes for each domain in years 2015 – 2021. The status of rehabilitation is discussed further in Sch 3 Cond 56 and 57. <u>WSP</u> Broadly discussed in Section 3.3 of the BMP. Annual Review provides details of rehabilitation completed during last period to comply with conditions.
(g)	includes a mine closure strategy, that details measures to minimise the long term impacts associated with mine closure, including final landform, final land use and socioeconomic issues;	Complaint	The final void is described in Section 6.2.5 of the MOP. Plan 4 of the MOP shows final rehabilitation and post-mining land use at end of mine life (2035). <u>WSP</u> Although the MOP is approved, no mine closure strategy is included. Recommend this is undertaken and included.
(h)	include interim rehabilitation where necessary to minimise the area exposed for dust generation;	Compliant	The MOP does not specifically mention interim rehabilitation, if none required, should be clarified at next amendment. <u>WSP</u> Annual review references re-classification of rehabilitation and disturbed areas.
(i)	include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and	Compliant	Section 8 of the MOP outlines the Rehabilitation Monitoring and Reporting for MTW. MTW is required to annually report performance against development and EIS predictions. Site based environmental personnel also conduct regular inspections of all work areas (Section 4.1.5 MOP). <u>WSP</u> Rehabilitation monitoring program outlined in Section 3.3.2.3 of BMP. Section 7.1.1 of the Annual review outlined rehabilitation monitoring program. Annual Review mentions that the rehabilitation monitoring program in 2020 will be varied to reflect changes to MOP performance criteria resulting in an independent audit recommendation.
(j)	build to the maximum extent practicable on the other management plans required under this consent.	Compliant	Land preparation described in the MOP is integrated with the BMP (Section 4.2). Risk Management (as described in Section 4.2 of the MOP), outlines other management plans. The MOP has incorporated management plan updates where required (Section 4.4 MOP)
SCHEDULE 4 - ADDITIONAL PROCEDURES			
Notifications of Landowners/tenants			
1	Within 1 month of the date of this consent, the Applicant shall:	Compliant	
(a)	notify in writing the owners of: <ul style="list-style-type: none"> the land listed in Table 1 of schedule 3 that they have the right to require the Applicant to acquire their land in accordance with the procedures in conditions 5-6 below at any stage during the development; any residence on the land listed in Table 3 of schedule 3 that they have the right to request the Applicant to ask for additional noise mitigation measures to be installed at their residence at any stage during the development; and any privately-owned land within 2 kilometres of the approved open cut mining pits that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; 	Not Triggered	Compliant last audit
(b)	notify the tenants of any mine-owned land of their rights under this consent (see condition 18 of schedule 3); and	Not Triggered	Compliant last audit
(c)	send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the development.	Not Triggered	Compliant last audit

Condition	Requirement	Status	Evidence
2	Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Applicant, the Applicant shall:		
(a)	advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and	See response to Sch 3 Cond 18.	Fact sheets were issued to residences on 18/12/2015 (2017 IEA). Recommended that tenants are advised of the potential health and amenity impacts associated with living on the land, and provided a copy of the NSW Health fact sheet every five years where ongoing tenants.
(b)	advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary.	See response to Sch 3 Cond 18.	
3	As soon as practicable after obtaining monitoring results showing:		
(a)	an exceedance of any relevant criteria in schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and	Compliant	Viewed letter to landholder dated 18 April 2019 re: blast overpressure exceedance in Warkworth
(b)	an exceedance of the relevant air quality criteria in schedule 3, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).	Not Triggered	Not triggered during the IEA period (GM pers comms)
INDEPENDENT REVIEW			
4	If an owner of privately-owned land considers the development to be exceeding the criteria in schedule 3 at his/her land, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, then the Applicant shall:		
(a)	commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to: • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in schedule 3; and • if the development is not complying with these criteria then: o determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land; o identify the measures that could be implemented to ensure compliance with the relevant criteria; and	Not Triggered	No requests during the IEA period (GM pers comms)
(b)	give the Secretary and landowner a copy of the independent review within 2 months of the Secretary's decision, unless the Secretary agrees otherwise.	Not Triggered	See response to part a of this conditions
LAND ACQUISITION			
5	Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:		
(a)	the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the: • existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and • presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in condition 3 of schedule 3;	Compliant	As per Sch 3 Cond 1, Land 34 and J were acquired during the IEA period, on the 22/8/19 and 31/1/18 respectively. Viewed certificate of titles provided in email from Property team for Property 34, settled 22/8/2019 Property J, settled 31/1/2018. However, negotiations for Property 34 commenced in 2013 (prior to SSD-6464), and continued until conclusion with certificates of title. In regards to Property J, trigger letter was received 29/2/2016, and letter of offer complying with SSD-6464 was made 20/5/2016. Letter not sighted at the time of the IEA.
(b)	the reasonable costs associated with: • relocating within the Muswellbrook, Singleton or Cessnock local government area, or to any other local government area determined by the Secretary; and • obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and	Compliant	See response to Sch 4 Cond 5(a)
(c)	reasonable compensation for any disturbance caused by the land acquisition process.	Compliant	See response to Sch 4 Cond 5(a)
	However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution. Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to: • consider submissions from both parties; • determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; • prepare a detailed report setting out the reasons for any determination; and • provide a copy of the report to both parties. Within 14 days of receiving the independent valuer's report, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination. However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer		

Condition	Requirement	Status	Evidence
	<p>and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.</p> <p>Within 14 days of this determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>		
6	The Applicant shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	Compliant	See response to Sch 4 Cond 5(a)
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
1	The Applicant shall prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary, and carry out the development in accordance with this strategy. The strategy must:		
(a)	be submitted to the Secretary for approval prior to carrying out any development under this consent;	Compliant	Viewed approval letter from Secretary dated 28 Aug 2018.
(b)	provide the strategic framework for environmental management of the development;	Compliant	The EMS
(c)	identify the statutory approvals that apply to the development;	Compliant	Section 5 of the EMS
(d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Compliant	Section 6.2 of the EMS. During the Mine Technical Services discussion and discussion with the Environment Manager. Viewed new starters training material. However, there is no formal training for long-term employees. Managers are frequently discussing environmental management and an informal training technique is raising environmental awareness through environmental monitoring and controls e.g through water carts. Viewed spreadsheet showing skills required for rehabilitation specialist (still being prepared, not yet rolled out). Viewed training manual for blasting and includes permission pages, but program has not been rolled out. Training on risk processes is provided to new employees, "New starters presentation dated 2019" includes lighting, dust, water management. Recommend to prepare a risk based environmental training program focusing on high priority areas. Program should be completed regularly as toolbox talks or other methods and training recorded.
(e)	describe the procedures that would be implemented to: <ul style="list-style-type: none"> keep the local community and relevant agencies informed about the operation and environmental performance of the mine development; receive, handle, respond to, and record complaints; resolve any disputes that may arise; respond to any non-compliance; respond to emergencies; and 	Compliant	Section 6 and 7 of the EMS. Complaints are brought in via Roxanne and recorded in Intellex. Reviewed record number 1050 showing date and time, method, personal details or note, nature of complaint, action. Also reviewed text of complaint. Intellex has been used for the past two years, prior to that, complaints recorded in spreadsheet. Prior to Intellex, all complaints were recorded in accordance with this condition. Insite page has complaints line and instructions on how to make a complaint. Viewed letter dated 7/1/2020 to near neighbours which contains road closure info, how to subscribe to blast text notification. Viewed complaints summary for 2020, broken down my month, other non-environment complaints re: wild pigs, hotline engaged, noise complaint website not updated with monthly data.
(f)	include: <ul style="list-style-type: none"> copies of any strategies, plans and programs approved under the conditions of this consent; and a clear plan depicting all the monitoring required to be carried out under the conditions of this consent. 	Compliant	Appendix E and Appendix B of the EMS.
Adaptive Management			
2	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.		
	Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:		
(a)	take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;	Compliant	See response to exceedances outlined in Sch 3 Cond 8 and 26. None have reoccurred in period.
(b)	consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and	Compliant	Broadbrush risk assessment undertaken periodically (GM pers comms). Reports provided to DPIE where requested in audit period.
(c)	implement remediation measures as directed by the Secretary.	Compliant	See response to exceedances outlined in Sch 3 Cond 8 and 26. Remediation actions undertaken where requested by the Secretary as above.
Management Plan Requirements			
3	The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:		
(a)	detailed baseline data;	Compliant	Reviewed key management plans: AQMP (App B), BMP (App F), NMP (Table 1), WMP (Section 7.2 and 8.1). Baseline ecological condition of each offset area is provided in Section 2.7 of each OMP. Data provided includes baseline condition against benchmark values in which future monitoring events will be able to compare.
(b)	a description of: <ul style="list-style-type: none"> the relevant statutory requirements (including any relevant approval, licence or lease conditions); any relevant limits or performance measures/criteria; 	Compliant	AQMP (Section 1.2), BMP (Section 5, App E and Section 7), NMP (App A, Section 6), WMP (Section 2,9.1 and 9.4). Section 1.2 of OMP provides overview of environmental approvals under state and commonwealth legislation. No overview of conditions relating to these OMPs. Suggest adding table in legislation section addressing where in each OMP each condition is met. Performance criteria and a trigger, response and action plan is provided in Section 4 of each OMP.

Condition	Requirement	Status	Evidence
	<ul style="list-style-type: none"> the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; 		Each broad management measure has specific performance criteria to judge performance.
(c)	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Compliant	AQMP (Section 5.2,8.1), BMP (Section 7.3), NMP (Section 6), WMP (Section 2,9.1 and 9.4). Measures to be implemented to comply ae provided in Section 4 of each OMP.
(d)	a program to monitor and report on the: <ul style="list-style-type: none"> impacts and environmental performance of the development; effectiveness of any management measures (see c above); 	Compliant	AQMP (Section 8), BMP (App E), NMP (Section 6 and 8), WMP (Section 9.4, App B and App C). Monitoring program is provided in Section 5 of each OMP to evaluate the effectiveness of measures implemented in Section 4 at each offset area. Monitoring program included in section 3.3.2.3 and 4.2.3 of the BMP for matters relating to the development area. Refer to other notes in (a) above.
(e)	a contingency plan to manage any unpredicted impacts and their consequences;	Compliant	AQMP (Section 6.3), BMP (Section 5.4), NMP (Section 6.5), WMP (Section 9.3). A risk assessment is provided in Section 6 of each OMP which identified potential unpredicted impacts and their consequences.
(f)	a program to investigate and implement ways to improve the environmental performance of the development over time;	Compliant	AQMP (Section 6.5), BMP (Section 5.5), NMP (Section 6.6), WMP (Section 9.6). Provided in Sections 1.3.2, Section 3.3.2.3 and Section 4.2.3 of the BMP in relation to the development. Site staff have showed adaptive management and continuous improvement
(g)	protocol for managing and reporting any: <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and 	Compliant	AQMP (Section 7,8 and App A), BMP (Section 7 and App E), NMP (Section 7 and App A), WMP (Section 9.4 and 9.5), ACHMP (Section 28), HHMP (Section 20), EMS (Section 7.5). Trigger, Response and Action Plan tables in the OMPs state when incidents and non-compliances need to be reported. These are also reported in the Annual Compliance Report. Example of incident reporting for non-compliance of the OMP is the letter for illegal tree clearing in the Southern BA 3rd October 2017.
(h)	a protocol for periodic review of the plan.	Compliant	AQMP (Section 8.3), BMP (Section 7.3), NMP (Section 8.5), WMP (Section 11). Included in each OMP – review 4 years after plan is approved and end of year 10.
	Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.		
Annual Review			
4	By the end of March each year, the Applicant shall review the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:		
(a)	describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;	Compliant	Reviewed 2019 AR, Rehabilitation described in Section 7, Section 4 describes the operations during the period, Section 11 describes activities to be completed in the current calendar year.
(b)	include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: <ul style="list-style-type: none"> relevant statutory requirements, limits or performance measures/criteria; monitoring results of previous years; and relevant predictions in the EIS; 	Compliant	Reviewed key section of the 2019 AR. Section 6.2: Noise (real time noise results, and comparisons to previous years / EA). Section 6.3: Blast (blast results against criteria, and comparisons to previous years / EA). Section 6.4: Air (real time results, criteria and comparisons to previous years / EA).
(c)	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	Compliant	Section 10 of the 2019 AR
(d)	identify any trends in the monitoring data over the life of the development;	Compliant	Section 6 of the 2019 AR, shows data since 2016-2017 for key environmental aspects such as noise, air and water.
(e)	identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	Compliant	Section 6 includes comparison to results predicted in the EA. See response to part b of this condition.
(f)	describe what measures will be implemented over the next year to improve the environmental performance of the development.	Compliant	Section 11 of the 2019 AR
Revision of Strategies, Plans and Programs			
5	Within 3 months of:		
(a)	the submission of an: <ul style="list-style-type: none"> annual review under condition 4 above; incident report under condition 7 below; audit report under condition 9 below; or 	Not Compliant	Annual review 2017, 2018 and 2019 in audit period. Viewed letter to DPIE for 2017 confirming review undertaken. Four reportable incidents occurred during the IEA period: <ul style="list-style-type: none"> 4 Dec 2017 Water Incident. No evidence that a review was undertaken. 30 March 2019 Water Discharge Incident. 28 Dec 2018 Blast Incident. No evidence that a review was undertaken. 4 April 2019 Blast Incident - review of blasting permissions documented in BMP as a result of this incident. The previous IEA was undertaken on 1-5/5/17 and did not require an update to the management plans. As noted by GM, management plan revisions that were undertaken following submission of the 2017 and the 30 March 2019 Water Discharge Event/2018 Annual Review submission. The 2019 Annual Review was submitted in March 2020 and review of the Management Plans is not required until 30 June, with an additional 4 weeks following this review for revision. Recommend record kept that review undertaken after each AR (could be included in AR), incident report (could be included in report) and audit to fulfil this condition in future.
(b)	any modification to the conditions of this consent (unless the conditions require otherwise), or	Not Triggered	There were no modifications to SSD 6464 or SSD 6465 during the IEA period.
(c)	the introduction of any NSW government policy regarding voids, the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.	Not Triggered	There was no government policy regarding voids released during the IEA period (GM pers comms)
	Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval. Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.		
Community Consultative Committee			
6	The Applicant shall operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in accordance with the Guidelines for	Compliant	The CCC met on a quarterly basis during the IEA period (Section 9.2.1 2017 AR, Section 8.2.2 2018 and 2019 AR.). The CCC is comprised of an independent chair, MTW representatives and a Singleton Council Representative (Section 8.2.2, 2019 AR). MTW advertised for new members

Condition	Requirement	Status	Evidence
	<p><i>Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version). It may also be combined with any CCC for the Warkworth mine.</i></p> <p>Notes: <ul style="list-style-type: none"> •The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. •In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community. </p>		<p>to join the CCC over a period between 27 November 2019 to 17 January 2020, advertisements were placed in the Singleton Argus Newspaper, in local businesses in Bulga, and at the Singleton Council offices.</p> <p>In 2019, there were no representatives from a recognised environmental group (Section 8.2.2, 2019 AR). The CCC is attended by MTW's General Manager or Mine Manager. Long standing issues include Putty Road closures, operation of the dragline near MTIE, the level of the dump, progression of rehabilitation and delivery of rehabilitation targets (DB pers comms).</p>
REPORTING			
Incident Reporting			
7	<p><i>The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</i></p>	Not Compliant	<p>30 March 2019 Water Discharge Incident Notifications to the relevant regulatory authorities was undertaken, in accordance with the MTW Pollution Incident Response Management Plan (PIRMP) (Section 10, 2019 AR). MTW self-reported to EPA 30/3/19 (EPL Annual Return). As reported in the incident report (GM pers comms), DPIE was notified via compliance division within 7 days of the incident i.e by 6/4/19. Incident report not sighted during IEA.</p> <p>4 April 2019 Blast Incident Discussed under Sch 3 Cond 8. Preliminary report provided to DPIE 5/4/19 (EPL Annual Return).</p> <p>28 Dec 2018 Blast Incident Discussed under Sch 3 Cond 8. Preliminary results provided to DPIE and EPA 28/8/18 (EPL Annual Return)</p> <p>4 Dec 2017 Water Incident Discussed in Sch 3 Cond 2. No evidence that Secretary was notified within 7 days of the incident.</p>
Regular Reporting			
8	<p><i>The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.</i></p>	Compliant	<p>Viewed website 16 April 2020 with all reports for audit period available. Feb and March 2020 Monthly Environmental Monitoring Report (MEMR) not yet available.</p>
AUDITING			
Independent Environmental Audit			
9	<p><i>Within 1 year of the commencement of development under this consent. and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:</i></p>		<p>IEA 1 was held 1-5/05/17. This IEA represents in the 2nd audit required under the consent.</p>
(a)	<p><i>be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</i></p>	Compliant	<p>D Munro holds Exemplar Certification (see Appendix D of this IEA). The IEA Team appointment endorsed by letter from DPIE dated 24/2/20.</p>
(b)	<p><i>include consultation with the relevant agencies;</i></p>	Compliant	<p>Consultation is outlined in Table 5 and Appendix A of this IEA.</p>
(c)	<p><i>assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</i></p>	Compliant	<p>The results of the IEA against the EPL and Mining Lease is provided in Appendix E Table C of this IEA.</p>
(d)	<p><i>include an assessment - undertaken by an independent expert whose appointment has been endorsed by OEH - of the progress towards implementation of the biodiversity offset strategy in particular the regeneration of the Warkworth Sands Woodland against the detailed performance and completion criteria under the Biodiversity Management Plan (see condition 36 of schedule 3);</i></p>	Compliant	<p>WSP was endorsed by letter from DPIE dated 24/2/20 and undertook the assessment against Sch 3 Cond 36 of SSD 6464. This assessment is shown in Appendix F.</p>
(e)	<p><i>review the adequacy of strategies, plans or programs required under the abovementioned approvals; and</i></p>	Compliant	<p>This IEA</p>
(f)	<p><i>recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the above-mentioned approvals.</i></p>	Compliant	<p>See Section 7 of this IEA.</p>
	<p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i></p>	Noted.	
10	<p><i>Within 6 weeks of the completion of this audit, unless the Secretary agrees otherwise. the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.</i></p>	Compliant	<p>The 2017 IEA was undertaken 1-5/5/17. MTW sought an extension to submission date of the IEA and was granted the submission date of 16/7/17. MTW submitted the IEA report, together with the Response to Recommendations on 11/7/17. DPE requested a revision and re-submission of the IEA by 10/8/18, MTW resubmitted the IEA to DPE 10/8/18 to which DPE was satisfied.</p>
ACCESS TO INFORMATION			
11	<p><i>From the commencement of development under this consent, the Applicant shall:</i></p> <p>(a) <i>make the following information publicly available on its website:</i></p> <ul style="list-style-type: none"> • the EIS; • current statutory approvals for the development; • current statutory approvals for the development; • approved strategies, plans or programs required under the conditions of this consent; • a comprehensive summary of the compliance monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; 	Compliant	<p>Viewed MTW Website on 24 April 2020 at the following URL https://insite.yancoal.com.au/document-library</p> <ul style="list-style-type: none"> a) All of the documents listed were available on the website except the following: b) March 2020 MEMR, 2019 AR not yet available and should be included

Condition	Requirement	Status	Evidence
	<ul style="list-style-type: none">• the results of real time noise monitoring, updated daily (unless otherwise agreed by the Secretary);• a complaints register, which is to be updated monthly;• minutes of CCC meetings;• the last five annual reviews of the development (for the last 5 years, if applicable);• any independent environmental audit; and the Applicant's response to the recommendations in any audit;• any other matter required by the Secretary; and(b) keep this information up to date;		

Table B
Mount Thorley SSD 6465

Condition	Requirement	Status	Evidence
Mount Thorley Continuation Project (SSD-6465), November 2015			
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS			
Obligation to Minimise Harm to the Environment			
1	In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	See response to condition in SSD 6464	
Terms of Consent			
2	The Applicant shall carry out the development:		
	(a) generally, in accordance with the EIS; and	Compliant	Within Mount Thorley, two small areas in the northern and southwestern extents of the mining lease will reach their final limits during 2020 with remaining reserves to be mined to depth during 2020 (Section 4.1 2019 AR).
	(b) in accordance with the conditions of this consent	Not Compliant	Some non-compliances identified in this table.
3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	See response to condition in SSD 6464	
4	The Applicant shall comply with any reasonable requirement/s of the Secretary arising from:		
	(a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent;	See response to condition in SSD 6464	
	(b) reports, reviews or audits commissioned by the Department regarding compliance that are submitted in accordance with this consent;	See response to condition in SSD 6464	
	(c) the implementation of any actions or measures contained in these documents.	See response to condition in SSD 6464	
LIMITS ON CONSENT			
Mining Operations			
5	The Applicant may carry out mining operations on site for 21 years from the date of commencement of development under this consent.	See response to condition in SSD 6464	
	<i>Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and the DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.</i>		

Condition	Requirement	Status	Evidence
Coal Extraction			
6	The Applicant shall not extract more than 10 million tonnes of ROM coal from the Mt Thorley mine in a calendar year.	Compliant	2020 forecast 0. 57 Mtpa (Section 4.3 2019 AR) 2019 – 0.71 Mtpa (Section 4.3 2019 AR) 2018 – 3.02 Mtpa (Section 4.3 2019 AR) 2017 – 4.08 Mtpa (Section 4.3 2018 AR)
Coal Transport			
7	The Applicant Shall:		
	(a) not transport any coal produced at the development by public road; and	See response to condition in SSD 6464	
	(b) ensure that the coal produced on site is only sent to Mt Thorley Coal Loader for transport by rail to export and/or domestic markets	See response to condition in SSD 6464	
COMMENCEMENT OF DEVELOPMENT UNDER THIS CONSENT			
8	The Applicant shall:		
	(a) notify the Secretary in writing of the date of commencement of development under this consent; and	Not triggered	As per the 2017 IEA, "Letter dated 3rd Feb 2016, commencement date 15th Feb 2016."
	(b) may only commence development under this consent once the Secretary has agreed in writing that all prerequisites to the commencement of development under this consent have been met.	Not triggered	As per the 2017 IEA, "Sighted letter from DP&E 8th Feb 2016 notifying MTW that all required documentation was in place."
SURRENDER OF EXISTING DEVELOPMENT CONSENT			
9	By the end of January 2017, unless the Secretary agrees otherwise, the Applicant shall surrender the existing development consent (DA-34/95) for the Mt Thorley mine in accordance with Section 104A of the EP&A Act. Following the commencement of development under this consent, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of DA-34/95.	See response to condition in SSD 6464	
STRUCTURAL ADEQUACY			
10	The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA and MSB.	See response to condition in SSD 6464	
	Notes: <ul style="list-style-type: none"> Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates (where applicable) for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the development. The development is located in the Patrick Plains Mine Subsidence District, and under Section 15 of the Mine Subsidence District, and under Section 15 of the Mine Subsidence Compensation Act 1961, the 		

Condition	Requirement	Status	Evidence
	<i>Applicant is required to obtain the MSB's approval before constructing any improvements on the site.</i>		
DEMOLITION			
11	The applicant shall ensure that all demolition work on site is carried out in accordance with AS 2601-2001: <i>The Demolition of Structures</i> , or its latest version.	See response to condition in SSD 6464	
PROTECTION OF PUBLIC INFRASTRUCTURE			
12	Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:		
	(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and	See response to condition in SSD 6464	
	(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	See response to condition in SSD 6464	
	<i>Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage.</i>		
OPERATION OF PLANT AND EQUIPMENT			
13	The Applicant shall ensure that all plant and equipment used on site, or to monitor the performance of the development, is maintained and operated in a proper and efficient manner	See response to condition in SSD 6464	
DATING & STAGING STRATEGIES, PLANS AND PROGRAMS			
14	With the approval of the Secretary, the Applicant may:		
(a)	(a) submit any strategy, plan or program required by this consent on a progressive basis; and	See response to condition in SSD 6464	
(b)	(b) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required for the Mt Thorley mine.	See response to condition in SSD 6464	
	To ensure these strategies, plans or programs are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent		
	<i>Notes:</i> <ul style="list-style-type: none"> While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. 		

Condition	Requirement	Status	Evidence						
	<ul style="list-style-type: none"> If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program. 								
COMMUNITY ENHANCEMENT									
15	Within 6 months of the date of this consent, unless the Secretary agrees otherwise, the Applicant shall enter into a VPA with Council in accordance with:								
	(a) Division 6 of Part 4 of the EP&A Act; and	One VPA, See response to condition in SSD 6464							
	(b) the terms of Applicant's offer in its letter to the Department dated 4 May 2015	See response to condition in SSD 6464							
	The VPA shall include provisions for the payment, collections, management and distribution of the contributions under the agreement, with a focus on funding community infrastructure and services in the area surrounding, including Bulga Village.								
	<i>Note: The Applicant's offer comprises a total contribution of \$11 million over 21 years for both the development and the Warkworth Continuation Project (SSD-6464).</i>								
SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS									
ACQUISITION UPON REQUEST									
1	<p>Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.</p> <p><i>Table 1: Land subject to acquisition upon request</i></p> <table border="1"> <thead> <tr> <th>Acquisition Basis</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>144, 146, 149, 915</td> </tr> <tr> <td>Air</td> <td>K</td> </tr> </tbody> </table>	Acquisition Basis	Land	Noise	144, 146, 149, 915	Air	K	None (GM pers comms)	
Acquisition Basis	Land								
Noise	144, 146, 149, 915								
Air	K								

Condition	Requirement	Status	Evidence																																																																																																		
NOISE																																																																																																					
Noise Criteria																																																																																																					
2	<p>Except for the land in Table 1, the Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned property.</p> <p><i>Table 2: Noise criteria dB(A)</i></p> <table border="1"> <thead> <tr> <th>Location</th> <th>Land</th> <th>Day (L_{day} (5:00am))</th> <th>Evening (L_{even} (5:00pm))</th> <th>Night (L_{night} (10:00pm))</th> <th>Night (L_{night} (11:00pm))</th> </tr> </thead> <tbody> <tr> <td rowspan="7">Bugra</td> <td>75</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>42, 53, 55, 56, 57, 58, 60, 62, 63, 64, 66, 71, 72, 73, 82, 210, 211, 236, 252, 920</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td>16, 17, 19, 21, 24, 31, 35, 36, 37, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 52, 54, 61, 67, 70, 71, 80, 81, 84, 119, 141, 148, 237, 238, 243, 254, 903, 917, 918, 919, 929</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>18, 20, 22, 23, 25, 28, 38, 39, 230, 231, 253, 921, 922</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td>12, 14, 15, 226, 227, 228, 229, 909, 928, 936</td> <td>36</td> <td>36</td> <td>36</td> <td>46</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="2">Milbrodale</td> <td>111</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Warkworth</td> <td>All other residences on privately owned land</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>Maison Dieu</td> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="2">Gouldsville, Long Point</td> <td>126, 262</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Hambleton Hill/ Wylies Flat</td> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="4">Mt Thorley</td> <td>148</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td>190</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>150</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td>All other residences on privately owned land</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p><i>Note: To interpret the land referred to in Table 2, see the applicable figures in Appendix 3.</i></p>	Location	Land	Day (L _{day} (5:00am))	Evening (L _{even} (5:00pm))	Night (L _{night} (10:00pm))	Night (L _{night} (11:00pm))	Bugra	75	40	40	40	50	42, 53, 55, 56, 57, 58, 60, 62, 63, 64, 66, 71, 72, 73, 82, 210, 211, 236, 252, 920	39	39	39	49	16, 17, 19, 21, 24, 31, 35, 36, 37, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 52, 54, 61, 67, 70, 71, 80, 81, 84, 119, 141, 148, 237, 238, 243, 254, 903, 917, 918, 919, 929	38	38	38	48	18, 20, 22, 23, 25, 28, 38, 39, 230, 231, 253, 921, 922	37	37	37	47	12, 14, 15, 226, 227, 228, 229, 909, 928, 936	36	36	36	46	All other residences on privately owned land	35	35	35	45	Milbrodale	111	37	37	37	47	All other residences on privately owned land	35	35	35	45	Warkworth	All other residences on privately owned land	38	38	38	48	Maison Dieu	All other residences on privately owned land	35	35	35	45	Gouldsville, Long Point	126, 262	38	38	38	48	All other residences on privately owned land	35	35	35	45	Hambleton Hill/ Wylies Flat	All other residences on privately owned land	35	35	35	45	Mt Thorley	148	39	39	39	49	190	38	38	38	48	150	37	37	37	47	All other residences on privately owned land	35	35	35	45	See response to condition in SSD 6464	
Location	Land	Day (L _{day} (5:00am))	Evening (L _{even} (5:00pm))	Night (L _{night} (10:00pm))	Night (L _{night} (11:00pm))																																																																																																
Bugra	75	40	40	40	50																																																																																																
	42, 53, 55, 56, 57, 58, 60, 62, 63, 64, 66, 71, 72, 73, 82, 210, 211, 236, 252, 920	39	39	39	49																																																																																																
	16, 17, 19, 21, 24, 31, 35, 36, 37, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 52, 54, 61, 67, 70, 71, 80, 81, 84, 119, 141, 148, 237, 238, 243, 254, 903, 917, 918, 919, 929	38	38	38	48																																																																																																
	18, 20, 22, 23, 25, 28, 38, 39, 230, 231, 253, 921, 922	37	37	37	47																																																																																																
	12, 14, 15, 226, 227, 228, 229, 909, 928, 936	36	36	36	46																																																																																																
	All other residences on privately owned land	35	35	35	45																																																																																																
	Milbrodale	111	37	37	37	47																																																																																															
All other residences on privately owned land		35	35	35	45																																																																																																
Warkworth	All other residences on privately owned land	38	38	38	48																																																																																																
Maison Dieu	All other residences on privately owned land	35	35	35	45																																																																																																
Gouldsville, Long Point	126, 262	38	38	38	48																																																																																																
	All other residences on privately owned land	35	35	35	45																																																																																																
Hambleton Hill/ Wylies Flat	All other residences on privately owned land	35	35	35	45																																																																																																
Mt Thorley	148	39	39	39	49																																																																																																
	190	38	38	38	48																																																																																																
	150	37	37	37	47																																																																																																
	All other residences on privately owned land	35	35	35	45																																																																																																
	<p><i>Note:</i> To interpret the land referred to in Table 2, see the applicable figures in Appendix 3.</p> <p>Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW <i>Industrial Noise Policy</i> (as may be</p>																																																																																																				

Condition	Requirement	Status	Evidence						
	updated from time-to-time) or an equivalent NSW Government noise policy, as amended by Appendix 6 which sets out the metrological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria. However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.								
ADDITIONAL NOISE MITIGATION MEASURES UPON REQUEST									
3	<p>Upon receiving a written request from the owner of a residence on the land listed in Table 1 or Table 3, the Applicant shall implement additional noise mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the <i>Voluntary Land Acquisition and Mitigation Policy</i>. They must also be reasonable and feasible and proportionate with the level of predicted impact.</p> <p>If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p><i>Table 3: Land subject to additional noise mitigation upon request</i></p> <table border="1"> <thead> <tr> <th>Mitigation Basis</th> <th>Characterisation of Impact</th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>Moderate</td> <td>148, 190</td> </tr> </tbody> </table>	Mitigation Basis	Characterisation of Impact	Receiver	Noise	Moderate	148, 190	Not Triggered	ID 148 still has mitigation rights upon request. ID 190 has been purchased. (GM pers comms)
Mitigation Basis	Characterisation of Impact	Receiver							
Noise	Moderate	148, 190							
	<p>Notes:</p> <ul style="list-style-type: none"> To interpret the land referred to in Table 3, see the applicable figures in Appendix 3. Definitions of marginal and moderate mitigation are given in the <i>Voluntary Land Acquisition and Mitigation Policy</i>. 								
Operating Conditions									
4	The Applicant shall:								
	(a) implement all reasonable and feasible measures to minimise the operational, low frequency and road noise of the development;	See response to condition in SSD 6464							
	(b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of consent;	See response to condition in SSD 6464							

Condition	Requirement	Status	Evidence
	(c) minimise the noise impacts of the development during meteorological conditions when the noise limits in this consent do not apply (see Appendix 6); and	See response to condition in SSD 6464	
	(d) ensure that;	See response to condition in SSD 6464	
	<ul style="list-style-type: none"> all new trucks, dozers, drills and excavators purchased for use on the site after the date of this consent are commissioned as noise suppressed (or attenuated) units; and 		
	<ul style="list-style-type: none"> the existing fleet of trucks, dozers, drills and excavators on site at the date of this approval is progressively fitted with suitable noise attenuation packages to ensure that 100% of the fleet being used on site is attenuated by the end of 2016; and 		
	(e) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent and, if necessary, adjust the scale of operations on site to meet the criteria in this consent	See response to condition in SSD 6464	
Noise Management Plan			
5	The Applicant shall prepare a Noise Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must:		
	(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the commencement of any development under this consent;	See response to condition in SSD 6464	
	(b) describe the measures that would be implemented to ensure compliance with the relevant noise criteria and operating conditions of this consent;	See response to condition in SSD 6464	
	(c) describe the proposed noise management system in detail;	See response to condition in SSD 6464	
	(d) include provisions for keeping the local community informed about the operation of the noise management system and monitoring programs (including any correction factors under the NSW Industrial Noise Policy), including regular briefings and a public information session within 6 months of granting this development consent;	See response to condition in SSD 6464	
	(e) include a noise monitoring program that:	See response to condition in SSD 6464	
	<ul style="list-style-type: none"> evaluates and reports on:- the (effectiveness of the noise management system;- the effectiveness of the noise attenuation program (see condition 4(d));- compliance against 		

Condition	Requirement	Status	Evidence												
	the noise criteria in this consent; and- compliance against the noise operating conditions;														
	<ul style="list-style-type: none"> includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time monitoring program can be used as a trigger for further attended monitoring where there is a risk of non-compliance with the Noise criteria in this consent); and 														
	<ul style="list-style-type: none"> defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents. 														
BLASTING															
Blasting Criteria															
6	<p>The Applicant shall ensure that the blasting on site does not cause exceedances of the criteria in Table 4.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant owner, and has advised the Department in writing of the terms of this agreement.</p> <p><small>Table 4: Blasting criteria</small></p> <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td></td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> </tbody> </table>	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land	120	10	0%		115	5	5% of the total number of blasts over a period of 12 months	Not Compliant	<p>At the end of the 12 month 2019 calendar year, there were a total of 16 blast events initiated at MTO, of which a single blast vibration result at the Wollemi Peak Road monitor was recorded in the range of 5-10mm/s (actual result 5.69mm/s).</p> <p>Due to the small number of blasts at MTO, this has resulted in 6.3% of blasts at the Wollemi Peak Road monitoring location being in the range of 5-10mm/s, which is greater than the requirements of development consent SSD-6465 which permits up to 5% of blasts to record in the range of 5-10mm/s.</p> <p>Viewed notification to DPIE dated 29/5/20, and this is being updated in the Annual Environmental Review. DPIE advised that no further action at this time would be taken regarding the incident in letter dated 17/6/2020.</p>
Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance												
Residence on privately owned land	120	10	0%												
	115	5	5% of the total number of blasts over a period of 12 months												
Blasting Hours															
7	The Applicant shall only carry out blasting on site between 7am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.	See response to condition in SSD 6464													
Blasting Frequency															
8	The Applicant may carry out a maximum of:														
	(a) 2 blasts a day; and	See response to condition in SSD 6464													
	(b) 6 blasts a week, averaged over a calendar year, at the site.	See response to condition in SSD 6464													
	This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blasts misfires or														

Condition	Requirement	Status	Evidence
	<p>blasts required to ensure the safety of the mine, its workers or the general public.</p>		
	<p>Notes:</p> <ul style="list-style-type: none"> • For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine. • For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast. • In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Applicant may seek agreement from the Secretary for additional blasts to be fired on a given day. 		
9	<p>The Applicant shall not carry out more than 1 blast a day within 500 metres of the Putty Road.</p>	<p>See response to condition in SSD 6464</p>	
Property Inspections			
10	<p>If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant shall: If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.</p>		
	<p>(a) Commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:</p> <ul style="list-style-type: none"> • establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and • identify <i>measures</i> that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and 	<p>See response to condition in SSD 6464</p>	
	<p>(b) give the landowner a copy of the new or updated property inspection report.</p>	<p>See response to condition in SSD 6464</p>	
	<p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the property inspection report, either party may refer to the Secretary for resolution.</p>		

Condition	Requirement	Status	Evidence
Property Investigations			
11	If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant shall:		
	(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and	See response to condition in SSD 6464	
	(b) give the landowner a copy of the property investigation report.	See response to condition in SSD 6464	
	If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damage to the satisfaction of the Secretary. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.		
Operating Conditions			
12	During mining operations on site, the Applicant shall:		
	(a) implement all reasonable and feasible measures to: <ul style="list-style-type: none"> • protect the safety of people and livestock in the surrounding area; • protect public or private infrastructure/property in the surrounding area from any damage; and • minimise the dust and fume emissions of any blasting; 	See response to condition in SSD 6464	
	(b) ensure that blasting on the site does not damage any historical heritage sites;	See response to condition in SSD 6464	
	(c) minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods; and	See response to condition in SSD 6464	
	(d) operate a suitable system (including a hotline and website updates) to enable the public to get up-to-date information on the proposed blasting schedule on site.	See response to condition in SSD 6464	
	<i>Note: To identify the historic heritage sites referred to in this condition, see the applicable figure in Appendix 4.</i>		
13	The Applicant shall not undertake blasting on site within 500 metres of:		
	(a) any public road; or	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
	(b) any land outside the site that is not owned by the Applicant, unless: <ul style="list-style-type: none"> • the Applicant has a written agreement with the applicable infrastructure authority or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement; or 	See response to condition in SSD 6464	
	<ul style="list-style-type: none"> • the Applicant has: <ul style="list-style-type: none"> - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the road or land. 		
Blast Management Plan			
14	The Applicant shall prepare a Blast Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. This plan must:		
	(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to carrying out any development under this consent;	See response to condition in SSD 6464	
	(b) describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;	See response to condition in SSD 6464	
	(c) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the RMS and Council;	See response to condition in SSD 6464	
	(d) include a monitoring program for evaluating the performance of the development, including: <ul style="list-style-type: none"> • compliance with the applicable criteria; • avoiding any blasting impacts on the historic heritage items referred to in condition 12 above; and • minimising the fume emissions from the site. 	See response to condition in SSD 6464	
AIR QUALITY			
Air Quality Criteria			
15	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any residence on privately owned land.	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence																							
	<p>Table 5: Long term impact assessment criteria for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>¹ Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>¹ 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>¹ 30 µg/m³</td> </tr> </tbody> </table> <p>Table 6: Short term impact assessment criterion for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>¹ Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>¹ 50 µg/m³</td> </tr> </tbody> </table> <p>Table 7: Long term impact assessment criteria for deposited dust</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase² in deposited dust level</th> <th>Maximum total³ deposited dust level</th> </tr> </thead> <tbody> <tr> <td>¹ Deposited dust</td> <td>Annual</td> <td>² 2 g/m²/month</td> <td>³ 4 g/m²/month</td> </tr> </tbody> </table> <p>Notes to Tables 5-7:</p> <ul style="list-style-type: none"> • Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); • Incremental impact (i.e. incremental increase in concentrations due to the development on its own); • Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and • Excludes extraordinary events such as bushfire, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary. 	Pollutant	Averaging period	¹ Criterion	Total suspended particulate (TSP) matter	Annual	¹ 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	¹ 30 µg/m ³	Pollutant	Averaging period	¹ Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	¹ 50 µg/m ³	Pollutant	Averaging period	Maximum increase ² in deposited dust level	Maximum total ³ deposited dust level	¹ Deposited dust	Annual	² 2 g/m ² /month	³ 4 g/m ² /month		
Pollutant	Averaging period	¹ Criterion																								
Total suspended particulate (TSP) matter	Annual	¹ 90 µg/m ³																								
Particulate matter < 10 µm (PM ₁₀)	Annual	¹ 30 µg/m ³																								
Pollutant	Averaging period	¹ Criterion																								
Particulate matter < 10 µm (PM ₁₀)	24 hour	¹ 50 µg/m ³																								
Pollutant	Averaging period	Maximum increase ² in deposited dust level	Maximum total ³ deposited dust level																							
¹ Deposited dust	Annual	² 2 g/m ² /month	³ 4 g/m ² /month																							
Mine Owned Land																										
16	The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 5, 6 and 7 at any occupied residence on mine-owned land (including land owned by another mining or petroleum company, unless and to the extent that:																									
	(a) the tenant and landowner by another mining or petroleum company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under schedule 4 of this consent;	See response to condition in SSD 6464																								
	(b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice and cause;	See response to condition in SSD 6464																								

Condition	Requirement	Status	Evidence
(c)	air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining or gas company) of the particulate emissions at the residence; and	See response to condition in SSD 6464	
(d)	date from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property.	See response to condition in SSD 6464	
Operating Conditions			
17	The Applicant shall:		
(a)	implement all reasonable and feasible measures to minimise the: <ul style="list-style-type: none"> • odour, fume and dust emissions of the development; and • release of greenhouse gas emissions from the development; 	See response to condition in SSD 6464	
(b)	comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;	See response to condition in SSD 6464	
(c)	minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see notes to Tables 5-7 above); and	See response to condition in SSD 6464	
(d)	co-ordinate the air quality management on site with the air quality management at nearby mines (including the Warkworth, Bulga, Wambo and Hunter Valley Operations mines) to minimise any cumulative air quality impacts	See response to condition in SSD 6464	
Air Quality Management Plan			
18	The Applicant shall prepare a detailed Air Quality Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. This plan must:		
(a)	be prepared in consultation with the EPA, and be submitted to the Secretary for Approval prior to carrying out any development under this consent;	See response to condition in SSD 6464	
(b)	describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;	See response to condition in SSD 6464	
(c)	describe the project air quality management system;	See response to condition in SSD 6464	
(d)	include provisions for keeping the local community informed about the operation of the air quality management system and monitoring programs, including regular briefings and a public information	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
	session within 6 months of the granting of this development consent;		
(e)	include an air quality monitoring program that: <ul style="list-style-type: none"> adequately supports the proactive and reactive air quality management system; evaluates and reports on: <ul style="list-style-type: none"> the effectiveness of the air quality management system; and compliance against the air quality operating conditions; and defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents; and 	See response to condition in SSD 6464	
(f)	include a protocol that has been prepared in consultation with the owners of nearby mines (including the Warkworth, Bulga, Wambo and Hunter Valley Operations) to minimise the cumulative air quality impacts of these mines and the development.	See response to condition in SSD 6464	
METEOROLOGICAL MONITORING			
19	For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:		
(a)	complies with the requirement in the Approved Methods for Sampling of Air Pollutant in New South Wales guidelines; and	See response to condition in SSD 6464	
(b)	is capable of continuous real-time measurement of temperature inversions in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.	See response to condition in SSD 6464	
WATER			
Water Supply			
20	The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply.	See response to condition in SSD 6464	
	<i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licenses for the development.</i>		
Compensatory Water Supply			
21	The Applicant shall provide a compensatory water supply to the owner of any privately-owned land whose basis landholder water rights as defined in the <i>Water Management Act 2000</i> are adversely and directly impacted as result	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
	of the development. This supply must be provided in consultation with NOW, and to the satisfaction of the Secretary.		
	The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the development. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable from the loss being identified, unless otherwise agreed with the landowner.		
	If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.		
	If the Applicant is unable to provide an alternative long-term supply of water, the Applicant shall provide alternative compensation to the satisfaction of the Secretary. <i>Note:</i> <i>The Water Management Plan (see condition 25) is required to include trigger levels for investigation potentially adverse impacts on water supplies.</i>		
Water Discharges			
22	Unless an EPL or the EPA authorises otherwise, the Applicant shall ensure that all surface water discharges from the site comply with the:		
	(a) discharge limits (both volume and quality) set for the development in any EPL; and	See response to condition in SSD 6464	
	(b) relevant provisions of the POEO Act or <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i>	See response to condition in SSD 6464	
	<i>Note:</i> <i>For the avoidance of doubt, it is noted that the EPA will determine the cumulative allowable salinity discharges to the Hunter River catchment, according to rules of the Hunter River Salinity Trading Scheme and the respective quantities of tradeable salinity credits held by participants in the scheme (including the Bulga mine and other nearby mining operations).</i>		
Water Transfers			
23	The Applicant may receive water from, and transfer water to, the Warkworth mine, Bulga mine, Hunter Valley Operations mine and Redbank Power Station.	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence																						
Water Management Performance Measures																									
24	<p>The Applicant shall comply with the performance measures in Table 8 to the satisfaction of the Secretary.</p> <p><i>Table 8: Water management performance measures</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Water management – General</td> <td> Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site Minimise the need for make-up water from external supplies (apart from permissible mine water transfers) Maximise the use of mine water </td> </tr> <tr> <td>Construction and operation of infrastructure</td> <td> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – <i>Installation of Services</i> and Volume 2C – <i>Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i>, or their latest versions </td> </tr> <tr> <td>Clean water diversion & storage infrastructure</td> <td> Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site </td> </tr> <tr> <td>Sediment dams</td> <td> Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> and <i>Volume 2E Mines and Quarries</i> </td> </tr> <tr> <td>Mine water storages</td> <td> Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 20) On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters </td> </tr> <tr> <td>Flood mitigation measures</td> <td> Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollemi Brook and the crest levee or peak of the flood mitigation infrastructure Residual impacts downstream must be managed in an appropriate manner </td> </tr> <tr> <td>Overburden emplacements</td> <td> Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material Design, install and maintain emplacements to prevent offsite migration of saline groundwater seepage </td> </tr> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> <tr> <td>Chemical and hydrocarbon storage</td> <td> Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards </td> </tr> <tr> <td>Loders Creek</td> <td> Maintain or improve baseline channel stability Improve riparian health </td> </tr> </tbody> </table>	Feature	Performance Measure	Water management – General	Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site Minimise the need for make-up water from external supplies (apart from permissible mine water transfers) Maximise the use of mine water	Construction and operation of infrastructure	Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – <i>Installation of Services</i> and Volume 2C – <i>Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i> , or its latest version Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i> , or their latest versions	Clean water diversion & storage infrastructure	Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site	Sediment dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> and <i>Volume 2E Mines and Quarries</i>	Mine water storages	Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 20) On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters	Flood mitigation measures	Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollemi Brook and the crest levee or peak of the flood mitigation infrastructure Residual impacts downstream must be managed in an appropriate manner	Overburden emplacements	Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material Design, install and maintain emplacements to prevent offsite migration of saline groundwater seepage	Feature	Performance Measure	Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards	Loders Creek	Maintain or improve baseline channel stability Improve riparian health	<p>See response to condition in SSD 6464</p>	<p>Sediment is entering Loders Creek from active erosion of the creek banks near MTW and Bulga, this has been identified in 'Annual Stream Health and Channel Stability' reports'. The status of Loders Creek is reported in an annual Stream Health and Channel Stability program appended to the AR. Its results and recommendations for 2019 are provided and discussed in response to Sch 3 Cond 27 of SSD 6464. The performance measure for Loders Creek is to maintain or improve baseline channel stability and improve riparian health. The 2019 Report prepared by SLR concluded that "some sections of Loder Creek are currently eroding and are vulnerable to further erosion with areas of significant erosion observed.....The RARC stream health assessment identified that the monitoring points on Loders Creek were classified as poor and average". The report recommended that MTW adopt a risk based approach to determine whether mitigation measures and/or improvement works are required at the monitoring points where erosion was observed.</p>
Feature	Performance Measure																								
Water management – General	Minimise the use of clean water (i.e. water not in contact with disturbed areas) on site Minimise the need for make-up water from external supplies (apart from permissible mine water transfers) Maximise the use of mine water																								
Construction and operation of infrastructure	Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including Volume 1, Volume 2A – <i>Installation of Services</i> and Volume 2C – <i>Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i> , or its latest version Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)</i> and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)</i> , or their latest versions																								
Clean water diversion & storage infrastructure	Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site																								
Sediment dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> and <i>Volume 2E Mines and Quarries</i>																								
Mine water storages	Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site (except in accordance with condition 20) On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability Maintain adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters																								
Flood mitigation measures	Design, install and maintain flood mitigation measures along the western side of the development, to ensure there is adequate freeboard (at least 500mm) between the Probable Maximum Flood level in Wollemi Brook and the crest levee or peak of the flood mitigation infrastructure Residual impacts downstream must be managed in an appropriate manner																								
Overburden emplacements	Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material Design, install and maintain emplacements to prevent offsite migration of saline groundwater seepage																								
Feature	Performance Measure																								
Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards																								
Loders Creek	Maintain or improve baseline channel stability Improve riparian health																								
Water Management Plan																									
25	<p>The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must:</p>																								

Condition	Requirement	Status	Evidence
(a)	be prepared in consultation with the EPA, NOW and OEH and submitted to the Secretary for approval prior to carrying out any development under this consent; and	See response to condition in SSD 6464	
(b)	in addition to the standard requirements for management plans (see condition 3 of schedule 5), include a:	See response to condition in SSD 6464	
(i)	Site Water Balance that:		
	<ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> - sources and security of water supply, including contingency planning for future reporting periods; - water use and management on site, including details of water sharing between neighbouring mining operations; - any off-site water transfers and discharges; - reporting procedures, including the preparation of a site water balance for each calendar year; and 		
	<ul style="list-style-type: none"> • investigates and implements all reasonable and feasible measures to minimise water use on site; 		
(ii)	Surface Water Management Plan, that includes:		
	<ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the watercourses that could potentially be affected by the development; 		
	<ul style="list-style-type: none"> • a detailed description of the water management system on site, including the: <ul style="list-style-type: none"> - clean water diversion systems; - erosion and sediment controls (mine water system); and - mine water management systems including irrigation areas; 		
	<ul style="list-style-type: none"> • detailed plans, including design objectives and performance criteria, for: <ul style="list-style-type: none"> - design and management of final voids; - design and management for the emplacement of coal reject materials; - reinstatement of drainage lines on the rehabilitated areas of the site; and - control of any potential water pollution from the rehabilitated areas of the site; 		
	<ul style="list-style-type: none"> • performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the development: <ul style="list-style-type: none"> - mine water management system; - surface water quality of Loaders Creek; and - channel stability, stream and riparian vegetation health of Loaders Creek; 		

Condition	Requirement	Status	Evidence
	<ul style="list-style-type: none"> • a program to monitor and report on: <ul style="list-style-type: none"> - the effectiveness of the mine water management system; and - surface water flows and quality, stream and riparian vegetation health in Loaders Creek potentially affected by the development; 		
	<ul style="list-style-type: none"> • a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development; and 		
	(iii) Groundwater Management Plan, which includes:		
	<ul style="list-style-type: none"> • detailed baseline data on groundwater levels, yield and quality in the region, and privately-owned groundwater bores, that could be affected by the development; 		
	<ul style="list-style-type: none"> • groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; 		
	<ul style="list-style-type: none"> • a program to monitor and report on: <ul style="list-style-type: none"> - groundwater inflows to the open cut pits; - the seepage/leachate from water storages, emplacements, backfilled voids, and final voids; - the impacts of the development on: <ul style="list-style-type: none"> o regional and local (including alluvial) aquifers; o groundwater supply of potentially affected landowners; o groundwater dependent ecosystems and riparian vegetation; o base flows to Loaders Creek; 		
	<ul style="list-style-type: none"> • a plan to respond to any exceedances of the groundwater assessment criteria; and 		
	<ul style="list-style-type: none"> • a program to validate the groundwater model for the development, including an independent review of the model with every independent environmental audit, and compare the monitoring results with modelled predictions. 		

Condition	Requirement	Status	Evidence																																																																																				
HERITAGE																																																																																							
Protection of Heritage Items																																																																																							
26	<p>Applicant shall protect the heritage items identified in Table 1 of Appendix 4.</p> <p><i>Table 1: Aboriginal Cultural Heritage Sites to be Protected</i></p> <p>Details of extant only Aboriginal cultural heritage places within the MTO 2014 proposal area [NB: this is derived from Table 13 from the WCP EIS, vol. 5, Appx.M, ACH study]</p> <table border="1"> <thead> <tr> <th>AHIMS No</th> <th>Restricted</th> <th>Place Name</th> <th>Place Type</th> <th>PAD</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>37-6-0312</td> <td>-</td> <td>MT 26</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0313</td> <td>-</td> <td>MT 27</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0314</td> <td>-</td> <td>MT 28</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0315</td> <td>-</td> <td>MT 29</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0316</td> <td>-</td> <td>MT 30</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0317</td> <td>-</td> <td>MT 31</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0318</td> <td>-</td> <td>MT 32</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0319</td> <td>-</td> <td>MT 33</td> <td>Isolated Stone Artefact/s</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0656</td> <td>-</td> <td>B73</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0658</td> <td>-</td> <td>B 75</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0659</td> <td>-</td> <td>B 76</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-0660</td> <td>-</td> <td>B 77</td> <td>Stone Artefact Scatter</td> <td>-</td> <td>Valid</td> </tr> <tr> <td>37-6-2717</td> <td>-</td> <td>AG-PAD-1</td> <td>PAD</td> <td>Yes</td> <td>Partially Destroyed</td> </tr> </tbody> </table>	AHIMS No	Restricted	Place Name	Place Type	PAD	Status	37-6-0312	-	MT 26	Stone Artefact Scatter	-	Valid	37-6-0313	-	MT 27	Stone Artefact Scatter	-	Valid	37-6-0314	-	MT 28	Stone Artefact Scatter	-	Valid	37-6-0315	-	MT 29	Stone Artefact Scatter	-	Valid	37-6-0316	-	MT 30	Stone Artefact Scatter	-	Valid	37-6-0317	-	MT 31	Stone Artefact Scatter	-	Valid	37-6-0318	-	MT 32	Stone Artefact Scatter	-	Valid	37-6-0319	-	MT 33	Isolated Stone Artefact/s	-	Valid	37-6-0656	-	B73	Stone Artefact Scatter	-	Valid	37-6-0658	-	B 75	Stone Artefact Scatter	-	Valid	37-6-0659	-	B 76	Stone Artefact Scatter	-	Valid	37-6-0660	-	B 77	Stone Artefact Scatter	-	Valid	37-6-2717	-	AG-PAD-1	PAD	Yes	Partially Destroyed	Compliant	As per Schedule 3 of the ACHMP, protected areas fall under “Zone 1 Significant Area” of the MTW Aboriginal Cultural Heritage Zoning Scheme (CHZS). Zone 1 are “designed areas to protect all known Aboriginal Cultural Heritage sites, places or objects.” Viewed ‘MTW Cultural Heritage Zone Plan’ dated 4/6/20. The sites listed under this condition are protected in Loders Creek Cultural Heritage Conservation Area (WC pers comms) which falls under Zone 1 of the CHZS. The ACHMP states that “the CHZS is incorporated within the MTW Aboriginal Cultural Heritage GIS”.
AHIMS No	Restricted	Place Name	Place Type	PAD	Status																																																																																		
37-6-0312	-	MT 26	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0313	-	MT 27	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0314	-	MT 28	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0315	-	MT 29	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0316	-	MT 30	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0317	-	MT 31	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0318	-	MT 32	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0319	-	MT 33	Isolated Stone Artefact/s	-	Valid																																																																																		
37-6-0656	-	B73	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0658	-	B 75	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0659	-	B 76	Stone Artefact Scatter	-	Valid																																																																																		
37-6-0660	-	B 77	Stone Artefact Scatter	-	Valid																																																																																		
37-6-2717	-	AG-PAD-1	PAD	Yes	Partially Destroyed																																																																																		
Loders Creek Aboriginal Cultural Heritage Conservation Area																																																																																							
27	<p>Within 3 years of the commencement of development under this consent, unless the Secretary agrees otherwise, the Applicant shall enter into a conservation agreement or agreements pursuant to section 698 of the National Parks and Wildlife Act 1974 relating to the Loders Creek Aboriginal Cultural Heritage Conservation Area, recording the obligations assumed by the Applicant under the conditions of this consent in relation to the conservation area, and register the agreements pursuant to section 69F of the National Parks and Wildlife Act 1974.</p> <p><i>Note:</i> <i>The location of the conservation area is shown in the figure in Appendix 4.</i></p>	Not Compliant	<p>Viewed letter from DPE dated 15/2/19 providing extension to 15 Feb 2020.</p> <p>At the time of the IEA site visit, the Loders Creek Aboriginal Cultural Heritage Conservation Area had not been entered into a conservation agreement under this condition.</p> <p>It is intended that once the process for the Wollombi Brook Cultural Heritage Conservation Area is finalised with BCD, then Loders Creek ACHCA will follow using the established process (GM pers comms).</p>																																																																																				
Aboriginal Heritage Management Plan																																																																																							
28	<p>The Applicant shall prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary, and carry out the development in accordance with this plan. The plan must:</p>																																																																																						

Condition	Requirement	Status	Evidence
	(a) be prepared in consultation with OEH and Aboriginal stakeholders. and submitted to the Secretary for approval prior to carrying out any development under this consent;	See response to condition in SSD 6464	
	(b) include a detailed plan of management for the Loaders Creek Aboriginal Cultural Heritage Conservation Area;	Compliant	Approved separately. Viewed approval letter from DPIE dated 19.3.19.
	(c) include a program to: <ul style="list-style-type: none"> • salvage, investigate and/or manage Aboriginal sites and potential archaeological deposits within the project disturbance area; • assess and remove scarred trees within the disturbance area; • protect and monitor Aboriginal sites outside the project disturbance area; • manage the discovery of any new Aboriginal objects or skeletal remains during the development; • facilitate access to archaeological sites on site for Aboriginal stakeholders; and • Aboriginal stakeholders are consulted and involved in the conservation and management of Aboriginal cultural heritage on the site. 	See response to condition in SSD 6464	
TRANSPORT			
Monitoring of Coal Transport			
29	The Applicant shall:		
	(a) keep records of the amount of coal transported from the development in each calendar year; and	See response to condition in SSD 6464	
	(b) make these records available on its website at the end of each calendar year.	See response to condition in SSD 6464	
VISUAL			
Operating Conditions			
30	The Applicant shall:		
	(a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development, including lighting impacts on road users and impacts of mining voids;	See response to condition in SSD 6464	Additional bund - Charlton Ridge. Lighting audit discussed in SSD 6464 completed for both mines.
	(b) establish and maintain vegetated bunds, vegetative screening and/or screen fencing along the	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
	boundary of the site including adjoining public roads where appropriate;		
	(c) ensure that all external lighting associated with the development complies with Australian Standard AS4282 (NT) 1997 - Control of Obtrusive Effects of Outdoor Lighting, or its latest version; and	See response to condition in SSD 6464	
	(d) monitor and report on the effectiveness of these measures.	See response to condition in SSD 6464	
	Initial works to establish the vegetative bunds and/or screening referred to in condition 30(b) must be undertaken within 6 months of the date of commencement of development under this consent (unless otherwise agreed by the Secretary), in accordance with a tree screening plan that has been prepared in consultation with Council and to the satisfaction of the Secretary. The use of screen fencing shall be limited to areas where vegetative screening is not feasible, or as an interim measure prior to establishment of vegetation.		
Additional Visual Impact Mitigation			
31	<p>Upon receiving a written request from the owner of any residence on privately-owned land who has, or would have, significant direct views of the mining operations from this residence and/or its associated facilities (such as pool or barbeque area) during the development. the Applicant shall implement additional visual mitigation measures (such as landscaping or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the visibility of mining operations from the residence and/or its associated facilities.</p> <p>If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p>	See response to condition in SSD 6464.	

Condition	Requirement	Status	Evidence
	<p>Notes:</p> <ul style="list-style-type: none"> The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties. The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts). Except in exceptional circumstances, the Secretary will not require additional visual impact mitigation to be undertaken for residences that are more than 5 kilometres from the mining operations. 		
BUSHFIRE MANAGEMENT			
32	The Applicant shall:		
	(a) ensure that the development is suitably equipped to respond to any fires on site; and	See response to condition in SSD 6464	
	(b) assist the Rural Fire Service and emergency services as much as practicable if there is a fire in the vicinity of the site.	See response to condition in SSD 6464	
WASTE			
33	The Applicant shall:		
	(a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;	See response to condition in SSD 6464	
	(b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and	See response to condition in SSD 6464	
	(c) monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.	See response to condition in SSD 6464	
REHABILITATION			
Rehabilitation Objectives			
34	The Applicant shall rehabilitate the site to the satisfaction of the DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS (and depicted conceptually in the figure in Appendix 5), and comply with the objectives in Table 9.	Compliant	<u>WSP</u> Annual Review details progress of mine rehabilitation progress against MOP plans.

Condition	Requirement	Status	Evidence																
	<p><i>Table 9: Rehabilitation objectives</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole)</td> <td> <ul style="list-style-type: none"> • Safe, stable and non-polluting • Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site • Final landforms to: <ul style="list-style-type: none"> ○ sustain the intended land use for the post-mining domains; ○ be designed to minimise the visual impacts of the development; ○ be in keeping with the natural terrain features of the area; ○ be integrated with the rehabilitated landforms of surrounding mines; ○ incorporate micro-relief; and ○ incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible </td> </tr> <tr> <td>Water quality</td> <td> <ul style="list-style-type: none"> • Water retained on site is fit for the intended land use(s) for the post-mining domains • Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance • Water management is consistent with the applicable regional catchment strategy </td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Biodiversity</td> <td> <ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species • Vegetation to be established with at least 483 ha of Central Hunter Grey Box - Ironbark Woodland EEC • Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats • Species are selected that re-establishes and complements regional and local biodiversity </td> </tr> <tr> <td>Surface infrastructure</td> <td> <ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise </td> </tr> <tr> <td>Agriculture</td> <td> <ul style="list-style-type: none"> • Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years of land use establishment (first planting vegetation) </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> • Ensure public safety • Minimise the adverse socio-economic effects associated with mine closure </td> </tr> </tbody> </table>	Feature	Objective	Mine site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site • Final landforms to: <ul style="list-style-type: none"> ○ sustain the intended land use for the post-mining domains; ○ be designed to minimise the visual impacts of the development; ○ be in keeping with the natural terrain features of the area; ○ be integrated with the rehabilitated landforms of surrounding mines; ○ incorporate micro-relief; and ○ incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible 	Water quality	<ul style="list-style-type: none"> • Water retained on site is fit for the intended land use(s) for the post-mining domains • Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance • Water management is consistent with the applicable regional catchment strategy 	Feature	Objective	Biodiversity	<ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species • Vegetation to be established with at least 483 ha of Central Hunter Grey Box - Ironbark Woodland EEC • Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats • Species are selected that re-establishes and complements regional and local biodiversity 	Surface infrastructure	<ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise 	Agriculture	<ul style="list-style-type: none"> • Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years of land use establishment (first planting vegetation) 	Community	<ul style="list-style-type: none"> • Ensure public safety • Minimise the adverse socio-economic effects associated with mine closure 		
Feature	Objective																		
Mine site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation of the site • Final landforms to: <ul style="list-style-type: none"> ○ sustain the intended land use for the post-mining domains; ○ be designed to minimise the visual impacts of the development; ○ be in keeping with the natural terrain features of the area; ○ be integrated with the rehabilitated landforms of surrounding mines; ○ incorporate micro-relief; and ○ incorporate drainage lines consistent with topography and natural drainage where reasonable and feasible 																		
Water quality	<ul style="list-style-type: none"> • Water retained on site is fit for the intended land use(s) for the post-mining domains • Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance • Water management is consistent with the applicable regional catchment strategy 																		
Feature	Objective																		
Biodiversity	<ul style="list-style-type: none"> • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising local plant species • Vegetation to be established with at least 483 ha of Central Hunter Grey Box - Ironbark Woodland EEC • Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats • Species are selected that re-establishes and complements regional and local biodiversity 																		
Surface infrastructure	<ul style="list-style-type: none"> • To be decommissioned and removed, unless the DRE agrees otherwise 																		
Agriculture	<ul style="list-style-type: none"> • Land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years of land use establishment (first planting vegetation) 																		
Community	<ul style="list-style-type: none"> • Ensure public safety • Minimise the adverse socio-economic effects associated with mine closure 																		
Progressive Rehabilitation																			
35	<p>The Applicant shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.</p>	<p>See response to condition in SSD 6464</p>																	
	<p><i>Note:</i> <i>It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.</i></p>																		
Rehabilitation Management Plan																			
36	<p>The Applicant shall prepare a Rehabilitation Management Plan for the development to the satisfaction of the DRE and carry out the development in accordance with this plan. The plan must:</p>																		

Condition	Requirement	Status	Evidence
	(a) be submitted to the DRE for approval prior to carrying out any development under this consent;	See response to condition in SSD 6464	
	(b) be prepared in consultation with the Department, NOW, OEH, Council and the CCC;	See response to condition in SSD 6464	
	(c) be prepared in accordance with any relevant DRE guideline, including any NSW government policy regarding voids;	See response to condition in SSD 6464	
	(d) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);	See response to condition in SSD 6464	
	(e) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including timeframes for achieving specified rehabilitation objectives;	See response to condition in SSD 6464	
	(f) includes a mine closure strategy, that details measures to minimise the long term impacts associated with mine closure, including final landform, final land use and socio economic issues;	See response to condition in SSD 6464	
	(g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;	See response to condition in SSD 6464	
	(h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and	See response to condition in SSD 6464	
	(i) build to the maximum extent practicable on the other management plans required under this consent.	See response to condition in SSD 6464	
SCHEDULE 4 - ADDITIONAL PROCEDURES			
NOTIFICATION OF LANDOWNERS/TENANTS			
1	Within 1 month of the date of this consent, the Applicant shall:		
	(a) notify in writing the owners of:	See response to condition in SSD 6464	
	<ul style="list-style-type: none"> the land listed in Table 1 of schedule 3 that they have the right to require the Applicant to acquire their land in accordance with the procedures in conditions 5-6 below at any stage during the development; 		
	<ul style="list-style-type: none"> any residence on the land listed in Table 3 of schedule 3 that they have the right to request the Applicant to ask for additional noise mitigation measures to be installed at their residence at any stage during the development; and 		

Condition	Requirement	Status	Evidence
	<ul style="list-style-type: none"> any privately-owned land within 2 kilometres of the approved open cut mining pits that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; 		
	(b) notify the tenants of any mine-owned land of their rights under this consent (see condition 16 of schedule 3); and		
	(c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the development.		
2	Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Applicant, the Applicant shall:		
	(a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and	See response to condition in SSD 6464	
	(b) advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary.	See response to condition in SSD 6464	
3	As soon as practicable after obtaining monitoring results showing:		
	(a) an exceedance of any relevant criteria in schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and	See response to condition in SSD 6464	
	(b) an exceedance of the relevant air quality criteria in schedule 3, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).	See response to condition in SSD 6464	
INDEPENDENT REVIEW			
4	If an owner of privately-owned land considers the development to be exceeding the criteria in schedule 3 at his/her land, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.		
	If the Secretary is satisfied that an independent review is warranted, then the Applicant shall:		

Condition	Requirement	Status	Evidence
	(a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:	See response to condition in SSD 6464	
	• consult with the landowner to determine his/her concerns;		
	• conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in schedule 3; and		
	• if the development is not complying with these criteria then:		
	o determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land;		
	o identify the measures that could be implemented to ensure compliance with the relevant criteria; and		
	(b) give the Secretary and landowner a copy of the independent review within 2 months of the Secretary's decision, unless the Secretary agrees otherwise.	See response to condition in SSD 6464	
LAND ACQUISITION			
5	Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:		
	(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:	See response to condition in SSD 6464	
	• existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and		
	• presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in condition 3 of schedule 3;		
	(b) the reasonable costs associated with:	See response to condition in SSD 6464	
	• relocating within the Muswellbrook, Singleton or Cessnock local government area, or to any other local government area determined by the Secretary; and		
	• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and		

Condition	Requirement	Status	Evidence
	(c) reasonable compensation for any disturbance caused by the land acquisition process.	See response to condition in SSD 6464	
	<p>However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> • consider submissions from both parties; • determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; • prepare a detailed report setting out the reasons for any determination; and • provide a copy of the report to both parties. <p>Within 14 days of receiving the independent valuer's report, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.</p> <p>Within 14 days of this determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>		
6	The Applicant shall pay wall reasonable cost associated with the land acquisition process described in Condition 5 above, including the costs associated with obtaining Council approval of any plan of subdivision (where permissible) and registration of this plan with the Office of the Registrar-General.	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
1	The Applicant shall prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary, and carry out the development in accordance with this strategy. The strategy must:		
	(a) be submitted to the Secretary for approval prior to carrying out any development under this consent;	See response to condition in SSD 6464	
	(b) provide the strategic framework for environmental management of the development;	See response to condition in SSD 6464	
	(c) identify the statutory approvals that apply to the development;	See response to condition in SSD 6464	
	(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	See response to condition in SSD 6464	
	(e) describe the procedures that would be implemented to:	See response to condition in SSD 6464	
	<ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the mine development; 		
	<ul style="list-style-type: none"> • receive, handle, respond to, and record complaints; 		
	<ul style="list-style-type: none"> • resolve any disputes that may arise 		
	<ul style="list-style-type: none"> • respond to any non-compliance; 		
	<ul style="list-style-type: none"> • respond to emergencies; and 		
	(f) include:	See response to condition in SSD 6464	
	<ul style="list-style-type: none"> • copies of any strategies, plans and programs approved under the conditions of this consent; and 		
	<ul style="list-style-type: none"> • a clear plan depicting all the monitoring required to be carried out under the conditions of this consent. 		
Adaptive Management			
2	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any		

Condition	Requirement	Status	Evidence
	exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:		
	(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;	See response to condition in SSD 6464	
	(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and	See response to condition in SSD 6464	
	(c) implement remediation measures as directed by the Secretary.	See response to condition in SSD 6464	
Management Plan Requirements			
3	The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:		
	(a) detailed baseline data;	See response to condition in SSD 6464	
	(b) a description of: <ul style="list-style-type: none"> the relevant statutory requirements (including any relevant approval, licence or lease conditions); any relevant limits or performance measures/criteria; the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; 	See response to condition in SSD 6464	
	(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	See response to condition in SSD 6464	
	(d) a program to monitor and report on the: <ul style="list-style-type: none"> impacts and environmental performance of the development; effectiveness of any management measures (see c above); 	See response to condition in SSD 6464	
	(e) a contingency plan to manage any unpredicted impacts and their consequences;	See response to condition in SSD 6464	
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
	(g) protocol for managing and reporting any: <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and 	See response to condition in SSD 6464	
	(h) a protocol for periodic review of the plan.	See response to condition in SSD 6464	
	<i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i>		
Annual Review			
4	By the end of March each year, the Applicant shall review the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:		
	(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;	See response to condition in SSD 6464	
	(b) include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: <ul style="list-style-type: none"> relevant statutory requirements, limits or performance measures/criteria; monitoring results of previous years; and relevant predictions in the EIS; 	See response to condition in SSD 6464	
	(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	See response to condition in SSD 6464	
	(d) identify any trends in the monitoring data over the life of the development;	See response to condition in SSD 6464	
	(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	See response to condition in SSD 6464	
	(f) describe what measures will be implemented over the next year to improve the environmental performance of the development.	See response to condition in SSD 6464	
Revision of Strategies, Plans and Programs			
5	Within 3 months of:		

Condition	Requirement	Status	Evidence
	(a) the submission of an: <ul style="list-style-type: none"> annual review under condition 4 above; incident report under condition 7 below; audit report under condition 9 below; or 	See response to condition in SSD 6464	
	(b) any modification to the conditions of this consent (unless the conditions require otherwise), or	See response to condition in SSD 6464	
	(c) the introduction of any NSW government policy regarding voids, the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.	See response to condition in SSD 6464	
	Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval. <i>Note:</i> <i>This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i>		
Community Consultative Committee			
6	The Applicant shall operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version). It may also be combined with any CCC for the Warkworth mine.	See response to condition in SSD 6464	
	<i>Notes:</i> <ul style="list-style-type: none"> The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community. 		
REPORTING			
Incident Reporting			
7	The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
Regular Reporting			
8	The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	See response to condition in SSD 6464	
AUDITING			
Independent Environmental Audit			
9	Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:		
	(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	See response to condition in SSD 6464	
	(b) include consultation with the relevant agencies;	See response to condition in SSD 6464	
	(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	See response to condition in SSD 6464	
	(d) review the adequacy of strategies, plans or programs required under the above mentioned approvals; and	See response to condition in SSD 6464	
	(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.	See response to condition in SSD 6464	
	<i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i>		
10	Within 6 weeks of the completion of this audit, unless the Secretary agrees otherwise, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	See response to condition in SSD 6464	
ACCESS TO INFORMATION			
11	The Proponent must:		
	(a) make the following information publicly available on its website:	See response to condition in SSD 6464	
	• the documents listed in condition 2 of Schedule 2;		

Condition	Requirement	Status	Evidence
	<ul style="list-style-type: none"> current statutory approvals for the project; 		
	<ul style="list-style-type: none"> approved strategies, plans or programs required under the conditions of this approval; 		
	<ul style="list-style-type: none"> a comprehensive summary of the compliance monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; 		
	<ul style="list-style-type: none"> a complaint's register, which is to be updated on a monthly basis; 		
	<ul style="list-style-type: none"> minutes of CCC meetings; 		
	<ul style="list-style-type: none"> the last five annual reviews; 		
	<ul style="list-style-type: none"> any independent environmental audit; and the Proponent's response to the recommendations in any audit; 		
	<ul style="list-style-type: none"> any other matter required by the Secretary; and 		
	(b) keep this information up to date.	See response to condition in SSD 6464	
APPENDIX 6			
NOISE COMPLIANCE ASSESSMENT			
Applicable Meteorological Conditions			
1	The noise criteria in Table 2 of schedule 3 are to apply under all meteorological conditions except the following:		
	(a) wind speeds greater than 3 m/sat 10m above ground level; or	See response to condition in SSD 6464	
	(b) stability category F temperature inversion conditions and wind speeds greater than 2 m/sat 10m above ground level; or	See response to condition in SSD 6464	
	(c) stability category G temperature inversion conditions.	See response to condition in SSD 6464	
Determination of Meteorological Conditions			
2	Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site.	See response to condition in SSD 6464	
Compliance Monitoring			
3	Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.	See response to condition in SSD 6464	

Condition	Requirement	Status	Evidence
4	This monitoring must be carried out at least 12 times a year, unless the Secretary directs otherwise.	See response to condition in SSD 6464	
5	Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time) or an equivalent NSW Government noise policy, in particular the requirements relating to:		
	(a) monitoring locations for the collection of representative noise data;	See response to condition in SSD 6464	
	(b) meteorological conditions during which collection of noise data is not appropriate;	See response to condition in SSD 6464	
	(c) equipment used to collect noise data, and conformance with Australian Standards relevant to such equipment; and	See response to condition in SSD 6464	
	(d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for: <ul style="list-style-type: none"> • duration; or • low frequency noise. where it is demonstrated that the dBC - dBA noise difference is caused by distance attenuation only. 	See response to condition in SSD 6464	

Table C
Other Licences & Approvals

* Reasons for non-compliances with individual conditions are indicated in **bold and underlined**. Recommendations are **bolded**.

Instrument	Status	Comments
EPL 1376	Not Compliant	<p>A1.1: Coal works and mining for coal discussed in Sch 2 of SSD 6464. Crushing is carried out onsite to produce road base. Viewed coal crushing volumes.</p> <p>A2.1: Viewed figure dated 16/10/2018 defining the premise to which the licence applies.</p> <p>A3.1: There are 8 STP's onsite at Warkworth Viewed Approval to Operate On-site Sewage Management letter from SSC dated 1/7/19.</p> <p>P1.1: There are four monitoring points (plus one for MTIE)</p> <p>P1.3: MTW are in the process of planning a water transfer between EPL 1376 and EPL 1976. Recommend updating Water and Land Table as follows: Location Description for Discharge to pipe (EPA Identification No. 24), is required by Special Condition E2, not E3. Include mine name where discharge of mine water will occur to.</p> <p>P1.4: Six noise weather monitoring locations.</p> <p>P1.5 – P1.7: Viewed plans referenced in these conditions.</p> <p>L1.1: No pollution of waters has occurred under this condition (GM, pers comms)</p> <p>L2 and L3: As discussed in Sch 3 Cond 24 of SSD 6464, there has been no discharge during the IEA period.</p> <p>L4.1: Biosolids (see discussion under Sch 3 Cond 56 of SSD 6464), Flyash (Not Triggered, deposited on outer edge of TD2), Stormwater (Not Triggered), Coal Washery Reject (discussed in Sch 3 Cond 55), Excavated natural material (no procedures, BB pers comms), Gypsum (no procedures, BB pers comms).</p> <p>L4.2: See response to Sch 3, Cond 25 of SSD 6464.</p> <p>L4.3: See response to Sch 3, Cond 55 of SSD 6464.</p> <p>L.5: See response to Sch 3 Cond 8 – 14 of SSD 6464. <u>As reported in the EPL Annual Returns, during the IEA period, there were two non-compliances against L5.2 for blast events on 4/4/19 and 28/12/18, discussed in Sch 3 Cond 8 of SSD 6464. A further Non-compliance in 2017 for low level fume emitted from West Pit.</u></p> <p>E2: Viewed draft figure on 28 April</p> <p>O1.1 - <u>As reported in the EPL Annual Returns, during the IEA period, there were two non-compliances against O1.1 for sediment dam overtop at Dam 53N and for separate water incident on 4/12/17 discussed further in Sch 3 Cond 26 of SSD 6464.</u></p> <p>O2.1: See response to Sch 2, Cond 13 of SSD 6464.</p> <p>O2.2 – 2.3: Staging pond work orders are not required as this is not a managed treated effluent site. It is a holding pond prior to transfer to an evapotranspiration area (WC pers comms).</p> <p>O2.4: Viewed sewage treatment maintenance schedule for June & July 2019, showing work order number and type, and a description of works undertaken.</p> <p>O3.1: See response to Sch 3, Cond 17-20 of SSD 6464</p> <p>O3.2 - O3.3: Confirmed during the site inspection of the IEA. See response to Sch 3, Cond 17-20 of SSD 6464</p>

Instrument	Status	Comments
		<p>04: As discussed during the IEA site visit, a review of all effluent facilities is currently being undertaken. Viewed Work Order for Sewage Treatment Facility. Recommend that inspection / maintenance forms required under this condition, specifically refer to ponding (O4.3)</p> <p>05: Viewed PIRMP Action Summary, Section 6.2 outlines Testing requirements. Viewed PIRMP testing undertaken 24/10/19. PIRMP test simulated a multi-response exercise e.g Environment and Health and Safety, which included a fuel spill on the haul road. Test results highlighted that site communication could be improved.</p> <p>PIRMP tested 26/4/19, simulation dirty water leaving site. Test found no direct environmental comments, update to PIRMP contacts and regulatory notification required, training module be developed for PIRMP. Training module is being developed but not yet implemented (OL pers comms).</p> <p>06: See response to Sch 3 Cond 55 of SSD 6464.</p> <p>07: See response to Sch 3 Cond 26 of SSD 6464</p> <p>M1 Viewed sample water data spreadsheet dated Dec 2019 which shows data dating back to 2016. MTW have recently transitioned to monitor pro. Verified Spreadsheet uploaded to MonitorPro. Viewed MonitorPro desktop which shows weekly charts. Viewed sample monthly field monitoring sheet dated 13/3/20 for Surface Water Dam, includes date, time, site and name of person who collected sample.</p> <p>M2.1-2.2: See response to Sch 3 Cond 17-20 of SSD 6464. <u>As reported in the EPL Annual Returns, during the IEA period, there was a non-compliance against M2.2 for non-continuous data capture and non-compliance against M2.3 for not providing quarterly effluent monitoring samples.</u> Viewed evidence (MTW Sewage Spreadsheet) of quarterly monitoring for faecal coliforms.</p> <p>M2.3: Not Triggerred, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>M4.1: Viewed data logger example, MET station at Charlton Ridge. "Feb2020 Charlton Ridge AWS 10min". Viewed data collection, height of monitors confirmed by specialist via email dated 29/4/20. <u>As reported in the EPL Annual Returns, during the IEA period, there was one non-compliance against M4.1 for failure to capture continuous data at the Charlton Ridge met station.</u> Data capture from the Charlton Ridge met station was greater than 99% for the reporting period. Scheduled maintenance is undertaken at the met station and this can take monitoring equipment offline for 10 minutes or more due to the nature of the maintenance, which for example necessitates periodic lowering of the mast on which the wind speed and direction sensor is located and changing out sensors/calibrating etc. Calibrations need to continue to occur and so brief outages will need to occur from time to time</p> <p>E2: Viewed draft figure on 28 April</p> <p>M5 & M6: See response to Sch 5 Cond 1 of SSD 6464.</p> <p>M7: Not Triggerred, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>M8: See response to Sch 3 Cond 8-16 of SSD 6464.</p> <p>M9: Not Triggerred, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>R1: Viewed evidence of submission receipt dated 29/1/20 at 12.20, and viewed submission portal stating that Annual Returns submitted by the due date 29/1/2018 and 29/1/19. R1.3 and R1.4 Not Triggers. Viewed Statement of Compliance pages signed by Director.</p> <p>R2 – Notification of environmental harm occurred once during the IEA period. PIRMP was triggered. Viewed file note evidence primp notification, 162612 refence number from EPA. DPIE, DRG, SSC NSW Health notified.</p> <p>R2.2 – Viewed letter to EPA dated 5/4/19, copied in DPIE Compliance and DRG.</p>

Instrument	Status	Comments
		<p>R3 – Not triggered. However, request was made from EPA on 1/5/19 for rainfall data and a further information request made on 22/5/19. These requests were made in relation to the Water Discharge Incident on 30 March 2019 and were not made under this condition (GM, pers comms). WML provided a response to EPA on 12/6/19 and EPA subsequently issued a show cause on 13/6/19 asking for a response by 21/6/19. Reply from WML 21/6/19 viewed. Penalty notice issued from EPA 21/8/19, viewed. As a result of the blast event on 7 Aug 2019, EPA sent another information request on 13 Aug 2019 seeking information on blast event. WML provided a response on 2/9/19. Resulted in a penalty notice.</p> <p>R4 – Refer to R3 in relation to the Water Discharge Incident.</p> <p>R5.1-5.2: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>R5.3 & R5.4: Viewed email from WML dated 5/4/19 reporting the 121dBa blast to EPA, viewed letter from WML dated 28/12/18 for blast 28th Dec, notifying EPA Viewed annual return for blasting appended to Annual Return. Viewed Work Order for STP system service.</p> <p>R5.7 & R5.8: This is a new condition added in 2020, intellex action required to update processes.</p> <p>G1: Viewed hardcopy of the EPL onsite in administration foyer.</p> <p>G2 and E1: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464. <u>As reported in the EPL Annual Returns, during the IEA period, there was one non-compliance against E1.1 for dam 46N overtop discussed in Sch 3 Cond 26 of SSD 6464.</u></p> <p>E2: Viewed draft figure on 28 April</p>
EPL 1976	Not Compliant	<p>A1: The licence authorises activities at the Coal Handling and Processing Plant. The scale of coal works CHPP will continue via Warkworth, but mining for coal scale will decrease. Recommend consider reducing capacity for mining for coal if EPL varied.</p> <p>A2: Premises plan titled “MTO EPL 1976” viewed during the IEA.</p> <p>A3: See response to EPL 1376 Cond A3.1</p> <p>P1: Locations of monitoring points for air shown in the EPL, correlate with locations shown in management plans.</p> <p>L1: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>L2: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>L3: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464.</p> <p>L4: See response to Sch 3 Cond 55 of SSD 6464.</p> <p>L5: See response to Sch 3 Cond 81- of SSD 6464. <u>Non-compliance for 5% of blasts <5mm/sec in EPL reporting period, reported in Annual Return for MTO 1976 submitted to EPA on 29/5/20. Discussed further in SSD 6465 Sch 3 Cond 6.</u></p> <p>O1: See response to Sch 2 Cond 6/7 and Sch 3 Cond 55 of SSD 6464.</p> <p>O2: See response to Sch 2 Cond 13 of SSD 6464.</p> <p>O3: See response to Sch 3 Cond 17-20 of SSD 6464.</p> <p>O4: See response to EPL 1367 Cond O4</p> <p>O5: See response to EPL 1367 Cond O5</p> <p>O6: See response to Sch 3 Cond 26 of SSD 6464</p> <p>M1: See response to EPL 1367 Cond M1</p>

Instrument	Status	Comments
		<p>M2: Monitoring requirements undertaken. Viewed evidence (MTW Sewage Spreadsheet) of quarterly monitoring for faecal coliforms. <u>As reported in the EPL Annual Returns, during the IEA period, there was one non-compliance against M2.2 for non-continuous data capture and against M2.3 for failure to sample at monitoring point 3. There were also non-compliances against Condition M.2 for failure to sample at monitoring point 3.</u> Periodic maintenance and calibrations are required at the air quality monitoring points, which results in one or more periods of missing 10 minute data. There was a "failure" to sample at monitoring point 3 due to the area being dry, these are reported in the Annual Return. No regulatory action has been taken on dry sampling points by EPA in response to Annual Returns.</p> <p>M4: See response to EPL 1367 Cond M4.1. <u>As reported in the EPL Annual Returns, during the IEA period, there were two non-compliances against M4.1 for failure to capture continuous data at the Charlton Ridge met station.</u> Data capture from the Charlton Ridge met station was greater than 99% for the reporting period. Scheduled maintenance is undertaken at the met station and this can take monitoring equipment offline for 10 minutes or more due to the nature of the maintenance, which for example necessitates periodic lowering of the mast on which the wind speed and direction sensor is located and changing out sensors/calibrating etc. Calibrations need to continue to occur and so brief outages will need to occur from time to time.</p> <p>M5 & M6: See response to Sch 5 Cond 1 of SSD 6464</p> <p>M7: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464</p> <p>M8: See response to Sch 3 Cond 8-16 of SSD 6464</p> <p>M9: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464</p> <p>R1: See response to EPL 1376 Cond R1</p> <p>R2: See response to EPL 1376 Cond R2</p> <p>R3: See response to EPL 1376 Cond R2</p> <p>R4.1-4.2: See response to Sch 3 Cond 8</p> <p>R4.3: Not Triggered, no discharge, see response to Sch 3 Cond 24 of SSD 6464</p> <p>R4.4 and 4.5 - See response to EPL 1376 Cond R3 & R5.4</p> <p>G1: See response to EPL 1376 Cond G1</p> <p>U1.1: Condition was required to be completed by no later than 20 September 2012, recommend to remove condition if EPL varied.</p>
CCL 753	Compliant	<ol style="list-style-type: none"> 1. Viewed MOP approval letter for 'Mount Thorley Warkworth Mining Operations Plan Amendment B' from Resources Regulator dated 11 June 2019 2. See response to Sch 2 Cond 2 of SSD 6464 3. See response to Sch 5 Cond 4 of SSD 6464. Viewed letter from DRE dated 2/2/2017 approving submission of AEMR for the calendar year as opposed to anniversary date 14. Not applicable, there are no shafts, drifts or adits (GM pers comms) 15. See response to Sch 3 Cond 57 of SSD 6464 16. Does not apply (GM pers comms) 17. See response to Sch 3 Cond 17 - 20 18. None within tenement (GM and KA pers comms) 19. None within tenement (GM and KA pers comms)

Instrument	Status	Comments
		<p>20. None within tenement (GM and KA pers comms)</p> <p>21. Not Triggered (GM and KA pers comms)</p> <p>22. Not Triggered (GM and KA pers comms)</p> <p>23. Not Triggered (GM and KA pers comms)</p> <p>24. Not triggered (GM pers comms)</p> <p>25. Not triggered (GM pers comms). Water management areas are outlined in Section 6 the MOP</p> <p>26. See response to Sch 3 Cond 8-16 of SSD 6464</p> <p>27. Not Triggered (GM pers comms)</p> <p>29. Not Triggered (GM pers comms)</p> <p>30. Not Triggered (GM pers comms). Erosion and sediment control is considered and avoidance procedures outlined in Section 4 of the MOP</p> <p>31. Not Triggered (GM pers comms). This condition is applicable to Wallaby Scrub which is now closed</p> <p>32. Not Triggered (GM and KA pers comms)</p> <p>38. Not Triggered (GM pers comms)</p> <p>39. Not Triggered (GM pers comms). Travelling Stock Route (TSR) 97817 is located on the eastern side of the Golden Highway near Gouldsville Road in the north eastern corner of CCL 753. The TSR is located approximately 400m NE of the proposed NOOP. Test fire blasting has occurred for the NOOP, in April and May 2019. Viewed Blast Impact Monitoring Plan for the NOOP which does not consider the TSR.</p> <p>41. Not Triggered (GM pers comms). Viewed CCL753 Ausgrid Easement figure dated 1/5/20 which shows the Ausgrid 66 kv and 132 kv easement on the eastern and northern edges of CCL753. A Blast Impact Monitoring Plan (BIMP) associated with construction of the NOOP considers the Ausgrid easements in these areas. The BIMP outlines monitoring requirements at two Ausgrid power poles closest to the NOOP excavation. The maximum allowable peak particle velocity is 50mm/s at the Ausgrid Pole MT-30021 and 100m/s at the Ausgrid Pole MT-60020. The results of blast monitoring did not exceed this criteria during the IEA period. No other construction occurred in the vicinity of the Ausgrid 66 kv and 132 kv easement during the IEA period.</p> <p>42. Not Triggered (GM pers comms). Viewed CCL753 Ausgrid Easement figure dated 1/5/20, there is an easement registered on title benefiting Ausgrid located east of North Pit. Recommend that MTW review this easement and confirm whether consent is required from Energy Australia to mine in this area (when required).</p> <p>43. See response to Sch 3 Cond 38-43 of SSD 6464</p> <p>44. Viewed endorsement schedule removing this condition from tenements, therefore N/A</p> <p>45. Not Triggered (GM and KA pers comms)</p> <p>46. Not Applicable, tenement granted 2002, expires in 2023</p> <p>47. Not Triggered (GM and KA pers comms)</p> <p>48. Not Triggered (KA pers comms)</p> <p>49. Not Triggered (KA pers comms)</p> <p>50. Viewed prospecting notification letters to the Director General dated 12/12/19 and 29/1/19. Additional notifications sent from mining tenements team (KA pers comms)</p>

Instrument	Status	Comments
		<p>51. Viewed RCE approval letter, six bank securities in total. Viewed Security Schedule for six bank securities. Schedule outlines site, beneficiary, security type, date of lodgement, back code, amount, reference number and applicable tenements.</p> <p>54. Viewed royalty information from Revenue NSW website provided for MTO and WML showing royalty due date (monthly), period, amount, submitter, date of submission, and status.</p> <p>55. Not Triggered (GM pers comms)</p> <p>56. Dam 48N was constructed in 2017 within CCL 753 to control sediment within Warkworth Pit (2017 Annual Review). The Water Management Plan (WMP) states that erosion and sediment controls will be designed generally in accordance with the 'Blue Book': Managing Urban Stormwater: soils and construction, but <u>there is no evidence that Mining, Exploration and Geoscience (MEG) (or the District Inspector of Coal Mines) approved the WMP or the construction of Dam48N.</u> Dam 48N was a temporary sediment basin for pre-strip areas ahead of mining, and has been mined through by the advancing Warkworth Pit during the audit period (GM pers comms).</p> <p>58. Tailings Dam 2 (or Dam 33N) is the only prescribed dam within CCL 753. There has been no mining in this dam during the IEA period.</p>
ML 1751	Not Compliant	<p>No exploration has occurred within this lease during the audit period. Small amount of mining in the north west, the rest was sediment and erosion control. (GM pers comms)</p> <p>1a. N/A, granted 17 March 2017. Notifications issued 13 April 2017 to DPIE, Dept of Lands Crown and Council, Dept of Water, SSC, Warkworth, Westpac Banking. Landholder names sent to Department on the same day (KA pers comms)</p> <p>1b. Not Triggered, seven in total (KA pers comms)</p> <p>2. See response to Sch 3 Cond 58 of SSD 6464</p> <p>3. See response to Sch 3 Cond 58 of SSD 6464. Viewed letter from DPE dated 18 May 2017 approving submission of AEMR for the calendar year as opposed to anniversary date</p> <p>4. Not triggered (GM pers comms). Conditions 4 and 5 varied through an instrument of variation dated 19/2/18</p> <p>5. <u>See Incident Reporting at Sch 5 Cond 7 of SSD 6464.</u></p> <p>6. N/A. There is no underground mining within ML 1751.</p> <p>7. The lease holder is maximising resource recovery of minerals that are subject to this mining lease to the extent economically feasible, KA per comms</p> <p>8. Viewed Security Schedule for bank securities. Schedule outlines site, beneficiary, security type, date of lodgement, back code, amount, reference number and applicable tenements.</p> <p>9. Viewed Exploration and mining titles on Minview, 21 May 2020: ML 1751 overlaps CCL 753 (indexing title). Viewed exploration reporting spreadsheet. Viewed receipt for submission dated 16/3/20 for CCL753 (indexing title) and 1751, approval to complete annual report is against all mining tenements (KA pers comms)</p>
CL 219	Not Compliant	<p>CL 219 was renewed in 2002 (KA pers comms). MTW sublease an area of the neighbouring Bulga Coal tenement. Sublease of CL 219 registered to Bulga Coal, MTW signed to de-register. Bulga coal must comply with the conditions of CL 219, audited under the Bulga IEA</p> <p>1 and 2. See response to Sch 3 Cond 58 of SSD 6464</p> <p>3. See response to Sch 5 Cond 4 of SSD 6464. Viewed letter from DRE dated 2/2/2017 approving submission of AEMR for the calendar year as opposed to anniversary date</p> <p>9. Not Triggered, no underground mining occurred</p>

Instrument	Status	Comments
		<p>14. Not applicable, there are no shafts, drifts or adits (KA pers comms)</p> <p>15. Not Triggered</p> <p>16. Not Triggered</p> <p>17. See response to Sch 2 Cond 17-20 of SSD 6464</p> <p>18. Not Triggered</p> <p>19. Not Triggered</p> <p>20. Not Triggered</p> <p>21. Refer to Sch 3 Cond 57 of SSD 6464 regarding <u>Section 240 notices from the Resources Regulator.</u></p> <p>22. Not Triggered</p> <p>23. See response to Sch 3 Cond 56-58 of SSD 6464</p> <p>24. Not Triggered</p> <p>25. Not Triggered</p> <p>26. See response to Sch 3 Cond 8-16 of SSD 6464</p> <p>27. Not Triggered</p> <p>29. Not Triggered (GM pers comms)</p> <p>30. Not Triggered (GM pers comms). Erosion and sediment control is considered and avoidance procedures outlined in Section 4 of the MOP</p> <p>31. Not Triggered (GM pers comms). This condition is applicable to Putty and Charlton Road.</p> <p>32. Not Triggered (GM and KA pers comms)</p> <p>33. WMP addresses this condition, all activities are within the Hunter River Catchment (GM pers comms). Additionally, see response to Sch 3 Cond 22 - 27 of SSD 6464 and EPL 1976</p> <p>37. Not Triggered</p> <p>41. Not Triggered (GM pers comms)</p> <p>43. See response to Sch 3 Cond 38-43 of SSD 6464</p> <p>44. Viewed endorsement schedule (within CCL 753) removing this condition from tenements, therefore N/A</p> <p>45. Not Triggered (GM and KA pers comms)</p> <p>46. Not Triggered (GM and KA pers comms)</p> <p>47. Not Triggered (GM and KA pers comms)</p> <p>48. Not Triggered (KA pers comms)</p> <p>49. Not Triggered (KA pers comms)</p> <p>50. Viewed prospecting notification letters to the Director General dated 17/4/15, 29/1/19 and 12/12/19. Additional notifications sent from mining tenements team (KA pers comms)</p> <p>51. Viewed five bank guarantees; 27/7/13 for \$8,023,765, 23/6/16 for \$36,755,200; 11/7/16 for \$1,165,035; 14/2/19 for \$6,827,200; 28/3/19 for \$1,706,800; total \$54,478,000 is the new amount grouped with ML 1752</p>

Instrument	Status	Comments
		54. Viewed royalty information from Revenue NSW website provided for MTO and WML showing royalty due date (monthly), period, amount, submitter, date of submission, and status. 55. MTW does not have development consent to disturb this area

APPENDIX F
WSP Tables

Condition	Requirement	2020 Status	2020 Evidence
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT			
Management Plan Requirements			
9	Within 1 year of the commencement of development under this consent and every 3 years thereafter, unless the secretary direct otherwise, the Applicant shall commission and pay the full costs of an Independent Environment Audit of the development. This audit must:		
(d)	include an assessment - undertaken by an independent expert whose appointment has been endorsed by OEH - of the progress towards implementation of the biodiversity offset strategy in particular the regeneration of the Warkworth Sands Woodland against the detailed performance and completion criteria under the Biodiversity Management Plan (see condition 36 of schedule 3);"		
BMP Conservation Management Actions – (pg 41 BMP Table 17) Performance and Completion Criteria for the conservation management actions			
	Southern BA Supplementary Planting WSW, River Oak and CHCBW Planting Year 1 (2016) Collection of seed. Plant propagation. Tubestock planted. Completed survival assessment. Year 2 Collection of seed. Plant propagation. Tubestock planted. Completed survival assessment Year 3 Collection of seed. Plant propagation. Tubestock planted. Completed survival assessment Ecological monitoring demonstrates a positive trend toward the reference site or the benchmark values for HU872 for all attributes measured over three consecutive assessments (the average of all plots).	Compliant	Sighted Annual Review for 2017, 2018 and 2019 stating 10800 seedlings planted (2017), 8000 tubestock in (2018) 3000 tubestock (2019). Sighted Annual Review for 2017, 2018 and 2019 seed collected in 2017, 2018, 2019. Interview on site confirmed seed collection is georeferenced with tag locations and evidence cited. Limited detail on quantity and species provided. Detailed planting reviews and evidence sighted of survival 71% (2017) and 73 % (2019) Site env staff clear demonstrated understorey of areas subject to poor survival and targeted supplementary in planting. Ecological monitoring (Niche 2017) sighted demonstrates a positive trend toward the native species richness reference site or the benchmark values. While Over storey cover and Exotic Cover are still far from benchmarks.
	Northern BA Supplementary Planting WSW, CHCBW Planting Year 1 (2016) Collection of seed. Plant propagation. Tubestock planted. Completed survival assessment. Year 2 Collection of seed. Plant propagation. Tubestock planted. Completed survival assessment Year 3 Collection of seed. Plant propagation. Tubestock planted. Completed survival assessment Ecological monitoring demonstrates a positive trend toward the reference site or the benchmark values for HU872 for all attributes measured over three consecutive assessments (the average of all plots).	Compliant	Sighted Annual Review for 2017, 2018 and 2019 stating 10800 seedlings planted (2017), 8000 tubestock in (2018) 3000 tubestock (2019). Sighted Annual Review for 2017, 2018 and 2019 seed collected in 2017, 2018, 2019. Interview on site confirmed seed collection is georeferenced with tag locations and evidence cited. Limited detail on quantity and species provided. Ecological monitoring (Niche 2017) sighted demonstrates a positive trend toward the native species richness reference site or the benchmark values. While Over storey cover and Exotic Cover are still far from benchmarks Detailed planting reviews and evidence sighted of survival 71% (2017) and 73 % (2019) Site env staff clear demonstrated understorey of areas subject to poor survival and targeted supplementary in planting.
Northern Biodiversity Area – WSW Performance Criteria (2017)			
	Performance criteria 1a At Year 15, successful regeneration of the WSG community will be determined if the following targets are met: <input type="checkbox"/> native species richness in Transition sites is statistically similar to or greater than Reference sites; <input type="checkbox"/> exotic species richness and exotic % cover at Transition sites is statistically similar to or less than Reference sites; or <input type="checkbox"/> % cover of structural layers at Transition sites is statistically similar to Reference sites.	Compliant	Ecological monitoring (Niche 2017) sighted demonstrates a positive trend toward the native species richness reference site or the benchmark values. While Over storey cover and Exotic Cover are still far from benchmarks. The monitoring results were supported by field inspections across both SBA and NBA. Over storey cover is expected to trend as the planting age class increased and structure develops further.

Condition	Requirement	2020 Status	2020 Evidence
			<p>Exotic weed cover is still significant across transition sites. Substantial weed control actions have been undertaken and Sighted (Annual Review 2017-2019). As well as evidence observed from in field inspection.</p> <p>Recommendations</p> <p>Weed control is clearly a significant management issue for both Rehabilitation and BOAs and the hunter valley more generally. Significant infestations of a variety of pasture and exotic high threat weeds were observed within the Southern and Northern BOAs in areas, predominately in disturbed condition areas including WSW Transition sites.</p> <p>The Performance criteria 1a "<i>exotic species richness and exotic % cover at Transition sites is statistically similar to or less Reference sites</i>" is currently in the early phase of treatment however will require significant action to achieve.</p> <p>The current weed management controls on site is generally acceptable and in accordance with key guidelines. However, successfully management and tracking of improvement in these areas against performance and long term completion criteria may require more intensive control actions. Recommended that the following be implemented:</p> <ul style="list-style-type: none"> • A digitised register of application area linked to proposed return frequency prior to consecutive seed set may further assist in medium to long term planning of weed control on site. • Additional trials areas and analysis of spoil compost Vs no compost VS topsoils in weed cover and density • Trials of dedicated repeat control Vs non control to determine effort reward improvements. • Trail areas of scalping, burning and or supplementary native seeding in BOAs with significant pasture and understorey weed infestations.
	<p>Performance criteria 2</p> <p>At Year 15, successful regeneration of the WSG community will be determined if the minimum number of seedlings planted, their minimal survival rate and the minimum average number of characteristic WSW species, as shown in Table 7, is attained.</p> <p>Canopy/mid-storey 9,000 >75% survival and 2 or more species Shrubs 4,500 >75% survival and 3 or more species Ground cover 1,500 >75% survival and 6 or more species</p>	Compliant	<p>Ecological monitoring demonstrates a positive trend toward the reference site or the benchmark values for HU872 for all attributes measured over three consecutive assessments (the average of all plots).</p> <p>Site inspection of the NBA observed the majority of planting areas from 2018 and 2019 to be >75% survival rate across canopy, shrub and groundcovers.</p> <p>The monitoring results were supported by field inspections across both SBA and NBA.</p> <p>While relatively small proportion of areas of 2017 planting were observed to have higher mortality and diversity below the target species criteria, these areas were identified by site staff for infill planting. Recommend infill planting should be undertaken.</p> <p>Tubestock planting currently completed substantially trending towards the 15 year targets. While current survival rates of 71% (2017) and 73 % (2019) are currently below year 15 performance targets of 75% survival, it is acknowledged that infill plantings is occurring within the BOAs. It is recommended that to ensure year 15 performance targets of 75% survival and minimum number of tubestock are met, increased number of plantings are proposed. These additional plantings should reflect the survival rates for species diversity across each of the different structural layers of the WSW.</p>