



MTW 2017 Independent Environmental Audit

2017 Independent Audit Report

IA176900-01 | C

8 August 2018



MTW 2017 Independent Environmental Audit

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Certification

Project

DA Numbers	SSD 6464 and SSD 6465
Description of Project	MTW Complex Continuation Project
Project Address	Mount Thorley via Singleton
Proponent	Coal & Allied
Proponent Address	Lemington Road, Ravensworth, NSW

Independent Environmental Audit

<p>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</p> <ul style="list-style-type: none"> • The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits • The findings of the audit are reported truthfully, accurately and completely; • I have exercised due diligence and professional judgement in conducting the audit; • I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit; • I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child; • I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family); • Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and • I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so. <p><i>Note.</i></p> <p><i>a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/ documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
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Executive Summary

Rio Tinto Coal Australia on behalf of the Mount Thorley and Warkworth Joint Venture (MTW) have requested Peter Horn from Jacobs Group (Australia) Pty Ltd (Jacobs) to provide an Independent Environmental Audit (IEA) of the Mount Thorley Warkworth Complex (MTW Complex) including the operation of both the Mount Thorley and Warkworth Open Cuts and the Coal Handling and Preparation Plants (CHPP). The MTW Complex is located 10 kilometres west-southwest of Singleton in the Hunter Valley region of New South Wales. To fulfil the requirements of the Mount Thorley Operations Development Consent SSD-6465, Schedule 5 Condition 9 and the Warkworth Mining Limited Development Consent SSD-6464, Schedule 5, Condition 9, an Independent Environmental Audit (IEA) of compliance has been completed.

The audit was designed and conducted to satisfy the planning approval conditions for the Mount Thorley and Warkworth Mines and focused on the site's compliance with licences, approvals and supporting documents including management plans. The audit period is 15 February 2016 to 4 May 2017.

The previous audit was conducted in January 2016 and covered all licenses and approvals associated with the project. It was decided to give the regulators outside of DP&E the option to exclude some of these licenses and maintain a primary focus on the new SSD approvals (6465 and 6464). For this reason, the Environment Protection License and Mining Tenement leases are not audited in this report. DPI-Water requested that the Water License documentation be included.

This IEA was undertaken generally in accordance with AS/NZS ISO 19011:2014 – Guidelines for quality and/or environmental management systems auditing and the Independent Audit Guideline (DP&E, October 2016) and was conducted by the following personnel:

- Peter Horn (Principal Environmental Scientist) – Lead Auditor from Jacobs;
- Sarah Saunders (Environmental Scientist) – Audit Assistant; and
- Chris Thomson (Technical Principal - Ecology) – from Jacobs.

The audit team were approved by the Department of Planning and Environment (DP&E) (on 13 February 2017) and OEH approved Chris Thomson on 10 February 2017 for review of the Biodiversity Offsets prior to conducting the audit.

The audit team consulted the NSW Department of Planning and Environment (DP&E), NSW Environment Protection Authority (EPA), Singleton Council (SC), Department of Trade and Industry – Division of Resources and Energy (DRE), NSW Department of Primary Industry - Water (DPI Water) and NSW Office of Environment and Heritage (OEH) and the MTW Community Consultation Committee (CCC) requesting input into the audit scope and focus.

A total of 1,512 conditions and commitments were assessed as part of this audit. 9 issues resulted in 17 non-compliances. 3 of the non-compliances were administrative.

A basic risk assessment was conducted for all non-compliances with Low/Medium/High risk levels as results. For the non-compliances that were not administrative (there were 3 administrative non-compliances), there were 12 Low, and 2 Medium results. No High risks were identified in the audit.

The previous independent environmental audit was undertaken in January 2016. The audit recommendations were managed by the MTW Environment Team. The status of these actions was reviewed and a copy of an internal review of the status of the actions was retained by the lead auditor. All actions had been completed.

Complaints have reduced over the previous few years results and reportable incidents were at low levels. Note that zero reportable incidents should be the sites objective.

Management plans were found to be generally adequate with no recommendations for changes identified in this audit. General environmental management was good with the site in good order.

The Biodiversity Specialist found the following in relation to the management of rehabilitation and offsets:

“It is evident from the review of offset documentation that the offset credit requirements have been adequately met and that there is a surplus of ecosystem and species credits contained within the combined biodiversity areas. The suite of biodiversity areas are managed accordingly including regular site assessment that is made to ensure that the biodiversity values are maintained or enhanced.

It is also evident from the results of ecological monitoring conducted to date in biodiversity areas, that progress towards the regeneration of Warkworth Sands Woodland against the detailed performance and completion criteria under the biodiversity management plan is being achieved.

The results of the progressive rehabilitation of the mine post-operation is well documented in monitoring reports and it is evident that these efforts are conducted in a robust and considered approach using current best practice, trial and testing of different methods and adaptive management.”

Whilst this is a good result for MTW, some attention is required in areas where compliance was not able to be verified. More extensive record keeping and documentation could reduce these areas to “compliant” in the next audit.

On submission of this report to the Department of Planning and Environment, a request for further information and clarification of findings was issued. This resulted in further evidence being presented to the audit team by MTW and a revision of this report to Revision B.

This report is provided solely for the purposes of reporting the results of the MTW Complex 2017 Independent Environmental Audit. This report is provided pursuant to an Agreement between Jacobs Group (Australia) Pty Ltd (Jacobs) and Rio Tinto Coal Australia Pty Limited (RTCA) under which Jacobs undertook to perform a specific and limited task for RTCA. This report is strictly limited to the matters stated in it and subject to the various assumptions, qualifications and limitations in it and does not apply by implication to other matters. Jacobs makes no representation that the scope, assumptions, qualifications and exclusions set out in this report will be suitable or sufficient for other purposes nor that the content of the report covers all matters which you may regard as material for your purposes.

This report must be read as a whole. The executive summary is not a substitute for this. Any subsequent report must be read in conjunction with this report.

The report supersedes all previous draft or interim reports, whether written or presented orally, before the date of this report. This report has not and will not be updated for events or transactions occurring after the date of the report or any other matters which might have a material effect on its contents or which come to light after the date of the report. Jacobs is not obliged to inform you of any such event, transaction or matter nor to update the report for anything that occurs, or of which Jacobs becomes aware, after the date of this report.

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Glossary

Term	Meaning
ACHMP	Archaeology and Cultural Heritage Management Plan
AEMR	Annual Environmental Management Report
AQMP	Air Quality Management Plan
AR	Annual Review (was AEMR)
Archaeology	In this text refers to archaeological and culturally significant sites of the area and any history they may have on the development site
BOMP	Biodiversity Offsets Management Plan
CCC	Community Consultative Committee
CRO	Community Response Officer
DA	Development Application
DP&E	NSW Department of Planning and Environment.
DPI Water	NSW Department of Primary Industries - Water
DRE	NSW Department of Industry, Division of Resources and Energy
EA	Environmental Assessment
EEC	Endangered Ecological Community, a community of native species that exist in the same geographical area that are listed as endangered as a community under either NSW or Commonwealth legislation.
EIS	Environmental Impact Statement – is a document describing the potential environmental impact of a proposed development and offering mitigation strategies to reduce or remove the impacts.
EL	Exploration Licence
EMS	Environmental Management Strategy
EPA	Environment Protection Authority
EPL	Environment Protection Licence
GDE	Groundwater Dependent Ecosystem
HVAS	High Volume Air Sampler
INP	Industrial Noise Policy (NSW EPA)
ML	Mining Lease
MOP	Mining Operations Plan

MP	Management Plan
NMP	Noise Management Plan
NOW	NSW Office of Water
OEH	NSW Office of Environment and Heritage
PA	Project Approval
PIRMP	Pollution Incident Response Management Plan
RFS	Rural Fire Service
SCMP	Spontaneous Combustion Management Plan
SSD	State Significant Development
TARP	Trigger Action Response Plan, managing environmental issues using trigger levels for assessment of environmental variables to develop actions to remedy impacts
WMP	Water Management Plan

1. Introduction

1.1 Background

Rio Tinto Coal Australia on behalf of the Mount Thorley and Warkworth Joint Venture (MTW) have requested Peter Horn from Jacobs Group (Australia) Pty Ltd (Jacobs) to provide an Independent Environmental Audit (IEA) of the Mount Thorley Warkworth Complex (MTW Complex) including the operation of both the Mount Thorley and Warkworth Open Cuts and the Coal Handling and Preparation Plants (CHPP). The MTW Complex is located 10 kilometres west-southwest of Singleton in the Hunter Valley region of New South Wales. To fulfil the requirements of the Mount Thorley Operations Development Consent SSD-6465, Schedule 5 Condition 9 and the Warkworth Mining Limited Development Consent SSD-6464, Schedule 5, Condition 9, an Independent Environmental Audit (IEA) of compliance has been completed.

The audit was designed and conducted to satisfy the planning approval conditions for the Mount Thorley and Warkworth Mines and focused on the site's compliance with licences, approvals and supporting documents including management plans. The audit period is 15 February 2016 to 4 May 2017.

The previous audit was conducted in January 2016 and covered all licenses and approvals associated with the project. It was decided to give the regulators outside of DP&E the option to exclude some of these licenses and maintain a primary focus on the new SSD approvals (6465 and 6464). For this reason, the Environment Protection License and Mining Tenement leases are not audited in this report. DPI-Water requested that the Water License documentation be included.

On submission of this report to the Department of Planning and Environment, a request for further information and clarification of findings was issued. This resulted in further evidence being presented to the audit team by MTW and a revision of this report to Revision B.

1.2 Site Description

MTW is an integrated operation of two open cut mines located adjacent to each other in the Hunter Valley region of New South Wales.

Mount Thorley has been in operation since 1981, and after a business restructuring of mining company R.W. Miller, Coal & Allied became managers of the mine in 1989. Warkworth Mining began operations in the same year as Mount Thorley (1981) and in 2001 Coal & Allied purchased an interest in the mine. Coal & Allied manages Mount Thorley Warkworth on behalf of the joint venture partners.

Mount Thorley Warkworth is an open cut mine, using a dragline truck and shovel method. 927 employees (as at 31 December 2014) work in shifts to keep the mine operational 24 hours a day, seven days a week. Operations are centred in the Wittingham Coal Measures of the Hunter Coalfield, which is part of a Permian coal basin known as the Sydney basin. After being washed and prepared for sale, the coal is loaded onto trains for transportation 90 kilometres to the Port Waratah Coal Terminal in Newcastle where it is shipped to international customers.

1.3 Audit Requirement

The independent audit requirements of the Development Application approvals are detailed in Table 1.

Table 1 - Requirements for this IEA

Condition	Requirement	Location in report
Warkworth Mining Limited (SSD-6464)		
Sch.5 C.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	This Audit

Condition	Requirement	Location in report
	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;	1.4
	b) include consultation with the relevant agencies;	2
	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);	4
	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);	7.4
	e) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	7
	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.	9
	<i>Note: This audit team must be led by a suitably qualified auditor, and include experts in any field specified by the Secretary.</i>	See Appendix A
Sch.5 C10	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.	Not in this Audit
Mount Thorley Operations (SSD-6465)		
Sch.5 C.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	This Audit
	a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	1.4
	b) include consultation with the relevant agencies;	2
	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);	4
	d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	4 and 7
	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.	9
	<i>Note: This audit team must be led by a suitably qualified auditor, and include experts in any field specified by the Secretary.</i>	See Appendix A
Sch.5 C.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	Not in this Audit

Condition	Requirement	Location in report
	Secretary, together with its response to any recommendations contained in the audit report.	

1.4 Audit Approach

This IEA was undertaken generally in accordance with *AS/NZS ISO 19011:2014 – Guidelines for quality and/or environmental management systems auditing* and the *Independent Audit Guideline* (DP&E, October 2016) and was conducted by the following personnel:

- Peter Horn (Principal Environmental Scientist) – Lead Auditor from Jacobs;
- Sarah Saunders (Environmental Scientist) – Audit Assistant; and
- Chris Thomson (Technical Principal - Ecology) – from Jacobs.

The audit team were approved by the Department of Planning and Environment (DP&E) (on 13 February 2017) and OEH approved Chris Thomson on 10 February 2017 for review of the Biodiversity Offsets prior to conducting the audit (appended as Appendix A).

This IEA consisted of a detailed desktop review of documents supporting compliance, interviews with MTW staff and a site inspection of the MTW Complex and local offset areas from 1 May to the 4 May 2017. Interviewees included:

- Manager Environment and Community;
- Manager Heritage and Aboriginal Relations;
- Environmental Specialist – Operations;
- Environmental Specialist – Systems and Monitoring;
- Environment Specialist – Cultural Heritage;
- Environmental Specialist – Rehabilitation;
- Principal Advisor – Land Offsets;
- Environment Advisor;
- Environmental Advisor – Land Management
- Trainer Scheduler;
- CHPP Manager;
- Mechanical Engineer;
- Senior Drill and Blast Engineer; and
- Short-term Mine Planner.

An audit opening meeting was held with the site environment team and a closing meeting was held with the environment team and the Operations Manager. The opening meeting discussed the approach and process of the audit while the closing meeting covered the findings to that point and the audit team's general impressions of the sites management.

The environmental conditions at the time of the audit were mild, with daytime maximum temperatures between 19.4°C and 26.4°C (degrees Celsius) and minimums between 7.0°C and 11.4°C (BOM weather station at

Singleton STP). There was no rain during or for 4 days prior to the audit; winds were predominantly from the west with a slight southerly change on 3 May. Wind strength was generally light at 7km/h or lower.

1.5 Report Structure

This report is structured as follows:

Executive Summary

Section 1.0 provides an introduction, background and description of MTW, describes the requirements for the IEA and provides a guide to the structure of the report.

Section 2.0 discusses consultation with the relevant departments.

Section 3.0 lists the planning approvals in place at MTW, provides a description of each and confirms those which have been the subject of this IEA.

Section 4.0 provides a discussion of non-compliances against the project approval, licences, permits and supporting documents.

Section 5.0 provides a review of the action status from the previous Independent Environmental Audit

Section 6.0 reviews Complaints and Reportable incidents for the audit period

Section 7.0 reviews the adequacy of environmental management at the site both documented and observed

Section 8.0 provides recommendations for measures or actions to improve the environmental performance of MTW

Section 9.0 the conclusion

2. Consultation

The MTW Manager - Environment and Community notified the DP&E of the proposed scope of the areas requiring expert assessment for the audit. The DP&E confirmed the key scope areas requiring expert assessment to be ecology and rehabilitation. DP&E also approved the audit team submitted by MTW and OEH approved the Ecological Specialist.

The audit team consulted the NSW Department of Planning and Environment (DP&E), NSW Environment Protection Authority (EPA), Singleton Council (SC), Department of Trade and Industry – Division of Resources and Energy (DRE), NSW Department of Primary Industry - Water (DPI Water) and NSW Office of Environment and Heritage (OEH) and the MTW Community Consultation Committee (CCC) requesting input into the audit scope and focus (responses are appended as Appendix B).

Consultation responses and location in the report are detailed in Table 2.

Table 2 - Feedback from Stakeholder Consultation

Feedback Item	Location in the report
DP&E	
Mining and rehabilitation progress is consistent with the time sequences as described in the EA (S.2, c2)	4.35 and 7.4
Noise management – in particular all reasonable and feasible measures to minimise operational, low frequency and road noise from the development have been employed, including requirements related to noise attenuation of equipment which were required to be completed 31 December 2016 (S3.c 4 to c7)	4.46 and 7.5
Incident reporting compliance	6.2 and the report in general
EPA	
No input provided	NA
DRE	
Is there a current Mining Operations Plan (MOP) in place and has it been approved by DRE?	4.35
Has the MOP been prepared in consultation with the relevant agencies as outlined in the Project Approval?	4.35
Is the rehabilitation strategy as outlined in the MOP consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s)?	4.35 and 7.4
Has the rehabilitation objectives and completion criteria as outlined in the MOP been developed in accordance with the proposed final land(s) as outlined in the Project Approval?	7.4
Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? – verified by reviewing monitoring reports and rehabilitation inspection records.	4.35
Has a rehabilitation care and maintenance program been developed and implemented based on the outcomes of monitoring program?	4.35, 7.4.7 and Appendix C - MOP
Are mining operations being conducted in accordance with the approved MOP	4.35

Feedback Item	Location in the report
(production, mining sequence etc.), including within the designated MOP approval boundary?	
Is rehabilitation progress 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 Project Approval.	4.35, 7.4, 7.4.5 and 7.4.6
Based on a visual inspection, are there 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?	There were some older rehabilitated areas that would require work prior to relinquishment, this was discussed with the Rehabilitation Specialist and the work has been considered.
DPI - Water	
Assessment as to whether the project holds the required water entitlements, approvals and licenses under the Water Management Act 2000 or Water Act 1912 (as applicable)	4.4 through to 4.34 And 4.47
Compliance with the conditions of any water licenses/approvals held	4.4 through to 4.34
Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.	4.47
Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.	4.47
Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?	4.47
Does the proponent have enough licensed water entitlement to cater for active and passive take of water?	4.4 through to 4.34 And 4.47
Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?	4.4 through to 4.34 And 4.47
Do any exemptions under the Water Management (General) Regulation 2011 or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water?	4.4 through to 4.34 And 4.47
OEH	
Assessment of the implementation of the Biodiversity Offset Strategy.	7.4
CCC	
Indicated they had no specific input for the audit.	NA
Singleton Council	
The appropriate person was on leave, no response.	NA

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3. Documents Audited

The following tables list the documents reviewed for compliance in this IEA along with where each document is addressed in the report. There were other documents reviewed by the audit team as evidence or supporting information that are not listed here.

Table 3 lists the sites approval documents that were audited.

Table 3 - Approval Documents Audited

Approval Document	Section in Report
SSD 6465 – Mount Thorley Continuation Project Approval	4.2
SSD 6464 – Warkworth Continuation Project Approval	0
Water Approval 20BL168821	4.4
Water Approval 20BL170011	4.5
Water Approval 20BL170012	4.6
Water Approval 20BL171729	4.7
Water Approval 20BL171932	4.8
Water Approval 20BL171841	4.9
Water Approval 20BL171842	4.10
Water Approval 20BL171843	4.11
Water Approval 20BL171844	4.12
Water Approval 20BL171845	4.13
Water Approval 20BL171846	4.14
Water Approval 20BL171847	4.15
Water Approval 20BL171848	4.16
Water Approval 20BL171849	4.17
Water Approval 20BL171850	4.18
Water Approval 20BL171930	4.19
Water Approval 20BL171931	4.20
Water Approval 20BL172272	4.21
Water Approval 20BL172273	4.22
Water Approval 20BL171891	4.23
Water Approval 20BL171892	4.24

Approval Document	Section in Report
Water Approval 20BL171893	4.25
Water Approval 20BL172105	4.26
Water Approval 20BL173062	4.27
Water Approval 20BL173063	4.28
Water Approval 20BL173064	4.29
Water Approval 20BL173065	4.30
Water Approval 20BL173276	4.31
Water Approval 20BL172439	4.32
Water Approval 20BL172518	4.33
Water Approval WAL 20AL201242	4.34

Table 4 lists the sites documents that were developed to support the approvals that were audited.

Table 4 - Documents Audited

Document	Section in report
Mining Operations Plan (2016)	4.35
Mount Thorley Continuation Project EIS (June 2014)	4.36
Warkworth Mining Limited Continuation Project EIS (June 2014)	4.37
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016	4.38
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016	4.39
Biodiversity Management Plan (2016)	4.40
Local Offset Management Plan (2014)	4.41
Regional Offset Management Plan (2014)	4.42
Blast Management Plan (2016)	4.43
Mount Thorley Warkworth Post Blast Fume Generation Mitigation and Management Plan	4.44
Environmental Management Strategy (2016)	4.45
Mount Thorley Warkworth Noise Management Plan (2016)	4.46
Mount Thorley Warkworth Water Management Plan (2016)	4.47
Pollution Incident Response Management Plan (2017)	4.48
Independent Environmental Audit, 2016	5

4. Environmental Compliance

In the assessment of compliance, the status of each condition or commitment is described as:

- Compliant;
- Not Compliant;
- Not Compliant Administrative (the issue was caused by not submitting a document or keeping a document on file, not by the omission of an action or measurement, this non-compliance does not impact the sites environmental performance);
- Not able to be Verified (enough evidence to verify compliance was not found but the auditor is of the opinion that the requirement / commitment is likely to be compliant);
- Not Triggered (a timing trigger had not been reached);
- Observation; or
- Note (a fact or statement that does not require action for compliance)

A total of 1,512 conditions and commitments were assessed as part of this audit. 9 issues resulted in 17 non-compliances. 3 of the non-compliances were administrative.

A basic risk assessment was conducted for all non-compliances with Low/Medium/High risk levels as results. For the non-compliances that were not administrative (there were 3 administrative non-compliances), there were 12 Low, and 2 Medium results. No High risks were identified in the audit.

4.1 Issues Resulting in Non-compliance

Each non-compliance was caused by an action, omission or event. These constitute the issues that the site needs to address to achieve compliance. For this reason, the issues are extracted from the non-compliances so they will be more readily addressed by MTW.

The issues identified in this audit and the consequential non-compliances are presented in Table 5.

Table 5 - Issues Resulting in Non-compliance

Issue	Conditions and Commitments Found Not Compliant
On the 6th January 2016, a sediment dam overtopped resulting in an uncontrolled discharge.	SSD 6464 Sch.3, C.24(a) WMP 7.4.3.1
The Surface Water Management Plan does not include detailed performance indicators or management objectives for Final Voids.	SSD 6464 Sch.3, C.27(b)(ii) SSD 6465 Sch.3, C.25(b)(ii)
No ongoing characterisation of overburden materials was conducted.	MT EIS 2.4.4 iii)
There was no written or electronic record of which personnel had completed site specific environmental training for Cultural Heritage.	AHMP 9
On the 8-06-16 a blast was not monitored by the Bulga Village blast monitor due to a software malfunction.	BMP 5.2.3
Blasting Controls training was not documented.	BMP 5.2.5
There was no substantive evidence of car-pooling encouragement programs at the time of the audit.	NMP 6.2
Water flow devices used to measure the volume of water extracted were not approved by NOW (DPI – Water). Three bore licences were	20BL170012 C.9 20BL170011 C.9

Issue	Conditions and Commitments Found Not Compliant
found to be non-compliant with this condition, however two were decommissioned and are not in use and one related to the bore licence associated with groundwater inflow to the Warkworth Pit.	20BL171930 C.8 20BL171932 C.8
Water flow devices used to measure the volume of water extracted were not calibrated. This related to the aforementioned bore licences that did not have flow devices attached and as such are not able to be calibrated.	20BL170011 C.8 and C.10 20BL170012 C.8 and C.10

4.2 Compliance with SSD 6465 Mount Thorley Continuation Project Approval

The conditions that were not compliant within SSD 6465 are shown in Table 7. An assessment of compliance for each condition in SSD 6465 is provided in the audit protocol in Appendix C.

Table 6 - Compliance with SSD 6465

Condition	Requirement	Audit Finding
Schedule 3 Condition 25 (b)(ii)	In addition to the standard requirements for management plans (see condition 3 of schedule 5), include a: "(ii) Surface Water Management Plan, that includes: • ... • detailed plans, including design objectives and performance criteria, for: - design and management of final voids; -	The Surface Water Management Plan did not include detailed performance indicators for Final Void Management and Design. Not Compliant Low Risk

4.3 Compliance with SSD 6464 Warkworth Continuation Project Approval

The conditions that were not compliant within SSD 6464 are shown in Table 7. An assessment of compliance for each condition in SSD 6464 is provided in the audit protocol in Appendix C.

Table 7 - Compliance with SSD 6464

Condition	Requirement	Audit Finding
Schedule 3 Condition 24 (a)	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	On the 6th January 2016, a sediment dam overtopped resulting in an uncontrolled discharge. Not Compliant Medium Risk
Schedule 3 Condition 27 (b)(ii)	In addition to the standard requirements for management plans (see condition 3 of schedule 5), include a: "(ii) Surface Water Management Plan, that includes: • ... • detailed plans, including design objectives	The Surface Water Management Plan did not include detailed performance indicators for Final Void Management and Design. Not Compliant Low Risk

Condition	Requirement	Audit Finding
	and performance criteria, for: - design and management of final voids; -	

4.4 Compliance with Water Approval 20BL168821

The conditions of 20BL168821 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL168821 is provided in the audit protocol in Appendix C.

4.5 Compliance with Water Approval 20BL170011

The conditions that were not compliant within 20BL170011 are shown in Table 8. An assessment of compliance for each condition in 20BL170011 is provided in the audit protocol in Appendix C.

Table 8 - Compliance with 20BL170011

Condition	Requirement	Audit Finding
8	The work must be equipped with a meter (measuring device) or other water level sounding device and marked with a measuring reference point. Water meters must be calibrated at least once every year.	Calibration certificates were not available as evidence of compliance with this condition. Not Compliant Low Risk
9	The licence holder must install, maintain and operate any device or devices for measuring the volume of water extracted by the approved works in accordance with any manufacturer's specifications when required in accordance with any written direction from the department.	No evidence was provided to support this requirement Not Compliant Low Risk
10	The licence holder must provide a certificate issued by the manufacturer or other such competent, qualified person certifying the accuracy of device or devices used for measuring the volume of water extracted by the approved works. In accordance with any written direction from the department.	Calibration certificates were not available as evidence of compliance with this condition. Not Compliant Low Risk

4.6 Compliance with Water Approval 20BL170012

The conditions that were not compliant within 20BL170012 are shown in Table 9. An assessment of compliance for each condition in 20BL170012 is provided in the audit protocol in Appendix C.

Table 9 - Compliance with 20BL170012

Condition	Requirement	Audit Finding
8	The work must be equipped with a meter (measuring device) or other water level sounding device and marked with a measuring reference point. Water meters	Calibration certificates were not available as evidence of compliance with this condition. Not Compliant

Condition	Requirement	Audit Finding
	must be calibrated at least once every year.	Low Risk
9	The licence holder must install, maintain and operate any device or devices for measuring the volume of water extracted by the approved works in accordance with any manufacturer's specifications when required in accordance with any written direction from the department.	No evidence was provided to support this requirement Not Compliant Low Risk
10	The licence holder must provide a certificate issued by the manufacturer or other such competent, qualified person certifying the accuracy of device or devices used for measuring the volume of water extracted by the approved works. In accordance with any written direction from the department.	Calibration certificates were not available as evidence of compliance with this condition. Not Compliant Low Risk

4.7 Compliance with Water Approval 20BL171729

The conditions of 20BL171729 were assessed and all conditions were either "Compliant", "Not Triggered", "Noted" or "Not able to be verified". No conditions were found to be "Not Compliant". An assessment of compliance for all conditions in 20BL171729 is provided in the audit protocol in Appendix C.

4.8 Compliance with Water Approval 20BL171932

The conditions of 20BL171932 were assessed and all conditions were either "Compliant", "Not Triggered", "Noted" or "Not able to be verified". No conditions were found to be "Not Compliant". An assessment of compliance for all conditions in 20BL171932 is provided in the audit protocol in Appendix C.

4.9 Compliance with Water Approval 20BL171841

The conditions of 20BL171841 were assessed and all conditions were either "Compliant", "Not Triggered", "Noted" or "Not able to be verified". No conditions were found to be "Not Compliant". An assessment of compliance for all conditions in 20BL171841 is provided in the audit protocol in Appendix C.

4.10 Compliance with Water Approval 20BL171842

The conditions of 20BL171842 were assessed and all conditions were either "Compliant", "Not Triggered", "Noted" or "Not able to be verified". No conditions were found to be "Not Compliant". An assessment of compliance for all conditions in 20BL171842 is provided in the audit protocol in Appendix C.

4.11 Compliance with Water Approval 20BL 171843

The conditions of 20BL 171843 were assessed and all conditions were either "Compliant", "Not Triggered", "Noted" or "Not able to be verified". No conditions were found to be "Not Compliant". An assessment of compliance for all conditions in 20BL 171843 is provided in the audit protocol in Appendix C.

4.12 Compliance with Water Approval 20BL171844

The conditions of 20BL171844 were assessed and all conditions were either "Compliant", "Not Triggered", "Noted" or "Not able to be verified". No conditions were found to be "Not Compliant". An assessment of compliance for all conditions in 20BL171844 is provided in the audit protocol in Appendix C.

4.13 Compliance with Water Approval 20BL171845

The conditions of 20BL171845 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171845 is provided in the audit protocol in Appendix C.

4.14 Compliance with Water Approval 20BL171846

The conditions of 20BL171846 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171846 is provided in the audit protocol in Appendix C.

4.15 Compliance with Water Approval 20BL171847

The conditions of 20BL171847 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171847 is provided in the audit protocol in Appendix C.

4.16 Compliance with Water Approval 20BL171848

The conditions of 20BL171848 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171848 is provided in the audit protocol in Appendix C.

4.17 Compliance with Water Approval 20BL171849

The conditions of 20BL171849 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171849 is provided in the audit protocol in Appendix C.

4.18 Compliance with Water Approval 20BL171850

The conditions of 20BL171850 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171850 is provided in the audit protocol in Appendix C.

4.19 Compliance with Water Approval 20BL171930

The conditions that were not compliant within 20BL171930 are shown in Table 10. An assessment of compliance for each condition in 20BL171930 is provided in the audit protocol in Appendix C.

Table 10 - Compliance with 20BL171930

Condition	Requirement	Audit Finding
8	The licensee shall install to the satisfaction of NSW Office of Water in respect of location, type and construction an appliance(s) to measure the quantity of water.	Appliances were in place at the time of the audit, but no evidence was provided to support the satisfaction of NOW Not Compliant Administrative

4.20 Compliance with Water Approval 20BL171931

The conditions that were not compliant within 20BL171931 are shown in Table 11. An assessment of compliance for each condition in 20BL171931 is provided in the audit protocol in Appendix C.

Table 11 - Compliance with 20BL171931

Condition	Requirement	Audit Finding
8	The licensee shall install to the satisfaction of NSW Office of Water in respect of location, type and construction an appliance(s) to measure the quantity of water.	Appliances were in place at the time of the audit, but no evidence was provided to support the satisfaction of NOW Not Compliant Administrative

4.21 Compliance with Water Approval 20BL172272

The conditions of 20BL172272 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL172272 is provided in the audit protocol in Appendix C.

4.22 Compliance with Water Approval 20BL172273

The conditions of 20BL172273 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL172273 is provided in the audit protocol in Appendix C.

4.23 Compliance with Water Approval 20BL171891

The conditions of 20BL171891 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171891 is provided in the audit protocol in Appendix C.

4.24 Compliance with Water Approval 20BL171892

The conditions of 20BL171892 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171892 is provided in the audit protocol in Appendix C.

4.25 Compliance with Water Approval 20BL171893

The conditions of 20BL171893 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL171893 is provided in the audit protocol in Appendix C.

4.26 Compliance with Water Approval 20BL172105

The conditions of 20BL172105 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL172105 is provided in the audit protocol in Appendix C.

4.27 Compliance with Water Approval 20BL173062

The conditions of 20BL173062 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL173062 is provided in the audit protocol in Appendix C.

4.28 Compliance with Water Approval 20BL173063

The conditions of 20BL173063 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL173063 is provided in the audit protocol in Appendix C.

4.29 Compliance with Water Approval 20BL173064

The conditions of 20BL173064 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL173064 is provided in the audit protocol in Appendix C.

4.30 Compliance with Water Approval 20BL173065

The conditions of 20BL173065 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL173065 is provided in the audit protocol in Appendix C.

4.31 Compliance with Water Approval 20BL173276

The conditions of 20BL173276 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL173276 is provided in the audit protocol in Appendix C.

4.32 Compliance with Water Approval 20BL172439

The conditions of 20BL172439 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL172439 is provided in the audit protocol in Appendix C.

4.33 Compliance with Water Approval 20BL172518

The conditions of 20BL172518 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20BL172518 is provided in the audit protocol in Appendix C.

4.34 Compliance with Water Access Licence 20AL201242

The conditions of 20AL201242 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20AL201242 is provided in the audit protocol in Appendix C.

4.35 Compliance with the Mining Operations Plan

The commitments of the MOP were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the MOP is provided in the audit protocol in Appendix C.

4.36 Compliance with the Mount Thorley Continuation EIS

The commitments that were not compliant within the Mount Thorley EIS are shown in Table 12. An assessment of compliance for each commitment in Mount Thorley EIS is provided in the audit protocol in Appendix C.

Table 12 - Compliance with the Mount Thorley EIS

Commitment	Requirement	Audit Finding
2.4.4 iii)	Overburden Management Overburden management at MTW under the proposal would include the ongoing geochemical characterisation of mined materials and void wall rock to accurately predict risk factors and develop management measures where required. In addition, the proposal would continue the ongoing monitoring of runoff and seepage waters during operations to validate these predictions.	The overburden characterisation in the EIS was used to manage this issue, no ongoing characterisation of overburden materials was conducted. The issue was managed, though not completely in accordance with this commitment. Not Compliant Low Risk

4.37 Compliance with the Warkworth Continuation EIS

The commitments of the Warkworth Continuation EIS were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Warkworth Continuation EIS is provided in the audit protocol in Appendix C.

4.38 Compliance with the Aboriginal Heritage Management Plan

The commitments that were not compliant within the Aboriginal Heritage Management Plan are shown in Table 13. An assessment of compliance for each commitment in Aboriginal Heritage Management Plan is provided in the audit protocol in Appendix C.

Table 13 - Compliance with the Aboriginal Heritage Management Plan

Commitment	Requirement	Audit Finding
9	Cultural Heritage Management Inductions Detailed records are maintained of all personnel who have completed the C&A induction process and the date on which it was provided. RTCA will ensure these inductions remain current (which may include refresher courses from time to time where this is deemed necessary).	Site personnel and contractors undergo environmental inductions. Electronic records from the SGS STAX system were provided as evidence of general inductions that included a heritage component. However this does not satisfy all components of Section 9 of the AHMP that is quite specific in its training requirements.. Not Compliant Administrative

4.39 Compliance with the Air Quality Management Plan

The commitments of the Air Quality Management Plan were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Air Quality Management Plan is provided in the audit protocol in Appendix C.

4.40 Compliance with the Biodiversity Management Plan

The commitments of the Biodiversity Management Plan were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Biodiversity Management Plan is provided in the audit protocol in Appendix C.

4.41 Compliance with the Local Offset Management Plan

The commitments of the Local Offset Management Plan were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Local Offset Management Plan is provided in the audit protocol in Appendix C.

4.42 Compliance with the Regional Offset Management Plan

The commitments of the Regional Offset Management Plan were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Regional Offset Management Plan is provided in the audit protocol in Appendix C.

4.43 Compliance with the Blast Management Plan

The commitments that were not compliant within the Blast Management Plan are shown in Table 14. An assessment of compliance for each commitment in Blast Management Plan is provided in the audit protocol in Appendix C.

Table 14 - Compliance with the Blast Management Plan

Commitment	Requirement	Audit Finding
5.2.3	Best Practise Measures MTW will monitor blasts as mining progresses, in accordance with the existing blast monitoring system, so that blast prediction site laws can be further refined and future blast designs can be optimised based on more detailed site information	On the 8-06-16 a blast was not monitored by the Bulga Village blast monitor due to a software malfunction. Not Compliant Low Risk
5.2.5	· Training will be provided to all relevant personnel on environmental obligations in relation to blasting controls.	The conduct of the training was confirmed at interview, however, no entries in the SGS STAX system nor any other training register were able to be provided to verify the statements made at interview. Not Compliant Low Risk

4.44 Compliance with the Blast Fume Management Plan

The commitments of the Blast Fume Management Plan were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Blast Fume Management Plan is provided in the audit protocol in Appendix C.

4.45 Compliance with the Environmental Management Strategy

The commitments of the Environmental Management Strategy were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Environmental Management Strategy is provided in the audit protocol in Appendix C.

4.46 Compliance with the Noise Management Plan

The commitments that were not compliant within the Noise Management Plan are shown in Table 15. An assessment of compliance for each commitment in Noise Management Plan is provided in the audit protocol in Appendix C.

Table 15 - Compliance with the Noise Management Plan

Commitment	Requirement	Audit Finding
6.2	<p>The following controls are implemented under standard conditions:</p> <ul style="list-style-type: none"> • Coal haulage by rail or conveyor, and programs to encourage staff car-pooling to minimise the road noise of the development; 	<p>There was no substantive evidence of car-pooling encouragement programs at the time of the audit.</p> <p>Not Compliant Low Risk</p>

4.47 Compliance with the Water Management Plan

The commitments that were not compliant within the Water Management Plan are shown in Table 16. An assessment of compliance for each commitment in Water Management Plan is provided in the audit protocol in Appendix C.

Table 16 - Compliance with the Water Management Plan

Commitment	Requirement	Audit Finding
7.4.3.1	Retaining runoff from disturbed areas in sediment dams to settle out suspended sediment with possible treatment prior to discharge back to the natural system.	<p>On the 6th January 2016, a sediment dam overtopped resulting in an uncontrolled discharge.</p> <p>Not Compliant Medium Risk</p>

4.48 Compliance with the Pollution Incident Response Management Plan

The commitments of the Pollution Incident Response Management Plan were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Pollution Incident Response Management Plan is provided in the audit protocol in Appendix C.

5. Previous Audit Action Status

The previous independent environmental audit was undertaken in January 2016. The IEA was conducted by Peter Horn.

The audit recommendations were managed by the MTW Environment Team. The status of these actions was reviewed and a copy of an internal review of the status of the actions was retained by the lead auditor. All actions had been completed.

A review of the progress in implementing the Accelerated Rehabilitation Plan for South Pit is included in this report, Section 7.4.

An assessment of compliance for all recommendations in the 2016 IEA (Peter Horn) is provided in Appendix D.

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6. Complaints and Reportable Incidents

6.1 Complaints

Complaints have fallen since 2014 by approximately 50% as demonstrated in Figure 1.

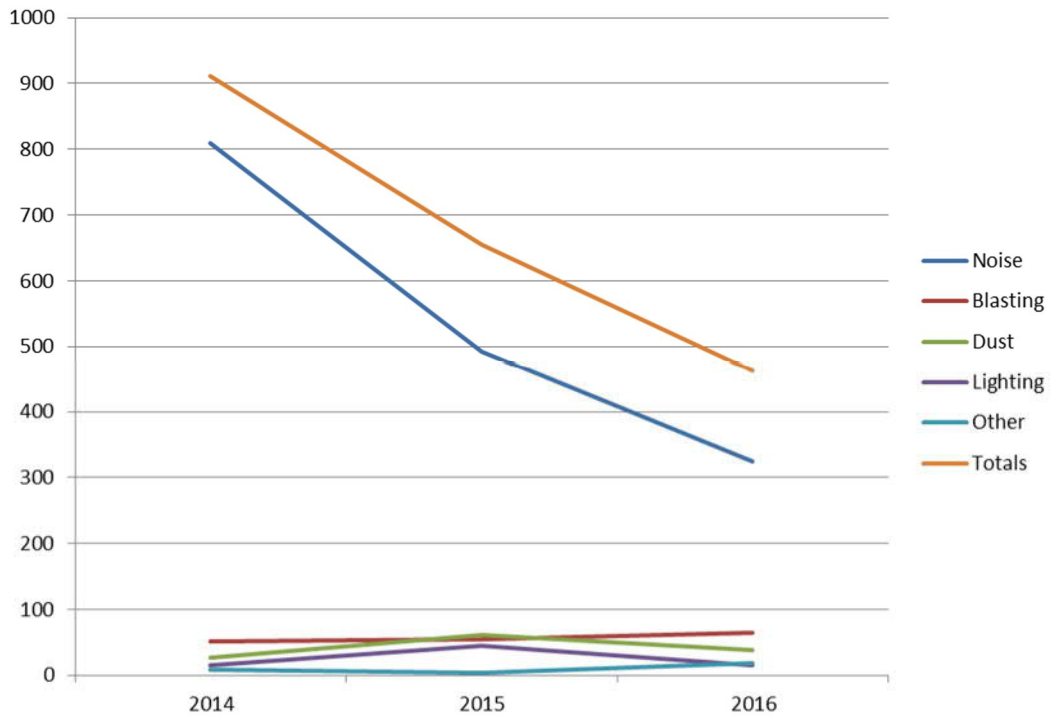


Figure 1 - MTW Community Complaints from 2014 to 2016

The proportions of complaints in descriptive categories (noise, dust blasting, etc.) have changed little and look to be continuing in 2017. Noise is the dominant complaint area for the community with percentages between 90% and 64% of the total complaints received being noise related, for the 2016 reporting year, total complaints were 463 with 325 noise complaints. This is demonstrated in the complaints by type of the audit period in Figure 2.

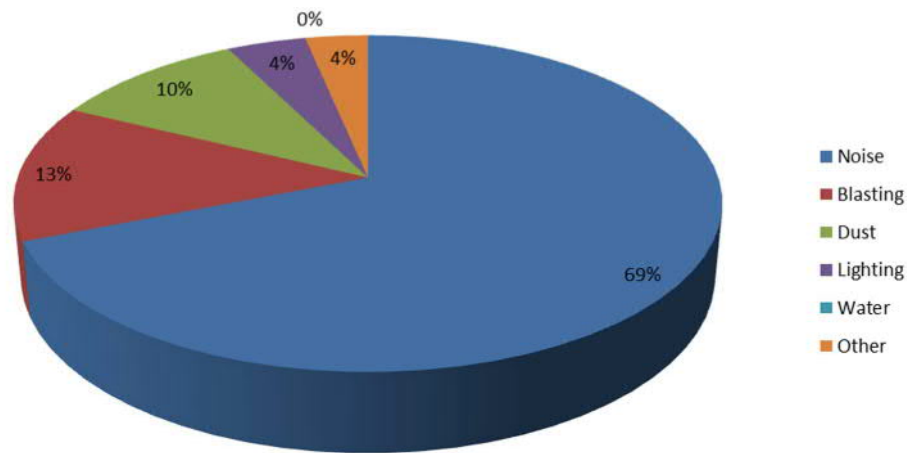


Figure 2 - Complaints by Type over the Audit Period

6.2 Reportable Incidents

There were three reportable incidents in 2016:

- Wednesday 6th January 2016 – in a high rainfall event, a dam at Warkworth overtopped resulting in a release of sediment impacted water. The incident was reported to the EPA and DP&E and has resulted in an EPA investigation that is currently before the Land and Environment Court of NSW.
- Wednesday 8th June 2016 - the Bulga Village blast monitor failed to capture the results of blast n33-gmc-pr5 initiated at 11:09 on the 8 June 2016. A system error caused the GPS coordinates of the unit to change and it missed the blast vibration results.
- Friday 2 December 2016 - A category three blast fume event was notified to the DP&E on 2 December, in accordance with notification requirements. A report was provided to DP&E for the event on 9 December 2016. The blast fume originated from a blast fired in the North Pit of the Warkworth mine.

On 27th April 2017, a blast was fired in the Warkworth pit that resulted in a reportable Level 4 fume that did not leave the site. The DP&E and EPA were notified, investigation indicated that excessive confinement ¹was the most likely cause. All procedures, strategies and site rules (MIC etc.) were followed and the shot was not in the ground for an excessive period. MTW have committed to ensuring that future shots in this area will be reduced in size and top initiated to reduce the chance of excessive confinement.

¹ Where the explosion in the blast does not have sufficient "room" to expand by moving fragmented rock thus changing the way the explosive 'burns'.

7. Environmental Management

From an environmental perspective, the key potential environmental impacts resulting from operations at MTW are air quality, archaeology, blasting, biodiversity offsets and rehabilitation management, noise management and the general effectiveness of the environmental management of the site activities. This section of the report reviews the adequacy of the mitigation measures and the on ground applicability of the management measures proposed in the site environmental management documentation (EMPs and other documentation reviewed).

7.1 Air Quality

At the time of the audit, meteorological conditions were very mild and there were no notes taken of poor management of air quality issues or site management in preparation for adverse conditions.

The Annual Review for MTW and information collected for the audit show that significant mining production hours were lost due to adverse conditions for air quality with over 900 hours in both January and November 2016.

The favourable growing conditions prior to the audit meant that the aerial seeding completed to support temporary stabilisation looked particularly effective. With even steep slopes at angle of repose with high levels of cover.

Monitoring showed compliance with all required criteria for air quality and a high data capture rate for the 2016 reporting year. HVAS capture rate was 97%. Where readings above site criteria were identified, MTW investigated and in each case, the site was not contributing particulate levels above the site criteria.

7.2 Archaeology

Salvage work conducted in the audit period appeared to be thorough and well managed. There is a substantial amount of work to complete particularly around the management of the Wollombi Brook Aboriginal Heritage Conservation Area but this is well understood by the site particularly the Manager Heritage and Aboriginal Relations and Environment Specialist – Cultural Heritage.

Some salvage work was conducted early in the audit period for which a Salvage Report was not available at the time of the audit. The Salvage Report should be expedited to ensure the work can be reviewed against the appropriate requirements.



Figure 3 - Artefacts at Springwood



Figure 4 - Archaeological site protective tape and signposting.

7.3 Blasting

There were no exceedances of the required blasting criteria in the audit period.

There was one instance of a loss of monitoring data and two reportable fume incidents in the audit period.

Over the audit period, blasting complaints were low in comparison to noise and dust (see Figure 2) constituting approximately 13% of the total number of complaints.

At interview, the Senior Drill and Blast Engineer knew the environmental constraints associated with blasting and was able to step through the process described in the Blast Management Plan and Fume Management Plan accurately.

7.4 Biodiversity Offsets and Rehabilitation Management

[Contributed by Chris Thomson from Jacobs, DP&E and OEHL approved specialist on the audit for Ecology and Rehabilitation.]

Condition 28, 29 and 30 of the Project approval (SSD-6464) specifies that the significant residual impacts to biodiversity from open cut mining at Warkworth are proposed to be compensated for by the provision of biodiversity offsets, and that such offsets should be in the form of:

- Retiring of ecosystem and species credits within 3 years from the date of commencement of the project;
- Offsets for progressive rehabilitation of the mine post operation; and
- Direct land-based offsets.

Specifics of the offset requirements are detailed in the Project approval (SSD-6464) and include direct measures to offset impacts to endangered ecological communities listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act, 1999* and the *NSW Threatened Species Conservation Act, 1995*, namely

- Warkworth Sands Woodland in the Sydney Basin Bioregion; and
- Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions.

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 the offset areas, apart from those credits generated for Putty Road Biodiversity Area and 2003 Warkworth Sands Woodland Area, to retire the biodiversity credits requirements of the project (Condition 31).

Additional indirect measures are prescribed in relation to rehabilitation of Warkworth Sands Woodlands in designated offset areas. To be successful this requires the development of and commitment to stringent and measurable performance criteria that evaluate the success of the rehabilitation and inform ongoing adaptive rehabilitation actions (Condition 32).

The set of conditions outlined require development and commitment to a strategic and robust biodiversity offset strategy and ongoing commitment to rehabilitation of endangered ecosystems. The progress toward these outcomes has been assessed in this audit.

7.4.1 Rehabilitation Offsets

Condition 29 (SSD-6464) outlines requirements for rehabilitation offsets through retiring credits in accordance with the NSW Biodiversity Offsets Policy for Major Projects. Four options are available for meeting this requirement, the proponent has chosen to undertake progressive rehabilitation of the mine post operation with a focus on re-establishing Central Hunter Grey Box-Ironbark Woodland and Central Hunter-Ironbark-Spotted Gum-Grey Box Forest.

Current progress by the Proponent toward meeting these conditions was audited via an interview with environmental specialists from Coal & Allied, a guided tour of post-mining rehabilitation areas and review of the following documents:

- Mine Operation Plan (MOP) which addresses the on-site biodiversity management issues;
- Biodiversity Management Plan [dated January 2016]; and
- Site rehabilitation monitoring reports, incorporating results of soil testing and planting success.

The outcomes of the audit of on-site rehabilitation are summarised in the following:

Topsoil Management:

- § Topsoil is used for both on-site rehabilitation and in the case of Warkworth Sands Woodland is also transported to the northern biodiversity area for immediate rehabilitation trials. Appropriate management of topsoil from the mine and used in rehabilitation is evident and this is facilitated through maintenance of a topsoil database that incorporates a dated inventory of stockpiling actions, sites and re-use schedule. The better quality topsoil is transported to rehabilitation sites however the team has suggested that not all borrow or recipient sites are suitable and the emphasis on rehabilitation is on getting good results irrespective of topsoil quality and availability.
- § Topsoil that is selected and used for on-site rehabilitation is sown to native mixes. The seed mix includes composition to the full suite of structural diversity, including grasses, groundcovers, shrubs, trees. Transplanting is supplemented where possible to deal with the large weed problem and is managed appropriately.
- § Soil testing is undertaken ahead of rehabilitation, using comparison of the treatment site with reference sites at the Local Biodiversity Area. Parameters measured for comparing soil include but are not limited to - soil pH and salinity, this is in addition to testing different soil microbes. Evidence of comprehensive soil testing and of analysis of the results for adaptive management was viewed in recent rehabilitation monitoring reports provided during the audit.
- § The rehabilitation manager discussed the approach used for sourcing and trialling the mixing of different organic composts with mine spoil and topsoil to assist in growth and plant survival. Soil conditions are closely monitored so that planting can be used.

Plant species diversity

- § Native and locally indigenous seed mixes have been used in site rehabilitation with representation from functional groups such as primary, successional stages, trees, shrubs and groundcovers. Professional seed collectors have been engaged to develop the seed mix. Seed stock has been apparently traditionally sourced from a variety of locations including outside the region however more recently efforts have focused on collection of local provenance to increase success and develop long-term viability of genetic provenance (Bill Baxter, *pers comm*). It is planned to continue this practice.
- § A site inspection of several rehabilitation sites was conducted during the audit, this included sites in various stages of maturity as well as different trial sites for compost mixes. It is evident from the inspection that the vegetation communities growing on site resemble the diversity of species associated with the targeted ecological communities described with a moderate to high plant species diversity being achieved. This included species from all structural layers and functional groups. The density of the canopy varied and in some sites is likely higher than the expected benchmark due to dominance of pioneer species such as *Acacia* spp and faster growing canopy species such as Spotted Gum (*Corymbia maculata*). This is being monitored and recent thinning of Spotted Gum was noted in effort to reduce competition and encourage growth of shrub and groundcover species.
- § The mixed results from the compost/topsoil mix trials were demonstrated on site and this included different tree densities. The team is using tree density counts at reference sites to compare and manage for more natural tree density at rehabilitation sites.
- § Weed density and diversity is relatively low and consideration is given to edge effects in follow-up weed removal.
- § Connectivity is planned in the landscape such that rehabilitation of woodland communities is designed for long-term connection and stepping stones.

Monitoring of rehabilitation success and performance criteria

- § Monitoring the effectiveness of treatment sites in rehabilitation has been completed annually in 2015 and 2016 using plot based surveys consistent with the BioBanking Assessment Method (BBAM). Additional parameters measured include tree density counts and plant health assessment. Rehabilitation effectiveness and targets are based using criteria developed from monitoring references sites. This is focused on comparison with the NSW biometric benchmark scores for the relevant plant community types, including the number of native species, hollows, groundcover, etc.
- § There are some limitations to using the NSW biometric benchmark scores for rehabilitation monitoring. Floristic surveys at some immature sites have experienced difficulties with identifying immature plants to species level.



Figure 5 - Rehabilitated section of overburden - Warkworth

7.4.2 Direct Land-Based Offsets

Condition 30 (SSD-6464) relates to the securing of direct land based offsets to be developed within 3 years of the commencement of the development.

Current progress by the Proponent toward meeting this condition was audited via an interview with environmental specialists from Coal & Allied, and a guided tour of local biodiversity areas as well as review of the following documents:

- Biodiversity Management Plan [dated January 2016]
- Warkworth Local Offset Management Plan [dated November 2014], and
- Warkworth Regional Offset Management Plan [dated June 2014]

The fore-mentioned documents were made available to the auditor and reviewed before making this assessment, in addition to conducting an inspection of the Warkworth rehabilitation and biodiversity areas.

Progress towards meeting biodiversity offset requirements

The Warkworth Mine's impacts on biodiversity values are to be offset through the management of both local and regional offset areas. The regional offsets are located within the Goulburn River and Bowditch Biodiversity Areas (BAs) and will be managed in accordance with the Regional Offset Management Plan. The local offset areas are located within the Green Offset, Southern and Northern BAs and will be managed in accordance with the Local OMP.

A Biodiversity Assessment Report (BAR) was prepared in 2016 to assess the condition of the Plant Community Types (PCTs) on the offset sites with reference to the Biobanking Assessment Method and Biobanking Credit Calculator sites. The BAR assessed the ecosystem and species credits available on the offset sites and whether they meet the credit requirements for impacted PCTs and nationally listed threatened species (MNES).

It is evident that the ecosystem credit requirements have been met on the combined offset sites and that there are surplus credits for some plant communities. In addition to meeting the credit requirements for PCTs the BAR reports sufficient species credits on the offset sites to offset impacts to the Regent Honeyeater and Swift Parrot.

Management and monitoring of biodiversity areas

The outcomes of the offset progress are determined and documented through ongoing ecological monitoring. Annual reports were prepared in 2015 and 2016 that provide a synopsis of what management actions have been achieved, this has included the following.

- § Rapid site condition assessment, annual survey and photo monitoring
- § Monthly reports for rehabilitation provided by consultants.
- § Property inspections every six months
- § Monitoring effectiveness of mitigation measures, Annual report in April each year for each site, assesses and reports of the condition of fences, tracks, access, signage and maintenance requirements.
- § Biannual monitoring of vegetation condition was conducted in 2014 and 2015 during spring (i.e. September and November).
- § Bird monitoring was conducted in 2014 and 2016 during winter (July and August) to target the winter visitors Regent Honeyeater and Swift Parrot

Establishment of in-perpetuity conservation mechanism

Condition 31 states that 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 the offset areas, apart from those credits generated for Putty Road Biodiversity Area and 2003 Warkworth Sands Woodland Area, to retire the biodiversity credits requirements of the project.

The Principal Advisor for Offsets at Rio Tinto Coal discussed progress toward this condition during the audit interview. The Proponents have apparently met with the Office of Environment and Heritage to discuss and agree to a suitable approach for the proponent to develop a conservation agreement such as a BioBanking agreement. At this stage a suitable mechanism has not been decided by OEHL or formalised.

7.4.3 Additional Warkworth Sands Woodland Measures

Condition 32 requires the proponent to develop suitable performance criteria to the satisfaction of OEHL for determining the successful regeneration of the Warkworth Sands Woodland EEC in the northern biodiversity area within 15 years from the commencement of development

Current progress by the Proponent toward meeting this condition was audited via an interview with environmental specialists from Coal & Allied and Rio Tinto, and a guided tour of the northern biodiversity area as well as review of the following documents:

- The WSW Performance Criteria [15 August 2016].

Performance Criteria

The following performance criteria have been developed:

Performance criteria 1a

At Year 15, successful regeneration of the WSW community will be determined if the following targets are met:

- native species richness in Transition sites is statistically similar to or greater than Reference sites;
- exotic species richness and exotic % cover at Transition sites is statistically similar to or less than Reference sites; or
- % cover of structural layers at Transition sites is statistically similar to Reference sites.

Performance criteria 1b

- At Year 15, successful regeneration of the WSG community will be determined if Transition sites are within or approaching (within 50-100% of) the benchmark values (target range).

Performance criteria 2

At Year 15, successful regeneration of the WSW 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 [the Local Offset Management Plan is currently in year 3].

Monitoring Methods

The field methods for monitoring performance of the regeneration of WSW in the northern biodiversity area are derived from the 'Field methodology for measuring condition variables for Site Value and at Reference Sites' according to the BioMetric 3.1 methods (Department of Environment, Climate Change and Water, 2011). Detailed description of the field methods was described in the fore-mentioned document.

It is evident that the proponent has met this condition in far as measurable and robust performance criteria have been developed. These performance criteria have been issued to the OEH for review and comment, any feedback from this review was not provided to the auditor.

Progress towards meeting the performance criteria

The re-establishment of subset areas of WSW in the Northern BA has trialled two approaches:

1. A shelter belt approach, with re-establishment activities confined to strips that run perpendicular to the prevailing wind direction. This approach aimed to create micro climates that will encourage and support natural regeneration between the strips. This is designed to minimise the amount of disturbance to avoid damage to existing regeneration and enables natural and sustainable regeneration to occur between the strips.
2. Circular placements of topsoil with direct planting and natural regeneration.

The approach used for seed collection and planting is described in the Local Offset Management Plan and follows:

Seed collection: It is preferable that seed for planting and seeding activities is from local or endemic provenances. It will be permissible to collect seed from remnant patches of ecological communities across the BAs. However, seed collection must be for non-commercial purposes and meet the standards of the "Guidelines and Codes of Practice" developed by Florabank (www.florabank.org.au), or subsequent equivalent.

Planting: Planting techniques may include direct seeding or planting of tube stock. Planting will be undertaken in areas that have been highly disturbed, with limited ability to naturally regenerate and/or require soil stabilisation.

Monitoring results

Monitoring of vegetation condition was conducted in 2014 (baseline) and 2016 (first round of monitoring) during spring (i.e. September and November). Summary of the results are provided herein and are cited from Cambium Group and Niche (2016).

Warkworth Sands Woodland Reference Sites (Management Zone 3)

- The results of the monitoring for this vegetation community generally reflect positively on the management being undertaken, and reflect the natural resilience of these remnants. This is evidenced by the increased native species richness. Temporal increases observed in over-storey cover and the number of trees are likely due to slight differences in the location of the three walking transects or due to observer bias. Percent cover of exotics has remained largely the same between the two survey periods. All weeds observed were found at low abundances. Despite the presence of weed species, exotic plant cover was within benchmark for eight of the ten reference sites. **Given the positive trajectory, it is clear that current management strategies are appropriate.** Whilst native mid-storey scores were generally lower than benchmark across each site, positive values for native groundcover shrub may indicate recruitment of shrub species which may develop and represent mid-storey during the next survey.*

Warkworth Sands Woodland transformation sites (Management Zone 4)

- The temporal increases observed in the number of species present between 2014 and 2016 is positive and is somewhat reflective of the resilience of these areas, but may be also be due to direct management efforts including tubestock planting which had been undertaken at a number of these sites. The consistency of the cover scores for exotic species between 2014 and 2016 is quite positive, particularly given the relatively high rainfall during winter and spring, which may have otherwise promoted the growth of annual weeds. **When compared against benchmarks, a number of sites were at or near benchmark for species richness, native groundcover grass and native groundcover shrub.** While native mid-storey and over-storey did not meet benchmark values, which is to be expected given the length of time these structural layers take to develop. Positive values for native mid-storey shrubs and other may develop into mid-storey and over-storey.*



Figure 6 - Recent plantings in the WSW offset area

7.4.4 Conclusions and Recommendations

It is evident from the review of offset documentation that the offset credit requirements have been adequately met and that there is a surplus of ecosystem and species credits contained within the combined biodiversity areas. The suite of biodiversity areas are managed accordingly including regular site assessment that is made to ensure that the biodiversity values are maintained or enhanced.

It is also evident from the results of ecological monitoring conducted to date in biodiversity areas, that progress towards the regeneration of Warkworth Sands Woodland against the detailed performance and completion criteria under the biodiversity management plan is being achieved.

The results of the progressive rehabilitation of the mine post-operation is well documented in monitoring reports and it is evident that these efforts are conducted in a robust and considered approach using current best practice, trial and testing of different methods and adaptive management.

Ecological monitoring both in offset areas and post mine areas has been engaged on an annual basis with the exception of property asset monitoring which is done monthly. Condition 30 (part e) states that *a seasonally-based program is required to monitor and report on the effectiveness of management measures and progress against the detailed performance and completion criteria*. While monitoring is not done seasonally, the quantum of monitoring events is providing sufficient data at this stage to adequately inform management actions and track progress towards performance and completion criteria. For example, current benchmark scores for native species present in regeneration areas has demonstrated successful regeneration. Given the immaturity of the rehabilitation works this is probably satisfactory at this stage. However, consideration should be given at later stages of ecosystem maturity for more seasonally based monitoring of flora and birds that would assist with identification of greater diversity and progress toward benchmark scores.

7.4.5 Delivery of the Accelerated Rehabilitation Plan for South Pit (MOP, Appendix C)

The previous audit identified that this plan was audited but that the areas completed did not match the areas noted in the plan, that is, they were equivalent in area but not spatially aligned. This raised the issue of the rehabilitation getting further out of alignment with the plan into the future and resulted in a recommendation to review the plan again in this audit with respect to realignment with the plan. The 2016 Annual Review noted that the Accelerated Rehabilitation Plan for South Pit was 19.8Ha ahead of plan.

The MTW survey team provided spatial mapping and cross sections for verification of overall compliance with the MOP. The auditors also compared aerial photographs from Google Earth (dated 8-06-17) and aerial mapping from a Design Conformance Report (MTW 2016-17) with the MOP Plan 3C 2016 and 3C 2017.

The cross sections were generally compliant with the slope gradient requirements in the MOP and the Accelerated Rehabilitation Plan for South Pit. The spatial extent of rehabilitation looked to be aligned with the Accelerated Rehabilitation Plan for South Pit at the date reviewed (8-06-17).

The Accelerated Rehabilitation Plan for South Pit was scheduled to be completed in Quarter 4 2018. Based on works to date, the plan looks to be on schedule for completion.

7.4.6 Rehabilitation Progress - Compliance with MOP

Spatial data and cross-sections were provided by MTW to support their compliance with the MOP predictions. The audit team also went to external data sources (aerial photos) and compared them with the MOP plan 3C 2016 and 2017. The aerial photos were in general compliance with the progress requirements of the MOP plan.

Note – the audit team did not have access to GIS or CAD data to conduct an accurate assessment but the approach used was considered to be adequate for confirming general compliance with the requirements.

7.4.7 Rehabilitation Care and Maintenance Program

DRG in their response to the consultation request, requested that the audit determine “*Has a rehabilitation Care and Maintenance program been developed and implemented based on the outcomes on the monitoring program?*”.

MTW conduct a rehabilitation maintenance program based on regular inspections of rehabilitation areas. This is actioned early and often and results in very few actions from the annual Rehabilitation Monitoring that is conducted by consultants. Some actions have come from the annual monitoring but the majority of rehabilitation maintenance actions are conducted as a result of observations made in the regular inspections.

Examples of actions provided as evidence included:

- Weed control.
- Stem thinning.

During the site inspection, it was apparent that the site was maintaining rehabilitated areas to an acceptable standard and no major issues were noted.

There is not a Rehabilitation Care and Maintenance Program based on the outcomes of the monitoring program required by the consents and directed by the MOP.

7.5 Noise Management

The 2016 Annual Review noted the following regarding noise performance at MTW:

- Community noise complaints received – reduced by 35% from 2015;

- Number of CRO noise measurements which exceeded the trigger for action – reduced by 62% from 2015; and
- Number of equipment downtime hours logged in response to noise management triggers reduced by 76% from 2015.

In accordance with consent conditions all equipment was attenuated by the end of 2016. One dozer remained to be attenuated at the end of December 2016, however this dozer already met sound power level requirements. This dozer was removed from operation and fully attenuated in early January avoiding any impacts from attenuated equipment in 2017 as committed to by MTW in the 2015 EIS.

During 2016 a total of 92 compliance noise assessments were undertaken in accordance with MTW's Noise Management Plan. MTW was found to be in compliance with the noise criteria however, applications of the INP low frequency noise penalty on 24 occasions resulted in exceedances of noise monitoring criteria. MTW maintains the position that:

“the prescribed methodology is unsuitable when applied to receptors at large distances from mine noise sources due to the nature of noise attenuation. Excess attenuation of noise with distance is greater for high frequency noise than it is for low frequency noise. At significant distance from a noise source (such as private residences from the MTW complex) this often results in large differentials between L_{Aeq} and L_{Ceq} . The NSW Industrial Noise Policy requires the penalty to be applied in these instances, irrespective of actual low frequency affectation.”

In accordance with this position, MTW do not consider the noted exceedances to be non-compliant with the criteria.

In leaving these noise results as compliant, the auditor sought advice from noise specialists in Jacobs who were generally in agreement with MTW's assertion that the low frequency penalty as applied by the INP was a flawed approach when the receptor was at a significant distance from the noise source (currently receptors are at @ >2.5km from source). The revised INP - The Noise Policy for Industry (EPA 2017) uses a revised approach to the 5dB penalty. The *Implementation and transitional arrangements for the Noise Policy for Industry* (EPA 2017) noted that the INP will continue to apply for developments where it is referenced in the approval conditions except for Section 4 which contains the modifying factors and that the Fact Sheet C from the Noise Policy for Industry (2017) will apply.

MTW's use and maintenance of sound attenuation equipment on heavy mining equipment has the objective of “noise control at the source”. Sound attenuation was targeted at low frequency noise sources.

MTW utilise personnel (Community Response Officers) to undertake proactive and reactive noise monitoring in the neighbouring communities. Noise measurements undertaken by the CRO's (and the real-time noise monitoring system) utilise instrumentation capable of distinguishing noise levels in the lower frequency spectrum (<1000Hz). CRO attended monitoring data was published publically daily at the time of the audit on <https://insite.yancoal.com.au> and includes details on operational changes when these are required.

Based on evidence of sound attenuation, predictive weather acoustic enhancement and real time and CRO monitoring of and response to noise from the site the auditor considers that the Noise Management Plan adequately addresses the relevant approval requirements, particularly the requirement to employ “all reasonable and feasible measures to minimise operational, low frequency and road noise”. Note the implementation of the management plan is flawed with respect to road noise (commitment to car pool not conducted).

7.6 General Environmental Management

The site inspection showed the rehabilitation was progressing well, recent rehabilitation showed good species diversity with perhaps some interplanting to ensure the understory and mid-story diversity is adequate. The rehabilitation in the offsets areas that were inspected were adequate noting that the programs were aimed at medium term improvements.

General site housekeeping was good with no negative observations made.

There were a low number of environmental incidents. Whilst it is good to see a low number extra effort is required to ensure there are none. Each of the incidents were discussed at interview and it was apparent that MTW was working towards zero incidents.

The low number of non-compliances points to the extra effort applied to environmental compliance since the recent approval and commencement of the continuation projects for Mount Thorley and Warkworth Mines.

8. Environmental Management Plans

The assessment of the adequacy and effectiveness of the Environmental Management Plans (EMPs) is based on the auditor's observations of site operational management during the site inspection and a review of the monitoring data and reportable incidents for the audit period. Complaints statistics inform the assessment as a measure of community sensitivity to the issues addressed in the EMP.

8.1 Aboriginal Heritage Management Plan

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Aboriginal Heritage Management Plan. Improvements in the induction process for aboriginal heritage were identified in the document audit of the Aboriginal Heritage Management Plan as the induction process did not completely agree with the management plan requirements. There were no reported aboriginal heritage related incidents in the audit period. There were no community complaints for aboriginal heritage. Apart from the induction material, no other evidence of ineffective implementation of the Aboriginal Heritage Management Plan was identified during the audit.

The Aboriginal Heritage Management Plan was found to address the requirements of the approvals SSD 6465 and SSD 6464.

8.2 Air Quality Management Plan

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Air Quality Management Plan. There were no reported air quality incidents in the audit period. Community complaints for air quality averaged at less than 10% of overall complaint numbers from 2014 to the end of the audit period. No evidence of ineffective implementation of the Air Quality Management Plan was identified during the audit.

The Air Quality Management Plan was found to address the requirements of the approvals SSD 6465 and SSD 6464.

8.3 Biodiversity Management Plan and Offset Plans

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Biodiversity Management Plan or the local and regional offset management plans. There were no reported biodiversity incidents or community complaints in the audit period. No evidence of ineffective implementation of the biodiversity or offset management plans was identified during the audit.

The biodiversity and offset management plans were found to address the requirements of the approvals SSD 6465 and SSD 6464.

8.4 Blast Management Plan

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Blast Management Plan. A review of the monitoring data indicated that a blast result was not captured at the Bulga Village blast monitor but this was a software issue, not an issue associated with the management plan. There were no reported blast related incidents in the audit period. Community complaints for blasting averaged at less than 10% of overall complaint numbers from 2014 to the end of the audit period. No evidence of ineffective implementation of the Blast Management Plan was identified during the audit.

The Blast Management Plan was found to address the requirements of the approvals SSD 6465 and SSD 6464.

8.5 Blast Fume Management Plan

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Blast Fume Management Plan. A review of the site environmental reporting indicated that blast fume had not been a significant issue during the audit period. There were no reported blast fume related incidents in the audit period (i.e. no blast fume crossed the site boundaries) however a Category 2 blast fume was reported to DP&E during the audit period. There were no community complaints specifically related to blast fume in the audit period. No evidence of ineffective implementation of the Blast Fume Management Plan was identified during the audit.

The Blast Fume Management Plan was found to address the requirements of the approvals SSD 6465 and SSD 6464.

8.6 Environmental Management Strategy

Whilst not strictly an EMP, the Environmental Management Strategy does drive some important aspects of environmental management particularly complaints management. No issues were identified with compliance with the Environmental Management Strategy nor with complaints management during the audit. At MTW, the Environmental Management Strategy was used in combination with the Coal & Allied corporate Environmental Management System to help drive continual environmental improvement.

The structure and content of the Environmental Management Strategy addressed the requirements of the approvals SSD 6465 and SSD 6464.

8.7 Noise Management Plan

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Noise Management Plan. During the document review, no evidence of any program to encourage carpooling by employees was able to be provided as required by the Noise Management Plan.

There were reported noise related incidents in the audit period that revolved around the addition of the low frequency penalty as required by the INP. The noise criteria detailed in the approvals and EPL when read as they were at the time of the audit were exceeded. As stated elsewhere in this report, the application of the low frequency penalty from the INP that drove these exceedances is flawed in this instance (where the noise receptor and noise source are over 2 km apart). Community complaints for noise constituted the majority of complaints averaging at 80% of overall complaint numbers from 2014 to the end of the audit period.

The Noise Monitoring Program (Appendix A of the Noise Management Plan) does not specifically note the requirement for a program to correlate (SSD 6464 states "calibrate or validate" which is misleading as both sets of monitoring equipment are required to be calibrated to AS1259.2 1990 in a separate process to this correlation) the real time monitoring with the attended noise monitoring. The Noise Management Plan at Section 8.2 does drive the requirement for the correlation of the real time and attended noise monitoring programs. Appendix A does specify the monitoring required to allow the correlation and a report with the objective of assessing the various methods utilised by MTW for noise monitoring was provided as evidence of the program in place.

MTW explained the situation regarding the noise monitoring correlation (between real time and attended) in a message to DP&E as follows:

"The noise management plan and noise monitoring programme specify the use of both real-time and attended monitoring for the management of noise. The real-time monitors provide a trigger for attended monitoring, with the attended monitoring used to validate the level recorded by the real-time monitor. Note in this context we interpret the word "calibrate" to mean correlation of real-time and attended noise data. Calibrating the noise monitor must be done against a standard and would be improper to adjust the accuracy of a directional monitor based on the results of attended monitoring. The validation and correlation of monitoring results has occurred on a nightly basis since MTW employed the services of Community Response Officers in 2013 to undertake supplementary attended monitoring. The use of supplementary attended monitoring formally became part of

MTW's noise management plan in 2014. The primary reason for commencing supplementary attended monitoring was based on the limitation of Barnowl monitors to consistently and correctly assign directional mine only noise levels due to other competing noise sources. At this time MTW also installed a state of the art Noise Compass which has much greater capacity to resolve level and direction of noise from multiple sources. As a result of these substantive and industry leading changes to its noise management plan, MTW has not recorded a noise non-compliance since Q1 2013. This would demonstrate that the programme in place to continuously validate real-time monitors using supplementary attended monitoring is adequately managing risk of non-compliance with noise criteria in the consent. It would also demonstrate that this programme is consistent with the intent of condition 7 (e) to ensure MTW have an operational noise monitoring programme in place that supports compliance with noise criteria. The MTW Noise Management Plan was last approved by DP&E on 2 February 2018, which was the eighth version approved by DP&E following the granting of SSD6464, including condition 7 (e). " Message from Coal & Allied to DPE in 2018. The auditor agreed, in general, with the content of this message.

Apart from the car pooling and potential low frequency exceedances, no other evidence of ineffective implementation of the Noise Management Plan was identified during the audit.

The Noise Management Plan was found to address the requirements of the approvals SSD 6465 and SSD 6464.

8.8 Water Management Plan

During the site visit, nothing was noted or observed that indicated the site was not operating within the controls required by the Water Management Plan. The document review indicated that water and sediment had been released in January 2016 in contravention of the Water Management Plan, this was reported as an incident. There were no community complaints specifically related to water in the audit period. Apart from the release from the dam, no other evidence of ineffective implementation of the Water Management Plan was identified during the audit.

The Water Management Plan was found to address the requirements of the approvals SSD 6465 and SSD 6464.

9. Recommendations

Following are recommendations from the audit, note that they do not all relate to non-compliance some are observations and that not all non-compliances have recommendations.

1. Complete the Salvage report for salvage work conducted in 2016.
2. MTW will 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).
3. All training required by the SSD 6464 and 6465 approvals or as required by the Management Plans required by the approvals should be documented.

Note also that MTW are required to respond to each of the non-compliances noted in Section 4 of this report in the response to the audit findings that must be presented to DP&E along with the final version of this report.

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10. Conclusion

Environmental management of the MTW Complex was very good through the audit period with a reduction in complaints, excellent quality rehabilitation and a reduction in the number of issues and non-compliances since the previous Independent Environmental Audit.

There is some room for improvement in some areas, though these are considered generally minor and readily addressed.

No non-compliances were assessed as High Risk in this audit, there were 2 medium and 12 low risk non-compliances and 3 administrative non-compliances. When compared with the 41 non-compliances in the previous audit this should be considered a very good result.

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Appendix A. Audit Team Approvals



Contact: Chris Knight
Phone: 6575 3404
Email: chris.knight@planning.nsw.gov.au

Our ref: SSD - 6464 and SSD - 6465

Andrew Speechly
Manager Environmental Services NSW
Coal & Allied
PO Box 315
SINGLETON NSW 2330

Dear Andrew

Mount Thorley Warkworth- Independent Environmental Audit 2017

Reference is made to your correspondence dated 10 February 2017 regarding the Mt Thorley and Warkworth Operations Independent Environmental Audit 2017, as required under Schedule 5, Condition 9 of SSD 6465 and SSD 6464.

The Department endorses the proposed audit team from Jacobs, as per Jacobs proposal (dated 19 January 2017, reference 17-02361.00), for the following personnel:

- Peter Horn – Lead Auditor
- Chris Thomson – Biodiversity Specialist
- Sarah Saunders – assistant auditor

The Department notes that an IEA was completed against all approvals in 2016 and that Coal & Allied propose to utilise the next IEA (nominally required in 2020) to review the requirements of the EPL, Mining Licences and Water Licences for a 4 year period (February 2016 – 2020).

This audit scope must meet all requirements of Schedule 5, Condition 9 of SSD 6465 and SSD 6464, including consultation with other agencies in relation to implementation of relevant approvals and as defined in Jacobs proposal, section 2.3 – Consultation.

This audit report is to be submitted to the Department before 26 June 2017.

Should you have any queries on this matter, please do not hesitate to contact Chris Knight, Senior Compliance Officer, on (02) 6570 3404 or christopher.knight@planning.nsw.com.au .

Yours sincerely

B/02/2017

Leah Cook
Team Leader – Compliance
as the Secretary's Nominee



Office of
Environment
& Heritage

DOC17/144813-4
SSD 6464

Mr Doug Fenton
Environmental Advisor – Systems & Monitoring
Rio Tinto Coal Australia
Doug.Fenton@riotinto.com

Dear Mr Fenton

Mount Thorley Warkworth Independent Environmental Audit

I refer to your e-mail dated 10 February 2017 requesting formal acceptance by the Office of Environment and Heritage (OEH) of Mr Chris Thomson as part of the team to undertake the Independent Environmental Audit of the Mount Thorley Warkworth Operations. OEH understands that this audit was undertaken to meet Schedule 5, Conditions 9 and 10 of the Warkworth Mine Development Consent. Further, OEH understands that Mr Thomson was suggested as the person to focus on the assessment of the implementation of the biodiversity offset strategy for the mine, which was developed in consultation with OEH.

OEH has reviewed the information provided about Mr Thomson's experience and qualifications in relation to the requirements of the Independent Environmental Audit. As a result, OEH accepts Mr Thomson as a suitable person to assess the biodiversity offset strategy against the performance and completion criteria.

If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154.

Yours sincerely



10 FEB 2017

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast
Regional Operations

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Appendix B. Consultation

From: Leah.Cook@planning.nsw.gov.au
Sent: Thursday, 2 March 2017 3:05 PM
To: Horn, Peter
Cc: Christopher.Knight@planning.nsw.gov.au; Andrew.Speechly@riotinto.com; Natasha Ryan; monique.meyer@industry.nsw.gov.au
Subject: RE: MTW Independent Environmental Audit
Attachments: 20170213114931317.pdf

Hi Peter,

Thank you for making contact with DPE regarding the upcoming Mount Thorley/Warkworth IEA.

As per the attached correspondence, whilst the Department agreed that the scope of the audit can focus on the Development consent conditions, all other agencies must still be consulted and provided the opportunity to input to the audit scope. This includes the opportunity for these agencies to request that their approval is audited in either part or full as part of the consultation phase. I am concerned if the below email has been sent generically to other agencies as it somewhat misleading and is not as agreed between Coal & Allied and DPE.

Please ensure that the audit is conducted in accordance with the consent and the IMP Audit Guideline (<http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/~media/06A174B7A3C84531A025721A4717A8A1.ashx>).

In particular please focus on the following issues:

- Mining and rehabilitation progress is consistent with the time sequences as described in the EA (S.2, c2);
- Noise management – in particular all reasonable a feasible measures to minimise operational, low frequency and road noise from the development have been employed, including requirements related to noise attenuation of equipment which were required to be completed 31 December 2016 (S3.c 4 to c7); and
- Incident reporting compliance.

Based on the planned site inspection date (1-5 May) the Department will expect the audit report and RAR be submitted (preferably by email to compliance@planning.nsw.gov.au) by COB 16 June 2017 (as per S5 c10).

Please feel free to contact this office if further clarification is required.
Regards,

Leah Cook

Team Leader - Compliance
Department of Planning & Environment
Suite 14, Level 1, 1 Civic Av
PO Box 3145
Singleton NSW 2330
<http://www.planning.nsw.gov.au>

E: leah.cook@planning.nsw.gov.au
compliance@planning.nsw.gov.au

P: 02 6575 3403 M: 0429 191 164 F: 02 65753415



P Please consider the environment before deciding to print this e-mail

From: Horn, Peter [<mailto:Peter.Horn@jacobs.com>]
Sent: Thursday, 2 March 2017 12:38 PM
To: Leah Cook <Leah.Cook@planning.nsw.gov.au>
Cc: Chris Knight <Christopher.Knight@planning.nsw.gov.au>
Subject: MTW Independent Environmental Audit

Dear Leah,

Jacobs are conducting an Independent Environmental Audit (IEA) of the Mount Thorley Warkworth mine site near Singleton in NSW. The IEA is required to satisfy the project approval SSD-6465 (Mount Thorley site) and SSD-6464 (Warkworth), Schedules 5, Conditions 9 and 10 that require. **Note that, due to an audit being conducted last year, Mining Tenements, Water Leases and other licenses for the sites that have not changed in the interim will not be assessed in this audit.**

The site inspection portion of the audit is programmed for the period 1-05-17 to 5-05-17, we would appreciate any feedback you have prior to that date.

Your agency/organisation is listed to be consulted in the *Independent Audit Guideline*, 2015 (Department of planning and Environment). Could you please provide some comments on issues your agency /organisation has identified with the MTW site, it's operation or community consultation.

If you have any areas of interest that you would like explored in the audit, please note those too.

Kind Regards
Peter

**Peter Horn
Jacobs**

Principal Environmental Scientist - Water, Environment & Spatial | Buildings & Infrastructure | Eastern Asia Pacific
Ph : +61 2 4979 2600
Direct : +61 2 4979 2658
Mob : +61 428 282 751
E-mail : Peter.Horn@jacobs.com

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Newcastle West NSW 2302
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From: Robert Gibson <Robert.Gibson@environment.nsw.gov.au>
Sent: Tuesday, 13 June 2017 1:26 PM
To: Horn, Peter; Richard Bath
Subject: RE: MTW Independent Environmental Audit

Dear Peter,

Thanks for your e-mail. We were approached directly by Doug Fenton from Rio Tinto about this same matter in late May. They have a copy of all of the correspondence provided and it may be best if you follow it up with Doug.

Kind regards,

Robert

Robert Gibson

Regional Biodiversity Conservation Officer
Hunter Central Coast Branch
Regional Operations Division
Office of Environment & Heritage

Level 4, 26 Honeysuckle Drive Newcastle 2300
Locked Bag 1002 Dangar 2309
T 02 4927 3154 F 02 4927 3192

From: Horn, Peter [<mailto:Peter.Horn@jacobs.com>]
Sent: Tuesday, 13 June 2017 12:55 PM
To: Richard Bath <Richard.Bath@environment.nsw.gov.au>
Cc: Robert Gibson <Robert.Gibson@environment.nsw.gov.au>; Nicole Davis <Nicole.Davis@environment.nsw.gov.au>; OEH ROD Hunter Central Coast Mailbox <rog.hcc@environment.nsw.gov.au>
Subject: RE: MTW Independent Environmental Audit

Hi Richard,

I don't seem to have a response from you on file apart from the approval of Chris Thomson as the OEH approved Biodiversity Offset Strategy audit specialist.

Did you want to add any further comment?

Cheers

Peter

Peter Horn

Jacobs

Principal Environmental Scientist - Water, Environment & Spatial | Buildings & Infrastructure | Eastern Asia Pacific

Ph : +61 2 4979 2600

Direct : +61 2 4979 2658

Mob : +61 428 282 751

E-mail : Peter.Horn@jacobs.com

710 Hunter St
Newcastle West NSW 2302
Australia
www.jacobs.com

From: Horn, Peter
Sent: Thursday, 2 March 2017 12:41 PM
To: Richard.Bath@environment.nsw.gov.au
Cc: Robert.Gibson@environment.nsw.gov.au; Nicole.Davis@environment.nsw.gov.au; rog.hcc@environment.nsw.gov.au
Subject: MTW Independent Environmental Audit

Dear Richard,

Jacobs are conducting an Independent Environmental Audit (IEA) of the Mount Thorley Warkworth mine site near Singleton in NSW. The IEA is required to satisfy the project approval SSD-6465 (Mount Thorley site) and SSD-6464 (Warkworth), Schedules 5, Conditions 9 and 10 that require. Note that, due to an audit being conducted last year, Mining Tenements, Water Leases and other licenses for the sites that have not changed in the interim will not be assessed in this audit.

The site inspection portion of the audit is programmed for the period 1-05-17 to 5-05-17, we would appreciate any feedback you have

prior to that date.

Your agency/organisation is listed to be consulted in the *Independent Audit Guideline*, 2015 (Department of planning and Environment). Could you please provide some comments on issues your agency /organisation has identified with the MTW site, it's operation or community consultation.

If you have any areas of interest that you would like explored in the audit, please note those too.

Kind Regards

Peter

Peter Horn

Jacobs

Principal Environmental Scientist - Water, Environment & Spatial | Buildings & Infrastructure | Eastern Asia Pacific

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Office of
Environment
& Heritage

DOC17/144813-4
SSD 6464

Mr Doug Fenton
Environmental Advisor – Systems & Monitoring
Rio Tinto Coal Australia
Doug.Fenton@riotinto.com

Dear Mr Fenton

Mount Thorley Warkworth Independent Environmental Audit

I refer to your e-mail dated 10 February 2017 requesting formal acceptance by the Office of Environment and Heritage (OEH) of Mr Chris Thomson as part of the team to undertake the Independent Environmental Audit of the Mount Thorley Warkworth Operations. OEH understands that this audit was undertaken to meet Schedule 5, Conditions 9 and 10 of the Warkworth Mine Development Consent. Further, OEH understands that Mr Thomson was suggested as the person to focus on the assessment of the implementation of the biodiversity offset strategy for the mine, which was developed in consultation with OEH.

OEH has reviewed the information provided about Mr Thomson's experience and qualifications in relation to the requirements of the Independent Environmental Audit. As a result, OEH accepts Mr Thomson as a suitable person to assess the biodiversity offset strategy against the performance and completion criteria.

If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154.

Yours sincerely



10 FEB 2017

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast
Regional Operations



Peter Horn
Principle Environmental Scientist
Jacobs
By email: Peter.Horn@jacobs.com

Contact Hannah Grogan
Phone (02) 4904 2616
Email hannah.grogan@dpi.nsw.gov.au
Our ref V15/3875#44 & OUT17/12628
Your ref SSD-6465 & SSD-6464

Dear Mr Horn

Mount Thorley and Warkworth Coal Mines Independent Environmental Audit

Thank you for the opportunity to comment on the planned independent environmental audit of Mount Thorley and Warkworth Coal Mines.

DPI Water understands that the scope of the assessment as outlined under the development consent extends at least to compliance with:

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

DPI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically:

- Assessment as to whether the project holds the required water entitlements and licences under the *Water Management Act 2000* or *Water Act 1912* (as applicable);
- Compliance with the conditions of any water licences/approvals held.
- Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.
- Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.

It is understood that an Independent Audit was undertaken on compliance with all water licence conditions in 2016 and clarification ought to be sought as to whether this is required in this independent environmental audit. DPI Water can advise that since the last audit the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016 has been gazetted. As such this audit should consider compliance with quantification of both active and passive take of water against the appropriate water licences held.

The following questions may aid in assessing the water licensing requirements of the mine operation:

- Does the proponent have enough licensed water entitlement to cater for active and passive take of water?

- Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?
- Do any exemptions under the *Water Management (General) Regulation 2011* or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water?

I trust this information is of assistance. Please contact Hannah Grogan, A/Senior Water Regulation Officer (Newcastle) on (02) 4904 2516 or Hannah.grogan@dpi.nsw.gov.au if you have further enquiries regarding this matter.

Yours sincerely



Irene Zinger
Regional Manager Metro
Water Regulation
DPI Water
23 March 2017

DOC17/155927, File No. EF13/3817 and EF16/906

JACOBS
710 Hunter Street
Newcastle West NSW 2302

Attention: Peter.horn@jacobs.com

Dear Mr Horn

MOUNT THORLEY WARKWORTH INDEPENDENT AUDIT

I refer to your email dated 2 March 2017 regarding input to the Independent Environmental Audit of Mount Thorley Warkworth mine near Singleton.

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 Environment Protection Licences 1376 (Warkworth Mining Ltd) and 1976 (Mount Thorley Operations Pty Limited).

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

Yours sincerely



NATASHA RYAN
Regional Operations Officer - Hunter
Environment Protection Authority

Contact officer: NATASHA RYAN
(02) 4908 6833
hunter.region@epa.nsw.gov.au

From: colin gellatly <colingellatly@hotmail.com>
Sent: Friday, 19 May 2017 8:19 AM
To: Horn, Peter
Subject: MTW Audit

Hi Peter,

Just to let you know I asked members if they had any issues to raise and I have had a nil response. We have a meeting of the CCC on Monday and I will ask again, Col

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Appendix C. Risk Assessment Criteria and Audit Protocol

Consequences

Level Descriptor	Consequences	
A	Catastrophic	Long term environmental damage (5 years or longer), requiring \$5million to correct or in penalties
B	Major	Medium-term (1-5 years) environmental damage, requiring \$1 to 5million to correct or in penalties
C	Moderate	Short-term (less than 1 year) environmental damage, requiring up to \$1million to correct or in penalties
D	Minor	Environmental damage, requiring up to \$200,000 to correct
E	Insignificant	Negligible environmental impact, managed within operating budgets

		Catastrophic	Major	Moderate	Minor	Insignificant
		A	B	C	D	E
Almost certain	1	High	High	High	Medium	Medium
Likely	2	High	High	High	Medium	Medium
Possible	3	High	High	Medium	Medium	Low
Unlikely	4	High	Medium	Medium	Low	Low
Rare	5	Medium	Medium	Low	Low	Low

Likelihood

Level Descriptor	Likelihood of the risk arising and leading to the assessed level of consequence		
1	Almost certain	Is expected to occur in most circumstances and has a history of occurrence	Once a year or more frequent
2	Likely	Will probably occur in most circumstances	Once in 1 to 3 years
3	Possible	Could occur at some time	Once in 3 to 10 years
4	Unlikely	Not likely to occur in normal circumstances	Once in 10 to 50 years
5	Rare	May occur only in exceptional circumstances	Once in 100 years or more

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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.	Noted	Noted			
Terms of Consent							
	2	The Applicant shall carry out the development:					
	(a)	generally in accordance with the EIS; and	See section regarding EIS.	Compliant			
	(b)	in accordance with the conditions of this consent	See compliance below for this requirement	Noted			
	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.	Noted	Noted			
	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;	Found generally compliant in this audit	Compliant			
	(b)	any reports, reviews or audits commissioned by the Department regarding compliance that are submitted in accordance with this consent;	Found generally compliant in this audit	Compliant			
	(c)	the implementation of any actions or measures contained in these documents.	Found generally compliant in this audit	Compliant			
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. <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>	Commencement of development 15 February 2016, this clause therefore applies at 15 February 2016.	Not Triggered			
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.	2015 AR shows coal production was within limits and predicted coal production for 2016 was below limits.	Compliant			
Coal Transport							
	7	The Applicant Shall:					
	(a)	not transport any coal produced at the development by public road; and	There are no facilities to load out coal for road transport	Compliant			
	(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	All coal goes to the coal loader, it is the only reasonable way to get coal offsite.	Compliant			
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	Letter dated 3rd Feb 2016, commencement date 15th Feb 2016.	Compliant			
	(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.	Sighted letter from DP&E 8th Feb 2016 notifying MTW that all required documentation was in place.	Compliant			
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.	Not all landowners within the consent boundaries had signed off on the surrender in time to meet this requirement. Letter sent to department by MTW seeking extension, response from Department (28-07-16) no deadline was given with this letter. The letter noted that older consents had also not been signed off and surrendered.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
STRUCTURAL ADEQUACY							
	10	<p>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.</p> <p><i>Notes:</i></p> <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 Applicant is required to obtain the MSB's approval before constructing any improvements on the site. 	No new buildings in the audit period. BCA compliance not required.	Not Triggered			
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.	No demolition works in the audit period	Not Triggered			
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	No damage or repairs required in the audit period.	Not Triggered			
	(b)	relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	No relocations apart from the Putty Road underpass which is funded by MTW and approved by RMS	Not Triggered			
		<i>Note: This condition does not apply too 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>	Noted	Noted			
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	No evidence of poorly maintained equipment in the site inspection or in the documentation reviewed	Compliant			
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	Only the Biodiversity Management Plan, is planned to be submitted this way. Initial submission is completed subsequent submissions will occur as the completion criteria are established for the WSW and Ironbark Woodland habitat establishment activities.	Compliant			
	(b)	combine any strategy, plan or program required by this consent with any similar strategy, plan or program required for the Mt Thorley mine.	All management plans are for both sites	Compliant			
		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.	Noise Management Plan has been updated for the new noise limits.	Compliant			
		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. 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. 	Site operated/operates under approved management plans until new ones were/will be approved.	Compliant			
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					
	(b)	the terms of Applicant's offer in its letter to the Department dated 4 May 2015					
		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.	VPA is currently with Council for approval. MTW have completed the portion of works. DP&E have given one extension, application for extension has been submitted.	Not Triggered			
		<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>					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																																																																																																				
					Consequence	Likelihood	Risk																																																																																																		
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>All</td> <td>K</td> </tr> </tbody> </table>	Acquisition Basis	Land	Noise	144, 146, 149, 915	All	K	None of these residents have requested acquisition in the audit period.	Not Triggered																																																																																															
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	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 (Average)</th> <th>Evening (Average)</th> <th>Night (Average)</th> <th>Night (Maximum)</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Muga</td> <td>75</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>42, 63, 66, 68, 67, 68, 69, 62, 63, 64, 65, 71, 72, 73, 82, 210, 211, 236, 252, 920</td> <td>39</td> <td>39</td> <td>38</td> <td>49</td> </tr> <tr> <td>16, 17, 19, 21, 24, 31, 35, 36, 37, 40, 41, 43, 44, 45, 48, 47, 48, 45, 50, 52, 54, 61, 67, 70, 71, 84, 89, 89, 110, 201, 230, 237, 238, 243, 254, 300, 917, 918, 919, 929</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td>18, 20, 22, 23, 26, 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>35</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">Miltrodale</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>Mission Creek</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, 202</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/Vivian's 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>150</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 (Average)	Evening (Average)	Night (Average)	Night (Maximum)	Muga	75	40	40	40	50	42, 63, 66, 68, 67, 68, 69, 62, 63, 64, 65, 71, 72, 73, 82, 210, 211, 236, 252, 920	39	39	38	49	16, 17, 19, 21, 24, 31, 35, 36, 37, 40, 41, 43, 44, 45, 48, 47, 48, 45, 50, 52, 54, 61, 67, 70, 71, 84, 89, 89, 110, 201, 230, 237, 238, 243, 254, 300, 917, 918, 919, 929	38	38	38	48	18, 20, 22, 23, 26, 28, 38, 39, 230, 231, 253, 921, 922	37	37	37	47	12, 14, 15, 226, 227, 228, 229, 909, 928, 936	36	36	35	46	All other residences on privately owned land	35	35	35	45	Miltrodale	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	Mission Creek	All other residences on privately owned land	35	35	35	45	Gouldsville, Long Point	126, 202	38	38	38	48	All other residences on privately owned land	35	35	35	45	Hambleton Hill/Vivian's Flat	All other residences on privately owned land	35	35	35	45	Mt Thorley	148	39	39	39	49	150	38	38	38	48	150	37	37	37	47	All other residences on privately owned land	35	35	35	45	<p>2016 Annual Review notes the application of the modifying factor results in two exceedances of the WML LAeq Acquisition Criteria. However MTW does not consider these instances to constitute non-compliance with the conditions of approval. They were reported to DP&E and no action was taken. Section 6.2.4 of the 2016 Annual Review.</p> <p>In leaving this item compliant, the auditor sought advice from noise specialists in Jacobs who were generally in agreement with MTW's assertion that the low frequency penalty as applied by the INP was a flawed approach when the receptor was at a significant distance from the noise source (currently receptors are at @ >2.5km from source).</p>	Compliant			
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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> <p><i>Notes:</i></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>. 	Mitigation Basis	Characterisation of Impact	Receiver	Noise	Moderate	148, 190	<p>Letters notifying property owners of rights under consent sent provided as evidence.</p> <p>Two mitigation works documentation provided as evidence</p>	Compliant																																																																																															
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Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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;	The Noise Management Plan provides direction on these issues. MTW's use and maintenance of sound attenuation equipment on heavy mining equipment provides noise control at the source. Sound attenuation was targeted at low frequency noise sources. MTW utilise personnel (Community Response Officers) to undertake proactive and reactive noise monitoring in the neighbouring communities. Noise measurements undertaken by the CRO's (and the real-time noise monitoring system) utilise instrumentation capable of distinguishing noise levels in the lower frequency spectrum (<1000Hz). CRO attended monitoring data is published publically daily on https://insite.yancoal.com.au and includes details on operational changes when these are required. MTW also utilises weather enhancement forecasts as required to guide/change/monitor in areas that are forecast to be as enhancing. MTW Noise enhancement prediction reports were provided as evidence.	Compliant			
	(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;	Sighted report to Community Response Officers (CROs). Due to west facing dups proactive measures are difficult but the site does apply the predicted conditions where possible and to particularly noisy operations.	Compliant			
	(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	CRO Reports and forecasts provided, Equipment downtime provided, interview discussion around noise impacts and equipment relocation and downtime.	Compliant			
	(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	At the end of 2016 all equipment except for some minor exceptions that were not operating on the site were sound attenuated and the site has only used sound attenuated equipment since	Compliant			
	(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	CROs conduct supplementary noise monitoring and feedback the results to OCEs who adjust operations if required.	Compliant			
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:	MTW currently operate under the Noise Management Plan approved 21/09/2016.	Compliant			
	(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;	NMP prepared in accordance with the Secretary. The Secretary's approval is in Preface of NMP. EPA consultation in Appendix B of the NMP. Rio Tinto letter and EPAs response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA.	Compliant			
	(b)	describe the measures that would be implemented to ensure compliance with the relevant noise criteria and operating conditions of this consent;	Section 6 of the 2016 NMP.	Compliant			
	(c)	describe the proposed noise management system in detail;	Section 6 of the NMP describe the standard, proactive and reactive measures that make up the Noise Management System.	Compliant			
	(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 <i>NSW Industrial Noise Policy</i>), including regular briefings and a public information session within 6 months of granting this development consent;	17 May 2016, regular briefings through the CCC. Near neighbour engagement plan details planned community engagement.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk													
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	(e)	<p>include a noise monitoring program that:</p> <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 4(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. 	<p>"The noise management plan and noise monitoring programme specify the use of both real-time and attended monitoring for the management of noise. The real-time monitors provide a trigger for attended monitoring, with the attended monitoring used to validate the level recorded by the real-time monitor. Note in this context we interpret the word "calibrate" to mean correlation of real-time and attended noise data. Calibrating the noise monitor must be done against a standard and would be improper to adjust the accuracy of a directional monitor based on the results of attended monitoring. The validation and correlation of monitoring results has occurred on a nightly basis since MTW employed the services of Community Response Officers in 2013 to undertake supplementary attended monitoring. The use of supplementary attended monitoring formally became part of MTW's noise management plan in 2014. The primary reason for commencing supplementary attended monitoring was based on the limitation of Barnowl monitors to consistently and correctly assign directional mine only noise levels due to other competing noise sources. At this time MTW also installed a state of the art Noise Compass which has much greater capacity to resolve level and direction of noise from multiple sources. As a result of these substantive and industry leading changes to its noise management plan, MTW has not recorded a noise non-compliance since Q1 2013. This would demonstrate that the programme in place to continuously validate real-time monitors using supplementary attended monitoring is adequately managing risk of non-compliance with noise criteria in the consent. It would also demonstrate that this programme is consistent with the intent of condition 7 (e) to ensure MTW have an operational noise monitoring programme in place that supports compliance with noise criteria. The MTW Noise Management Plan was last approved by DP&E on 2 February 2018, which was the eighth version approved by DP&E following the granting of SSD6464, including condition 7 (e). " Message from Coal & Allied to DPE in 2018. The auditor agreed, in general, with the content of this message.</p> <p>Noise monitoring program is located in Appendix A of the 2016 NMP. The evaluation and reporting noted is present in the 2016 Annual Review. The program to calibrate was demonstrated by the provision of a Global Acoustics report "Real Time Data Analysis - Krey Property". This report compared real time results with the assessment criteria and also with attended monitoring results. Appendix A defines a noise incident.</p>	Compliant														
Blasting																		
Blasting Criteria																		
	6	<p>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.</p> <table border="1"> <caption>Table 4: Blasting criteria</caption> <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	<p>During the 2016 reporting period there were no occasions where the overpressure criterion of 120dB or the ground vibration criterion of 10mm/s for private residences was exceeded. All results in 2016 returned results below the relevant air blast overpressure/ground vibration criteria for all monitoring locations.</p>	Compliant			
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	<p>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.</p>	<p>None in the audit period. Blast register and road closure records confirms compliance with this requirement</p>	Not Triggered														
Blasting Frequency																		
	8	<p>The Applicant may carry out a maximum of:</p>																
	(a)	<p>2 blasts a day; and</p>	<p>In the 2016 reporting period there were 321 blast events, which does not exceed 2 blasts a day and 6 blasts a week, averaged over a calendar year. Blast register and road closure records confirmed compliance with this requirement.</p>	Compliant														
	(b)	<p>6 blasts a week, averaged over a calendar year, at the site.</p> <p>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.</p> <p>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.</p>	<p>In the 2016 reporting period there were 321 blast events, which does not exceed 2 blasts a day and 6 blasts a week, averaged over a calendar year. Blast register and road closure records confirmed compliance with this requirement</p>	Compliant														
			Noted	Noted														
			Noted	Noted														

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
	9	The Applicant shall not carry out more than 1 blast a day within 500 metres of the Putty Road.	Blast register and road closure records confirmed compliance with this requirement	Compliant			
Property Inspections							
	10	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.	No requests in the audit period	Not Triggered			
	(a)	Commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to: • 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	No requests in the audit period	Not Triggered			
	(b)	give the landowner a copy of the new or updated property inspection report.	No requests in the audit period	Not Triggered			
		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.	Noted	Noted			
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:	Two claims of damage in the audit period. One was fixed/repaired to avoid the need for a report. The other property is 5 km away, MTW are continuing negotiations with this party and will fund a baseline condition report.	Compliant			
	(a)	commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and	Noted	Not Triggered			
	(b)	give the landowner a copy of the property investigation report.	Noted	Not Triggered			
		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.	Noted	Not Triggered			
Operating Conditions							
	12	During mining operations on site, the Applicant shall:					
	(a)	implement all reasonable and feasible measures to: • 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;	No grazing against current operations, this has been allocated as buffer land. There is a 500 m exclusion zone to protect people and property. Blast MP and Fume MP contains requirements that enforce the exclusion zone around each blast as observed in the site inspection.	Compliant			
	(b)	ensure that blasting on the site does not damage any historical heritage sites;	The 2016 BMP notes a vibration limit of 5mm/sec for St. Phillip's Church. It was determined that ground vibration levels from MTW blasts will not reach a level to damage these structures or approach the vibration limit (5mm/s) for other mining operations which are in a closer proximity. To ensure MTW blasts do not approach the criteria of 5mm/s limit with a 5% allowable exceedances during a 12 month period, there will be an internal threshold of 4 mm/s.	Compliant			
	(c)	minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods; and	This is managed by the road closure MP. At interview during the site inspection, the length of road closures was discussed as was the methods to keep road closure times to a minimum. It was noted that some members of the public had sought to interfere in the Road Closure Process through secreting themselves in roadside vegetation thereby delaying the blast and extending the time the road was closed. The actions taken by MTW were described and though the closure period on that occasion was longer than the Road Closure Management Plan prescribed (on these occasions), the auditor felt that all feasible measures to reduce the amount of time the road was closed had been implemented as detailed in the road closure plan. Other instances of extended road closures are due to protection of the public using the road. e.g. when dust from a blast is slow moving or wind changes direction blowing it back towards a road following reopening of the road.	Compliant			
	(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. Note: To identify the historic heritage sites referred to in this condition, see the applicable figure in Appendix 4	The Blasting Hotline is updated on the morning of each day on which there is a scheduled road closure and can be reached on (free call) 1800 099 669. The hotline will advise of a one hour window for the proposed road closure (e.g. between 10am and 11am). The blasting hotline number will be advertised in road closure notifications placed in local print media, as well as MTW's Daily Report website.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																									
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	13	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.	Road closure plan is provide to Council for review and this constitutes the agreement with Council. Note that Councils liability for actions of MTW with regard to public roads and property is removed at various points by this approval.	Compliant																										
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:	MTW currently operates under the Blast Management Plan approved 26/08/2016	Compliant																										
	(a)	be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to carrying out any development under this consent;	BMP prepared in accordance with the Secretary. The Secretary's approval is in Preface of BMP. EPA consultation in Appendix A of the BMP. Rio Tinto letter and EPAs response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA.	Compliant																										
	(b)	describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;	Section 5 of the 2016 BMP.	Compliant																										
	(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;	Road closure management plan in Appendix D of the 2016 BMP. Consultation with Singleton Council and Roads and Maritime Services Road Occupancy Licenses are included in Appendix 1 and 2 of the Road Closure Management Plan. Singleton Council granted approval on 1 July 2016.	Compliant																										
	(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.	The Annual Review reports on blasting compliance with the assessment criteria. A blast impact assessment on Wambo Homestead, St Phillips Church and Bulga Bridge in Appendix G of the 2016 BMP. MTW Post blast fume generation mitigation and management plan is located in Appendix C of the BMP and directs the blasting process to assist in reducing blast fume at MTW. The application of the BFMP was discussed at interview with the Drill and Blast team and found to be compliant.	Compliant																										
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. <i>Table 5: Long term impact assessment criteria for particulate matter</i> <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> <i>Table 6: Short term impact assessment criterion for particulate matter</i> <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> <i>Table 7: Long term impact assessment criteria for deposited dust</i> <table border="1"><thead><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase^e in deposited dust level</th><th>Maximum total^f 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> <i>Notes to Tables 5-7</i>	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 ^e in deposited dust level	Maximum total ^f deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	During 2016, MTW complied with all short term and annual average air quality criteria. The annual average dust deposition did not exceed 4g/m ² /month at any monitoring locations. During 2016, all annual average insoluble matter deposition rates recorded on privately owned land were compliant with the long term impact assessment and land acquisition criteria. All monitoring locations also demonstrated compliance with the maximum allowable insoluble solids increase criteria of 2g/m ² /month. During the reporting period there were seven high volume air samples and one TEOM PM ₁₀ measurements exceeded the 24 hour short term impact assessment criteria during the reporting period. Each was investigated to determine the level of contribution from MTW activities in accordance with the compliance protocol outlined in the MTW Air Quality and Greenhouse Gas Management Plan. The DP&E were notified of each exceedance and an investigation undertaken. All recorded exceedances were determined to be compliant with the relevant criterion. All annual average PM ₁₀ concentrations recorded on privately owned land were compliant with the assessment criterion. Long Point PM ₁₀ recorded an annual average result of 21.6µg/m ³ , marginally exceeding the predicted annual average (16µg/m ³). Given prevailing winds in the Hunter Valley and the location of the monitor relative to MTW operations it is unlikely that the measured increases are a direct result of MTW activity.	Compliant			
Pollutant	Averaging period	^d Criterion																												
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		<i>Notes to Tables 5-7</i> • 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.																												

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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:	No exceedances within audit period	Not Triggered			
	(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;					
	(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;					
	(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					
	(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.					
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; 	BMP (including BFMP), AQMP, NGRS and NPI reporting, effective management of haul route length and vehicle maintenance.	Compliant			
	(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;	CRO and Env Staff review the Weather zone predictive reports and feed information back into operations.	Compliant			
	(c)	minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see notes to Tables 5-7 above); and	Equipment shutdown records.	Compliant			
	(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	MTW operates an air quality monitoring programme and TARP that is consistent with neighbouring mines. The air quality monitors measure air quality at receptors which includes particles from all sources (not just MTW). MTW also receives alerts triggered by the Upper Hunter Air Quality Monitoring network which measures ambient air quality. Coordination consists of as needs contact with Bulga and Wambo to share complaint information or real time data that indicates the level of dust emissions. This is reciprocated. Warkworth operate under the same Air Quality management system as Mount Thorley so there is no need for communication as actions and information transfer are consistent across the 2 operations. Hunter Valley Operations are presently 5km away from the Warkworth operation. HVO is operated by the same company and uses the same management system as MTW. There is an ability to communicate monitoring results with HVO.	Compliant			
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:	MTW currently operates under the 2016 AQMP, which was approved by DP&E 3/2/2016.	Compliant			
	(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;	AQMP prepared in accordance with the secretary. The Secretary's approval is in the Preface of the AQMP. The Secretary approved the AQMP on 03/02/2016. EPA consultation in Appendix C of the AQMP. Rio Tinto letter and EPAs response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA.	Compliant			
	(b)	describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;	Sections 6.3.1, 6.3.2, 6.3.3 of the 2016 AQMP	Compliant			
	(c)	describe the project air quality management system;	Section 6.3 of the 2016 AQMP	Compliant			
	(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;	Section 8.1.3 of the 2016 AQMP	Compliant			
	(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 	Air Quality Management Programme in Appendix A of the 2016 AQMP. proactive and reactive support in section 3-7 of Appendix A of the 2016 AQMP Effectiveness is inherent in the AQ results, reported in the AR. Compliance against operating conditions in Section 6 of Appendix	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
	(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.	Section 3.2 of the 2016 AQMP.	Compliant			
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:	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).	Compliant			
	(a)	complies with the requirement in the <i>Approved Methods for Sampling of Air Pollutant in New South Wales</i> guidelines; and	Calibration organisation provided evidence of compliance with the approved methods.	Compliant			
	(b)	is capable of continuous real-time measurement of temperature inversions in accordance with the <i>NSW Industrial Noise Policy</i> , unless a suitable alternative is approved by the Secretary following consultation with the EPA.	MTW used sigma theta, SODAR information was also used for modelling.	Compliant			
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. <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>	WMP and Water Balance in AR. Section 6.2 in 2016 WMP. No need to scale back operations due to lack of water in the audit period.	Compliant			
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 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: The Water Management Plan (see condition 25) is required to include trigger levels for investigation potentially adverse impacts on water supplies.</i>	None required in the audit period.	Not triggered			
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:		Compliant			
	(a)	discharge limits (both volume and quality) set for the development in any EPL; and	No Breaches in the audit period				
	(b)	relevant provisions of the POEO Act or <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i>	No HRSTS breaches in the audit period				
		<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>	Noted				
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.	No water was received from neighbouring mines in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																								
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	24	<p>The Applicant shall comply with the performance measures in Table 8 to the satisfaction of the Secretary.</p> <table border="1"> <caption>Table 8. 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These issues are reported by exception in the Annual Review. Both of these documents are submitted to the department.</p> <p>This was observed in the site inspection and written evidence was provided in the form of the water design for the Badlands Subsite Relocation design that showed clean water diversion and erosion and sediment controls.</p> <p>The segregation of clean and dirty water was observed in the site inspection. Clean water is diverted around the site (where possible). Written evidence was provided in the form of the clean water management designs for Abbey Green (at Mount Thorley).</p> <p>Mine water storages, site observation and the provision of the optioneering assessment for Dam 1N.</p> <p>Flood mitigation infrastructure, the warkworth pit has not advanced to the point where it could be flood affected but the Mount Thorley pit has relied on the Charlton Levee. The WMP states that the Charlton Levee is 3.5m higher than the predicted 100 year ARI design level. This levee has now been in place for a number of years. The levee has been designed to protect the site to the 500 year ARI. A Probable Maximum Flood study for Wollombi Brook has only recently been completed.</p> <p>The overburden emplacements and tailings storage facilities were reviewed during the site inspection. Design was discussed and the separation of sodic, saline and carbonaceous materials from the final design surface of the emplacement was confirmed. No evidence was sighted in the inspection to suggest any non-compliance with this. Direction for this lay in the MOP and supporting procedures.</p> <p>No evidence of unbanded hydrocarbons or other environmentally harmful chemicals were noted during the site inspection. No evidence of other risky chemical use in the site inspection.</p> <p>Loders Creek stream stability and health assessments were reported in the 2016 Annual Review.</p> <p>Recommendation - The flood study that determined the PMF in Wollombi Brook has only recently been completed (last quarter 2017). MTW will determine the Probable Maximum Flood (PMF) RL at the Charlton levee and ensure there is 500mm of freeboard (from PMF to levee top RL).</p>	Compliant			
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	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>	<p>MTW currently operates under the 2016 WMP, approval from DP&E is noted in the WMP.</p>	Compliant																									
	(a)	<p>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</p>	<p>WMP prepared in accordance with the secretary. The Secretary's approval is not included in the WMP. EPA consultation in Appendix A of the WMP. Rio Tinto letter and EPAS response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA. OEH and NOW (DPI - Water) Correspondence appended to the WMP.</p>	Compliant																									
	(b)	<p>in addition to the standard requirements for management plans (see condition 3 of schedule 5), include a:</p> <p>(i) Site Water Balance that:</p> <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 investigates and implements all reasonable and feasible measures to minimise water use on site; 	<p>The water balance is detailed in Sections 6.2, 6.3, 6.4 and 6.5 of the 2016 WMP.</p>	Compliant																									

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		(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; • 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 	Section 7.4 (7.4.1, 7.4.3of the 2016 WMP) This is described in other areas of the Water Management Plan including Sections 5.3 - Water Management Infrastructure, 6.0 - Water Balance, and Appendix B - Surface Water Monitoring Programme. Included in Section 7.5 of the 2016 WMP. No detailed plans or design objectives for final voids, these are generally not designed until remaining life of mine is 5 years. Performance criteria are listed and addressed in Section 9 of the Water management Plan and each of these items is addressed. Surface water monitoring programme is presented in Appendix B of the 2016 WMP (with very little detail), however it is adequate for the requirement listed in SSD 6465 and SSD6464 (at left). A plan to address Exceedance of the performance criteria is included in the Water management plan at Section 9.2	Not Compliant	E	4	Low																																																																																				
		(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; • 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. 	GMP refers to detailed baseline data on groundwater levels, yield and quality in the region in the EIS for the Warkworth Continuation (2014) and Mount Thorley Operations (2014). GW assessment criteria are detailed in Sections 8.3, 8.3.1, 8.3.2, 8.3.4, 8.3.5, 8.3.6 A groundwater monitoring program is included in Appendix C of the Water Management Plan. exceedances of groundwater assessment criteria in section 9.2. Validation of groundwater model in Section 8.4.	Compliant																																																																																							
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	26	Applicant shall protect the heritage items identified in Table 1 of Appendix 4. <i>Table 1: Aboriginal Cultural Heritage Sites to be Protected</i> 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] <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	There were no incidents nor any unauthorised disturbance caused to Aboriginal cultural heritage sites at MTW during 2016.	Not Triggered			
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Loaders Creek Aboriginal Cultural Heritage Conservation Area																																																																																											
	27	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 Loaders 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. <i>Note: The location of the conservation area is shown in the figure in Appendix 4.</i>	Draft conservation agreement prepared, no consultation yet conducted. Not submitted to the DP&I at the time of the audit.	Not Triggered																																																																																							

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan							
	28	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:	AHMP has been submitted (now MTW Complex Document) as a staged document (without the Loaders Creek Conservation Area Plan - still being developed.)	Compliant			
	(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;	Consultation details are included in the AHMP.	Compliant			
	(b)	include a detailed plan of management for the Loaders Creek Aboriginal Cultural Heritage Conservation Area;	Not yet completed (see C.27 above)	Not Triggered			
	(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. 	Included in the AHMP and salvage report Salvage report provided, aboriginal consultation evidence provided, no scar trees removed to date, evidence of site management provided. All detailed in assessment of the ACHMP.	Compliant			
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	Section 4 of the 2016 Annual review.	Compliant			
	(b)	make these records available on its website at the end of each calendar year.	Reports were available on the Rio Tinto website at the time of the audit.	Compliant			
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;	Section 6.6 of the 2016 Annual review.	Compliant			
	(b)	establish and maintain vegetated bunds, vegetative screening and/or screen fencing along the boundary of the site including adjoining public roads where appropriate;	MTW have maintained vegetated bunds, vegetative screening along the boundary of the site. Section 6.6 of the 2016 Annual review.	Compliant			
	(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	Lighting maps for dumps provided (used in tool box talks on mobile lighting management). The Visual Impact MP also addresses lighting impacts.	Compliant			
	(d)	monitor and report on the effectiveness of these measures.	Section 6.6 of the 2016 Annual review.	Compliant			
		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.	The Tree Screening Plan was developed in June 2016, site commencement was 15-02-16. At the time of the audit the works had commenced and the timing was verified at interview but not physical evidence could be provided to support the interview evidence. Subsequent to the audit additional evidence was provided in the form of a photo that was embedded in the Tree Screening Plan (timing) that showed the initial tree screening work along with the consultation with Singleton Council.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk								
					Consequence	Likelihood	Risk						
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> <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. 	<p>One request was made that did not proceed due to the resident declining any work being undertaken, inspection took place, study supplied as evidence.</p>	Compliant									
			Noted	Noted									
BUSHFIRE MANAGEMENT													
	32	The Applicant shall:											
	(a)	ensure that the development is suitably equipped to respond to any fires on site; and	Bushfire Management Plan supplied as evidence, also discussed at interview, there were trained firefighters at site and tankers and other equipment suitable for fire fighting.	Compliant									
	(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 required in the audit period	Not Triggered									
WASTE													
	33	The Applicant shall:											
	(a)	implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;	Remondis Waste reports supplied, summary in AR. Waste minimisation managed by the contractor and site training. Coal rejects and tailings minimised as a business management objective.	Compliant									
	(b)	ensure that the waste generated by the development is appropriately stored, handled and disposed of; and	Section 6.7 in the 2016 AR	Compliant									
	(c)	monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.	Section 6.7 in the 2016 AR	Compliant									
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.	Reported to DRE in the AR which details progress against the MOP plans.	Compliant									
		<p>Table 9: 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 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>	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 	Reported to DRE in the AR which details progress against the MOP plans.	Compliant			
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Progressive Rehabilitation																	
	35	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.	Progressive rehabilitation is reported on in the 2016 AR in section 8.3.	Compliant													
		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.	Noted														
Rehabilitation Management Plan																	
	36	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:	A Mining Operations Plan has been prepared to satisfy this condition. The DRE approved the MOP on 5 Jan 2016.	Compliant													
	(a)	be submitted to the DRE for approval prior to carrying out any development under this consent;	A Mining Operations Plan has been prepared to satisfy this condition. The DRE approved the MOP on 5 Jan 2016.	Compliant													
	(b)	be prepared in consultation with the Department, NOW, OEH, Council and the CCC;	Section 1.4.4 of the MOP details consultation	Compliant													
	(c)	be prepared in accordance with any relevant DRE guideline, including any NSW government policy regarding voids;	Prepared in accordance with the MOP guidelines, no new policy on voids was available at the time of the audit	Compliant													
	(d)	include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);	The MOP includes these details and they are reported in in the ARs.	Compliant													
	(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;	Implementation is in section 11.2 of the MOP.	Compliant													
	(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;	The MOP is inherently a closure document as it guides rehabilitation and decommissioning.	Compliant													
	(g)	include interim rehabilitation where necessary to minimise the area exposed for dust generation;	This is conducted at the site and included in the MOP	Compliant													
	(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	Section 8 of the MOP	Compliant													
	(i)	build to the maximum extent practicable on the other management plans required under this consent.	Noted	Noted													

Reference	Condition	Requirement	Evidence	Audit Finding	Risk				
					Consequence	Likelihood	Risk		
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: <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; 	An example letter and template of letter was supplied that was issued to land owners. Letters were issued on 18/12/2015. An email to confirm was supplied.	Compliant					
	(b)	notify the tenants of any mine-owned land of their rights under this consent (see condition 16 of schedule 3); and	Letter of notification provided as evidence	Compliant					
	(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.	Fact sheets were issued to residences on 18/12/2015.	Compliant					
	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	Letter with "Mine Dust and You" attached provided as evidence.	Compliant					
	(b)	advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary.	Letter includes notification of rights under the approval.	Compliant					
	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	None in the audit period	Not Triggered					
	(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).	None in the audit period	Not Triggered					
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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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; identify the measures that could be implemented to ensure compliance with the relevant criteria; and 	None in the audit period	Not Triggered					
	(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.							

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
LAND ACQUISITION							
	5	<p>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:</p> <p>(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:</p> <ul style="list-style-type: none"> 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; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> 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 <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <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>	<p>The Applicant made a written offer to the landowner within 3 months of receipt of written request, letters of offer supplied as evidence.</p> <p>One acquisition followed through from notification through to letter requesting acquisition, letter of offer, acceptance letter.</p> <p>No relocation fee required as property was not a residence for the owners.</p> <p>Legal fees offered as a lump sum.</p> <p>The property was purchased.</p>	<p>Compliant</p> <p>Compliant</p>			
	6	<p>The Applicant shall pay all 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.</p>	<p>Noted, see above comments</p>	<p>Compliant</p>			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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:	DPE approval noted in Document	Compliant			
	(a)	be submitted to the Secretary for approval prior to carrying out any development under this consent;	DPE approval noted in Document	Compliant			
	(b)	provide the strategic framework for environmental management of the development;	Section 2 of the EMS	Compliant			
	(c)	identify the statutory approvals that apply to the development;	Section 3 of the EMS	Compliant			
	(d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 5 of the EMS	Compliant			
	(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 	Section 4 of the EMS. Each procedure is addressed in a separate plan identified in Table 3 of the EMS.	Compliant			
	(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. 	A list of strategies, plans and programs are shown in Table 4 of the EMS. Monitoring programs in Section 6 and shown in figures 6 to 16 in the EMS.	Compliant			
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:	See trigger and response plans in management plans There was no such direction by the Secretary in the audit period.	Compliant			
	(a)	take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;					
	(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					
	(c)	implement remediation measures as directed by the Secretary.					
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:	Reviewed in the assessment of each of the management plans.	Compliant			
	(a)	detailed baseline data;					
	(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; 					
	(c)	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;					
	(d)	a program to monitor and report on the: <ul style="list-style-type: none"> • impacts and environmental performance of the development; • effectiveness of any management measures (see c above); 					
	(e)	a contingency plan to manage any unpredicted impacts and their consequences;					
	(f)	a program to investigate and implement ways to improve the environmental performance of the development over time;					
	(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 					
	(h)	a protocol for periodic review of the plan.					
		Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	Noted				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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:	AR completed by March 2017.	Compliant			
	(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;	Executive Summary of the 2016 AR.	Compliant			
	(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; 	Section 6 of the 2016 AR, 6.2, 6.3, 6.4, 6.5, 6.7. Section 7 of the 2016 AR, 7.1, 7.2, 7.3 Section 8 - rehabilitation	Compliant			
	(c)	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	Section 11 of the 2016 AR	Compliant			
	(d)	identify any trends in the monitoring data over the life of the development;	Trends were included in the discussion of monitoring results in the AR	Compliant			
	(e)	identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	Comparisons with EA predictions were included in the AR	Compliant			
	(f)	describe what measures will be implemented over the next year to improve the environmental performance of the development.	Section 12 of the 2016 AR	Compliant			
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 	All of the MPs were assessed for currency and update triggers and no non-compliances were identified. A schedule showing when MPs were reviewed was provided to allow verification of review on trigger.	Compliant			
	(b)	any modification to the conditions of this consent (unless the conditions require otherwise), or					
	(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.					
		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: 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>	All the MPs were reviewed for the SSD approvals, the majority of the management plans had timing for resubmission specified in the approvals. AH MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 21-01-2016 AQ MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 1-02-2016 Biodiversity MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 29-01-2016 AQMP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 1-02-2016 Blast MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 21-01-2016 (revised again 26-08-16 for Road Closure changes) Blast Fume MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 15-01-2016 EMS Reviewed for SSD approvals 31-12-16 but not revised, reviewed again 31-03-17. Noise MP Reviewed for SSD approvals 26-11-15 Submitted 29-11-16 and Resubmitted (post DP&E Comments) 21-01-2016 The noise MP was reviewed in March June and September in 2016, again for the SSD which covers all the low frequency exceedances Water MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 1-02-2016	Compliant			
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.	A CCC is operating quarterly	Compliant			
		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. 	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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.	Incident reports, EPA and Secretary correspondence was supplied for three incidents that occurred in 2016.	Compliant			
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.	AR and monthly environmental reports that include EPL and MMR report data.	Compliant			
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:	Independent Environmental Audit completed in May 2017.	Compliant			
	(a)	be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Team approval appended to audit report	Compliant			
	(b)	include consultation with the relevant agencies;	Consultation in audit report	Compliant			
	(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 the audit report	Compliant			
	(d)	review the adequacy of strategies, plans or programs required under the above mentioned approvals; and	See the audit report	Compliant			
	(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 the audit report	Compliant			
		<i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i>	See the audit report	Compliant			
	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.	Not triggered at the time of the audit	Not triggered			
ACCESS TO INFORMATION							
	11	The Proponent must: (a) make the following information publicly available on its website: <ul style="list-style-type: none"> the documents listed in condition 2 of Schedule 2; current statutory approvals for the project; approved strategies, plans or programs required under the conditions of this approval; 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; a complaints register, which is to be updated on a monthly basis; minutes of CCC meetings; the last five annual reviews; any independent environmental audit; and the Proponent's response to the recommendations in any audit; any other matter required by the Secretary; and (b) keep this information up to date;	Available on Rio Tinto's website or the Insite website Complaints register on the website CCC Minutes have not been updated since late 2016, at the time of the audit but there had been no meetings in that period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
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	Noted	Noted			
	(b)	stability category F temperature inversion conditions and wind speeds greater than 2 m/sat 10m above ground level; or	Noted	Noted			
	(c)	stability category G temperature inversion conditions.	Noted	Noted			
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.	Noted	Noted			
Compliance Monitoring							
	3	Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.	Noted				
	4	This monitoring must be carried out at least 12 times a year, unless the Secretary directs otherwise.	2016 Annual review notes 92 monitoring events.	Compliant			
	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:	The Noise Monitoring reports confirm compliance with the INP.	Compliant			
	(a)	monitoring locations for the collection of representative noise data;	The Noise Monitoring reports reflect the monitoring locations shown in the NMP	Compliant			
	(b)	meteorological conditions during which collection of noise data is not appropriate;	The Noise Monitoring reports note meteorological conditions at the time of measurement	Compliant			
	(c)	equipment used to collect noise data, and conformance with Australian Standards relevant to such equipment; and	The Noise Monitoring reports confirm compliance with the INP.	Compliant			
	(d)	modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for: • duration; or • low frequency noise, where it is demonstrated that the dBC - dBA noise difference is caused by distance attenuation only.	The Noise Monitoring reports confirm compliance with the INP.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Warkworth Continuation Project (SSD-6464), 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.	Noted	Noted			
Terms of Consent							
	2	The Applicant shall carry out the development:					
	(a)	generally in accordance with the EIS; and	See section regarding EIS, one minor non-compliance	Compliant			
	(b)	in accordance with the conditions of this consent	See compliance below for this requirement	Noted			
	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.	Noted	Noted			
	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;	Found generally compliant in this audit	Compliant			
	(b)	any reports, reviews or audits commissioned by the Department regarding compliance that are submitted in accordance with this consent;	Found generally compliant in this audit	Compliant			
	(c)	the implementation of any actions or measures contained in these documents.	Found generally compliant in this audit	Compliant			
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. <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>	Commencement of development 15 February 2016, this clause therefore applies at 15 February 2036.	Not Triggered			
Coal Extraction							
	6	The Applicant shall not extract more than 18 million tonnes of ROM coal from the Mt Thorley mine in a calendar year.	2015 AR shows coal production was within limits and predicted coal production for 2016 was below limits.	Compliant			
Coal Transport							
	7	The Applicant Shall:					
	(a)	not transport any coal produced at the development by public road; and	There are no facilities to load out coal for road transport	Compliant			
	(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	All coal goes to the coal loader, it is the only reasonable way to get coal offsite.	Compliant			
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	Letter dated 3rd Feb 2016, commencement date 15th Feb 2016.	Compliant			
	(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.	Sighted letter from DP&E 8th Feb 2016 notifying MTW that all required documentation was in place.	Compliant			
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.	Not all landowners within the consent boundaries had signed off on the surrender in time to meet this requirement. Letter sent to department but MTW seeking extension, response from Department (28-07-16) no deadline was given with this letter. The letter noted that older consents had also not been signed off and surrendered.	Not Triggered			
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. <i>Notes:</i> • 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.	No new buildings in the audit period. BCA compliance not required.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Warkworth Continuation Project (SSD-6464), 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.	Noted	Noted			
Terms of Consent							
	2	The Applicant shall carry out the development:					
	(a)	generally in accordance with the EIS; and	See section regarding EIS, one minor non-compliance	Compliant			
	(b)	in accordance with the conditions of this consent	See compliance below for this requirement	Noted			
	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.	Noted	Noted			
	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;	Found generally compliant in this audit	Compliant			
	(b)	any reports, reviews or audits commissioned by the Department regarding compliance that are submitted in accordance with this consent;	Found generally compliant in this audit	Compliant			
	(c)	the implementation of any actions or measures contained in these documents.	Found generally compliant in this audit	Compliant			
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. <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>	Commencement of development 15 February 2016, this clause therefore applies at 15 February 2036.	Not Triggered			
Coal Extraction							
	6	The Applicant shall not extract more than 18 million tonnes of ROM coal from the Mt Thorley mine in a calendar year.	2015 AR shows coal production was within limits and predicted coal production for 2016 was below limits.	Compliant			
Coal Transport							
	7	The Applicant Shall:					
	(a)	not transport any coal produced at the development by public road; and	There are no facilities to load out coal for road transport	Compliant			
	(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	All coal goes to the coal loader, it is the only reasonable way to get coal offsite.	Compliant			
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	Letter dated 3rd Feb 2016, commencement date 15th Feb 2016.	Compliant			
	(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.	Sighted letter from DP&E 8th Feb 2016 notifying MTW that all required documentation was in place.	Compliant			
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.	Not all landowners within the consent boundaries had signed off on the surrender in time to meet this requirement. Letter sent to department but MTW seeking extension, response from Department (28-07-16) no deadline was given with this letter. The letter noted that older consents had also not been signed off and surrendered.	Not Triggered			
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. <i>Notes:</i> • 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.	No new buildings in the audit period. BCA compliance not required.	Not Triggered			

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.	No demolition works in the audit period	Not Triggered			
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	No damage or repairs required in the audit period.	Not Triggered			
	(b)	relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. <i>Note: This condition does not apply too 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>	No relocations apart from the Putty Road underpass which is funded by MTW and approved by RMS Noted	Not Triggered Noted			
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	No evidence of poorly maintained equipment in the site inspection or in the documentation	Compliant			
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	Only the Biodiversity Management Plan, is planned to be submitted this way. Initial submission is completed subsequent submissions will occur as the completion criteria are established for the WSW and Ironbark Woodland habitat establishment activities.	Compliant			
	(b)	combine any strategy, plan or program required by this consent with any similar strategy, plan or program required for the Mt Thorley mine.	All management plans are for both sites	Compliant			
		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	Noise Management Plan has been updated for the new noise limits.	Compliant			
		<i>Notes:</i> • 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.	Site operated/operates under approved management plans until new ones were/will be approved.	Compliant			
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					
	(b)	the terms of Applicant's offer in its letter to the Department dated 4 May 2015 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>	VPA is currently with Council for approval. MTW have completed the portion of works. DP&E have given one extension, application for extension has been submitted.	Not Triggered			

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 & 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><i>Note: To interpret the land referred to in Table 1, see the applicable figures in Appendix 3.</i></p>	Acquisition Basis	Land	Noise & Air	77, 102, D, E, F	Noise	34, 81, 148, 150, 190, 192, J	Air	A, B	J and F have either gone through the process of acquisition or are in it.	Compliant																																																																																																	
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Air	A, B																																																																																																												
	2	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.	not Triggered in audit period.	Not Triggered																																																																																																									
NOISE																																																																																																													
Noise Criteria																																																																																																													
	3	<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><i>Notes:</i></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. 	Noted	Noted																																																																																																									
	4	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.	Noted	Noted																																																																																																									
	4	<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 (LAeq(15min))</th> <th>Evening (LAeq(15min))</th> <th>Night (LAeq(15min))</th> <th>Night (LA1(1 min))</th> </tr> </thead> <tbody> <tr> <td rowspan="5">Bulga</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, 74, 80, 84, 89, 215, 234, 235, 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, 26, 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 rowspan="2">Mitrodale</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>111</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td rowspan="2">Warkworth</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>All other residences on privately owned land</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td rowspan="2">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>126, 262</td> <td>38</td> <td>38</td> <td>38</td> <td>48</td> </tr> <tr> <td rowspan="2">Gouldsville, Long Point</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>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">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>148</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td rowspan="3">Mt Thorley</td> <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 (LAeq(15min))	Evening (LAeq(15min))	Night (LAeq(15min))	Night (LA1(1 min))	Bulga	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, 74, 80, 84, 89, 215, 234, 235, 237, 238, 243, 254, 903, 917, 918, 919, 929	38	38	38	48	18, 20, 22, 23, 26, 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	Mitrodale	All other residences on privately owned land	35	35	35	45	111	37	37	37	47	Warkworth	All other residences on privately owned land	35	35	35	45	All other residences on privately owned land	38	38	38	48	Maison Dieu	All other residences on privately owned land	35	35	35	45	126, 262	38	38	38	48	Gouldsville, Long Point	All other residences on privately owned land	35	35	35	45	All other residences on privately owned land	35	35	35	45	Hambledon Hill/ Wylies Flat	All other residences on privately owned land	35	35	35	45	148	39	39	39	49	Mt Thorley	190	38	38	38	48	150	37	37	37	47	All other residences on privately owned land	35	35	35	45	<p>2016 Annual Review notes the application of the modifying factor results in two exceedances of the WML LAeq Acquisition Criteria . However MTW does not consider these instances to constitute non-compliance with the conditions of approval. They were reported to DP&E and no action was taken. Section 6.2.4 of the 2016 Annual Review.</p> <p>In leaving this item compliant, the auditor sought advice from noise specialists in Jacobs who were generally in agreement with MTW's assertion that the low frequency penalty as applied by the INP was a flawed approach when the receptor was at a significant distance from the noise source (currently receptors are at @ >2.5km from source).</p>	Compliant		
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		<p>Note: 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 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.</p>	Noted	Noted																																																																																																									

ADDITIONAL NOISE MITIGATION MEASURES UPON REQUEST												
	5	<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> <table border="1"> <caption>Table 2: Land subject to additional mitigation upon request</caption> <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 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>. 	Mitigation Basis	Characterisation of Impact	Land	Noise	Moderate	12, 14, 15, 126, 128, 130, 139, 152, 183, 191, 192, 217, 262, 263	Letters notifying property owners of rights under consent sent.	Compliant		
Mitigation Basis	Characterisation of Impact	Land										
Noise	Moderate	12, 14, 15, 126, 128, 130, 139, 152, 183, 191, 192, 217, 262, 263										
			Noted	Noted								
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;	The Noise Management Plan provides direction on these issues. MTW's use and maintenance of sound attenuation equipment on heavy mining equipment provides noise control at the source. Sound attenuation was targeted at low frequency noise sources. MTW utilise personnel (Community Response Officers) to undertake proactive and reactive noise monitoring in the neighbouring communities. Noise measurements undertaken by the CRO's (and the real-time noise monitoring system) utilise instrumentation capable of distinguishing noise levels in the lower frequency spectrum (<1000Hz). CRO attended monitoring data is published publically daily on https://insite.yancoal.com.au and includes details on operational changes when these are required. MTW also utilises weather enhancement forecasts as required to guide/change/monitor in areas that are forecast to be as enhancing. MTW Noise enhancement prediction reports were provided as evidence.	Compliant								
	(b)	operate a comprehensive noise management system on suite 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;	Sighted report to Community Response Officers (CROs). Due to west facing dups proactive measures are difficult but the site does apply the predicted conditions where possible and to particularly noisy operations.	Compliant								
	(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	CRO Reports and forecasts provided, Equipment downtime provided, interview discussion around noise impacts and equipment relocation and downtime.	Compliant								
	(d)	ensure that: <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 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 	At the end of 2016 all equipment expect some minor exceptions that were not operating on the site were sound attenuated and the site has only used sound attenuated equipment since	Compliant								
	(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	CROs conduct supplementary noise monitoring and feedback the results to OCEs who adjust operations if required.	Compliant								
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:	MTW currently operate under the Noise Management Plan approved 21/09/2016.	Compliant								
	(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;	NMP prepared in accordance with the Secretary. The Secretary's approval is in Preface of NMP. EPA consultation in Appendix B of the NMP. Rio Tinto letter and EPAs response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA.	Compliant								
	(b)	describe the measures that would be implemented to ensure compliance with the relevant noise criteria and operating conditions of this consent;	Section 6 of the NMP describes the mitigation measures	Compliant								
	(c)	describe the proposed noise management system in detail;	Section 6 of the NMP describe the standard, proactive and reactive measures that make up the Noise Management System.	Compliant								
	(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 <i>NSW Industrial Noise Policy</i>), including regular briefings and a public information session within 6 months of granting this development consent;	17 May 2016, regular briefings through the CCC. Near neighbour engagement plan details planned community engagement.	Compliant								

	(e)	<p>include a noise monitoring program that:</p> <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 4(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. 	<p>"The noise management plan and noise monitoring programme specify the use of both real-time and attended monitoring for the management of noise. The real-time monitors provide a trigger for attended monitoring, with the attended monitoring used to validate the level recorded by the real-time monitor. Note in this context we interpret the word "calibrate" to mean correlation of real-time and attended noise data. Calibrating the noise monitor must be done against a standard and would be improper to adjust the accuracy of a directional monitor based on the results of attended monitoring. The validation and correlation of monitoring results has occurred on a nightly basis since MTW employed the services of Community Response Officers in 2013 to undertake supplementary attended monitoring. The use of supplementary attended monitoring formally became part of MTW's noise management plan in 2014. The primary reason for commencing supplementary attended monitoring was based on the limitation of Barnowl monitors to consistently and correctly assign directional mine only noise levels due to other competing noise sources. At this time MTW also installed a state of the art Noise Compass which has much greater capacity to resolve level and direction of noise from multiple sources. As a result of these substantive and industry leading changes to its noise management plan, MTW has not recorded a noise non-compliance since Q1 2013. This would demonstrate that the programme in place to continuously validate real-time monitors using supplementary attended monitoring is adequately managing risk of non-compliance with noise criteria in the consent. It would also demonstrate that this programme is consistent with the intent of condition 7 (e) to ensure MTW have an operational noise monitoring programme in place that supports compliance with noise criteria. The MTW Noise Management Plan was last approved by DP&E on 2 February 2018, which was the eighth version approved by DP&E following the granting of SSD6464, including condition 7 (e). " Message from Coal & Allied to DPE in 2018. The auditor agreed, in general, with the content of this message.</p> <p>Noise monitoring program is located in Appendix A of the 2016 NMP. The evaluation and reporting noted is present in the 2016 Annual Review. The program to calibrate was demonstrated by the provision of a Global Acoustics report "Real Time Data Analysis - Krey Property". This report compared real time results with the assessment criteria and also with attended monitoring results. Appendix A defines a noise incident.</p>	Compliant			
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Blasting																		
Blasting Criteria																		
	8	<p>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.</p> <table border="1"> <caption>Table 4: Blasting criteria</caption> <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	<p>During the 2016 reporting period there were no occasions where the overpressure criterion of 120dB or the ground vibration criterion of 10mm/s for private residences was exceeded. All results in 2016 returned results below the relevant airblast overpressure/ground vibration criteria for all monitoring locations.</p>	Compliant			
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																		
	9	<p>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.</p>	<p>None in the audit period. Blast register and road closure records confirms compliance with this requirement</p>	Not Triggered														
Blasting Frequency																		
	10 (a)	<p>The Applicant may carry out a maximum of: 2 blasts a day; and</p>	<p>In the 2016 reporting period there were 321 blast events, which does not exceed 2 blasts a day and 6 blasts a week, averaged over a calendar year. Blast register and road closure records confirms compliance with this requirement.</p>	Compliant														

	(b)	6 blasts a week, averaged over a calendar year, at the site. 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>Notes:</i> <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. 	In the 2016 reporting period there were 321 blast events, which does not exceed 2 blasts a day and 6 blasts a week, averaged over a calendar year. Blast register and road closure records confirms compliance with this requirement	Compliant			
			Noted	Noted			
			Noted	Noted			
	11	The Applicant shall not carry out more than 1 blast a day within 500 metres of the Putty Road/ and or Golden Highway.	Blast register and road closure records confirms compliance with this requirement	Compliant			
Property Inspections							
	12	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.	No requests in the audit period	Not Triggered			
	(a)	Commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to: <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 measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and 	No requests in the audit period	Not Triggered			
	(b)	give the landowner a copy of the new or updated property inspection report.	No requests in the audit period	Not Triggered			
		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.	No requests in the audit period	Not Triggered			
Property Investigations							
	13	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:	Two claims of damage in the audit period. One was fixed/repared to avoid the need for a report. The other property is 5 km away, MTW are continuing negotiations with this party and will fund a baseline condition report.	Compliant			
	(a)	commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and	Noted	Not Triggered			
	(b)	give the landowner a copy of the property investigation report.	Noted	Not Triggered			
		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.	Noted	Not Triggered			
Operating Conditions							
	14	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; 	No grazing against current operation boundaries, this has been allocated as buffer land. There is a 500 m exclusion zone to protect people and property. Blast MP and Fume MP enforce the exclusion zone around each blast and this was discussed in the site interviews.	Compliant			
	(b)	ensure that blasting on the site does not damage any historical heritage sites;	The 2016 BMP notes a vibration limit of 5mm/sec for St. Phillip's Church. It was determined that ground vibration levels from MTW blasts will not reach a level to damage these structures or approach the vibration limit (5mm/s) for other mining operations which are in a closer proximity. To ensure MTW blasts do not approach the criteria of 5mm/s limit with a 5% allowable exceedances during a 12 month period, there will be an internal threshold of 4 mm/s.	Compliant			

	(c)	minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods; and	This is managed by the road closure MP. At interview during the site inspection, the length of road closures was discussed as was the methods to keep road closure times to a minimum. It was noted that some members of the public had sought to interfere in the Road Closure Process through secreting themselves in roadside vegetation thereby delaying the blast and extending the time the road was closed. The actions taken by MTW were described and though the closure period on that occasion was longer than the Road Closure Management Plan prescribed (on these occasions), the auditor felt that all feasible measures to reduce the amount of time the road was closed had been implemented as detailed in the road closure plan. Other instances of extended road closures are due to protection of the public using the road. e.g. when dust from a blast is slow moving or wind changes direction blowing it back towards a road following reopening of the road.	Compliant			
	(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.	The Blasting Hotline is updated on the morning of each day on which there is a scheduled road closure and can be reached on (free call) 1800 099 669. The hotline will advise of a one hour window for the proposed road closure (e.g. between 10am and 11am). The blasting hotline number will be advertised in road closure notifications placed in local print media, as well as MTW's Daily Report website.	Compliant			
		<i>Note: To identify the historic heritage sites referred to in this condition, see the applicable figure in Appendix 4</i>	Noted	Noted			
	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.	Road closure plan is provided to Council for review and this constitutes the agreement with Council. Note that Councils liability for actions of MTW with regard to public roads and property is removed at various points by this approval.	Compliant			
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:	MTW currently operates under the Blast Management Plan approved 26/08/2016				
	(a)	be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to carrying out any development under this consent;	BMP prepared in accordance with the Secretary. The Secretary's approval is in Preface of BMP. EPA consultation in Appendix A of the BMP. Rio Tinto letter and EPAs response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA.	Compliant			
	(b)	describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;	Section 5 of the 2016 BMP.	Compliant			
	(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;	Road closure management plan in Appendix D of the 2016 BMP. Consultation with Singleton Council and Roads and Maritime Services Road Occupancy Licenses are included in Appendix 1 and 2 of the Road Closure Management Plan. Singleton Council granted approval on 1 July 2016.	Compliant			
	(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.	The Annual Review reports on blasting compliance with the assessment criteria. A blast impact assessment on Wambo Homestead, St Phillips Church and Bulga Bridge in Appendix G of the 2016 BMP. MTW Post blast fume generation mitigation and management plan is located in Appendix C of the BMP and directs the blasting process to assist in reducing blast fume at MTW. The application of the BFMP was discussed at interview with he Drill and Blast team and found to be compliant.	Compliant			

AIR QUALITY																														
Air Quality Criteria																														
	17	<p>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.</p> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^e 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 6: Short term impact assessment criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^e 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase^c in deposited dust level</th> <th>Maximum total^f 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> <p><i>Notes to Tables 5-7</i></p> <p><i>Notes to Tables 5-7</i></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	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^e 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^e 50 µg/m ³	Pollutant	Averaging period	Maximum increase ^c in deposited dust level	Maximum total ^f deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	<p>During 2016, MTW complied with all short term and annual average air quality criteria. The annual average dust deposition did not exceed 4g/m²/month at any monitoring locations. During 2016, all annual average insoluble matter deposition rates recorded on privately owned land were compliant with the long term impact assessment and land acquisition criteria. All monitoring locations also demonstrated compliance with the maximum allowable insoluble solids increase criteria of 2g/m²/month.</p> <p>During the reporting period there were seven high volume air samples and one TEOM PM10 measurements exceeded the 24 hour short term impact assessment criteria during the reporting period. Each was investigated to determine the level of contribution from MTW activities in accordance with the compliance protocol outlined in the MTW Air Quality and Greenhouse Gas Management Plan. The DP&E were notified of each exceedance and an investigation undertaken. All recorded exceedances were determined to be compliant with the relevant criterion. All annual average PM10 concentrations recorded on privately owned land were compliant with the assessment criterion.</p> <p>Long Point PM10 recorded an annual average result of 21.6µg/m³, marginally exceeding the predicted annual average (16µg/m³). Given prevailing winds in the Hunter Valley and the location of the monitor relative to MTW operations it is unlikely that the measured increases are a direct result of MTW activity.</p>	Compliant			
Pollutant	Averaging period	^d Criterion																												
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																												
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Mine owned Land																														
	18	<p>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:</p> <p>(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;</p> <p>(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;</p> <p>(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</p> <p>(d) data 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.</p>	No exceedances within audit period	Not Triggered																										
Operating conditions																														
	19	<p>The Applicant shall:</p> <p>(a) implement all reasonable and feasible measures to minimise the:</p> <ul style="list-style-type: none"> odour, fume and dust emissions of the development; and release of greenhouse gas emissions from the development; <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;</p> <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</p> <p>(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</p>	<p>BMP (Including BFMP), AQMP, NGERs and NPI reporting, effective management of haul route length and vehicle maintenance. See Condition 16 d) above.</p> <p>CRO and Env Staff review the Weather zone predictive reports and feed information back into operations.</p> <p>Equipment shutdown records.</p> <p>MTW operates an air quality monitoring programme and TARP that is consistent with neighbouring mines. The air quality monitors measure air quality at receptors which includes particles from all sources (not just MTW). MTW also receives alerts triggered by the Upper Hunter Air Quality Monitoring network which measures ambient air quality. Coordination consists of as needs contact with Bulga and Wambo to share complaint information or real time data that indicates the level of dust emissions. This is reciprocated. Warkworth operate under the same Air Quality management system as Mount Thorley so there is no need for communication as actions and information transfer are consistent across the 2 operations. Hunter Valley Operations are presently 5km away from the Warkworth operation. HVO is operated by the same company and uses the same management system as MTW. There is an ability to communicate monitoring results with HVO.</p>	Compliant	Compliant	Compliant	Compliant																							

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:	MTW currently operates under the 2016 AQMP, which was approved by DP&E 3/2/2016.	Compliant			
	(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;	AQMP prepared in accordance with the secretary. The Secretary's approval is in the Preface of the AQMP. The Secretary approved the AQMP on 03/02/2016. EPA consultation in Appendix C of the AQMP. Rio Tinto letter and EPAs response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA.	Compliant			
	(b)	describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;	Sections 6.3.1, 6.3.2, 6.3.3 of the 2016 AQMP	Compliant			
	(c)	(b) describe the project air quality management system;	Section 6.3 of the 2016 AQMP	Compliant			
	(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;	Section 8.1.3 of the 2016 AQMP	Compliant			
	(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 	Air Quality Management Programme in Appendix A of the 2016 AQMP. proactive and reactive support in section 3-7 of Appendix A of the 2016 AQMP Effectiveness is inherent in the AQ results, reported in the AR. Compliance against operating conditions in Section 6 of Appendix	Compliant			
	(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.	Section 3.2 of the 2016 AQMP.	Compliant			
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:	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).	Compliant			
	(a)	complies with the requirement in the <i>Approved Methods for Sampling of Air Pollutant in New South Wales</i> guidelines; and	Calibration organisation provided evidence of compliance with the approved methods.	Compliant			
	(b)	is capable of continuous real-time measurement of temperature inversions in accordance with the <i>NSW Industrial Noise Policy</i> , unless a suitable alternative is approved by the Secretary following consultation with the EPA.	Uses sigma theta, SODAR information is also used for modelling.	Compliant			
WATER							
Water Supply							
	22	The Applicant shall ensure that is has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply. <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>	WMP and Water Balance in AR. Section 6.2 in 2016 WMP. No need to scale back operations due to lack of water in the audit period.	Compliant			

Compensatory Water Supply																							
	23	<p>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 a result of the development. This supply must be provided in consultation with NOW, and to the satisfaction of the Secretary.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><i>Note: The Water Management Plan (see condition 25) is required to include trigger levels for investigation potentially adverse impacts on water supplies.</i></p>	None required in the audit period.	Not triggered																			
			Noted	Noted																			
Water Discharges																							
	24	Unless an EPL or the EPA authorises otherwise, the Applicant shall ensure that all surface water discharges from the site comply with the:	6th January 2016. dam overtop uncontrolled discharge.	Not Compliant	D	2	Medium																
	(a)	discharge limits (both volume and quality) set for the development in any EPL; and	7th January 2016. dam overtop uncontrolled discharge.																				
	(b)	relevant provisions of the POEO Act or <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i>	No HRSTS breaches in the audit period																				
		<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>	Noted																				
Water Transfers																							
	25	The Applicant may receive water from, and transfer water to, the Warkworth mine, Bulga mine, Hunter Valley Operations mine and Redbank Power Station.	No water was received from neighbouring mines in the audit period.	Not Triggered																			
Water Management Performance Measures																							
	26	<p>The Applicant shall comply with the performance measures in Table 8 to the satisfaction of the Secretary.</p> <table border="1"> <caption>Table 8: Water management performance measures</caption> <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 <i>Volume 1, Volume 2A – Installation of Services and Volume 2C – 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 and 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 Wollombi 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> </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 <i>Volume 1, Volume 2A – Installation of Services and Volume 2C – 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? 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These issues are reported by exception in the Annual Review. Both of these documents are submitted to the department.</p> <p>This was observed in the site inspection and written evidence was provided in the form of the water design for the Badlands Subsite Relocation design that showed clean water diversion and erosion and sediment controls.</p> <p>The segregation of clean and dirty water was observed in the site inspection. Clean water is diverted around the site (where possible). Written evidence was provided in the form of the clean water management designs for Abbey Green (at Mount Thorley).</p> <p>Mine water storages, site observation and the provision of the optioneering assessment for Dam 1N.</p> <p>Flood mitigation infrastructure, the Warkworth pit has not advanced to the point where it could be flood affected but the Mount Thorley pit has relied on the Charlton Levee. The WMP states that the Charlton Levee is 3.5m higher than the predicted 100 year ARI design level. This levee has now been in place for a number of years. The levee has been designed to protect the site to the 500 year ARI. A Probable Maximum Flood study for Wollombi Brook has only recently been completed.</p> <p>The overburden emplacements and tailings storage facilities were reviewed during the site inspection. Design was discussed and the separation of sodic, saline and carbonaceous materials from the final design surface of the emplacement was confirmed. No evidence was sighted in the inspection to suggest any non-compliance with this. Direction for this lay in the MOP and supporting procedures.</p> <p>No evidence of unbanded hydrocarbons or other environmentally harmful chemicals were noted during the site inspection. No evidence of other risky chemical use in the site inspection.</p> <p>Loders Creek stream stability and health assessments were reported in the 2016 Annual Review.</p> <p>Recommendation - The flood study that determined the PMF in Wollombi Brook has only recently been completed (last quarter 2017). MTW will determine the Probable Maximum Flood (PMF) RL at the Charlton levee and ensure there is 500mm of freeboard (from PMF to levee top RL).</p>	Compliant			
Feature	Performance Measure																						
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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:	MTW currently operates under the 2016 WMP, approval from DP&E is noted in the WMP.	Compliant			
	(a)	be prepared in consultation with the EPA, NOW and OEI and submitted to the Secretary for approval prior to carrying out any development under this consent; and	WMP prepared in accordance with the secretary. The Secretary's approval is not included in the WMP. EPA consultation in Appendix A of the WMP. Rio Tinto letter and EPA's response letter noting the EPA does not wish to be consulted with on the drafting and/or review of management plans and are not to be directly involved in the development of strategies to achieve the objectives set by the EPA. OEI and NOW (DPI - Water) Correspondence appended to the WMP.	Compliant			
	(b)	in addition to the standard requirements for management plans (see condition 3 of schedule 5), include a:					
		(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 • investigates and implements all reasonable and feasible measures to minimise water use on site; 	Included in Sections 6.2, 6.3, 6.4 and 6.5 of the 2016 WMP.	Compliant			
		(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; • 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 	<p>Section 7.4 (7.4.1, 7.4.3of the 2016 WMP) This is described in other areas of the Water Management Plan including Sections 5.3 - Water Management Infrastructure, 6.0 - Water Balance, and Appendix B - Surface Water Monitoring Programme. Included in Section 7.5 of the 2016 WMP.</p> <p>No detailed plans or design objectives for final voids, these are generally not designed until remaining life of mine is 5 years.</p> <p>Performance criteria are listed and addressed in Section 9 of the Water management Plan and each of these items is addressed.</p> <p>Surface water monitoring programme is presented in Appendix B of the 2016 WMP (with very little detail), however it is adequate for the requirement listed in SSD 6465 and SSD6464 (at left).</p> <p>A plan to address Exceedance of the performance criteria is included in the Water management plan at Section 9.2</p>	Not Compliant	E	4	Low
		(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; • 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. 	<p>GMP refers detailed baseline data on groundwater levels, yield and quality in the region to the EIS for the Warkworth Continuation (2014) and Mount Thorley Operations (2014). Sections 8.3, 8.3.1, 8.3.2, 8.3.4, 8.3.5, 8.3.6</p> <p>A groundwater monitoring program is in Appendix C of the Water Management Plan.</p> <p>exceedances of groundwater assessment criteria in section 9.2. Validation of groundwater model in Section 8.4.</p>	Compliant			

Biodiversity																																																
Retirement of Credits																																																
	28	<p>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.</p>		Not triggered in the audit period. This is required at 26 November 2018																																												
		<p>The retirement of these credits must be carried out in accordance with the <i>NSW Biodiversity Offsets Policy for Major Projects</i> and can be achieved by:</p> <p>(a) acquiring or retiring credits under the BioBanking Scheme in the TSC Act;</p> <p>(b) making payments into an offset fund that has been developed by the NSW Government, to</p> <p>(c) providing supplementary measures.</p>		not Triggered in audit period.																																												
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	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>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:</p> <ul style="list-style-type: none"> ^a Or as otherwise determined by OEH as part of its detailed consideration of credits retirement. 	Species	*Credits Required	Regent Honeyeater	18,929	Southern Myotis	18,222	Large-eared Pied Bat	139		Not triggered within the audit period.		Not triggered																																		
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Direct Land-Based Offsets																							
	30	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><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 triggered within the audit period.	Not triggered			
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	31	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.	Noted	Noted																			
Additional Warkworth Sands Woodland Measures																							
	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. <i>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.</i>	(a) Performance criteria developed and submitted for approval on time (message and documents supplied). (b) \$1 million bond is in place with OEH.	Compliant																			
	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.	Only two rounds of monitoring to date, otherwise Noted.	Noted																			
	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.	Plan developed and consultation and meetings with other parties is underway.	Compliant																			
	35	Within 6 months of the commencement of development under this consent, the Applicant shall contribute \$1 million to OEHs <i>Saving Our Species - Regent Honeyeater</i> conservation program. The Contribution may be used as a supplementary measure for any approval required under the EPBC Act for this development.	Money has been sent and collected, PO raised 6 January 2016.	Compliant																			

Biodiversity Management Plan							
	36	<p>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:</p> <p>(a) be prepared in consultation with OEH and submitted to the Secretary for approval prior to the commencement of any development under this consent;</p> <p>(b) describe the short, medium and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> - 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; <p>(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;</p> <p>(d) include a detailed description of the measures that would be implemented over the next 3 years for:</p> <ul style="list-style-type: none"> - 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; - controlling access; and - bushfire management. <p>(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</p> <p>(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</p> <p>(g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</p> <p><i>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.</i></p>	<p>MTW currently operates under the 2016 BMP, no evidence of it being approved by the Secretary.</p> <p>In Section 1.3.1 it states that consultation with OEH commenced on 3 December 2016.</p> <p>Biodiversity offset strategy in Section 2.5 of the 2016 BMP</p> <p>Section 3.3.2.2</p> <p>Clearing and disturbance in section 3.1. Salvaged resources in section 3.2.3.</p> <p>pre clearance surveys Section 3.2.2</p> <p>Weeds and pests section 3.2.4. Erosion section 3.2.6. Grazing Section 3.2.7. Bushfire mgmt Section 3.2.5 (Coal and Allied Bushfire Management plan (2015))</p> <p>These are included in the Offset management plans appended to the Biodiversity MP.</p> <p>These are included in the Offset management plans appended to the Biodiversity MP.</p> <p>Section 1.3.3</p>	<p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p>			
Conservation Bond	37	<p>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:</p> <p>(a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and</p> <p>(b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.</p> <p>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.</p> <p>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.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> - 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. 	<p>The Bond has been calculated and lodged.</p>	<p>Compliant</p>			

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; (c) include a program/procedures for: - 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. (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 (e) include an action plan for the implementation of the plan, including establishment and role of the Wollombi Brook Aboriginal Cultural Heritage Conservation Area management committee in overseeing implementation of the plan.	Final conservation draft has been prepared and final submission draft due to go the RAPS in the near future. Then submit as a final to OEH (June 2017).	Compliant			
	39	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 <i>National Parks and Wildlife Act 1974</i> 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 <i>National Parks and Wildlife Act 1974</i> .	Still in draft at the time of the audit.	Compliant			
Human remains							
	40	This consent does not allow the Applicant to disturb any in-situ human remains on site.	Noted	Noted			
Protection of Heritage Items							
	41	Applicant shall protect the heritage items identified in Table 1 of Appendix 5.	Included in the Heritage MP This was discussed at interview, MTW used fencing and the GDP process to protect these items.	Compliant			
Salvage							
	42	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.	Salvage report provided verifying this action	Compliant			
Aboriginal Heritage Management Plan							
	43	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:	AHMP has been submitted (now MTW Complex Document) as a staged document (without the Loaders Creek Conservation Area Plan - still being developed.)	Compliant			
	(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;	Consultation is included in the AHMP	Compliant			
	(b)	include a program to: • 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.	Not yet completed (see C.27 above)	Not Triggered			
	(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.	Included in the AHMP and salvage report Salvage report provided, aboriginal consultation evidence provided, no scar trees removed to date, evidence of site management provided. All detailed in assessment of the AHMP.	Compliant			
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.	Has been approved, a partnering agreement with Council has been established, not yet approved by Council not implemented. Secretaries approval provided as evidence.	Compliant			

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.	Has been approved, a partnering agreement with Council has been established, not yet approved by Council not implemented. Project list approved by DP&E. Partnering agreement with Convict Trail Project being established at the time of the audit.	Compliant			
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:	Draft in final stages of community consultation with CHAG. Planned to submit to DP&E in late July 2017.	Compliant			
		(a) be prepared by suitable qualified and experienced persons whose appointment has been endorsed by the Secretary;	Approval letter for manager Heritage and Aboriginal Relations sighted	Compliant			
		(b) be prepared in consultation with the Heritage Branch, Council, CHAG and local historical organisations;	Consultation with CHAG underway at time of audit but not completed	Not Triggered			
		(c) be submitted to the Secretary for approval prior to carrying out any mining to the west of Wallaby Scrub Road;	No mining west of Wallaby Scrub Road in the near term from the date of the audit	Not Triggered			
		(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.	Plan not yet completed.	Not Triggered			
TRANSPORT							
Wallaby Scrub Road							
	47	This consent allows open cut mining through the existing alignment of Wallaby Scrub Road. <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>	Noted	Noted			
Wallaby Scrub Road							
	48	Unless the Secretary agrees otherwise, the Applicant shall: (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 (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.	(a) The gate was installed on 14th July to close the intersection. It was completed 7 weeks post the requirement to close it off however an extension was sought and approved by DP&E to 29-07-16 (Ltr 19-06-16). (b) \$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.	Compliant			
Putty Road Crossing							
	49	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.	a third crossing of Putty Road was approved by RMS on 21st March, designs supplied, Applicant bearing all costs.	Compliant			

Rural Fire Service - Emergency Access Track/Fire Trail							
	50	<p>Prior to the closure of Wallaby Scrub Road, the Applicant shall do the following in consultation with Council, RMS and the RFS:</p> <p>(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 <i>Planning for Bush Fire Protection</i> publication and the Bushfire Coordinating Committee's Fire Trails Policy No. 2/2007, or its latest version;</p> <p>(b) develop a protocol with RFS that:</p> <ul style="list-style-type: none"> - provided for ongoing access and use of the new emergency access track/fire trail following the closure of Wallaby Scrub Road; - provides for access to the site during emergencies on site to assist with any emergency response; and - 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. <p>Following approval, the Applicant shall carry out the development in accordance with this protocol.</p>	<p>a) Wallaby Scrub Rd not closed at the time of the audit, approval from Council for the road closure not received. B) Protocol not required as Wallaby Scrub Rd still in use.</p>	Not Triggered			
Monitoring of Coal Transport							
	51	The Applicant shall:					
	(a)	keep records of the amount of coal transported from the development in each calendar year; and	Section 4 of the 2016 Annual review.	Compliant			
	(b)	make these records available on its website at the end of each calendar year.	Reports are available on the Rio Tinto website.	Compliant			
VISUAL							
Operating Conditions							
	52	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;	Section 6.6 of the 2016 Annual review.	Compliant			
	(b)	establish and maintain vegetated bunds, vegetative screening and/or screen fencing along the boundary of the site including adjoining public roads where appropriate;	MTW have maintained vegetated bunds, vegetative screening along the boundary of the site. Section 6.6 of the 2016 Annual review.	Compliant			
	(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	Lighting maps for dumps provided (used in tool box talks on mobile lighting management) The Visual Impact MP also addresses lighting impacts.	Compliant			
	(d)	monitor and report on the effectiveness of these measures.	Section 6.6 of the 2016 Annual review.	Compliant			
		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.	The Tree Screening Plan was developed in June 2016, site commencement was 15-02-16. At the time of the audit the works had commenced and the timing was verified at interview but not physical evidence could be provided to support the interview evidence. Subsequent to the audit additional evidence was provided in the form of a photo that was embedded in the Tree Screening Plan (timing) that showed the initial tree screening work along with the consultation with Singleton Council.	Compliant			
Additional Visual Impact Mitigation							
	53	<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>	One request was made that did not proceed due to the resident declining any work being undertaken, inspection took place, study supplied.	Compliant			
		<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. 	noted	Noted			

BUSHFIRE MANAGEMENT																									
	54	The Applicant shall:																							
	(a)	ensure that the development is suitably equipped to respond to any fires on site; and	Bushfire Management Plan supplied as evidence, interview confirmed that the site has trained fire fighters who are provided with training and resources for practise utilising the sites fire fighting equipment.	Compliant																					
	(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 required in the audit period	Not Triggered																					
WASTE																									
	55	The Applicant shall:																							
	(a)	implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;	Remondis Waste reports supplied, summary in AR. Waste minimisation managed by the contractor and site training. Coal rejects and tailings minimised as a business management objective.	Compliant																					
	(b)	ensure that the waste generated by the development is appropriately stored, handled and disposed of; and	Section 6.7 in the 2016 AR	Compliant																					
	(c)	monitor and report on effectiveness of the waste minimisation and management measures in the Annual Review.	Section 6.7 in the 2016 AR	Compliant																					
REHABILITATION																									
Rehabilitation Objectives																									
	56	<p>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.</p> <p><i>Table 13: 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 </td> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> surrounding mines: <ul style="list-style-type: none"> backfill the gap between the two main emplacements in accordance with the dozer (and dragline) option shown on the applicable figure in Appendix 5; 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Progressive Rehabilitation							
	57	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.	84.9 ha of rehabilitation was undertaken during 2016. Progressive rehabilitation is reported on in the 2016 AR in section 8.3.	Compliant			
		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.	Noted	Noted			
Rehabilitation Management Plan							
	58	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:	A Mining Operations Plan has been prepared to satisfy this condition. The DRE approved the MOP on 5 Jan 2016.	Compliant			
	(a)	be submitted to the DRE for approval prior to carrying out any development under this consent;	A Mining Operations Plan has been prepared to satisfy this condition. The DRE approved the MOP on 5 Jan 2016.	Compliant			
	(b)	be prepared in consultation with the Department, NOW, OEH, Council and the CCC;	Section 1.4.4 of the MOP	Compliant			
	(c)	be prepared in accordance with any relevant DRE guideline, including any NSW government policy regarding voids;	Prepared in accordance with the MOP guidelines, no new policy on voids was available at the time of the audit	Compliant			
	(d)	Describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;	There was not a specific reference to this requirement but the integration of site native vegetation rehabilitation areas with external (including offsets) native vegetation through corridors is included. The EECs in rehab match the offsets.	Compliant			
	(e)	include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);	The MOP includes these details and they are reported in the ARs.	Compliant			
	(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;	Implementation is in section 11.2 of the MOP.	Compliant			
	(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;	The MOP is inherently a closure document as it guides rehabilitation and decommissioning.	Compliant			
	(h)	include interim rehabilitation where necessary to minimise the area exposed for dust generation;	This is conducted at the site and included in the MOP	Compliant			
	(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	Section 8 of the MOP	Compliant			
	(j)	build to the maximum extent practicable on the other management plans required under this consent.	Noted	Noted			
SCHEDULE 4 - ADDITIONAL PROCEDURES							
Notifications of Landowners/tenants							
	1	Within 1 month of the date of this consent, the Applicant shall:					
	(a)	notify in writing the owners of: • 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;	An example letter and template of letter was supplied that was issued to land owners. Letters were issued on 18/12/2015. An email to confirm was supplied.	Compliant			
	(b)	notify the tenants of any mine-owned land of their rights under this consent (see condition 16 of schedule 3); and	Letter of notification provided as evidence	Compliant			
	(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.	Fact sheets were issued to residences on 18/12/2015.	Compliant			
	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	Letter with "Mine Dust and You" attached provided as evidence.	Compliant			
	(b)	advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary.	Letter includes notification of rights under the approval.	Compliant			

	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	None in the audit period	Not Triggered		
	(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).	None in the audit period	Not Triggered		
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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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; identify the measures that could be implemented to ensure compliance with the relevant criteria; and 	None in the audit period	Not Triggered		
	(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.				
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:	the Applicant made a written offer to the landowner within 3 months, letters of offer supplied.	Compliant		
	(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: <ul style="list-style-type: none"> 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; 	One acquisition process followed through from notification through to letter requesting acquisition, letter of offer, acceptance letter.			
	(b)	the reasonable costs associated with: <ul style="list-style-type: none"> 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 	No relocation fee required as property was not a residence for the owners.			
	(c)	reasonable compensation for any disturbance caused by the land acquisition process.	Legal fees offered as a lump sum.			
		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: <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. 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 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. 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. 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.	The property was purchased.	Compliant		

	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.	Noted, see above comments	Compliant			
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:	DPE approval noted in Document	Compliant			
	(a)	be submitted to the Secretary for approval prior to carrying out any development under this consent;	DPE approval noted in Document	Compliant			
	(b)	provide the strategic framework for environmental management of the development;	Section 2 of the EMS	Compliant			
	(c)	identify the statutory approvals that apply to the development;	Section 3 of the EMS	Compliant			
	(d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 5 of the EMS	Compliant			
	(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 	Section 4 of the EMS, Each procedure is addressed in a separate plan identified in Table 3 of the EMS.	Compliant			
	(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. 	A list of strategies, plans and programs are shown in Table 4 of the EMS. Monitoring programmes in Section 6 and shown in figures 6 to 16 in the EMS.	Compliant			
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:	See trigger and response plans in management plans no direction by the Secretary in the audit period.	Compliant			
	(a)	take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;					
	(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					
	(c)	implement remediation measures as directed by the Secretary.					
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:	Received in the assessment of each of the management plans.	Compliant			
	(a)	detailed baseline data;					
	(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; 					
	(c)	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;					
	(d)	a program to monitor and report on the: <ul style="list-style-type: none"> • impacts and environmental performance of the development; • effectiveness of any management measures (see c above); 					
	(e)	a contingency plan to manage any unpredicted impacts and their consequences;					
	(f)	a program to investigate and implement ways to improve the environmental performance of the development over time;					
	(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 					
	(h)	a protocol for periodic review of the plan.	Included in each management plan	Compliant			

		Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	Noted	Noted			
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:	AR completed by March 2017.	Compliant			
	(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;	Executive Summary of the 2016 AR.	Compliant			
	(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; 	Section 6 of the 2016 AR, 6.2, 6.3, 6.4, 6.5, 6.7. Section 7 of the 2016 AR, 7.1, 7.2, 7.3 Section 8 - rehabilitation	Compliant			
	(c)	Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	Section 11 of the 2016 AR	Compliant			
	(d)	Identify any trends in the monitoring data over the life of the development;	Trends were included in the discussion of monitoring results in the AR	Compliant			
	(e)	Identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	Comparisons with EA predictions were included in the AR	Compliant			
	(f)	describe what measures will be implemented over the next year to improve the environmental performance of the development.	Section 12 of the 2016 AR	Compliant			
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 	All of the MPs were assessed for currency and update triggers and no non-compliances were identified.	Compliant			
	(b)	any modification to the conditions of this consent (unless the conditions require otherwise), or					
	(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.					
		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: 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>	All the MPs were reviewed for the SSD approvals, the majority of the management plans had timing for resubmission specified in the approvals. AH MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 21-01-2016 AQ MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 1-02-2016 Biodiversity MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 29-01-2016 AQMP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 1-02-2016 Blast MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 21-01-2016 (revised again 26-08-16 for Road Closure changes) Blast Fume MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 15-01-2016 EMS Reviewed for SSD approvals 31-12-16 but not revised, reviewed again 31-03-17. Noise MP Reviewed for SSD approvals 26-11-15 Submitted 29-11-16 and Resubmitted (post DP&E Comments) 21-01-2016 The noise MP was reviewed in March June and September in 2016, again for the SSD which covers all the low frequency exceedances Water MP Reviewed for SSD approvals 26-11-15 Resubmitted (post DP&E Comments) 1-02-2016	Compliant			
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.	A CCC is operating quarterly, there was no evidence of the CCC operating outside the DP&E Guidelines.	Compliant			
		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. 	Noted	Noted			

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.	Incident reports, EPA and Secretary correspondence was supplied for three incidents that occurred in 2016.	Compliant			
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.	AR and monthly environmental reports that include EPL and MMR report data.	Compliant			
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;	Independent Environmental Audit completed in May 2017.	Compliant			
	(b)	include consultation with the relevant agencies;	Team approval appended to audit report	Compliant			
	(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);	Consultation in audit report	Compliant			
	(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);	See the audit report	Compliant			
	(e)	review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	See the audit report	Compliant			
	(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.	See the audit report	Compliant			
		<i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i>	See the audit report	Compliant			
	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.	Not triggered at the time of the audit	Not triggered			
ACCESS TO INFORMATION							
	11	From the commencement of development under this consent, the Applicant shall: (a) make the following information publicly available on its website: <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; • 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;	Avialble on Rio Tinto's website or the Insite website Complaints register on the website CCC Minutes have not been updated since 2016	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL168821 - Bore							
License Valid from 13th June 2003							
1		THE LICENSE SHALL LAPSE IF THE WORKS IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF ISSUE OF THE License.	Noted, bore is established and in use for aquifer monitoring	Noted			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF LAND AND WATER CONSERVATION	Not in the audit period	Not triggered			
	(a)	DETAILS OF THE WORK TO BE SET OUT ON A FORM "A" (MUST BE COMPLETED BY A DRILLER AND RETURNED TO THE DEPARTMENT ASAP	Not in the audit period	Not triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF LAND AND WATER CONSERVATION OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACED WATER.	Not in the audit period	Not triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF LAND AND WATER CONSERVATION THAT THE WORKS HAS BEEN ABANDONED AND DEAL OFF THE AQUIFER BY:	Not in the audit period	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT ADTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF LAND AND WATER CONSERVATION	Not in the audit period	Not triggered			
5		TAILWATER DRAINAGE SHALL NOT BE ALLOWED TO DISCHARGE ONTO ADJOINING ROADS, CROWN LAND OR OTHER PERSONS LAND, OR INTO ANY RIVER AS DEFINED UNDER THE WATER ACT, OR ANY GROUNDWATER AQUIFER, BY SURFACE OR SUB-SURFACE DRAINS OR PIPES OR ANY OTHER MEANS.	Not in the audit period	Not triggered			
6		20BL	Not in the audit period	Not triggered			
7		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period	Not triggered			
8		SUBJECT TO CONDITION (4) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE	Not in the audit period	Not triggered			
	1	BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR;	Not in the audit period	Not triggered			
	2	RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.	Not in the audit period	Not triggered			
9		CONDITION (1) SHALL HAVE NO FORCE OR EFFECT IF:	Not in the audit period	Not triggered			
	1	AT THE RELEVANT TIME THERE IS WITH THE DEPARTMENT OF LAND AND WATER CONSERVATION, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR	Not in the audit period	Not triggered			
	2	THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.	Not in the audit period	Not triggered			

Reference	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Water Licence 20BL170011 (WAL 40464)						
Date of Commencement 27 November 2011		Mount Thorley Pit				
1	THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORK AUTHORISED BY THIS LICENSE SHALL NOT EXCEED 180 ML MEGALITRES FOR THE TERM OF THE LICENSE.	Reported in the AR.	Compliant			
2	NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN	Noted	Noted			
3	THE LICENSE HOLDER MUST MEASURE THE VOLUME OF WATER TAKEN BY THE WORK, AND SUBMIT THE RESULTS OF MONITORING TO THE DEPARTMENT ON AN ANNUAL BASIS. THE REPORT MUST COMPARE THE VOLUME AND QUALITY OF GROUNDWATER EXTRACTED, AND THE EXTENT OF DEPRESSURISATION CAUSED BY THE WORK, TO PREDICTIONS OF GROUNDWATER INFLOWS AND DEPRESSURISATION MADE IN ENVIRONMENTAL IMPACT STATEMENT(S) FOR THE PROJECT.	Included in the AR. AR includes comparisons with the predictions in the EA	Compliant			
4	THE ASSESSMENT PROCEDURE REQUIRED IN CONDITION 3 MUST QUANTIFY THE VOLUME OF WATER, IF ANY, INTERCEPTED FROM CONNECTED ALLUVIUM TO THE HUNTER RIVER. THE LICENSE HOLDER IS RESPONSIBLE TO REPLACE ANY INTERCEPTED CONNECTED ALLUVIAL GROUNDWATERS INTERCEPTED BY THE WORK, AND TO SATISFY NSW OFFICE OF WATER THAT SUCH ALLUVIAL GROUNDWATER IS REPLENISHED OR BY OTHER MEANS, AS AGREED TO BY THE DEPARTMENT.	There is a Hunter Alluvial WAL in place in case there is take from the alluvium. Predicted take is minimal.	Compliant			
5	THE LICENSEE SHALL WITHIN THREE (3) MONTHS OF BEING CALLED UPON BY NSW OFFICE OF WATER TO DO SO, INSTALL TO THE SATISFACTION OF THE DEPARTMENT IN RESPECT OF LOCATION, TYPE AND CONSTRUCTION AN APPLIANCE(S) TO MEASURE THE QUANTITY OF WATER EXTRACTED FROM THE WORKS. THE APPLIANCE(S) TO CONSIST OF A MEASURING WEIR OR WEIRS WITH AUTOMATIC RECORDER, OR METER OR MEANS OF THE DETHRIDGE TYPE, OR SUCH OTHER CLASS OF METER OR MEANS OF MEASUREMENT AS MAY BE APPROVED BY THE DEPARTMENT. THE APPLIANCE(S), SHALL BE MAINTAINED IN GOOD WORKING ORDER AND CONDITION. A RECORD OF ALL WATER EXTRACTED FROM THE WORKS SHALL BE KEPT AND SUPPLIED TO THE DEPARTMENT UPON REQUEST. THE LICENSEE WHEN REQUESTED MUST SUPPLY A TEST CERTIFICATE AS TO THE ACCURACY OF THE APPLIANCE(S) FURNISHED WITHIN BY THE MANUFACTURER OR BY SOME PERSON DULY QUALIFIED.	No direction in the audit period.	Not Triggered			
6	THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	None in the audit period though offers have been made.	Not Triggered			
7	THE AUTHORISED WORK SHALL NOT BE USED FOR THE DISCHARGE OF POLLUTED WATER INTO A RIVER OR LAKE, OTHERWISE THAN IN ACCORDANCE WITH THE CONDITIONS OF A LICENSE GRANTED UNDER THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997. A COPY OF THE LICENSE TO DISCHARGE IS TO BE PROVIDED TO NSW OFFICE OF WATER.	Noted	Noted			
8	THE LOCATION OF THE EXCAVATION AS SHOWN ON A PLAN RETAINED IN THE OFFICE OF NSW OFFICE OF WATER SHALL NOT BE ALTERED.	Updated plans supplied with the AR annually.	Compliant			
9	IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OF THE AQUIFER BY:	Not in the audit period	Not Triggered			
	(a) BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not Applicable	Not Triggered			
	(b) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER	Noted	Noted			
10	SEE SPECIAL CONDITIONS					
SPECIAL CONDITIONS ATTACHED TO LICENSE 20BL170011						
1	THE LICENSE HOLDER MUST DECOMMISSION THE WORK WHEN THE WORK CEASES TO FUNCTION OR IS ABANDONED FOR FUTURE USE BY THE HOLDER. WHEN THE WORK IS DECOMMISSIONED, THE LICENSE HOLDER MUST:	Not in the audit period or medium term	Not Triggered			
	(a) NOTIFY THE DEPARTMENT THAT THE WORK IS BEING DECOMMISSIONED, AND	Not in the audit period or medium term	Not Triggered			
	(b) SEAL OFF THE AQUIFER BY BACKFILLING THE WORK TO GROUND LEVEL, OR	Not in the audit period or medium term	Not Triggered			
	(c) ADHERE WITH ANY OTHER STANDARD OF DECOMMISSIONING AS SPECIFIED BY THE DEPARTMENT	Not in the audit period or medium term	Not Triggered			
2	ANY ENTITLEMENT ISSUED WITH A LICENSE FOR DEWATERING (SPECIFIC PURPOSE) IS NOT TRANSFERRABLE	Not in the audit period or medium term	Not Triggered			
3	THE OPERATION OF THE WORK IS SUBJECT TO A MONITORING AND RESPONSE PLAN, WHICH IS APPROVED BY THE DEPARTMENT. THE PLAN SHALL INCLUDE:	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
	(a) OBJECTIVES OF THE MONITORING PROGRAM	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
	(b) LOCATION, FREQUENCY AND PARAMETERS OF MONITORING	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
	(c) METHODS TO ASSESS THE EXTENT OF DEPRESSURISATION CREATED BY OPERATION OF THE WORK, AND DETERMINING THE VOLUME OF ANY INFLOW FROM SURFACE WATER OR CONNECTED GROUNDWATER TO WOLLOMBI BROOK OR THE HUNTER RIVER	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
4	(d) CONTINGENCY ARRANGEMENT IN THE EVENT OF PREDICTED INTERPRETATION OF GROUNDWATER EXCEEDING PREDICTIONS	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
5	(e) OPTIONS TO REPLACE GROUNDWATER USER SUPPLY FOR ANY AFFECTED LICENSED GROUNDWATER LICENSE HOLDER	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			

Reference	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Water Licence 20BL170011 (WAL 40464)						
6	(f) OPTIONS TO REPLACE ANY LOSS OF SURFACE WATER OR CONNECTED GROUNDWATER TO WOLLOMBI BROOK OR THE HUNTER RIVER IN THE EVENT OF INFLOWS TO THE CLOSED LEMINGON WORKINGS CAUSED BY OPERATION OF THE WORK	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
7	THE LICENCE HOLDER MUST INSTALL WATER LEVEL LOGGING RECORDERS AND MAINTAIN RECORDS OF WATER LEVELS ON ALL PRIVATE BORES LOCATED WITHIN THE ZONE OF DEPRESSURISATION. IS THIS NEEDED?	No private bores in the zone of depressurisation.	Not Triggered			
8	THE WORK MUST BE EQUIPPED WITH A METER (MEASURING DEVICE) OR OTHER WATER LEVEL SOUNDING DEVICE AND MARKED WITH A MEASURING REFERENCE POINT. WATER METRES MUST BE CALIBRATED AT LEAST ONCE EVERY YEAR.	Calibration certificates not available for the audit	Not Compliant	E	4	Low
9	THE LICENCE HOLDER MUST INSTALL, MAINTAIN AND OPERATE ANY DEVICE OR DEVICES FOR MEASURING THE VOLUME OF WATER EXTRACTED BY THE APPROVED WORKS IN ACCORDANCE WITH ANY MANUFACTURER'S SPECIFICATIONS WHEN REQUIRED IN ACCORDANCE WITH ANY WRITTEN DIRECTION FROM THE DEPARTMENT.	No evidence provided	Not Compliant	E	3	Low
10	THE LICENCE HOLDER MUST PROVIDE A CERTIFICATE ISSUED BY THE MANUFACTURER OR OTHER SUCH COMPETENT, QUALIFIED PERSON CERTIFYING THE ACCURACY OF DEVICE OR DEVICES USED FOR MEASURING THE VOLUME OF WATER EXTRACTED BY THE APPROVED WORKS, IN ACCORDANCE WITH ANY WRITTEN DIRECTION FROM THE DEPARTMENT.	Calibration certificates not available for the audit	Not Compliant	E	4	Low
11	THE LICENSE HOLDER MUST ENSURE THAT A RECORD OF ALL WATER EXTRACTED FROM THE WORKS IS KEPT AND SUPPLIED TO DNR UPON REQUEST.	AR's and databases	Compliant			
12	THE LICENCE MUST SUBMIT RESULTS AND REPORTS TO THE DEPARTMENT IN THE ANNUAL ENVIRONMENTAL MANAGEMENT REPORT.	AR's	Compliant			
13	THE LICENSE HOLDER SHALL PROVIDE ALTERNATE SOURCE(S) OF WATER TO ANY LICENCED GROUNDWATER USER WHO IS AFFECTED BY DEPRESSURISATION OF GROUNDWATER OCCASIONED BY OPERATION OF THE WORK.	None in the audit period	Not Triggered			
14	THE LICENCE HOLDER MUST PROVIDE COMPARISON REPORTS ON THE VOLUME AND QUALIFY OF GROUNDWATER EXTRACTED, AGAINST THE EXTENT OF DEPRESSURISATION CAUSED BY THE WORK, TO PREDICTIONS OF GROUNDWATER MADE FOR OPERATION OF THE WORK.	AR's	Compliant			
15	THE ASSESSMENT PROCEDURE REQUIRED IN CONDITION?? (above) MUST QUANTIFY THE VOLUME OF WATER, IF ANY, INTERCEPTED FROM CONNECTED ALLUVIUM TO WOLLOMBI BROOK AND/OR THE HUNTER RIVER. THE LICENCE HOLDER IS RESPONSIBLE TO REPLACE ANY INTERCEPTED CONNECTED ALLUVIAL GROUNDWATERS INTERCEPTED BY THE WORK, AND TO SATISFY THE DEPARTMENT OF NATURAL RESOURCES THAT SUCH ALLUVIAL GROUNDWATER IS REPLENISHED OR BY OTHER MEANS, AS AGREED TO BY THE DEPARTMENT.	AR's and recent groundwater review.	Compliant			
16	AN INDEPENDENT ENVIRONMENTAL AUDIT IS TO BE CARRIED OUT AT THE END OF THE LICENCE PERIOD AND MUST:	The end of the licencing period was not in the audit period	Not Triggered			
	(a) BE CARRIED OUT IN ACCORDANCE WITH ISO 14010 - GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND ISO 14011 - PROCEDURES FOR ENVIRONMENTAL AUDITING;	The end of the licencing period was not in the audit period	Not Triggered			
	(b) ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE;	The end of the licencing period was not in the audit period	Not Triggered			
	(c) REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDENT ECO-SYSTEMS AND ANY STREAMS IN THE AREA;	The end of the licencing period was not in the audit period	Not Triggered			
	(d) MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS);	The end of the licencing period was not in the audit period	Not Triggered			
	(e) BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY DNR; AND	The end of the licencing period was not in the audit period	Not Triggered			
	(f) BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER	The end of the licencing period was not in the audit period	Not Triggered			
17	THE RESULTS OF THE ENVIRONMENTAL AUDIT MUST BE PRESENTED TO DNR IN A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT) WITHIN 2 MONTHS OF THE AUDIT BEING UNDERTAKEN.	The end of the licencing period was not in the audit period	Not Triggered			
18	THE ENVIRONMENTAL AUDIT REPORT MAY INCLUDE RECOMMENDATIONS REGARDING WORKS THAT COULD BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT COULD BE IMPOSED IN ORDER TO REMEDIATE ANY IMPACTS.	The end of the licencing period was not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Licence 20BL170012 (WAL 40465)							
Date of Commencement 27 November 2011		Warkworth Pit					
1		THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORK AUTHORISED BY THIS LICENCE SHALL NOT EXCEED 750 ML MEGALITRES FOR THE TERM OF THE LICENCE.	Reported in the AR.	Compliant			
2		NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENCE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.	Noted	Compliant			
3		THE LICENCE HOLDER MUST MEASURE THE VOLUME OF WATER TAKEN BY THE WORK, AND SUBMIT THE RESULTS OF MONITORING TO THE DEPARTMENT ON AN ANNUAL BASIS. THE REPORT MUST COMPARE THE VOLUME AND QUALITY OF GROUNDWATERS EXTRACTED, AND THE EXTENT OF DEPRESSURISATION CAUSED BY THE WORK, TO PREDICTIONS OF GROUNDWATER INFLOWS AND DEPRESSURISATION MADE IN ENVIRONMENTAL IMPACT STATEMENT(S) FOR THE PROJECT.	Included in the AR. The AR includes comparisons with the predictions in the EA	Compliant			
4		THE ASSESSMENT PROCEDURE REQUIRED IN CONDITION 3 MUST QUANTIFY THE VOLUME OF WATER, IF ANY, INTERCEPTED FROM CONNECTED ALLUVIUM TO THE HUNTER RIVER. THE LICENCE HOLDER IS RESPONSIBLE TO REPLACE ANY INTERCEPTED CONNECTED ALLUVIAL GROUNDWATERS INTERCEPTED BY THE WORK, AND TO SATISFY NSW OFFICE OF WATER THAT SUCH ALLUVIAL GROUNDWATER IS REPLENISHED OR BY OTHER MEANS, AS AGREED TO BY THE DEPARTMENT.	There is a Hunter Alluvial WAL in place in case there is take from the alluvium. Predicted take is minimal.	Compliant			
5		THE LICENSEE SHALL WITHIN THREE (3) MONTHS OF BEING CALLED UPON BY NSW OFFICE OF WATER TO DO SO, INSTALL TO THE SATISFACTION OF THE DEPARTMENT IN RESPECT OF LOCATION, TYPE AND CONSTRUCTION AN APPLIANCE(S) TO MEASURE THE QUANTITY OF WATER EXTRACTED FROM THE WORKS. THE APPLIANCE(S) TO CONSIST OF A MEASURING WEIR OR WEIRS WITH AUTOMATIC RECORDER, OR METER OR METERS OF THE DETHRIDGE TYPE, OR SUCH OTHER CLASS OF METER OR MEANS OF MEASUREMENT AS MAY BE APPROVED BY THE DEPARTMENT. THE APPLIANCE(S) SHALL BE MAINTAINED IN GOOD WORKING ORDER AND CONDITION. A RECORD OF ALL WATER EXTRACTED FROM THE WORKS SHALL BE KEPT AND SUPPLIED TO THE DEPARTMENT UPON REQUEST. THE LICENSEE WHEN REQUESTED MUST SUPPLY A TEST CERTIFICATE AS TO THE ACCURACY OF THE APPLIANCE(S) FURNISHED EITHER BY THE MANUFACTURER OR BY SOME PERSON DULY QUALIFIED.	No direction in the audit period.	Not Triggered			
6		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTIONS OR TESTS OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	None in the audit period though offers have been made.	Not Triggered			
7		THE AUTHORISED WORK SHALL NOT BE USED FOR THE DISCHARGE OF POLLUTED WATER INTO A RIVER OR LAKE, OTHERWISE THAN IN ACCORDANCE WITH THE CONDITIONS OF A LICENSE GRANTED UNDER THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997. A COPY OF THE LICENCE TO DISCHARGE IS TO BE PROVIDED TO NSW OFFICE OF WATER.	Noted	Noted			
8		THE LOCATION OF THE EXCAVATION AS SHOWN ON A PLAN RETAINED IN THE OFFICE OF NSW OFFICE OF WATER SHALL NOT BE ALTERED	Updated plans supplied with the AR annually.	Compliant			
9		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:	Not in the audit period	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not Applicable	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER	Noted	Noted			
10		SEE SPECIAL CONDITIONS					
SPECIAL CONDITIONS ATTACHED TO LICENSE 20BL170011							
1		THE LICENCE HOLDER MUST DECOMMISSION THE WORK WHEN THE WORK CEASES TO FUNCTION OR IS ABANDONED FOR FUTURE USE BY THE HOLDER. WHEN THE WORK IS DECOMMISSIONED. THE LICENCE HOLDER MUST:	Not in the audit period or medium term	Not Triggered			
	(a)	NOTIFY THE DEPARTMENT THAT THE WORK IS BEING DECOMMISSIONED, AND	Not in the audit period or medium term	Not Triggered			
	(b)	SEAL OFF THE AQUIFER BY BACKFILLING THE WORK TO GROUND LEVEL OR	Not in the audit period or medium term	Not Triggered			
	(c)	ADHERE WITH ANY OTHER STANDARD OF DECOMMISSIONING AS SPECIFIED BY THE DEPARTMENT.	Not in the audit period or medium term	Not Triggered			
2		ANY ENTITLEMENT ISSUED WITH A LICENCE FOR DEWATERING (SPECIFIC PURPOSE) IS NOT TRANSFERABLE.	Not in the audit period or medium term	Not Triggered			
3		THE OPERATION OF THE WORK IS SUBJECT TO A MONITORING AND RESPONSE PLAN, WHICH IS APPROVED BY THE DEPARTMENT. THE PLAN SHALL INCLUDE:	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
	(a)	OBJECTIVES OF THE MONITORING PROGRAM	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
	(b)	LOCATION FREQUENCY AND PARAMETERS OF MONITORING	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
	(c)	METHODS TO ASSESS THE EXTENT OF DEPRESSURISATION CREATED BY OPERATION OF THE WORK, AND DETERMINING THE VOLUME OF ANY INFLOW FROM SURFACE WATERS OR CONNECTED GROUNDWATERS TO WOLLOMBI BROOK OR THE HUNTER RIVER	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
4	(d)	CONTINGENCY ARRANGEMENTS IN THE EVENT OF PREDICTED INTERCEPTION OF GROUNDWATER EXCEEDING PREDICTIONS	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Licence 20BL170012 (WAL 40465)							
5	(e)	OPTIONS TO REPLACE GROUNDWATER USER SUPPLY FOR ANY AFFECTED LICENSED GROUNDWATER LICENCE, HOLDER	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
6	(f)	OPTIONS TO REPLACE ANY LOSS OF SURFACE WATER OR CONNECTED GROUNDWATER TO WOLLOMBI BROOK OR THE HUNTER RIVER IN THE EVENT OF INFLOWS TO THE APPROVED WORK CAUSED BY OPERATION OF THE WORK	The trigger and response plan was developed in consultation with DPI Water but not approved by DPI Water	Not Triggered			
7		THE LICENCE HOLDER MUST INSTALL WATER LEVEL LOGGING RECORDERS AND MAINTAIN RECORDS OF WATER LEVELS ON ALL PRIVATE BORES LOCATED WITHIN THE ZONE OF DEPRESSURISATION.	No private bores in the zone of depressurisation.	Not Triggered			
8		THE WORK MUST BE EQUIPPED WITH A METER (MEASURING DEVICE) OR OTHER WATER LEVEL SOUNDING DEVICE AND MARKED WITH A MEASURING REFERENCE POINT. WATER METERS MUST BE CALIBRATED AT LEAST ONCE EVERY YEAR.	Calibration certificates not available for the audit	Not Compliant	E	4	Low
9		THE LICENCE HOLDER MUST INSTALL, MAINTAIN AND OPERATE ANY DEVICE OR DEVICES FOR MEASURING THE VOLUME OF WATER EXTRACTED BY THE APPROVED WORKS IN ACCORDANCE WITH ANY MANUFACTURER'S SPECIFICATIONS WHEN REQUIRED IN ACCORDANCE WITH ANY WRITTEN DIRECTION FROM THE DEPARTMENT.	No evidence provided	Not Compliant	E	3	Low
10		THE LICENCE HOLDER MUST PROVIDE A CERTIFICATE ISSUED BY THE MANUFACTURER OR OTHER SUCH COMPETENT, QUALIFIED PERSON CERTIFYING THE ACCURACY OF DEVICE OR DEVICES USED FOR MEASURING THE VOLUME OF WATER EXTRACTED BY THE APPROVED WORKS. IN ACCORDANCE WITH ANY WRITTEN DIRECTION FROM THE DEPARTMENT.	Calibration certificates not available for the audit	Not Compliant	E	4	Low
11		THE LICENCE HOLDER MUST ENSURE THAT A RECORD OF ALL WATER EXTRACTED FROM THE WORKS IS KEPT AND SUPPLIED TO NOW UPON REQUEST	ARs and databases	Compliant			
12		THE LICENCE HOLDER MUST SUBMIT RESULTS AND REPORTS OF GROUNDWATER INGRESS TO THE WORK, AND DEPRESSURISATION OR OTHER ALTERATIONS TO SURROUNDING SURFACE AND/OR GROUND WATER REGIMES TO THE DEPARTMENT IN ANY ANNUAL ENVIRONMENTAL MANAGEMENT REPORT.	ARs	Compliant			
13		THE LICENCE HOLDER SHALL PROVIDE ALTERNATE SOURCE(S) OF WATER TO ANY LICENSED GROUNDWATER USER WHO IS AFFECTED BY DEPRESSURISATION OF GROUNDWATER OCCASIONED BY OPERATION OF THE WORK.	None in the audit period	Not Triggered			
14		THE LICENCE HOLDER MUST PROVIDE COMPARISON REPORTS ON THE VOLUME AND QUALITY OF GROUNDWATERS EXTRACTED, AGAINST THE EXTENT OF DEPRESSURISATION CAUSED BY THE WORK. TO PREDICTIONS OF GROUNDWATER INFLOWS AND DEPRESSURISATION MADE FOR OPERATION OF THE WORK.	ARs	Compliant			
15		THE ASSESSMENT PROCEDURE REQUIRED IN CONDITION 7 (above) MUST QUANTIFY THE VOLUME OF WATER, IF ANY, INTERCEPTED FROM CONNECTED ALLUVIUM TO WOLLOMBI BROOK AND/OR THE HUNTER RIVER. THE LICENCE HOLDER IS RESPONSIBLE TO REPLACE ANY INTERCEPTED CONNECTED ALLUVIAL GROUNDWATERS INTERCEPTED BY THE WORK, AND TO SATISFY THE DEPARTMENT OF NATURAL RESOURCES THAT SUCH ALLUVIAL GROUNDWATER IS REPLENISHED OR BY OTHER MEANS, AS AGREED TO BY THE DEPARTMENT	ARs and recent groundwater review.	Compliant			
16		AN INDEPENDENT ENVIRONMENTAL AUDIT IS TO BE CARRIED OUT AT THE END OF THE LICENCE PERIOD AND MUST:	The end of the licencing period was not in the audit period	Not Triggered			
	(a)	BE CARRIED OUT IN ACCORDANCE WITH ISO 14010 - GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND ISO 14011 — PROCEDURES FOR ENVIRONMENTAL AUDITING;	The end of the licencing period was not in the audit period	Not Triggered			
	(b)	ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE;	The end of the licencing period was not in the audit period	Not Triggered			
	(c)	REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDANT ECOSYSTEMS AND ANY STREAMS IN THE AREA;	The end of the licencing period was not in the audit period	Not Triggered			
	(d)	MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS);	The end of the licencing period was not in the audit period	Not Triggered			
	(e)	BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY DNR; AND	The end of the licencing period was not in the audit period	Not Triggered			
	(f)	BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER.	The end of the licencing period was not in the audit period	Not Triggered			
17		THE RESULTS OF THE ENVIRONMENTAL AUDIT MUST BE PRESENTED TO DNR IN A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT) WITHIN 2 MONTHS OF THE AUDIT BEING UNDERTAKEN.	The end of the licencing period was not in the audit period	Not Triggered			
18		THE ENVIRONMENTAL AUDIT REPORT MAY INCLUDE RECOMMENDATIONS REGARDING WORKS THAT COULD BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT COULD BE IMPOSED IN ORDER TO REMEDIATE ANY IMPACTS.	The end of the licencing period was not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171729							
Date of Commencement 20 January 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Noted, the Bore is in use as an aquifer monitoring Bore.	Noted			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period	Not triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period	Not triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period	Not triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period	Not triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period	Not triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:—	Not in the audit period	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period	Not triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period	Not triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN BRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; — ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; — ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171932							
Date of Commencement 17 July 2013							
1		I) THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-	Not in the audit period	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE ATTACHED FORM "AG",	Not in the audit period	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BOUNDARIES,	Not in the audit period	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT	Not in the audit period	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period	Not Triggered			
2		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not Triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not Triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	The "work" has not been abandoned	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	The "work" has not been abandoned	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	The "work" has not been abandoned	Not Triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAIL WATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- -ANY ADJOINING PUBLIC OR CROWN ROAD; -ANY OTHER PERSONS LAND; - ANY CROWN LAND; -ANY RIVER, CREEK OR WATERCOURSE; -ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; -ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not Triggered			
6		NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN	Not in the audit period	Not Triggered			
7		THE LICENSEE SHALL INSTALL TO THE SATISFACTION OF NSW OFFICE OF WATER IN RESPECT OF LOCATION, TYPE AND CONSTRUCTION AN APPURTEANCE(S) TO MEASURE THE QUANTITY OF WATER	Not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171841							
Date of Commencement 8 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Work completed prior to the audit period	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171841							
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; — ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; — ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171842							
Date of Commencement 8 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171843							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171844							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period	Not triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period	Not triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period	Not triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period	Not triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period	Not triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period	Not triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period	Not triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period	Not triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171845							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO: — ANY ADJOINING PUBLIC OR CROWN ROAD; — ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; — ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171846							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171847							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171848							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171849							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period.	Not triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171850							
Date of Commencement 9 May 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:	Not in the audit period	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION: FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION	Not in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171930							
Date of Commencement 17 July 2013							
1		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE ATTACHED FORM "AG",	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BOUNDARIES,.	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT,	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
6		NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.	Not in the audit period.	Not Triggered			
8		THE LICENSEE SHALL INSTALL TO THE SATISFACTION OF NSW OFFICE OF WATER IN RESPECT OF LOCATION, TYPE AND CONSTRUCTION AN APPLIANCE(S) TO MEASURE THE QUANTITY OF WATER	Appliances in place, no evidence of the satisfaction of the Secretary.	Not Compliant Administrative			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171930							
Date of Commencement 17 July 2013							
1		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-	Not in the audit period.	Not triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE ATTACHED FORM "AG",	Not in the audit period.	Not triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BOUNDARIES,.	Not in the audit period.	Not triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT,	Not in the audit period.	Not triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not triggered			
2		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not triggered			
6		NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.	Not in the audit period.	Not triggered			
8		THE LICENSEE SHALL INSTALL TO THE SATISFACTION OF NSW OFFICE OF WATER IN RESPECT OF LOCATION, TYPE AND CONSTRUCTION AN APPLIANCE(S) TO MEASURE THE QUANTITY OF WATER	Appliances in place, no evidence of the satisfaction of the Secretary.	Not Compliant Administrative			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL172272							
Date of Commencement 24 July 2009							
1		THE LICENCE SHALL LAPSE IF THE WORK [8 NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR. POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PH'E LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJUTING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL172273							
Date of Commencement 24 July 2009							
1		THE LICENCE SHALL LAPSE IF THE WORK [8 NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PH'E LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJUTING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171891							
Date of Commencement 5 June 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THIS ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE FORM "A" (MUST BE COMPLETED BY A DRILLER, DULY LICENSED IN NEW SOUTH WALES).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BOUNDARIES,	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT. FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK. SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK. THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAEWATER/DRATNAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOLNING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171892							
Date of Commencement 5 June 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THIS ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE FORM "A" (MUST BE COMPLETED BY A DRILLER. DULY LICENSED IN NEW SOUTH WALES).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BOUNDARIES,	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT. FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK. SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK. THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAEWATER/DRATNAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171893							
Date of Commencement 5 June 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THIS ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE FORM "A" (MUST BE COMPLETED BY A DRILLER. DULY LICENSED IN NEW SOUTH WALES).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BOUNDARIES,	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT. FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK. SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK. THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TALEWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL171894							
Date of Commencement 5 June 2008							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COWIETED WITHIN THREE YEARS OF THE DATE OF THIS ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE FORM "A" (MUST BE COMPLETED BY A DRILLER. DULY LICENSED IN NEW SOUTH WALES).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BONDARIES,	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT. FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THEDEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK. SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY 'I'HE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK. THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TALEWATER/DRATNAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL172105							
Date of Commencement 30 JANUARY 2009							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THIS ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE FORM "A" (MUST BE COMPLETED BY A DRILLER. DULY LICENSED IN NEW SOUTH WALES).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BONDARIES,	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT. FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK. SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK. THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL173062							
Date of Commencement 21 December 2011							
1		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not triggered			
2		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASWG TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not triggered			
6		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORITY BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL173063							
Date of Commencement 21 December 2011							
1		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
2		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASWG TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
6		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORITY BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL173064							
Date of Commencement 21 December 2011							
1		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
2		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASWG TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
6		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL173065							
Date of Commencement 21 December 2011							
1		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not triggered			
2		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASWG TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not triggered			
3	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not triggered			
4		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
5		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not triggered			
6		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL173276							
Date of Commencement 8 September 2012							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN ONE YEAR OF THE DATE OF ISSUE OF THE LICENCE.	Not in the audit period.	Not triggered			
2		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not triggered			
3		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not triggered			
4		THE WORK SHOULD BE CONSTRUCTED TO SEAL OFF WATER FROM ANY AQUIFER OTHER THAN THE TARGET AQUIFER BY:	Not in the audit period.	Not triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH OF CASING TO A DEPTH IMMEDIATELY ABOVE THE TARGET AQUIFER	Not in the audit period.	Not triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not triggered			
5	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER IN ACCORDANCE WITH THE MINIMUM CONSTRUCTION REQUIREMENTS FOR WATER BORES IN AUSTRALIA.	Not in the audit period.	Not triggered			
7		THE LICENCE HOLDER MUST, WITHIN 2 MONTHS OF COMPLETION OF THE CONSTRUCTION OF THE WORK, OR WITHIN 2 MONTHS AFTER THE ISSUE OF THE APPROVAL IF THE WORK IS EXISTING, SUBMIT TO THE DEPARTMENT THE FOLLOWING:	Not in the audit period.	Not triggered			
	(i)	THE COMPLETED APPROVED FORM (FORM A),	Not in the audit period.	Not triggered			
	(ii)	DETAILS OF THE LOCATION OF THE WORK ON A COPY OF THE LOT AND DEPOSITED PLAN, THE WORKS GPS REFERENCE, AND THE RESPECTIVE DISTANCE(S) OF THE WORK FROM THE PROPERTY BOUNDARIES,	Not in the audit period.	Not triggered			
	(iii)	IF THE MINISTER HAS REQUESTED ANY WATER ANALYSIS AND/OR PUMPING TESTS TO BE CARRIED OUT. DETAILS OF THE WATER ANALYSIS AND/OR PUMPING TESTS AS REQUIRED BY THE MINISTER,	Not in the audit period.	Not triggered			
8		IF, DURING THE CONSTRUCTION OF THE WORK, SALINE OR CONTAMINATED WATER IS ENCOUNTERED ABOVE THE PRODUCTION AQUIFER, THE LICENCE HOLDER MUST:	Not in the audit period.	Not triggered			
	(i)	NOTIFY THE DEPARTMENT.	Not in the audit period.	Not triggered			
	(ii)	ENSURE THAT SUCH WATER IS SEALED OFF BY: - INSERTING CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR CONTAMINATED WATER FROM THE WORK, - IF SPECIFIED BY THE MINISTER, PLACING AN IMPERMEABLE SEAL BETWEEN THE CASING(S) AND THE WALLS OF THE WORK FROM THE BOTTOM OF THE CASING TO GROUND LEVEL AS SPECIFIED BY THE MINISTER,	Not in the audit period.	Not triggered			
	(iii)	IF THE MINISTER HAS SPECIFIED ANY OTHER REQUIREMENTS, COMPLY WITH THE REQUIREMENTS (IF ANY) SPECIFIED BY THE MINISTER,	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
9		THE HOLDER OF THE LICENCE SHALL NOT ALLOW ANY WATER EXTRACTED FROM THE BORE TO DISCHARGE INTO OR ONTO: - ANY LAND - ANY RIVER, CREEK OR WATERCOURSE	Not in the audit period.	Not triggered			
10		THE LICENCE HOLDER SHALL NOT DISTURB THE HABITAT OF ANY NATIVE FLORA AND/OR FAUNA.	Not in the audit period.	Not triggered			
11		THE LICENCE HOLDER IS NOT AUTHORISED BY THIS LICENCE TO REMOVE OR CLEAR ANY NATIVE VEGETATION OR TREES AS DESCRIBED WITHIN THE NATIVE VEGETATION CONSERVATION ACT 1997 OR NATIVE VEGETATION ACT 2003. ANY VEGETATION REMOVAL WILL REQUIRE SEPARATE WRITTEN APPROVAL FROM NSW OFFICE OF WATER.	Not in the audit period.	Not triggered			
12		BORE DRILLING CONSTRUCTION MUST OCCUR IN ACCORDANCE WITH THE MINIMUM CONSTRUCTION REQUIREMENTS FOR WATER BORES IN AUSTRALIA.	Not in the audit period.	Not triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL172439							
Date of Commencement 26 FEBRUARY 2010							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COWIETED WITHIN THREE YEARS OF THE DATE OF THIS ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO (2) MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO THE DEPARTMENT OF WATER AND ENERGY:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK AS SET OUT IN THE FORM "A" (MUST BE COMPLETED BY A DRILLER. DULY LICENSED IN NEW SOUTH WALES).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK IN RELATION TO PORTION AND PROPERTY BONDARIES,	Not in the audit period.	Not Triggered			
	(c)	DETAILS OF ANY PUMPING TESTS CARRIED OUT.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW THE DEPARTMENT OF WATER AND ENERGY OR ANY PERSON AUTHORISED BY IT. FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THEDEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK. SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY 'THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK. THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY THE DEPARTMENT OF WATER AND ENERGY THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY THE DEPARTMENT OF WATER AND ENERGY.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water License 20BL172518							
Date of Commencement 6 July 2010							
1		THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN ONE YEAR OF THE DATE OF ISSUE OF THE LICENCE.	Not in the audit period.	Not Triggered			
2		THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-	Not in the audit period.	Not Triggered			
	(a)	DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).	Not in the audit period.	Not Triggered			
	(b)	A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.	Not in the audit period.	Not Triggered			
	(c)	A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.	Not in the audit period.	Not Triggered			
	(d)	DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.	Not in the audit period.	Not Triggered			
3		THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.	Not in the audit period.	Not Triggered			
4		IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER [S ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-	Not in the audit period.	Not Triggered			
	(a)	INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.	Not in the audit period.	Not Triggered			
	(b)	CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.	Not in the audit period.	Not Triggered			
		ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.	Not in the audit period.	Not Triggered			
5	(a)	THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
	(b)	IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN BRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.	Not in the audit period.	Not Triggered			
6		IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-	Not in the audit period.	Not Triggered			
	(a)	BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR	Not in the audit period.	Not Triggered			
	(b)	SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.	Not in the audit period.	Not Triggered			
7		THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:- - ANY ADJOINING PUBLIC OR CROWN ROAD; - ANY OTHER PERSONS LAND; - ANY CROWN LAND; - ANY RIVER, CREEK OR WATERCOURSE; - ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997; - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.	Not in the audit period.	Not Triggered			
8		WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.	Not in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Access License 20AL201242							
Part A. Conditions imposed pursuant to a statutory Management Plan							
WSP: Hunter Regulated Water Sharing Plan							
Schedule 1 - Conditions							
1		THE LICENCE HOLDER MUST PROVIDE THE MINISTER WITH FIGURES RECORDING THE QUANTITY OF WATER TAKEN VIA THE NOMINATED WATER SUPPLY WORKS APPROVAL, WHEN REQUIRED TO DO SO, AND IN THE FORM SPECIFIED BY THE MINISTER.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
2		THE LICENCE HOLDER MUST NOT TAKE ANY WATER USING THE NOMINATED WATER SUPPLY WORK APPROVAL IF THE WATER ALLOCATION ACCOUNT OF THIS LICENCE IS, OR WILL GO INTO DEBIT.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
3		THE EXTRACTION COMPONENT OF THIS ACCESS LICENCE MAY BE AMENDED BY THE MINISTER IN ACCORDANCE WITH THE WATER SHARING PLAN FOR THE WATER SOURCE SPECIFIED ON THIS LICENCE	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
4		THE LICENCE HOLDER MUST NOT TAKE WATER UNDER THIS LICENCE UNLESS IN ACCORDANCE WITH: (A) A NOMINATED WATER SUPPLY WORK APPROVAL, AND (B) A WATER SUPPLY ORDER APPROVED AND ACCEPTED BY STATE WATER.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
Schedule 3 - Conditions							
1		THIS APPROVAL UNLESS IN COMPLIANCE WITH THE CONDITIONS OF THE ACCESS LICENCE UNDER WHICH WATER IS BEING TAKEN.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
2		THE APPROVAL HOLDER MUST NOT TAKE ANY WATER USING ANY WORK ON THIS APPROVAL IF THE WATER ALLOCATION ACCOUNT OF THE ACCESS LICENCE FROM WHICH THE WATER IS TO BEING TAKEN, IS OR WILL GO INTO DEBIT.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
3		DEVICES FOR MEASURING THE VOLUME OF WATER EXTRACTED IN ACCORDANCE WITH ANY MANUFACTURER'S SPECIFICATIONS OR, WHERE GIVEN, IN ACCORDANCE WITH ANY WRITTEN DIRECTION FROM THE MINISTER.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
4		THE APPROVAL HOLDER MUST PROVIDE A CERTIFICATE ISSUED BY THE MANUFACTURER OR OTHER SUCH COMPETENT, QUALIFIED PERSON CERTIFYING THE ACCURACY OF DEVICE OR DEVICES USED FOR MEASURING THE VOLUME OF WATER EXTRACTED BY THE APPROVED WORKS, IN ACCORDANCE WITH ANY WRITTEN DIRECTION FROM THE MINISTER	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
5		THE APPROVAL HOLDER MUST INFORM THE DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES WITHIN SEVEN (7) DAYS IF THE DEVICE OR DEVICES USED FOR MEASURING THE VOLUME OF WATER TAKEN FROM THE APPROVED WORK CEASES TO RECORD WATER USAGE ACCURATELY. IN SUCH CASES THE APPROVAL HOLDER MUST NOTIFY THE DEPARTMENT OF: (I) THE DURATION OF THE FAILURE OF THE MEASURING DEVICE(S), AND (II) THE TOTAL HOURS THAT THE WORK WAS OPERATED WHILE THE MEASURING DEVICE WAS NOT FUNCTIONING, AND (III) WHERE IRRIGATION IS UNDERTAKEN, THE AREA OF LAND IN HECTARES THAT HAS BEEN IRRIGATED DURING THE PERIOD WHERE THE MEASURING DEVICE WAS NOT FUNCTIONING.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
6		THE APPROVAL HOLDER MUST WITHIN TWO (2) MONTHS OF COMPLETING CONSTRUCTION OF ANY WORK PERMITTED BY THIS APPROVAL AND IN A FORM APPROVED BY THE MINISTER, PROVIDE THE DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES WITH THE FOLLOWING:- I) THE LOCATION OF THE AUTHORISED WORK ON THE LOT AND DEPOSITED PLAN PREFERABLY USING GPS REFERENCES, AND II) DETAILS OF THE WORK (INCLUDING THE SIZE, DIMENSIONS AND CAPACITY OF THE WORK).	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Access License 20AL201242							
7		THE APPROVAL HOLDER MUST NOT TAKE WATER USING WORKS ON THIS APPROVAL UNDER A: (A) DOMESTIC AND STOCK ACCESS LICENCE, OR (B) LOCAL WATER UTILITY ACCESS LICENCE OR (C) MAJOR UTILITY ACCESS LICENCE, UNLESS IT IS IN ACCORDANCE WITH A WATER SUPPLY ORDER LODGED WITH AND APPROVED BY THE NOMINATED STATE WATER CUSTOMER SERVICE OFFICER NOT LESS THAN 6 DAYS PRIOR TO WHEN THE WATER IS TO BE TAKEN.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
8		THE APPROVAL HOLDER MUST NOT TAKE WATER USING WORKS ON THIS APPROVAL UNDER A: (A) REGULATED RIVER (HIGH SECURITY) ACCESS LICENCE OR (B) REGULATED RIVER (GENERAL SECURITY) ACCESS LICENCE, UNLESS IT IS IN ACCORDANCE WITH A WATER SUPPLY ORDER LODGED WITH AND APPROVED BY THE NOMINATED STATE WATER CUSTOMER SERVICE OFFICER NOT LESS THAN 6 DAYS PRIOR TO WHEN THE WATER IS TO BE TAKEN, EXCEPT WHEN TAKING WATER THAT IS ACCOUNTED AS UNCONTROLLED (KNOWN AS UNCONTROLLED WATER ALLOCATIONS).	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
9		THE APPROVAL HOLDER MUST PROVIDE THE MINISTER, IN THE APPROVED FORM, WITH THE FOLLOWING INFORMATION WHEN REQUESTED: (A) A REPORT DETAILING THE QUANTITY OF WATER TAKEN THROUGH THE AUTHORISED WORK(S) AND RECORDED BY THE APPROVED MEASURING DEVICE, OR WHERE THE WORK DOES NOT HAVE A MEASURING DEVICE FITTED TO IT, ADVISE THE MINISTER OF THE DURATION OF ANY PUMPING, AND, (B) WHERE THE WATER IS USED FOR IRRIGATION, THE AREA OF LAND IRRIGATED, THE PLANTING DATE, AREA AND YIELD OF ALL CROPS GROWN ON THE PROPERTY FOR EACH SEASON. THESE DETAILS MUST INCLUDE: (I) THE VOLUME OF WATER TAKEN FROM THE WATER SOURCE AND APPLIED DIRECTLY TO CROPS AND/OR PASTURE, (II) THE VOLUME OF WATER TAKEN FROM THE WATER SOURCE AND HELD IN ON-FARM STORAGE, (III) THE VOLUME OF WATER TAKEN FROM ON-FARM STORAGE AND APPLIED TO CROPS (INCLUDING PASTURE); (IV) THE TYPE AND AREA OF EACH CROP (INCLUDING PASTURE) IRRIGATED; (V) THE METHOD OF IRRIGATION FOR EACH CLASS OF CROP AND/OR PASTURE; AND (VI) THE VOLUME OF WATER APPLIED TO EACH INDIVIDUAL CLASS OF CROP AND/OR PASTURE.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
Part B: other Conditions							
10		THIS CONDITION HAS BEEN REVOKED.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
11		WATER TAKEN BY MEANS OF THE APPROVED WORK MUST NOT BE USED FOR THE PURPOSE OF IRRIGATING RICE.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
12		THIS CONDITION HAS BEEN REVOKED.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
13		THIS CONDITION HAS BEEN REVOKED.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
14		THE APPROVAL HOLDER MUST NOT ALLOW ANY TAILWATER OR DRAINAGE WATER TO DISCHARGE, BY ANY MEANS INCLUDING SURFACE OR SUB-SURFACE DRAINS OR PIPES, FROM THE APPROVAL HOLDERS PROPERTY, INTO OR ONTO:- — ANY ADJOINING PUBLIC OR CROWN ROAD - ANY OTHER PERSONS LAND - ANY CROWN LAND - ANY RIVER, CREEK OR WATERCOURSE - ANY GROUNDWATER AQUIFER - ANY AREA OF NATIVE VEGETATION AS DESCRIBED IN THE NATIVE VEGETATION CONSERVATION ACT 1997 OR THE NATIVE VEGETATION ACT 2003. - ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE - ANY IDENTIFIED SITE OF ABORIGINAL SIGNIFICANCE - ANY IDENTIFIED SITE OF CULTURAL SIGNIFICANCE	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Access License 20AL201242							
15		THE HOLDER OF THE APPROVAL MUST NOT CONSTRUCT OR INSTALL WORKS USED FOR CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE APPROVED WORK THAT OBSTRUCT THE REASONABLE PASSAGE OF FLOODWATERS INTO OR FROM A RIVER.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
16		THIS CONDITION HAS BEEN REVOKED.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			
17		THIS CONDITION HAS BEEN REVOKED.	This license is a Hunter River licence not connected to the site. Water is not used, not connected with mining activities.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
Jan-16							
2.0 Proposed Mining Activities							
Explorations	2.3						
	2.3.1	Past and Proposed Exploration					
		All exploration at MTW aims to increase resource knowledge through exploration drilling and other exploration techniques such as surface geophysics may be employed when appropriate to increase the overall resource understanding. Detailed testing of all coal seams will continue for all exploration drilling and may consist of coal quality analysis, gas testing, geophysics, geotechnical testing, in-situ stress testing, spontaneous combustion testing, permeability and finally the installation of piezometers within selected boreholes.	Noted	Noted			
		Exploration drilling during the MOP period will generally be limited to areas ahead of mining operations in North Pit and South Pit.	Noted	Noted			
		All exploration drilling activities are reviewed prior to commencement as part of RTCA's Ground Disturbance Permit (GDP) process. Planned borehole locations and access tracks are assessed for environmental, cultural heritage, approval and mining title issues and necessary constraints and conditions are placed on drilling locations for each borehole location.	Noted	Noted			
		All boreholes are surveyed and if not required for monitoring purposes are cement sealed on completion. All casing is removed where practicable. However, in isolated holes, this may not be possible requiring the casing to be cut off below ground level. Borehole sites are then rehabilitated to an appropriate standard, as dictated by the GDP.	Noted	Noted			
		Pre-production drilling will take place within the nominated Disturbance Limit of this MOP. All other drilling external to the area covered by this MOP, will be conducted under the approved REF process.	Noted	Noted			
	2.3.2	Estimated Mine Life					
		The operational mine life of MTW is dependent on current development consents. Approval has been granted for the Warkworth Continuation 2014 and Mt Thorley Operations 2014 projects allowing mining to progress into Saddleback Ridge and through Wallaby Scrub Road. The modified consents for Warkworth and Mt Thorley are valid until 2036. The planned life of MTW mine is therefore until 2036. However, with other potential coal resources, mining may continue beyond this date subject to gaining approval.	Not yet 2036 at the time of the audit.	Not Triggered			
Land Preparation	2.4						
	2.4.1	Removal of Vegetation					
		All vegetation clearing is undertaken as a staged operation immediately in advance of mining operations. Vegetation clearing is avoided during the breeding season of identified threatened fauna species in accordance with Coal & Allied Coal & Allied Environmental Procedure 10.2 Flora and Fauna.	A number of GDPs were provided as evidence, consideration of the timing of clearing was covered through reference back to CAN-10_EWI-Site_E9-021 Flora and fauna Procedure.	Compliant			
		Pre-clearing surveys are undertaken to identify important habitats. Habitat trees and appropriate microhabitats such as fallen logs are surveyed and marked to determine if fauna are using them. Any marked trees that show signs of current or recent use are reserved for latest possible removal to encourage fauna to abandon the area of their own accord. Vegetation removal is undertaken in accordance with Coal & Allied Environmental Procedure 5.1 – Disturbance and Rehabilitation.	surveys provided as evidence	Compliant			
		Following the removal of useable timber for fence posts and habitat features, as well as collection of viable seed for use in rehabilitation, the remaining vegetation is generally mulched and incorporated into the topsoil. Salvaged logs are placed on areas of post mining rehabilitation to form fauna habitat, either as logs on the ground or stag trees. Suitable logs may also be supplied to on-site or off-site projects for the construction of in-stream structures.	Logs stored, various plans for tree thinning to create logs and placement of logs with the two phase rehab planting plans.	Compliant			
		Vegetation clearing ahead of mine workings will be kept to a minimum, consistent with the space requirements of the pre-stripping fleet, which is usually about one mining strip (approximately 100 m). Clearing also allows for the establishment of mine infrastructure ahead of the mining operations and may include clearing for haul roads and access tracks, power lines, pipelines, transformers and drainage control structures.	Review in site inspection, appears to meet this requirement at the time of the audit.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
	2.4.2	Topsoil Management					
		Topsoil must be stripped and salvaged correctly to maximise its value for reuse in rehabilitation. Where possible, the topsoil from high quality native vegetation areas is directly transported from stripping to rehabilitation areas to maximise the value of the soil seed bank and soil organisms.	Stockpile cover now includes native seed mixes as trials to reduce weed and seed from exotic grasses. Stockpiles are transferred directly to rehab where possible.	Compliant			
	2.4.2.2	Topsoil stripping					
		Soil testing will be undertaken to determine what soil amelioration is required prior to re-use for rehabilitation activities. Areas that are planned to be disturbed will be stripped of topsoil prior to disturbance. Advance clearing and topsoil removal is kept to a minimum to reduce dust generation and potential impacts on fauna species. Topsoil will be stripped using appropriately sized earthmoving equipment, preferably track dozers. Where practicable, soil will be stripped when moist, but not saturated; and no stripping will occur in excessively dry or wet conditions. Prior to stripping of topsoil, appropriate controls such as sediment controls will be put in place to prevent off-site loss of subsoil sediments.	Contamination testing for the use of compost and agronomic testing to ameliorants also conducted. Reviewed some topsoil spreading on site. Stripping was not observed but based on recent audit inspections at the site the methods described are used at MTW.	Compliant			
	2.4.2.3	Topsoil Handling and Management					
		Stripped soil needs to be managed to prevent erosion and weed infestation, and to ensure that the maximum topsoil reserves are retained for reuse during rehabilitation works. Where possible, topsoil will be transferred directly from stripping to respreading operations, eliminating the need for storage. However in some cases, mining operations dictate that topsoil storage will be necessary for extended periods. Where stockpiling is required, the following procedures will be adopted: <ul style="list-style-type: none"> • Stockpiles will be located away from trafficable or mine areas, trees or watercourses and placed on areas of flat topography or along the contour to prevent erosion; • Good quality topsoil and marginal soil will be stockpiled separately and recorded as such; • Topsoil stockpiles and volumes will be identified and monitored for weed control; • Where possible, stockpiles will be limited to a maximum height of 3.0 metres and windrowed to increase surface area; and • Stockpiles will generally be sown with a cover crop of deep rooting, nitrogen fixing species such as Lucerne, to help maintain topsoil viability and minimise erosion and weed infestation if not being reused for prolonged periods. 	Managed by mine planners and dumping of rejects, surveys peg dump areas for carbonaceous material dumps No evidence of dumping outside limits.	Compliant			
	2.4.2.4	Topsoil Budgeting					
		Due to the shallow nature of the in situ duplex topsoils there will be a shortfall in the amount of topsoil available for rehabilitation. Trials are being undertaken using a spoil/compost mixture as a growth medium for areas being returned to native vegetation. If native vegetation can be successfully re-established without using topsoil then the available topsoil can be prioritised for use on areas being returned to pasture. Topsoil will also be prioritised for use on areas with potentially hostile spoil properties that make it difficult to establish vegetation. For the purposes of topsoil budgeting, it is assumed that: <ul style="list-style-type: none"> • The primary objective of the mine rehabilitation program is to create a structurally stable landform; • A secondary objective is to maximise post mine land capability and restore a productive land use; • The total area projected as being disturbed over mine life is the area to be rehabilitated; • The area to be rehabilitated excludes the final voids and areas already rehabilitated; and • Topsoil is only available from mining areas and rehabilitated areas to be stripped over the mine life. 	6 reference sites in each community variant - Ironbark woodland and Ironbark spotted gum woodland. Correlation studies between the reference sites and the rehab areas with regard to soil chemistry, growth and cover, species richness and physical attributes (erosion etc) is conducted. Sighted Niche Environmental report, .	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
Mining	2.5						
	2.5.1	Mine Layout					
	2.5.1.2	Mine planning					
		<p>The points below summarise the Mine Plan activities for the MOP period:</p> <p>MTO</p> <ul style="list-style-type: none"> Opening of the Putty Road underpass in late 2017 will allow waste material to be hauled from Warkworth into the MTO lease for emplacement. To accommodate this waste, 27.2 ha of disturbance to existing rehabilitation will occur in the northern part of MTO. This will be fully rehabilitated in following years once the waste emplacements have reached approved MOP heights. Dragline operations will continue in Loders Pit until early 2018. The southern portion of the void will be back filled with waste from Warkworth, while the northern part will be used as a future tailings storage facility. Excavation of the Abbey Green North pit will not commence during this MOP period. Common boundary landform between MTO and Bulga Mine to be constructed and 53.3 ha of rehabilitation will be undertaken in this area during the MOP period. <p>WML</p> <ul style="list-style-type: none"> Southern end of West Pit strips will be extended to increase strike length of dragline strips. Mining of North and West Pit will continue to progress to the west. Mining in South Pit is likely to be completed in mid-2017. Filling of the South Pit Centre Ramp area was commenced in 2015, allowing for the rehabilitation of the highly visible eastern face in following years. Filling of haul road adjacent to Putty Road in the south of WML will commence once the Putty Road underpass opens in late 2017, rehabilitation to occur in following years. Capping and rehabilitation of Tailings Dam 2 will occur within the MOP period. 	<p>Most of these items are not triggered at the time of the audit.</p> <p>The South Pit Centre Ramp was completed and final rehabilitation was being undertaken at the time of the audit.</p> <p>Capping of tailings dam 2 was scheduled for commencement shortly after the audit.</p>	Not Triggered			
	2.5.2.2	Overburden and Interburden Material					
		<p>Overburden removal at MTW is centred on shovel pre-stripping methods and dragline "stripping". Multiple bench pre-stripping is used to expose shallower coal seams with a combination of dragline and shovel operations to remove lower interburden. Overburden removal operations generally proceed as follows:</p> <ul style="list-style-type: none"> Tree clearing and timber harvesting is carried out under contract. Topsoil removal is carried out under contract using small earthmoving equipment such as a D6 bulldozer with a loader and trucks. Overburden is drilled. Generally holes stop short of the coal seams to reduce blast damage to the coal. Hole diameters range from 200mm to 270mm. Drill patterns depend on hole depth and hole diameter but pattern sizes will generally range from 5m x 6m to 10m x 12m. The overburden material is blasted according to design parameters specific to the geology, the presence of water, and the type of machine intended to dig the material. Overburden and interburden greater than 2.0m in thickness require fragmentation by drill and blasting. Overburden/interburden removal is performed by one of three basic methods: <ul style="list-style-type: none"> Shovel / Truck Fleet: The majority of the uppermost seams in the sequence are exposed using an electric shovel loading 240 and 320 tonne trucks. Overburden waste is hauled to dumps located across the site. Dragline: Single or double pass removal of loose overburden into previous strip, leaving a thin layer of material overlying the coal seam. Dozers: Dozers will be used to remove thin layers of interburden by directly pushing blasted overburden material into the previous void. 	<p>The clearing and mining process was found to be generally in accordance with this description in the site inspection.</p>	Compliant			
	2.5.2.3	Coal					
		<p>If the coal seam was uncovered by dragline, the thin layer of rock will be cleaned by tracked and wheeled dozers and graders. The coal seams may be blasted, ripped by dozers or free-dug by loaders depending on the nature and thickness of the coal. Front-end loaders will operate with 180 tonne capacity trucks which haul the raw coal together the North or South CPPs.</p>	Noted	Noted			
	2.5.2.4	Rehabilitation					
		<p>Rehabilitation of the overburden material is considered an integral part of the mining process and will be conducted progressively over the period of the MOP. Proposed rehabilitation methodology and scheduling are discussed further in Section 7.0.</p>	Noted	Noted			
Mineral Processing	2.6						
		<p>Coal will be washed in both the North CPP and South CPP in accordance with market requirements.</p>	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
Rock Material Management	2.8						
	2.8.4	Sewage Waste					
		Sewage from the North surface facilities (i.e. administration buildings, workshops, CPP) is treated in a sewage treatment plant, which aerates and clarifies the sewage, before discharging it into maturation ponds. The treated effluent is disposed of on-site by irrigation onto nearby landscaped areas, where it dissipates through transpiration and evaporation. Regular monitoring of the effluent and irrigated soils demonstrates there are no adverse impacts from this operation.	No evidence of escape of nutrients at high levels from the site were observed in the audit documentation or in the site inspection.	Compliant			
		Sewage from the South administration areas is treated in septic tanks and associated transpiration areas. Sewage from remote crib huts are treated via local "biocycle" systems, or pumped out and disposed of either off-site or in the on-site maturation ponds by licensed contractors.	No evidence of escape of nutrients at high levels from the site were observed in the audit documentation or in the site inspection.	Compliant			
	2.8.5	Oil and Grease Waste					
		A specialised oil and grease storage facility exists at MTW. During 2013, 1,203,625 kg of oil, 91,958 kg of contaminated grease and 118,131 kg of coolant were recycled at MTW by Remondis. Coal & Allied's currently approved waste disposal contractor. The bulk oils and grease storage facilities are part of the fuel storage facility and meet Australian Standards. All waste hydrocarbons are recycled via a licensed waste hydrocarbon disposal company and are part of the Total Waste Management System (TWMS) developed by Coal & Allied.	Remondis waste reports provided as evidence. Remondis are licensed to transport and dispose of the wastes listed in the reports (EPL 12297).	Compliant			
3.0 Forecast Rehabilitation Activities							
		Rehabilitation will be undertaken progressively across the mined areas. Detailed baseline data from analogue sites will be used to develop and monitor a number of rehabilitation performance measures for specific rehabilitation domains (refer Section 6.0). Specific performance indicators will be measured to demonstrate and guide the implementation and track the progress of rehabilitation. The monitoring of rehabilitation performance will be reported in the AEMR.	Spatial data and cross-sections were provided by MTW to support their compliance with the MOP predictions. The audit team also went to external data sources (aerial photos) and compared them with the MOP plan 3C 2016 and 2017. The aerial photos were in general compliance with the progress requirements of the MOP plan. 6 reference sites in each community variant - Ironbark woodland and Ironbark spotted gum woodland. Correlation studies between the reference sites and the rehab areas with regard to soil chemistry, growth and cover, species richness and physical attributes (erosion etc) is conducted. Sighted Niche Environmental report, Rehabilitation Monitoring Report.	Compliant			
		The objectives of the rehabilitation domains of mined areas are to: <ul style="list-style-type: none"> • Re-create approximately 2,100 ha of Endangered Ecological Communities (EEC) woodland communities to a standard comparable to similar reference EEC communities; • Establish approximately 319 ha of woodland/open woodland areas, but not necessarily conforming to any particular vegetation community; • Recreate 1,423 ha grassland communities with a native component on the residual disturbed mining areas; • Establish a network of tree corridors to ensure connectivity of woodland community areas; • Provide additional habitat for threatened species; and • Create an additional north/south wildlife corridor providing connectivity to other habitat. 	Seed mixes are aimed at recreating the EECs. MOP Plans and biodiversity offset calculations confirm the areas noted are planned as stated and the corridors are planned.	Compliant			
		The rehabilitation of EEC woodland communities on mined lands will be guided by leading-practice knowledge of rehabilitation and revegetation professionals.	HVO Services have suitable experts though on occasion, expert advice is sought.	Compliant			
		Replanting of mine rehabilitation areas will use local native plant species and seed collection programmes to ensure adequate seed is collected from relevant species to ensure species diversity is maintained. Where practical, topsoil will be translocated from proposed mining areas, with minimal stockpiling, in an attempt to maximise the viability of the native seed bank of local ecological communities. With time, the rehabilitation areas will provide additional suitable habitat for native flora and fauna including threatened Woodland Birds, microchiropteran Bats and the Squirrel Glider. Existing rehabilitation and current rehabilitation programmes being undertaken should rapidly provide suitable foraging habitat for these species to utilise.	Noted - see assessment above.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
4.0 Environmental Issues Management							
	4.1.3	Environmental Management Plans					
		In addition to the standards and procedures listed above, Environmental Management Plans (EMPs) are prepared as required by the development consents. These management plans are approved by DI and DP&E and are reviewed as necessary to ensure they remain relevant.	Noted	Noted			
	4.1.4	Coal & Allied Environmental Services					
		Coal & Allied have established a team of environmental specialists to establish, implement and audit the requirements of the EMS and EMPs. This team provides comprehensive coverage to all Coal & Allied's mining operations through a central technical service office and site based personnel	Noted	Noted			
	4.1.5	Auditing and Inspections					
		Coal & Allied Environmental Services conduct a number of audits and inspections throughout the year, including regular internal EMS and compliance audits, Rio Tinto compliance audits and other less routine audits. Site based environmental personnel also conduct regular inspections of all work areas.	Noted	Noted			
	4.1.6	Environmental Reporting					
		An AEMR is produced for MTW to fulfil the reporting requirements of SSC, OEH and DP&E. This report compiles monitoring results and discusses trends, system changes and responses to any potential issues identified during monitoring. Targets and future initiatives are also identified. Other environmental related reports include regular reporting to OEH, CCC, and DP&E.	Noted	Noted			
Risk Management							
	4.2						
	4.2.2	Biodiversity					
		As required under Schedule 3 Condition 36 of Project Approval (SSD-6464) for Warkworth, MTW will develop and implement a Biodiversity Management Plan that is consistent with the Biodiversity Offset Strategy described in the Warkworth Continuation 2014 EIS. The Biodiversity Offset Strategy for Warkworth includes: <ul style="list-style-type: none"> • Securing direct land based offsets - within 3 years of commencement of the development; • Securing rehabilitation offsets – within 10 years of completion of mining operations; • Development of performance criteria for regeneration of Warkworth Sand Woodland to ensure successful regeneration in the Northern Biodiversity Area within 15 years from the commencement of the development; • Preparation of an Integrated Management Plan for the Warkworth Sand Woodland EEC; and • Contribution of \$1 million to the Office of Environment and Heritage (OEH's) 'Saving Our Species – Regent Honeyeater' conservation program. 	The Biodiversity Management Plan complies with these requirements. Further compliance is assessed in the Biodiversity MP.	Compliant			
	4.2.6	Weeds and Vertebrate Pest Species					
		Weeds will be managed through Coal & Allied Environmental Procedure 10.4 – Weed Control.	Noted	Noted			
		The management of weeds across the MOP disturbance area will be undertaken in accordance with advice from the Upper Hunter Weeds Authority. This represents a low environmental risk associated with the proposed activities that can be managed with an ongoing inspection and maintenance program.	No evidence of interaction with the Upper Hunter Weeds Authority was able to be identified. Site rehab specialist stated that contact was maintained.	Compliant			
		The management of vertebrate pests follows a Working Vertebrate Pest Action Plan which is updated seasonally based on recommendations from the quarterly Vertebrate Pest Control Reports. This approach allows maximum flexibility to react to sightings, monitoring results, or particular pest infestations and allows customisation of the programme to effectively address these infestations. The quarterly Vertebrate Pest Control Reports provide a basis for all decision making on vertebrate pest control on the site.	Described in the Annual Review including eradication effort results.	Compliant			
		Vertebrate Pest species control is undertaken quarterly and may include trapping, baiting and/or shooting. Performance of vertebrate pest species control is reported annually in the AEMR.	The results were reported in the Annual Reviews up to and in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
	4.2.7	Aboriginal Heritage					
		A GDP system has also been implemented across Coal & Allied sites. This permit must be authorised by cultural heritage staff and must be completed prior to any disturbance of Coal & Allied land outside current mining operations. During this process, the location of archaeological and cultural heritage sites is conveyed to employees operating in the vicinity and unintentional disturbance of sites is avoided.	Reviewed in the site inspection and several completed GDPS were provided as evidence.	Compliant			
		There are a number of Aboriginal heritage sites present within the MOP proposed disturbance area. These sites will be managed or salvaged in accordance with development consent and AHMP conditions, and all relevant CHMS procedures and legislative requirements.	See ACHMP review elsewhere in this audit, found compliant.	Compliant			
	4.2.8	European Heritage					
		Coal & Allied will prepare a Historic Heritage Management Plan to detail management of heritage sites within the Project area. This Plan will be submitted to DP&E prior to carrying out any mining to the west of Wallaby Scrub Road and will include: <ul style="list-style-type: none"> 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; protection of the other heritage items outside the disturbance areas; developing an interpretation programme of the heritage values of the RAAF Base Bulga Complex and the Great North Road Complex; and ongoing consultation with and involvement of relevant historical groups. 	No mining west of Wallaby Scrub Road at present and final approval of this work not yet received from Council (road closure).	Not Triggered			
	4.2.9	Visual Amenity and Lighting					
		Within 6 months of the commencement of development under Project Approval (SSD-6464), Coal & Allied will prepare a tree screening plan in consultation with SSC to establish vegetative bunds and/or screening along the boundary of the site including adjoining public roads where appropriate.	The Tree Screening Plan was developed in June 2016, site commencement was 15-02-16. No documented evidence to support the commencement of vegetative screening / bund works within the 6 months from commencement. At the time of the audit the works had commenced and the timing was verified at interview but not physical evidence could be provided to support the interview evidence. Subsequent to the audit additional evidence was provided in the form of a photo that was embedded in the Tree Screening Plan (timing) that showed the initial tree screening work along with the consultation with Singleton Council.	Compliant			
		In relation to stray light, measures will be implemented to ensure mine lighting is directed appropriately. Control measures include: <ul style="list-style-type: none"> Fixed and mobile floodlights will not be directed towards surrounding residence unless there is significant intervening topography; Day and night dumps may be created to assist with reducing lighting impacts; and All external lighting complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting. 	Reviewed team talks re mobile lighting. The VIMP discusses fixed lighting. Noted day and night dumps in discussion with Short Term Mine Planner.	Compliant			
	4.2.10	Hazardous Substances Contamination					
		The response to any accidental spills or ground contamination will be assessed on a case-by-case basis and remediated using biodegradable spill absorbent. The comprehensive site spill response trailer and emergency response procedure for MTW would also be called upon as required. This work will be carried out in accordance with the relevant Coal & Allied Environmental Procedures. Hydrocarbon or chemical spills will also be reported in the mine site incident reporting and management system with corrective and preventative measures taken as appropriate.	No significant spills were observed in the site audit inspection.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
	4.2.11	Spontaneous Combustion					
		In general, MTW does not have any ongoing issues with spontaneous combustion. Although considered a low risk, controls will be implemented to reduce the potential for spontaneous combustion outbreaks and will include: <ul style="list-style-type: none"> Identifying and selectively managing waste material susceptible to spontaneous combustion; Minimising unplanned coal losses in overburden emplacement areas; Maintaining overburden lift heights up to a maximum of 20 metres to increase stability and compaction of the emplacement area; Selectively placing carbonaceous material in active dumps where it can be rapidly buried; Rapidly and effectively burying carbonaceous material; and Not exposing loose sulphurous and carbonaceous material for periods of time that allows heating. 	Managed by mine planners and dumping of rejects, surveys peg dump areas for carbonaceous material dumps No evidence of dumping outside limits.	Compliant			
	4.2.13	Contaminated Land					
		Prior to the cessation of mining activities in the MOP disturbance area, an assessment will be undertaken to determine whether potential contamination issues exist and remediation is required.	Not yet required	Not Triggered			
7.0 Rehabilitation Implementation							
Landform design	7.1.4.1						
		A revised landform will be submitted via a MOP Amendment within 18 months of approval of this MOP.	Noted, planning underway for revised final landform with micro-relief and a more natural style landform to be resubmitted mid-year.	Noted			
Surface shaping	7.1.4.2						
		Following truck dumping activities, the overburden piles are reshaped to form the final landscape. The final landform is designed to be structurally stable without long, unimpeded drainage lines. The final landform is designed to slopes of generally less than 10 degrees on outward facing slopes and less than 14 degrees on internally draining slopes i.e. low walls into final voids, ramps etc.	MTL Surveyors provided plans and cross-sections verifying general compliance with these objectives at the time of the audit.	Compliant			
Water Management	7.1.4.3						
		Graded banks and contour drains are constructed in rehabilitated areas to reduce overland flow and direct runoff to waterways or drainage lines. Sediment dams are constructed as required and where possible, runoff water is directed off site once treated for sediment load. These sedimentation dams will be retained to trap sediment from rehabilitation areas and eventually provide drinking water for stock, native fauna and aquatic habitat. Drainage from the elevated rehabilitated overburden dumps will be achieved by the use of drainage routes at a slope of 2-10 degrees. Drainage lines are constructed and grassed or rock lined as appropriate.	No variations were noted from these requirements in the site inspection.	Compliant			
Surface preparation	7.1.4.4						
		Whenever possible, topsoil will be transferred directly from stripping to re-spreading operations to reduce the possibility of structural damage and monitor biological activity and potential. Topsoil is typically spread using D6 sized dozers to minimise structural damage.	Confirmed at interview, Rehabilitation Specialist.	Compliant			
Soil Preparation	7.1.4.5						
		Soil modifiers, such as gypsum, are applied where required to improve topsoil condition. Gypsum and compost material is initially spread and incorporated into the recovered topsoil using an aerator implement. Revegetation will be undertaken progressively as the surface preparation of mine spoil is completed. At the time of sowing all pasture revegetation areas are treated with up to 400 kg/ha of "Starter 15", Grower 11" or equivalent fertiliser.	This was confirmed at interview with the Rehabilitation Specialist and ameliorant spreading was observed at the site.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
Maintenance	7.1.4.8						
		All rehabilitation is regularly checked to determine the success of vegetation growth, erosion controls, adequate fencing and appropriate signage. Where vegetation growth is unsatisfactory, the areas will be re-sown as necessary.	Rehabilitation is checked by the site staff regularly (pers comm Rehab Specialist) and there is an external review annually (Niche Environment and Heritage in 2017).	Compliant			
		Grasslands will be maintained by periodic aerial applications of fertiliser (typically 100 - 250 kg/ha) until they become well established.	Fertiliser was applied where necessary to grassland areas - Rehabilitation Specialist.	Compliant			
		Stock grazing will not be commenced until the areas of Grassland are well established and area securely fenced. Stocking rates will be carefully monitored to ensure that the areas are not overgrazed. Vehicular traffic will be generally kept off revegetation areas and restricted to designated access tracks.	No stock grazing had commenced at the time of the audit.	Not Triggered			
		Weeds will be controlled using appropriate management techniques, as the company is obliged to control weed growth on site under the Noxious Weeds Act 1993 (NSW). If weeds occupy greater than twenty percent of ground cover area in rehabilitation, they will be sprayed or controlled by other methods.	Control efforts reported in the AR's. Generally compliant with this requirement.	Compliant			
Tailing Storage Facilities	7.2.2						
		The Ministrup TSF will be capped as part of constructing a third Putty Road crossing which will be used to haul spoil from Warkworth into the Mt Thorley dump areas.	Third Putty Rd crossing not yet commenced.	Not Triggered			
Water Management Areas	7.2.3						
		Water Management Areas will continue to be managed as in the current situation with none to be rehabilitated during the period of this MOP.	Noted	Noted			
Overburden Emplacements	7.2.4						
	7.2.4.2	Revegetation					
		In order to achieve diversity targets each mix will contain a range of categories based on the following factors: - plant structure and form (e.g. tree vs. shrub) - floristics (i.e. spread over a range of plant genera) - life cycle (e.g. short lived primary coloniser vs. long lived understory shrubs).	The seed mix contains this variation, the recreation of EEC drives the seed mix.	Compliant			
		Hand seeding or tractor mounted sowing equipment will spread seed as soon as practicable after soil preparation. Areas designated as grasslands are sown to pasture, with a low rate of tree and shrub seed designed to produce a lightly wooded pasture. Tree and shrub species may be used more extensively on the steeper slopes, which are less suitable for grazing. In these areas, belts of grasses may be used to help control erosion during the tree establishment phase. Hydro-mulching or hay mulching may be used for seeding on slopes that are inaccessible to tractors.	Seed is applied as soon as possible after the spreading of Topsoil and is generally applied by tractor. The vegetation communities as described were in evidence during the site inspection. Hydromulching is used though not generally in rehabilitation areas.	Compliant			
		Trialling of various seeding methods and equipment will be undertaken during the MOP period to allow effective sowing of a diverse native seed mix. The different shapes, sizes and weights of native seed make it difficult to broadcast through traditional sowing equipment so alternative methods, including direct drill machines, have already been tested and proven.	Direct drilling still used and was the preferred method at the time of the audit.	Compliant			
8.0 Rehabilitation Monitoring and Research							
Monitoring	8.1						
	8.1.1	Timeframes for the Implementation of the Monitoring Program					
		During the MOP period a monitoring programme will be developed and implemented to assess the recovery of rehabilitation areas across the site. Information from monitoring of analogue sites will be used to inform the setting of targets for performance criteria. Performance criteria targets, for the various stages of rehabilitation, will be determined during 2016.	Niche Environmental Rehabilitation Monitoring Reports, completion targets for those areas not set in the MOP are being developed using the results of the rehabilitation Monitoring.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
	8.1.2	Methodology					
		A consistent and quantitative methodology will be implemented and undertaken on a periodic basis, ensuring a satisfactory number of analogue/baseline sites are established to inform target setting. Data from analogue sites will be used to establish target values for key biophysical parameters and indicators related to vegetation diversity/structure and habitat complexity. Permanent quadrats will be established and reassessed at a maximum of two year intervals, at least in the short term, to ensure restorative strategies (i.e. maintenance of soil health, maintenance of ground cover, achievement of suitable species richness etc.) are progressing as desired.	The methodology in the Niche reports matches these requirements.	Compliant			
		In new revegetation sites, an annual monitoring program will be required as the site rapidly changes and can be vulnerable to effects of climates, pests and diseases. In addition, general inspections for erosion (particularly drainage lines), survival, mortality, weed control and pests will be undertaken more regularly and at least biannually until the sites have become well established. The duration between monitoring periods can be lengthened to five yearly intervals once it has been established that the restorative strategies are appropriate and that conservation objectives are being met. Inspections of drainage lines in rehabilitation areas will be conducted on a quarterly basis during the first year	Niche conduct the rehabilitation annually, all new areas are added, more mature areas have the monitoring intensity reduced over time.	Compliant			
	8.1.4	Soil Analyses					
		Soil samples are to be undertaken using standard soil sampling techniques with a core sampler within the monitoring quadrat. Cores are to be taken at each site and bulked together. Soil samples are to be sent to an accredited laboratory for analysis. Soil analysis consist of assessing the parameters, pH, EC, Available Ca, Mg, K, Ammonia, sulphur, organic matter, exchangeable Na, Ca, Mg, K, H, Al, cation exchange capacity, available and extractable phosphorus, micronutrients (Zn, Mn, Fe, Cu, B), Total Carbon and Nitrogen. To assist in the interpretation of the data a report with analysis and appropriate recommendation is to be provided by the laboratory.	Included in the Niche "Native Vegetation Rehabilitation Monitoring" reports	Compliant			
	8.1.5	Monitoring structural diversity, floristics and other biodiversity attributes					
		Permanent transects and photo-points will be established to record changes in these attributes over time. The methodology is to provide quantitative data that measures changes in: - Floristic diversity including species area curves and growth forms; - Ground cover diversity and abundance; - Vegetation structure and habitat characteristics (including ground cover, cryptogams, logs, rocks, litter, projected foliage cover at various height increments); - Understorey density and growth (including established shrubs, direct seeding and tubestock plantings and tree regeneration); - Overstorey characteristics including tree density, health and survival; and - Other habitat attributes such as the presence of hollows, mistletoe and the production of buds, flowers and fruit.	The monitoring detailed in the Niche Monitoring report addressed these requirements.	Compliant			
Reporting	8.2						
		The following reporting will be undertaken in keeping with the requirements of Schedule 5 of the Project Approvals for managing and reporting any incidents, complaints, non-compliances with statutory requirements and exceedance of the impact assessment criteria and / or performance criteria: • Amendments to the Environmental Management System which incorporates components of the monitoring and reporting program; • Incident reporting mechanism; • Annual Environmental Management Report; • Independent Environmental Audit; • Community Consultative Committee; and • Access to information via the project website which is updated regularly.	Noted elsewhere in this audit, found compliant	Compliant			
		The monitoring, review and implementation of this MOP will be the responsibility of the Environmental Specialist – Rehabilitation with support from the Environmental Services team.	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Mining Operations Plan							
11.0 Review and Implementation							
Review	11.1						
		The MOP will be reviewed, and if necessary revised, within three months of the submission of an: <ul style="list-style-type: none"> • Annual review which has been undertaken as per Schedule 5 – Condition 4 of the Project Approvals; • Incident report which has been undertaken as per Schedule 5 – Condition 7 of the Project Approvals; • Audit which has been undertaken as per Condition Schedule 5 – 9 of the Project Approvals; and • Any modification to the conditions of the Approval. 	The version of the MOP reviewed for this audit was approved by DRE in February 2016. MTW maintain a register of Management plan reviews that was provided as evidence for the audit.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Continuation Project EIS							
2 Description of the Proposal							
Coal resources	2.4.3						
		The proposal would enable approximately 358Mt of ROM coal to be mined over the life of the operations, approximately 230Mt of which is within the proposed 2014 disturbance area.	Noted	Noted			
Mining Method	2.4.4						
	i	Vegetation clearing and topsoil management					
		Vegetation removal and topsoil stripping precede mining operations and are implemented in accordance with Coal & Allied's Environmental Management System (EMS), namely the Flora and Fauna procedure and the Topsoil Stripping and Stockpiling Management procedure. A pre-clearance survey is undertaken before vegetation is removed and topsoil stripped. The purpose of the pre-clearance survey is to identify habitat trees and understory habitats such as fallen logs. Before clearing, trees suitable for timber are selectively marked and removed. Tree stands providing a viable seed source are harvested where practical. Vegetation may be chipped for rehabilitation purposes.	Reviewed in the MOP and found compliant	Compliant			
		A Mining Operations Plan (MOP) requires mining operators to actively consider the environmental and rehabilitation aspects and to provide management systems for integration with mine planning and production (Environmental Sustainability Unit – Mineral Resources 2013). Further information on the function of a MOP is provided in Section 13.4.6. An integrated MOP applies across MTW.	Reviewed in the MOP and found compliant	Compliant			
	ii	Open cut mining process					
		Coal extraction at Warkworth Mine uses typical open cut methods incorporating dragline and truck/shovel operations. Overburden is removed using electric rope shovels and excavators, before coal is extracted using front end loaders and excavators. Depending upon thickness, interburden is removed using shovels, excavators or draglines. Draglines are typically tasked with removal of the deeper and thicker interburden zones to expose the deepest coal seam extracted.	Noted, no changes to this process noted in the site inspection.	Compliant			
	iii	Overburden management					
		Overburden management at MTW under the proposal would include the ongoing geochemical characterisation of mined materials and void wall rock to accurately predict risk factors and develop management measures where required. In addition, the proposal would continue the ongoing monitoring of runoff and seepage waters during operations to validate these predictions.	The overburden characterisation in the EIS is used to manage this issue, no ongoing characterisation of overburden materials is conducted.	Not Compliant	E	3	Low
Coal washing and processing	2.4.7						
		Under the proposal, the Warkworth and MTO CPPs would continue to wash and process coal in preparation for its transport to the Port of Newcastle via the MTCL with a small volume transported to Redbank Power Station. A small portion of ROM coal is bypassed and not washed	Noted, Redbank is no longer operating.	Noted			
Coal transport	2.4.8						
	i	ROM coal					
		The currently approved maximum extraction rate of 18Mtpa of ROM coal would be maintained under the proposal. Extracted coal would continue to be transported from the active working areas to the handling facilities at the Warkworth and MTO CPPs by truck. It would also continue to be transferred between Warkworth Mine and MTO via internal haul roads utilising one of two existing bridge crossings over Putty Road (it may also be transferred over the third approved crossing that is not presently constructed). The coal would be delivered directly to the ROM dump hoppers or the ROM stockpile	Noted, this was the case at the time of the audit.	Compliant			
	ii	Product Coal					
		With the exception of coal delivered to Redbank Power Station for domestic purposes, all product coal would be loaded and transported via MTCL. In case of emergency, such as conveyor failure, coal may be transported to Redbank Power Station via road for short periods, subject to regulatory approval in each instance.	No road transport had been required in the audit period. The rest of this commitment was found as described here in the site inspection.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Waste Management	2.4.9						
	i	overview					
		Waste is classified and segregated into separate streams onsite and Coal & Allied environmental management protocols and procedures are implemented to ensure they are managed appropriately. The implementation of these would continue under the proposal.	The remondis waste report verified this requirement.	Compliant			
		The MTW waste management strategy includes the following commitments: <ul style="list-style-type: none"> • all sampling and classification results are retained for the life of the operations in accordance with the EPA's Waste Classification Guidelines (DECCW 2009). It should be noted that most waste classifications for the operations are clear and do not require a sampling regime, however where unidentifiable waste is encountered (ie liquid waste), testing would be undertaken prior to acceptance and disposal; • where relevant and in accordance with EPA's requirements, notification and tracking of waste is undertaken; • all waste management protocols and procedures are regularly updated to include relevant contemporary legislative requirements (for example, Resource Recovery Exemptions); and • contingency planning is undertaken for events that affect operations at the mines that may result in environmental harm, such as hazardous substances spills or failure of TSFs. These are detailed in the MTW Environmental Pollution Incident Response Management Plan. 	No unidentified waste was encountered during the audit period. No evidence of dated procedures in use in the waste management areas sampled. PIRMP is in place.	Compliant			
	ii	Overburden emplacement					
		Overburden material would continue to be emplaced at Warkworth Mine and, in addition, would be transferred from Warkworth Mine to MTO to assist in the development of an improved final landform for MTO. Overburden would be transferred to MTO via existing road crossings over Putty Road and either the yet to be constructed bridge or underpass.	Noted	Noted			
	iii	Rejects and tailings disposal					
		The integrated management (ie generation and disposal) of rejects and tailings for MTW would continue under the proposal. It is managed through implementation of Coal & Allied's environmental procedure EP6.02 – Coarse Rejects and Tailings Disposal, which is provided in Appendix R. The TSFs, shown in Figure 2.3, are designed to ensure that rejects and tailings are adequately managed, handled and disposed of in a manner that would minimise potential effects on the surrounding environment. These design measures include selecting appropriate locations (in-pit locations are preferred) that take into account topography, including drainage lines, groundwater and downstream infrastructure. The TSFs also include appropriate erosion, sediment and leachate control measures which are detailed in the MTW WMS.	Noted, no inappropriate emplacement of rejects noted in the site inspection and the tailings storage facilities were as noted here.	Compliant			
	iv	Hazardous waste and dangerous goods					
		These internal MTW documents are regularly updated and would incorporate the proposal should approval be granted.	Noted	Noted			
	v	other waste					
		Non-mineral waste management at the mines meets all regulatory requirements and relevant Rio Tinto standards. The management of non-mineral waste is guided by planning, process design and purchasing that result in the maximum reuse and recycling of materials. Each category of non-mineral waste is subject to appropriate segregation, collection, handling, transport and disposal to minimise environmental impacts. These non-mineral wastes are stockpiled in accordance with the environmental work instruction (see Appendix R), such as waste liquids stored in tanks or sumps.	Noted	Noted			
	vi	Offsite waste transportation					
		All transportation of regulated wastes is managed strictly in accordance with EPA's requirements to ensure that it does not pose a risk to human health or the environment. Waste transport certificates are issued and uploaded electronically to EPA by MTW's waste contractor. These records are kept in secure storage for the life of the operations in compliance with EPA's Waste Classification Guidelines (DECCW 2009). Details regarding the transportation of waste offsite are provided in Appendix R.	Waste transport by Remondis who are licensed waste transporters.	Compliant			
Public Safety	2.4.10						
	i	Site access					
		Public safety at MTW would continue to be managed primarily through the implementation of Rio Tinto's Health, Safety, Environment and Quality (HSEQ) standards, procedures and daily security inspections. Fencing, signposting, restricted access areas and locked external gates form part of the safety measures to ensure the safety of the public. In addition, there is no public access from the mine entrance to pit areas as part of the constraint on public access	Noted, the boudary fence was recured during the site visit.	Noted			
	ii	Bushfire management					
		Annual inspections of Coal & Allied-owned lands, including those leased to residential and commercial tenants are undertaken to identify and assess bushfire risk for public safety and, if required, implement appropriate risk reduction measures such as vegetation pruning or establishment of fire breaks.	Inspection form and database of inspections supplied as evidence	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Rehabilitation	2.4.11						
		Rehabilitation would continue to be undertaken progressively across the mined area under the proposal. The requirements for rehabilitation would be determined in consultation with relevant government agencies and stakeholders and be concluded in accordance with the MTW MOP as required by the NSW Mining Act 1992 (Mining Act).	See the MOP in this audit	Compliant			
Water management	2.4.12						
		Potential surface water effects of the proposal would be managed in accordance with the MTW Water Management Plan (WMP), prepared in consultation with the NSW Office of Water (NOW) and NSW EPA for the integrated MTW operations. The plan requires: <ul style="list-style-type: none"> • diversion of clean water runoff around areas of mining disturbance; • collection and treatment of sediment-laden runoff from disturbed areas prior to discharge; • collection of groundwater inflows and runoff from active mining areas within the MTW WMS; • collection and treatment storage of potentially contaminated mine water prior to discharge to the MTW WMS; • minimisation of water supply requirements from external sources by utilising on-site water for dust suppression and coal processing; and • discharging excess mine water from the site based on existing entitlements under the Hunter River Salinity Trading Scheme (HRSTS). 	The WMP and particularly the Water balance reviewed as part of this audit confirm this approach. Further to this, the site inspection noted a number of these items as conducted at MTW.	Compliant			
Closure of Wallaby Scrub Road	2.4.13						
		Wallaby Scrub Road is managed and maintained by Singleton Council. Continuation of mining westwards would necessitate the closure of Wallaby Scrub Road. By Year 2 (nominally 2016) mining would be within 500m of the road, requiring its closure. The applicant would engage with Singleton Council in relation to closure of the road.	Engagement was ongoing at the time of the audit, a resolution had not yet been reached with Council for the roads closure. Mining was within 500m of the road requiring road closures for blasting.	Not triggered			
		an appropriate emergency access road between Putty Road and the Golden Highway would be constructed prior to the closure of Wallaby Scrub Road in accordance with the RFS's relevant access standards, and in consultation with emergency services.	Not yet required.	Not triggered			
Secondary access gates	2.4.14						
		The proposal also includes the maintenance of existing secondary access gates to Warkworth Mine from Wallaby Scrub Road, Golden Highway and Putty Road to allow for infrequent traffic movements in and out. It is expected that these access gates would be used to enable activities such as drilling, shutdown equipment, pad access and transportation of equipment. Similarly, existing secondary access gates to biodiversity offset areas would also be maintained as part of the proposal. Access would allow for biodiversity offset management activities.	Not yet required.	Not triggered			
22 Environmental management and commitments							
Table 22.1 Commitments							
General		Upon receipt of development consent, all management plans relevant to the proposal would be updated with requirements as specified in this EIS and any subsequent response to submissions report.					
Noise		Management and monitoring of noise would continue to be undertaken in accordance with the MTW noise management plan. The noise management plan would be reviewed and updated to include the following additional management measures: <ul style="list-style-type: none"> • Land acquisition: <ul style="list-style-type: none"> - acquisition rights would be afforded to one additional privately-owned assessment location (34) predicted to experience noise levels above the relevant criteria for operational noise under prevailing meteorological conditions. 	The management plans were updated. Notification of acquisition rights in a letter was provided as evidence for the audit.	Compliant			
Air Quality and GHG		Management and monitoring of air quality would continue to be undertaken in accordance with the MTW AQMP. The MTW AQMP would be reviewed and updated to incorporate the proposal.	Noted, AQMP was updated.	Compliant			
Groundwater		Management and monitoring of groundwater would continue to be undertaken in accordance with the MTW WMP. The MTW WMP would be reviewed and updated to include the additional management measures prescribed below.	Noted, this was the case at the time of the audit.	Compliant			
		<ul style="list-style-type: none"> • Updates to current groundwater monitoring programme: <ul style="list-style-type: none"> - installation of nested monitoring bores along the Wollombi Brook (PZ10, PZ11, PZ12); and - installation of monitoring bores with the Warkworth Sands system as part of an update to the existing Warkworth Sands Ephemeral Perched Aquifer Management Plan within the MTW WMP. • Mine seepage monitoring programme: <ul style="list-style-type: none"> - recording of the time, location and estimated volume of any unexpected increased groundwater outflow from the highwall and endwall; - measurement of water pumped from the mine, preferably using flow meters or other suitable gauging apparatus; - correlation of rainfall records with mine seepage records so groundwater and surface water can be separated; and - monitoring of coal moisture content. 	Agreement reached with DPI - water on the location and construction of these bores. Construction was completed June 2016 and the bores are now in the monitoring plan.	Compliant			
			Pit inspections by the Geologists, Pump Crew and OCEs monitor groundwater inflow for any unexpected increases. There were no unexpected inflows reported in the audit period. All pumped water moving between different areas of the site has flow gauge monitoring. The Water balance correlates all water inputs including rainfall and seepage allowing calculation of both values. Coal moisture is monitored as a sale value item.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
		<ul style="list-style-type: none"> Data management and reporting: <ul style="list-style-type: none"> - establishment of trigger levels; - quarterly review of groundwater levels and field water quality against trigger levels, with site-specific investigations initiated; - formal review of depressurisation of coal measures and alluvium would be undertaken annually by a suitably qualified hydrogeologist; - annual reporting (including all water level and water quality data); and - all groundwater data being stored in a database customised for MTW with suitable QA/QC controls. Future model iterations: <ul style="list-style-type: none"> - assess the validity of the model predictions every three years; and - incorporate into the model and revise predictions, if required. Licensing: <ul style="list-style-type: none"> - retain and obtain appropriate water licences, as required, to account for modelled take. 	<p>The WMP TARP included GW SWL triggers. SWL is measured and recorded annually. AGE conduct and annual review of aquifer drawdown and cheical characteristics. Annual reporting is included in the AR GW monitoring results were obseved in a database at site.</p>	Compliant			
			<p>This review process has been followed in the past but is not triggered for the SSD approval at the time of the audit.</p>	Not Triggered			
			<p>Licenses are reatined and obtained. Licenses supplied.</p>	Compliant			
Surface water		<p>Management and monitoring of surface water would continue to be undertaken in accordance with the MTW WMP. The MTW WMP will be reviewed and updated to include the following additional management measures:</p> <ul style="list-style-type: none"> Licensing: <ul style="list-style-type: none"> - retain and obtain appropriate water licences, as required, to meet operational requirements. Surface water monitoring programme: <ul style="list-style-type: none"> - update to include locations of new dams as they are constructed (ie NOOP and Sediment Dam B) with EC, pH and TSS monitored monthly and a comprehensive analysis six monthly. 	<p>Noted, WMP plan updated to include these items.</p>	Compliant			
Ecology		<p>Management and monitoring of ecology would be undertaken through the proposed biodiversity offset strategy which would include:</p> <ul style="list-style-type: none"> establishment of two offset sites (SBA and NBA) for the conservation of WSW and non-WSW vegetation; contribution to the UHSA and/or the use of supplementary measures to meet the outstanding credit requirements; and proposed rehabilitation of mined areas. 	<p>Two offset areas have been established. Remainder is noted.</p>	Compliant			
Aboriginal and cultural heritage		<p>Management and monitoring measures to be implemented for Aboriginal and cultural heritage comprise:</p> <ul style="list-style-type: none"> Preparation of an integrated HMP. Management of Aboriginal cultural heritage at the Site, including: <ul style="list-style-type: none"> - implement only the agreed impact management measures for those places for which development impacts are unavoidable, with avoidance through design planning being the preferred option; - continue investigations into the feasibility of moving the Site Mgrinding grooves (37-6-0163); and - involve the Aboriginal community in the implementation of all impact management measures consistent with the existing CHWG processes and protocols with such being formalised and conducted under a terms of reference. Establish and manage WBACHCA in accordance with a customised management plan developed in consultation with the CHWG and other stakeholders including DP&E and OEH. Management of other 'onsite' Coal & Allied owned lands in accordance with such procedures and protocols as outlined within the provisions of the CHMS and ACHMP (or HMP). Implement the outcomes of the Hunter Valley Sand Bodies Research Study. 	<p>There is an exisitng HMP. SSD HHMP has been completed. Details in new HHMP reflect these requirements.</p>	Compliant			
Historic heritage		<p>Management and monitoring to be implemented for historic heritage comprise:</p> <ul style="list-style-type: none"> Conservation Management Plans: <ul style="list-style-type: none"> - adopt the measures of existing CMPs for the former RAAF Base Bulga Complex and the Great North Road Complex; Archaeological investigations: <ul style="list-style-type: none"> - test pit along locations of Wallaby Scrub Road where there is potential for subsurface remains associated with the early road system; - mechanical excavation and recording of Well #2; and - test excavation of the eastern runway of the former RAAF Base Bulga Complex. Salvage of moveable heritage items: <ul style="list-style-type: none"> - approach Singleton Local Historical Society and Museum to offer opportunity for salvage of moveable heritage items. Implement a Chance Finds Procedure. Heritage interpretation: <ul style="list-style-type: none"> - establish an interpretation programme of the heritage values of the RAAF Base Bulga Complex and the Great North Road Complex, in collaboration with the local community groups. Local Community Historic Heritage Conservation Initiative: <ul style="list-style-type: none"> - establish two historic heritage funds – the Mount Thorley Warkworth Historic Heritage Conservation Fund and the Great Northern Road Conservation Fund. 	<p>Historic Heritage Management plan being prepared, not completed at the time of the audit (was still in consultation with the required groups and regulators).</p>	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Traffic and transport		<p>Management and monitoring measures to be implemented for traffic and transport comprise:</p> <ul style="list-style-type: none"> • Wallaby Scrub Road: <ul style="list-style-type: none"> - prepare a road closure implementation plan for Wallaby Scrub Road, in conjunction with the relevant road authorities and emergency services, which will include strategies to minimise potential impacts of the closure. • Emergency services access road: <ul style="list-style-type: none"> - construct an emergency access road, in accordance with the guidelines provided in Planning for Bush Fire Protection (RFS 2006) and the NSW Bushfire Coordinating Committee Policy No. 2/2007, between Putty Road and the Golden Highway prior to the closure of Wallaby Scrub Road. • Road safety review: <ul style="list-style-type: none"> - review the existing speed advisory and curve warning signs for all the curves on the roads which are likely to be used by detoured traffic (ie Putty Road, Broke Road, and Golden Highway) prior to the closure of Wallaby Scrub Road. 	<p>Road closure implementatin plan not completed at the time of the audit. Emergency road not yet commenced. Road Safety Study not yet commenced.</p>	Not Triggered			
Final landform and rehabilitation		<p>Rehabilitation will continue to be undertaken in accordance with the MOP. Should the proposal and the Mount Thorley Operations 2014 be approved, the plan will be updated to include objectives for combined MTW rehabilitation as described below.</p>	<p>MOP was the governing document for rehabilitation at the timee of the audit.</p>	Compliant			
		<ul style="list-style-type: none"> • Rehabilitation domain objectives: <ul style="list-style-type: none"> - progressively establish approximately 2,100ha of EEC woodland (an ironbark community) across the combined MTO and Warkworth Mine; and - create an additional north/south wildlife corridor providing connectivity to other habitat. • Post-mining management: <ul style="list-style-type: none"> - upon determination of the closure of Warkworth Mine, prepare a Closure Strategy and subsequent Closure Management Plan, in consultation with employees and relevant external stakeholders. The Closure Management Plan would include: <ul style="list-style-type: none"> § a description of specific technical solutions related to infrastructure and facilities for the preferred closure option or options; § full auditable details of closure cost; § a detailed communication plan that is executed in a timely, consistent and transparent manner. This must target all internal and external stakeholders; and § a socio-economic mitigation programme. - prepare a final void management plan at least five years prior to completion of mining and include: <ul style="list-style-type: none"> § identification of possible beneficial uses for the void; § review of modelling and predictions of long-term hydrological behaviour and water quality responses, including final void water quality and level; § long-term integrity of void slopes; § waste characterisation and containment as pertains to runoff into final voids; § coal seam capping; and § long-term management, monitoring and mitigation measures. 	<p>These were included in the MOP</p>	Compliant			
		<ul style="list-style-type: none"> • Post-mining management: <ul style="list-style-type: none"> - upon determination of the closure of Warkworth Mine, prepare a Closure Strategy and subsequent Closure Management Plan, in consultation with employees and relevant external stakeholders. The Closure Management Plan would include: <ul style="list-style-type: none"> § a description of specific technical solutions related to infrastructure and facilities for the preferred closure option or options; § full auditable details of closure cost; § a detailed communication plan that is executed in a timely, consistent and transparent manner. This must target all internal and external stakeholders; and § a socio-economic mitigation programme. - prepare a final void management plan at least five years prior to completion of mining and include: <ul style="list-style-type: none"> § identification of possible beneficial uses for the void; § review of modelling and predictions of long-term hydrological behaviour and water quality responses, including final void water quality and level; § long-term integrity of void slopes; § waste characterisation and containment as pertains to runoff into final voids; § coal seam capping; and § long-term management, monitoring and mitigation measures. 	<p>Not in the audit period.</p>	Not Triggered			
Visual amenity		<p>Management and monitoring of visual amenity will continue to be undertaken in accordance the draft MTW VIMP which will be updated to include the following additional measures:</p> <ul style="list-style-type: none"> • SSVA: <ul style="list-style-type: none"> - develop a process to enable any landowner who perceives a significant visual impact from the proposal to receive a SSVA. The assessment will recommend appropriate mitigation if required for high impacts which will be implemented in consultation and agreement with the landowner. • Onsite mitigation: <ul style="list-style-type: none"> - examine, in detail, high sensitivity viewing points and determine opportunities for relevant screening treatments including site boundary treatments; - minimise the amount of pre-rehabilitation areas exposed to view by establishing grass cover to remove colour contrast; and - establish planting patterns of trees and grasses in rehabilitation areas to create a high level of visual integration with the surrounding landscape. 	<p>SSD 6464 and 6465 do not require a VIMP. A Tree Screening Plan is required by the consents and this was reviewed isn each setion of the SSD consents as required (SSD 6464 Schedule 3, Condition 5 and SSD 6465 Schedule 3, Conditions 30 & 31). Evidence was provided in the form of correspondance with a property owner, a Visual Impact Assessment fo rthat property and an agreement for implementation of the screening works.</p>	Compliant			
Social		<p>Socio-economic initiatives to be implemented under the proposal comprise:</p> <ul style="list-style-type: none"> • the development of a Social Impact Management Plan (SIMP) to manage and monitor the implementation of strategies to reduce identified social impacts and enhance social opportunities. The SIMP would detail implementation responsibilities; timing; performance indicators and targets; and monitoring measures. The SIMP would be prepared in consultation with key stakeholders, following the EIS public exhibition and submissions process. The key aims of the SIMP would be to: <ul style="list-style-type: none"> - reflect the findings and recommendations of the SIA and provide a short summary of findings; - summarise for all stakeholders the potential positive and negative impacts of the proposal, proposed mitigation and management strategies, and implementation actions; - be developed for the life of the proposal; and - promote an active and ongoing role for communities, local authorities and all levels of government through construction, operation and decommissioning of a proposal. • the negotiation of a VPA with Singleton Council. The VPA would present an opportunity to ensure a proportion of the funds are dedicated to maintaining and/or improving facilities and services in Bulga, other local neighbouring communities, and the Singleton LGA as a whole. • the establishment of a Bulga and Near Neighbour Amenity Resource to provide support to residents surrounding the operation. 	<p>The SIMP was supplied. Bulga and Near Neighbour Amenity resource is in place, tank cleaning is the current initiative. 60 responses to letters sent in November December 2016.</p>	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Warkworth Continuation Project EIS							
22 Environmental management and commitments							
Table 22.1 Commitments							
General		Upon receipt of development consent, all management plans relevant to the proposal would be updated with requirements as specified in this EIS and any subsequent response to submissions report.					
Noise		Management and monitoring of noise would continue to be undertaken in accordance with the MTW noise management plan. The noise management plan would be reviewed and updated to include the following additional management measures: <ul style="list-style-type: none"> Land acquisition: - acquisition rights would be afforded to one additional privately-owned assessment location (34) predicted to experience noise levels above the relevant criteria for operational noise under prevailing meteorological conditions. 	The management plans were updated. Notification of acquisition rights in a letter was provided as evidence for the audit.	Compliant			
Air Quality and GHG		Management and monitoring of air quality would continue to be undertaken in accordance with the MTW AQMP. The MTW AQMP would be reviewed and updated to incorporate the proposal.	Noted, AQMP was updated.	Compliant			
Groundwater		Management and monitoring of groundwater would continue to be undertaken in accordance with the MTW WMP. The MTW WMP would be reviewed and updated to include the additional management measures prescribed below.	Noted, this was the case at the time of the audit.	Compliant			
		<ul style="list-style-type: none"> Updates to current groundwater monitoring programme: - installation of nested monitoring bores along the Wollombi Brook (PZ10, PZ11, PZ12); and - installation of monitors bores with the Warkworth Sands system as part of an update to the existing Warkworth Sands Ephemeral Perched Aquifer Management Plan within the MTW WMP. 	Agreement reached with DPI - water on the location and construction of these bores. Construction was completed June 2016 and the bores are now in the monitoring plan.	Compliant			
		<ul style="list-style-type: none"> Mine seepage monitoring programme: - recording of the time, location and estimated volume of any unexpected increased groundwater outflow from the highwall and endwall; - measurement of water pumped from the mine, preferably using flow meters or other suitable gauging apparatus; - correlation of rainfall records with mine seepage records so groundwater and surface water can be separated; and - monitoring of coal moisture content. 	Pit inspections by the Geologists, Pump Crew and OCEs monitor groundwater inflow for any unexpected increases. There were no unexpected inflows reported in the audit period. All pumped water moving between different areas of the site has flow gauge monitoring. The Water balance correlates all water inputs including rainfall and seepage allowing calculation of both values. Coal moisture is monitored as a sale value item.	Compliant			
		<ul style="list-style-type: none"> Data management and reporting: - establishment of trigger levels; - quarterly review of groundwater levels and field water quality against trigger levels, with site-specific investigations initiated; - formal review of depressurisation of coal measures and alluvium would be undertaken annually by a suitably qualified hydrogeologist; - annual reporting (including all water level and water quality data); and - all groundwater data being stored in a database customised for MTW with suitable QA/QC controls. 	The WMP TARP included GW SWL triggers. SWL is measured and recorded annually. AGE conduct and annual review of aquifer drawdown and chemical characteristics. Annual reporting is included in the AR GW monitoring results were observed in a database at site.	Compliant			
		<ul style="list-style-type: none"> Future model iterations: - assess the validity of the model predictions every three years; and - incorporate into the model and revise predictions, if required. 	This review process has been followed in the past but is not triggered for the SSD approval at the time of the audit.	Not Triggered			
		<ul style="list-style-type: none"> Licensing: - retain and obtain appropriate water licences, as required, to account for modelled take. 	Licenses are retained and obtained. Licenses supplied.	Compliant			
Surface water		Management and monitoring of surface water would continue to be undertaken in accordance with the MTW WMP. The MTW WMP will be reviewed and updated to include the following additional management measures: <ul style="list-style-type: none"> Licensing: - retain and obtain appropriate water licences, as required, to meet operational requirements. Surface water monitoring programme: - update to include locations of new dams as they are constructed (ie NOOP and Sediment Dam B) with EC, pH and TSS monitored monthly and a comprehensive analysis six monthly. 	Noted, WMP plan updated to include the requirements of the SSD projects.	Compliant			
Ecology		Management and monitoring of ecology would be undertaken through the proposed biodiversity offset strategy which would include: <ul style="list-style-type: none"> establishment of two offset sites (SBA and NBA) for the conservation of WSW and non-WSW vegetation; contribution to the UHSA and/or the use of supplementary measures to meet the outstanding credit requirements; and proposed rehabilitation of mined areas. 	Two offset areas have been established. Remainder is noted.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Warkworth Continuation Project EIS							
Aboriginal and cultural heritage		<p>Management and monitoring measures to be implemented for Aboriginal and cultural heritage comprise:</p> <ul style="list-style-type: none"> • Preparation of an integrated HMP. • Management of Aboriginal cultural heritage at the Site, including: <ul style="list-style-type: none"> - implement only the agreed impact management measures for those places for which development impacts are unavoidable, with avoidance through design planning being the preferred option; - continue investigations into the feasibility of moving the Site M grinding grooves (37-6-0163); and - involve the Aboriginal community in the implementation of all impact management measures consistent with the existing CHWG processes and protocols with such being formalised and conducted under a terms of reference. • Establish and manage WBACHCA in accordance with a customised management plan developed in consultation with the CHWG and other stakeholders including DP&E and OEH. • Management of other 'onsite' Coal & Allied owned lands in accordance with such procedures and protocols as outlined within the provisions of the CHMS and ACHMP (or HMP). • Implement the outcomes of the Hunter Valley Sand Bodies Research Study. 	<p>There is an existing HMP. SSD HHMP has been completed. Details in new HHMP reflect these requirements.</p>	Compliant			
Historic heritage		<p>Management and monitoring to be implemented for historic heritage comprise:</p> <ul style="list-style-type: none"> • Conservation Management Plans: <ul style="list-style-type: none"> - adopt the measures of existing CMPs for the former RAAF Base Bulga Complex and the Great North Road Complex; • Archaeological investigations: <ul style="list-style-type: none"> - test pit along locations of Wallaby Scrub Road where there is potential for subsurface remains associated with the early road system; - mechanical excavation and recording of Well #2; and - test excavation of the eastern runway of the former RAAF Base Bulga Complex. • Salvage of moveable heritage items: <ul style="list-style-type: none"> - approach Singleton Local Historical Society and Museum to offer opportunity for salvage of moveable heritage items. • Implement a Chance Finds Procedure. • Heritage interpretation: <ul style="list-style-type: none"> - establish an interpretation programme of the heritage values of the RAAF Base Bulga Complex and the Great North Road Complex, in collaboration with the local community groups. • Local Community Historic Heritage Conservation Initiative: <ul style="list-style-type: none"> - establish two historic heritage funds – the Mount Thorley Warkworth Historic Heritage Conservation Fund and the Great Northern Road Conservation Fund. 	<p>Historic Heritage Management plan being prepared, not completed at the time of the audit (was still in consultation with the required groups and regulators).</p>	Not Triggered			
Traffic and transport		<p>Management and monitoring measures to be implemented for traffic and transport comprise:</p> <ul style="list-style-type: none"> • Wallaby Scrub Road: <ul style="list-style-type: none"> - prepare a road closure implementation plan for Wallaby Scrub Road, in conjunction with the relevant road authorities and emergency services, which will include strategies to minimise potential impacts of the closure. • Emergency services access road: <ul style="list-style-type: none"> - construct an emergency access road, in accordance with the guidelines provided in Planning for Bush Fire Protection (RFS 2006) and the NSW Bushfire Coordinating Committee Policy No. 2/2007, between Putty Road and the Golden Highway prior to the closure of Wallaby Scrub Road. • Road safety review: <ul style="list-style-type: none"> - review the existing speed advisory and curve warning signs for all the curves on the roads which are likely to be used by detoured traffic (ie Putty Road, Broke Road, and Golden Highway) prior to the closure of Wallaby Scrub Road. 	<p>Road closure implementation plan not completed at the time of the audit. Emergency road not yet commenced. Road Safety Study not yet commenced.</p>	Not Triggered			
Final landform and rehabilitation		<p>Rehabilitation will continue to be undertaken in accordance with the MOP. Should the proposal and the Mount Thorley Operations 2014 be approved, the plan will be updated to include objectives for combined MTW rehabilitation as described below.</p>	<p>MOP was the governing document for rehabilitation at the time of the audit.</p>	Compliant			
		<ul style="list-style-type: none"> • Rehabilitation domain objectives: <ul style="list-style-type: none"> - progressively establish approximately 2,100ha of EEC woodland (an ironbark community) across the combined MTO and Warkworth Mine; and - create an additional north/south wildlife corridor providing connectivity to other habitat. 	<p>These were included in the MOP</p>	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Warkworth Continuation Project EIS							
		<ul style="list-style-type: none"> Post-mining management: <ul style="list-style-type: none"> upon determination of the closure of Warkworth Mine, prepare a Closure Strategy and subsequent Closure Management Plan, in consultation with employees and relevant external stakeholders. The Closure Management Plan would include: <ul style="list-style-type: none"> a description of specific technical solutions related to infrastructure and facilities for the preferred closure option or options; full auditable details of closure cost; a detailed communication plan that is executed in a timely, consistent and transparent manner. This must target all internal and external stakeholders; and a socio-economic mitigation programme. prepare a final void management plan at least five years prior to completion of mining and include: <ul style="list-style-type: none"> identification of possible beneficial uses for the void; review of modelling and predictions of long-term hydrological behaviour and water quality responses, including final void water quality and level; long-term integrity of void slopes; waste characterisation and containment as pertains to runoff into final voids; coal seam capping; and long-term management, monitoring and mitigation measures. 	Not in the audit period.	Not Triggered			
Visual amenity		<p>Management and monitoring of visual amenity will continue to be undertaken in accordance the draft MTW VIMP which will be updated to include the following additional measures:</p> <ul style="list-style-type: none"> SSVA: <ul style="list-style-type: none"> develop a process to enable any landowner who perceives a significant visual impact from the proposal to receive a SSVA. The assessment will recommend appropriate mitigation if required for high impacts which will be implemented in consultation and agreement with the landowner. Onsite mitigation: <ul style="list-style-type: none"> examine, in detail, high sensitivity viewing points and determine opportunities for relevant screening treatments including site boundary treatments; minimise the amount of pre-rehabilitation areas exposed to view by establishing grass cover to remove colour contrast; and establish planting patterns of trees and grasses in rehabilitation areas to create a high level of visual integration with the surrounding landscape. 	SSD 6464 and 6465 do not require a VIMP. A Tree Screening Plan is required by the consents and this was reviewed in each section of the SSD consents as required (SSD 6464 Schedule 3, Condition 5 and SSD 6465 Schedule 3, Conditions 30 & 31). Evidence was provided in the form of correspondence with a property owner, a Visual Impact Assessment for that property and an agreement for implementation of the screening works.	Compliant			
Social		<p>Socio-economic initiatives to be implemented under the proposal comprise:</p> <ul style="list-style-type: none"> the development of a Social Impact Management Plan (SIMP) to manage and monitor the implementation of strategies to reduce identified social impacts and enhance social opportunities. The SIMP would detail implementation responsibilities; timing; performance indicators and targets; and monitoring measures. The SIMP would be prepared in consultation with key stakeholders, following the EIS public exhibition and submissions process. The key aims of the SIMP would be to: <ul style="list-style-type: none"> reflect the findings and recommendations of the SIA and provide a short summary of findings; summarise for all stakeholders the potential positive and negative impacts of the proposal, proposed mitigation and management strategies, and implementation actions; be developed for the life of the proposal; and promote an active and ongoing role for communities, local authorities and all levels of government through construction, operation and decommissioning of a proposal. the negotiation of a VPA with Singleton Council. The VPA would present an opportunity to ensure a proportion of the funds are dedicated to maintaining and/or improving facilities and services in Bulga, other local neighbouring communities, and the Singleton LGA as a whole. the establishment of a Bulga and Near Neighbour Amenity Resource to provide support to residents surrounding the operation. 	The SIMP was supplied. Bulga and Near Neighbour Amenity resource is in place, tank cleaning is the current initiative. 60 responses to letters sent in November December 2016.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
5 Ground Disturbance Permits (GDP)							
		No Ground Disturbing Activity may take place within the AHMP Stage 1 Area without the issue of a GDP by duly authorised RTCA personnel for the particular Ground Disturbing Activity within areas where a GDP approval is required. The GDP process is an internal RTCA mechanism that is additional to, but does not obviate, the need to comply with the provisions of this AHMP or other relevant development consent approvals	GDPs include a section on Archaeology and require sign off by a RTCA Heritage Specialist.	Compliant			
		No GDP may be approved unless the area that is subject to the proposed Ground Disturbing Activity has been assessed against the CHZPS and all relevant management measures have been implemented as specified in the ACHMD (Schedule 2) of this AHMP.	Noted in the GDPs provided for review for the audit.	Compliant			
		All applications for a GDP must specify the boundary extent of the area that is to be subject to the Ground Disturbing Activity, the nature of the activities that are to be undertaken in that area, and the proposed date on which the activities are to commence.	All GDP applications were reviewed and all have boundary extents.	Compliant			
6 Management of Aboriginal Objects							
		An Aboriginal Site Impact Recording Form will be completed for any Aboriginal objects/sites located within the AHMP Stage 1 Area that are salvaged under the provisions of this AHMP.					
Short term Management							
		Aboriginal objects removed from the AHMP Stage 1 Area under the provisions of this AHMP, or those previously removed in accordance with a relevant AHIP consent and Care and Control Permit, or as otherwise authorised under the provisions of this AHMP, will be appropriately tagged (noting site AHIMS number, date of mitigation, AHIP consent number, storage identification number, etc.) and securely stored at the RTCA Hunter Valley Services Cultural Heritage Storage Facility.	This was as it was for the previous audit in 2015 though the Care and Control Permit had been renewed.	Compliant			
Long term Management							
		In the absence of an alternative long-term storage option, such as a NSW government sanctioned regional storage facility for Aboriginal objects (e.g. a Hunter Valley keeping place), all Aboriginal objects removed from the AHMP Stage 1 Area under the provisions of this AHMP, and/or in accordance with the relevant AHIP consent and Care and Control Permit, will be appropriately tagged (noting site AHIMS number, date of mitigation, AHIP consent number, storage identification number, etc.) and securely stored at the RTCA Hunter Valley Services Cultural Heritage Storage Facility.	This was still the case at the time of the audit.	Compliant			
		In the event that a NSW government sanctioned regional storage facility for Aboriginal objects is established (e.g. a Hunter Valley keeping place) and the RAPS request the relocation of collected Aboriginal objects from the AHMP Stage 1 Area to this facility, and the state government approves such a request, then RTCA will facilitate this request.	Noted	Noted			
		Notwithstanding the above, any Aboriginal objects (to the extent that they are stone artefacts) that are collected from the AHMP Stage 1 Area will be managed in accordance with the OEH Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW.	Noted, checked thoroughly in the previous audit and management has not changed in the interim.	Compliant			
7 Wollombi Brook Aboriginal Cultural Heritage Conservation Area							
		A separate Conservation Management Plan for the Wollombi Brook Aboriginal Cultural Heritage Conservation Area will be developed in compliance with conditions 38 and 39 of the Warkworth Operations SSD-6464.	Final conservation draft has been prepared and final submission draft due to go the RAPS in the near future. The submit as a final to OEH (June 2017).	Compliant			
8 Workplace health and safety							
		RTCA is committed to the principle that all workplace injuries are preventable and accepts its responsibility to provide a safe workplace, fit-for-purpose equipment and safe systems of work. This can only be achieved if all understand and accept obligations to comply with relevant legislation and any relevant RTCA operational policies, procedures or plans.	Noted	Noted			
		All RTCA employees and contractors undertaking cultural heritage management activities within the AHMP Stage 1 Area will be required to have participated in any inductions required by RTCA prior to entry to the mine leases to ensure they have an understanding of relevant legislation and any relevant RTCA operational policies, procedures or plans.	Noted	Noted			
		Employees and contractors conducting cultural heritage management activities will be required to wear all relevant Personal Protective Equipment as prescribed under the Warkworth Operations Health and Safety procedures.	Noted	Noted			
		With respect to community access and management activities conducted within the AHMP Stage 1 Area, specific culturally appropriate workplace health and safety requirements will be established to accommodate Cultural Requirements as set out in Section 33 of this AHMP.	See S. 33, no requests in the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
9 Cultural Heritage Management Inductions							
		<p>As a minimum requirement, RTCA will ensure that the following elements are incorporated in the current and any future cultural heritage management induction module for the AHMP Stage 1 Area:</p> <ul style="list-style-type: none"> a. an overview of the cultural heritage management program implemented at the Warkworth Operations area; b. a general description of cultural heritage values - both the tangible (e.g. material culture such as artefacts) and the intangible (e.g. spiritual); c. an overview of the AHMP and its provisions; d. an overview of the CHZS and the Limit of Disturbance Boundary provisions; e. an overview of the standard operating procedures associated with Significant Areas, Restricted Access Areas and other CHZS requirements; f. an overview of the GDP system and the specific requirements associated with cultural heritage management; g. the legal provisions governing the management of cultural heritage; and, h. the responsibility and duty of care that each individual has to comply with the cultural heritage management process established for the Warkworth Operations area, and with all relevant provisions of pertinent legislation. <p>Detailed records are maintained of all personnel who have completed the C&A induction process and the date on which it was provided. RTCA will ensure these inductions remain current (which may include refresher courses from time to time where this is deemed necessary).</p>	Site personnel and contractors undergo environmental inductions. Electronic records from the SGS STAX system were provided as evidence of general inductions that included a heritage component. However this does not satisfy all components of Section 9 of the AHMP.	Not Compliant Administrative			
10 Discovery of Human Skeletal Remains							
		Where identified or possible human skeletal remains are discovered within the AHMP Stage 1 Area then the NSW Government sanctioned process for management of skeletal remains will be implemented. Details of the process for management of the discovery and reporting of skeletal remains are appended in Schedule 14 of this AHMP.	None identified to the date of the audit	Not Triggered			
11 Areas Unassessed for Cultural Heritage							
		Any areas within the AHMP Stage 1 Area that may be unassessed for the presence of cultural heritage and are to be the subject of development activity will be treated in the same manner as all other parts of the AHMP Stage 1 Area where assessments have been carried out in respect to survey methodologies and development/implementation of management processes, and are subject to all relevant provisions of this AHMP	None known that were left in stage 1 at the time of the audit	Not Triggered			
12 'Spiritual' Places Verification and Management							
		Any places so identified will be subject to the verification and management process outlined in Schedule 4 of this AHMP.	None known of in stage 1	Not Triggered			
13 Scarred Trees Verification and Management							
		Any places so identified will be subject to the verification and management process outlined in Schedule 5 of this AHMP.	Walkover process would have identified any scarred trees in the planned disturbance area. Viewed the walkover profile on GIS. Scar trees are identified on the western side of Wallaby Scrub Road.	Compliant			
14 Scarred Trees Removal and Relocation							
		Any verified scarred trees that require salvage under the provisions of this AHMP shall be managed in accordance with the management process detailed in Schedule 6 of this AHMP.	None salvaged in the audit period or previously so management can't be tested.	Not Triggered			
15 Hearths Verification and Management							
		Any places so identified will be subject to the verification and management process outlined in Schedule 7 of this AHMP.	None known of in stage 1	Not Triggered			
16 Sub-Surface Investigations (including Potential Archaeological Deposits)							
		Any places identified as requiring this form of management will be subject to the management process outlined in Schedule 8 of this AHMP.	Reviewed in AR,	Compliant			
17 Material Resource Areas (e.g. quarries for stone or ochre)							
		Any places identified as requiring this form of management will be subject to the management process outlined in Schedule 9 of this AHMP.	Verified at interview but not observed in the site inspection and the Salvage Report for completed salvage work has not been finalised. Compliant based on interview.	Compliant			
18 Controlled Collection of Artefact Scatters							
		Any places identified as requiring this form of management will be subject to the management process outlined in Schedule 10 of this AHMP.	Verified at interview but not observed in the site inspection and the Salvage Report for completed salvage work has not been finalised. Compliant based on interview.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
19 Salvage Collection of Isolated Artefacts							
		Any places identified as requiring this form of management will be subject to the management process outlined in Schedule 11 of this AHMP.	Verified at interview but not observed in the site inspection and the Salvage Report for completed salvage work has not been finalised. Compliant based on interview.	Compliant			
20 Activity Area Monitoring							
		Any places identified as requiring this form of management will be subject to the management process outlined in Schedule 12 of this AHMP.	Site audits and site inspections provided as evidence and involving the RAPs as contributors.	Compliant			
21 Fencing and Barricading Cultural Heritage Sites, Places and Areas							
		Any places identified as requiring this form of management will be subject to the management process outlined in Schedule 13 of this AHMP.	Noted, not all places were barricaded, this was conducted on a 'risk of disturbance' basis.	Compliant			
22 Signage for Cultural Heritage Sites, Places and Areas							
		All cultural heritage sites, places and areas located within the AHMP Stage 1 Area that are subject to fencing and barricading requirements, as per Section 21 and Schedule 13 of this AHMP, will be identified with at least one sign which denotes that the site, place or area is either a Significant Area or Restricted Access Area or Archaeological/Heritage Site unless otherwise specified in Schedule 2 of this AHMP for any particular site, place or area. Additional signs will be installed along the site boundary for larger sites so that Warkworth Continuation AHMP Stage 1 Development Area (FINAL) 20 the site boundary is clearly denoted from all directions of access. Signs will make it explicit that entry to these areas is not permitted without authorisation.	All sites that were observed to be fenced or barricaded in the site inspection relevant to this commitment had a sign in place. Note the site inspection did not include all sites.	Compliant			
23 Ground Disturbance Management Buffers							
		Unless otherwise specified in Schedule 2 of this AHMP, a ground disturbance management buffer will apply around each defined site extent. No disturbance is to occur within the buffer area without authorisation under this AHMP and an approved RTCA Warkworth Operations GDP.	These buffers were included in the fenced areas. Sighted fencing and buffers in site inspection.	Compliant			
		The management buffer area is defined as the distance between the greatest extent of the site in any particular direction and the external buffer boundary. Buffered areas may be delineated with temporary barricading or with hard fencing where specified in either Schedule 2 or Schedule 13 (Fencing and Barricading) of this AHMP, or where required as a condition of a GDP. Where hard fencing or barricading has been installed around a site in conformance with Schedule 13, then the fence/barricade alignment will constitute the outer boundary of the ground disturbance management buffer.	Noted	Noted			
		Where specific site conditions or project requirements do not allow space sufficient for the standard prescribed management buffer, for example where an existing track, fence, or other physical constraint intersects with the buffer area, then the buffer distance will be that which is the greatest practical distance available.	Not observed in the site inspection but several photographs showing road /track intrusion on buffer zones and the management of that intrusion provided as evidence. Discussed at inter view with Manager Environment and Community.	Compliant			
		The standard management buffer radius dimensions for each generic site type are as follows: a. Isolated Artefact/s – 5m from centroid or around extent boundary; b. Stone Artefact Scatters – 5m around extent boundary; c. Sub-Surface Investigation Areas – 5m around extent boundary; d. Hearths – 5m from centroid or around extent boundary; e. Material Resource Areas – 5m around extent boundary; f. Scarred Tree/s – 20m from centroid or around extent boundary; g. Other Significant Areas - 20m around extent boundary; h. Spiritual Places – 50m around extent boundary; i. Burials – 50m from centroid or around extent boundary; or j. As otherwise specified in the ACHMD of Schedule 2 of this AHMP.	Some of these were observed in the site inspection but due to the actual extent of most of the sites requiring significant site information to verify, they were unable to all be verified. Single artefact sites appeared to be compliant. Site viewed (sampled) in the site inspection were compliant.	Compliant			
24 AHMP Compliance Inspections							
		RTCA will facilitate and resource a process whereby representatives of the CHWG may participate in AHMP compliance inspections at least annually for the life of mining operations within the AHMP. RTCA, at its discretion, may initiate AHMP compliance inspections at other times as it determines are necessary including incident investigations pertaining to alleged procedural breaches of the AHMP. Where RTCA initiates such compliance inspections it will also invite representatives of the CHWG to participate.	Compliance inspection reports provided along with participant lists.	Compliant			
		Reports on AHMP compliance inspections, and other inspections as may be undertaken consistent with the above provisions, will be drafted by RTCA with the assistance of the representatives of the CHWG who assisted in the inspection. These reports will be provided to the CHWG. An annual report on the outcomes of compliance inspections will be incorporated into the Warkworth Operations Annual Review which is provided to DP&E and OEH. Reports of each compliance inspection will also be made available to RAPs upon request.	Compliance inspection reports provided along with participant lists.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
		<p>AHMP compliance inspections will involve the following elements:</p> <p>a. RTCA and the CHWG will settle a Terms of Reference (ToR) for each AHMP compliance inspection specifying the area to be inspected and methodology to be adopted;</p> <p>b. the CHWG may nominate up to three (3) representatives to assist in the conduct of AHMP compliance inspections;</p> <p>c. RTCA may nominate a Technical Advisor such as a suitably qualified and experienced archaeologist to participate in the AHMP compliance inspections;</p> <p>d. a AHMP compliance inspection report pro-forma will be completed for the nominated inspection areas and signed by the CHWG representatives and Technical Advisor (if present);</p> <p>e. the AHMP compliance inspection report pro-forma will note the outcomes of the inspections including evidence of compliance and noncompliance with AHMP provisions, recommendations on modifications and improvements to management provisions, recommendations on corrective actions, and other relevant comments associated with the AHMP provisions;</p> <p>f. RTCA and the CHWG will review any recommendations arising from the compliance inspection and may agree to adopt any or all recommendations, or make such other measures they deem appropriate to address any issues raised in the compliance inspection; and</p> <p>g. where RTCA and the CHWG agree to any recommendations or other measures, then RTCA will amend this AHMP in consultation with OEH, and seek DP&E's approval on the amendments to the AHMP.</p>	<p>ToR provided.</p> <p>Participant list provided.</p> <p>Noted - generally RTCA specialisits but external specialists on occasion.</p> <p>Reports provided</p> <p>The reportincluded these details.</p> <p>Recommendations were not followed through though the AH Specialist noted verbally where recommendations had been discussed and at times actioned.</p> <p>No requirement from the inspections for revision of the AHMP.</p>	Compliant			
26 Reconciliation of Aboriginal Cultural Heritage Data							
		<p>RTCA has undertaken a process to reconcile inconsistencies between its ACHMD and that maintained for the area through the AHIMS database. With OEH's concurrence, the AHIMS database will be updated using RTCA's database to provide the most accurate information on all sites within the AHMP Stage 1 Area</p>	<p>Noted - confirmed at interview with specific examples of AHIMS database inaccuracies presented.</p>	Compliant			
		<p>For the purposes of the management of Aboriginal Cultural Heritage within the AHMP Stage 1 Area, the definitive dataset will be that as provided within Schedule 2 of this AHMP which includes AHIMS data. Schedule 2 will be subject to revision based on:</p> <ul style="list-style-type: none"> the results of verification processes contemplated under this AHMP; further investigation of areas that may not have been the subject of comprehensive field investigation at the time of the development of this AHMP; where any Aboriginal Cultural Heritage is identified in the course of monitoring or management activities, or as chance finds; and subsequent to the implementation of the management measures as specified within Schedule 2 of this AHMP. 	<p>Noted - not required to date.</p>	Not Triggered			
27 Procedural Breaches, Incident Reporting and Urgent Relief							
		<p>In accordance with SSD-6464 condition 3 (g) and condition 7, any alleged procedural breach of this AHMP will be investigated in accordance with the Warkworth Operations site incident investigation procedures and incidents reported immediately to the Secretary and any other relevant agencies. A detailed report on any incidents will be provided to the Secretary within the timeframe specified in the conditions of the SSD-6464 project approval, and such further reports as may be requested by the Secretary.</p> <p>RTCA will engage representatives from the CHWG to inspect the location and immediate surrounds of the incident area to assess for any impacts on Aboriginal cultural heritage. Any incidents that are determined to be a breach of the conditions of this AHMP, including any unauthorised impacts on Aboriginal cultural heritage, will be reported to the CHWG as soon as practicable but, nominally, within two business days.</p>	<p>In a for dam overtop incident, sediment impacted a known Archaeological site. It was inspected by the AH Specialist and the aboriginal groups but no action on aboriginal heritage grounds was required as the site was determined not to have had any impact.</p>	Compliant			
28 Procedural Breaches, Incident Reporting and Urgent Relief							
		<p>As the Warkworth Operations SSD-6464 approves the mine life through to November 2036 there may be circumstances in the future (such as changes in legislation) where variations or revisions to this AHMP and schedules are required. As per Schedule 2, condition 14 of SSD-6464, RTCA will review this AHMP as and when required. Where RTCA determines through such reviews that a variation or revision of this AHMP or schedules is required, RTCA will, in consultation with the CHWG, engage with DP&E and any other relevant agencies that have authority to approve variations or revisions to the AHMP or schedules. RTCA will submit in writing any such proposed variations or revisions (and updates to schedules) to DP&E and any other relevant agencies for information and/or consideration and/or written approval.</p>	<p>No incidents , breaches or need for urgent releif in the audit period</p>	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
29 Statutory Consents							
		The Warkworth Operations SSD-6464 development consent provides an exemption from any further statutory authorities for the management of Aboriginal cultural heritage for the term of the development consent, including the requirement for obtaining AHIPs under s90 of the National Parks and Wildlife Act 1974. This AHMP, as approved by the Secretary, provides the statutory authority necessary to undertake the preparation and implementation of all assessment, management, mitigation and salvage measures for Aboriginal cultural heritage located on lands that are subject to this AHMP.	Reviewed the verification of data on GIS at site, this was an ongoing process as the OEH data base was often required revision.	Compliant			
		An AHIMS site card form will be completed and submitted to OEH for any new Aboriginal objects/sites identified within the AHMP Stage 1 Area (see section 36).	No new sites in the audit period but site descriptiond were modified as more information came to hand.	Compliant			
		An ASIRF will be completed and submitted to OEH for any existing or new Aboriginal objects/sites located within the AHMP Stage 1 Area that are Warkworth Continuation AHMP Stage 1 Development Area (FINAL) 25 salvaged or otherwise disturbed or destroyed under the authority of this AHMP.	None in the audit peirod	Not Triggered			
30 Implementation of Management Measures							
		The implementation of all management measures and provisions of this AHMP will be conducted through the management procedures of the RTCA CHMS and/or under a ToR (or other scope of works) developed in consultation with the CHWG as may be appropriate.	ToR was provided as evidence	Compliant			
31 Terms of Reference (ToR) – Scope of Works							
		Cultural heritage assessments, mitigation and other management activities undertaken within the AHMP Stage 1 Area are generally formalised through a ToR or other scope of works. A ToR is a scope of works document that provides details of a proposed activity and its potential impacts, the scope and scale of the cultural heritage activities and methodology (e.g. survey, salvage mitigation etc), description of areas for investigation, management requirements, outcomes of investigations (reporting), personnel required, selection of Technical Advisors, work dates, hours and fees, site induction requirements, occupational health and safety issues, administrative and logistical arrangements, communications, data management and sensitive information management protocols, budgets and contact details. ToRs are developed in collaboration with Aboriginal stakeholders through the auspices of the CHWG as may be appropriate.	ToR was provided as evidence	Compliant			
		Cultural Heritage Field Officers (CHFOs), as representatives of the CHWG as RAPs, are engaged to assist RTCA under the auspices of the ToR to conduct the assessment or other management activities. Technical Advisors, such as archaeologists, may be engaged by RTCA on behalf of the CHWG to assist with the development of assessment and management methodologies, and to provide technical advice to the CHWG. Technical Advisors participate at the invitation of the CHWG and report directly to the CHWG as their independent advisor. The CHFOs and Technical Advisors work within the parameters established in this AHMP and as detailed in a ToR.					
		Assessment and management methodologies are designed to be systematic and comprehensive, and rigorous planning and digital data management procedures are applied to ensure CHFOs are afforded the opportunity to comprehensively assess areas for Aboriginal Cultural Heritage and implement management measures.					
32 Terms of Reference (ToR) – Scope of Works							
Cultural Heritage Field Officers (CHFOs)	32.2						
		CHFOs will be responsible for conducting the assessment of cultural heritage during field surveys (i.e. identification of Aboriginal Cultural Heritage objects, sites and places) and implementing management measures such as salvage mitigation.	Noted in the ToR	Compliant			
Technical Advisors	32.3						
		A Technical Advisor may be engaged by RTCA to assist the CHFOs during their investigations, management and assessment activities and provide technical advice on the type, form, extent, archaeological significance and other aspects of Aboriginal Cultural Heritage management as may reasonably be requested by the CHWG Aboriginal stakeholders. The Technical Advisor will ensure that their assessment and reporting activities are conducted in conformance with the OEH Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW and Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW and any additional requirements specified in a ToR and/or this AHMP. The Technical Advisor will also record details of the Aboriginal Cultural Heritage identified by the CHFOs in collaboration with the RTCA Data Management Officer. The Technical Advisor will provide a report on the outcomes of these investigations as specified in a ToR or other reporting brief.	Noted in the ToR	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
Data Management Officers (DMO)	32.4	The DMO may be an RTCA employee or a contractor engaged by RTCA and is responsible for directing the survey transects/mitigation activities as per the agreed methodology and electronically recording all Aboriginal Cultural Warkworth Continuation AHMP Stage 1 Development Area (FINAL) 27 Heritage objects, sites and places identified by the CHFOs and/or Technical Advisor. The DMO will enter this information into the Warkworth Operations Aboriginal Cultural Heritage GIS. The DMO will generate all maps and survey and site recording, mitigation and management data for RTCA and the CHWG. The DMO will also provide new sites data input and revisions for existing sites for inclusion in or revision of the AHIMS sites database in concurrence with OEH.	Noted in the ToR	Compliant			
33 Cultural requirements							
		RAPs may, from time to time, either individually or through the auspices of the CHWG, as a schedule to this AHMP, or through a ToR, advise RTCA of any particular cultural protocols or requirements relating to issues such as sorry business, men's and women's business and other cultural protocols and arrangements. The implementation of such cultural protocols or requirements will be by agreement with RTCA, with RTCA's agreement not unreasonably withheld.	Noted in the ToR	Compliant			
34 Aboriginal Community Access to the Project Area							
		The AHMP Stage 1 Area generally constitutes an active mining area and as such is subject to coal mining, occupational health and safety and other legislation and regulation, and RTCA procedures regarding access and health and safety requirements. Reasonable access to the AHMP Stage 1 Area will be made available to Aboriginal stakeholders conditional upon satisfying relevant regulatory and RTCA access protocols, and the following additional requirements: <ul style="list-style-type: none"> • completion of any necessary visitor and area-specific inductions or other formal requirements as may be introduced from time to time; • that visitation to the AHMP Stage 1 Area will be escorted by RTCA personnel and undertaken in mine compliant vehicles also provided by RTCA; and • that visitation will be conducted on an unpaid basis unless otherwise determined by RTCA. 	None in the audit period	Not Triggered			
		Unless agreed by RTCA, requests for permission to access the AHMP Stage 1 Area must be made in writing at least 10 business days in advance of the proposed date of the visit. This request must advise: <ul style="list-style-type: none"> • the purpose of the visit; • the areas to be visited; • the names of all persons proposed to take part in the visit; • any intention to record the visit using any audiovisual equipment (including video footage, still photographs or audio recordings) and written permission will be required to do so with this permission granted at the absolute discretion of RTCA. 	None in the audit period	Not Triggered			
		RTCA will provide a formal response to the application which may include the reasons for that decision and any conditions that will apply to the visit. RTCA's response is to be provided at least 5 business days in advance of the proposed date of the visit.	None in the audit period	Not Triggered			
		The CHWG will be notified of all applications for visitation to the AHMP Stage 1 Area and of RTCA's decision on the access application. In the event that RTCA makes a decision not to grant access to a party or parties then RTCA will review its decision with the CHWG to demonstrate that access has not been unreasonably withheld.	None in the audit period	Not Triggered			
35 Minimisation of Blasting Impacts							
		RTCA will determine the nature and risks of potential impacts of blasting activities upon Aboriginal Cultural Heritage situated within the vicinity of the AHMP Stage 1 Area as an element of the Warkworth Operations blast management plan.	The BMP accounts for the risks identified.	Compliant			
		Consistent with the results of the risk assessment process used to inform the development of, and, from time to time, revise and update the Warkworth Operations blast management plan, RTCA will implement appropriate management measures consistent with the AHMP for the relevant type of Aboriginal Cultural Heritage (which may include the salvage collection / removal of Aboriginal objects deemed at risk where authorised to do so under an AHIP or other valid consent).	Noted.	Noted			
		Additionally, RTCA will implement a program of monitoring of blast affects at selected nearby locations listed in Schedule 3, Condition 14(b) of the Warkworth Continuation Project (SSD-6464) Development Consent – namely Aboriginal grinding groove site "Mt Thorley M 37-6-0163" - to determine any impacts resulting from blasting activities. Should this monitoring show the initial risk modelling requires amendment, such amendment will be made and management measures, consistent with the relevant classification of cultural heritage as described in this AHMP and ACHMD, implemented as required.	This grinding groove was removed and relocated to the Wollombi Brook Aboriginal Cultural Heritage Conservation Area	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Heritage Management Plan Warkworth Continuation Operations (SSD-6464): Stage 1 Development Area - Approved 21st January 2016							
36 Discovery of New Finds							
		Any newly identified Aboriginal Cultural Heritage objects, sites or places located within the AHMP Stage 1 Area will be protected with an initial 20m buffer (where physically possible to do so) around the site until RTCA and the RAPs through the CHWG, have agreed on the site type, extent and the management measure/s most appropriate to manage the site as detailed within the AHMP.	Artefacts in Springwood shed, sighted and photographed	Compliant			
		Once the site type, extent and the management measure/s have been determined, all newly identified Aboriginal Cultural Heritage sites will be physically protected by the implementation of the procedures specified in Warkworth Continuation AHMP Stage 1 Development Area (FINAL) 29 Schedule 13 (Fencing and Barricading) of this AHMP or as otherwise consistent with other provisions of this AHMP.	Springwood shed site delineated and protected, photos taken.	Compliant			
		An OEH AHIMS site card is to be completed and submitted to OEH for each newly identified Aboriginal Cultural Heritage site or aggregation of sites. The final attributes and extent of any new sites to be registered in the AHIMS database will be as determined by RTCA.	Discussions with OEH, AHIMS not yet in place for the Springwood Shed, Springwood House artefacts have AHIMS cards.	Compliant			
37 Hunter Valley Sand Bodies Research Program							
		A methodology for a research program for locating and evaluating sand bodies of likely Pleistocene and early Holocene age that may contain evidence of Aboriginal habitation in the Upper Hunter Valley will be developed, by suitably qualified and experienced persons endorsed by the CHWG and approved by the Secretary DP&E prior to preparation, and incorporated as a schedule to the integrated MTW AHMP.	This had not been progressed at the time of the audit, mining in the area of the Warkworth Sands had not commenced at the time of the audit.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016							
3 CONSULTATION							
Nearby / Neighbouring Mines	3.2						
		Neighbouring mines adjacent to MTW mining operations were also consulted to create communication protocols to effectively manage cumulative air quality impacts under a cooperative arrangement. MTW engages with the neighbouring Wambo and Bulga Open Cut mines on an as-needs basis to inform of problem dust sources, generally in response to real-time alarms or community concerns. Rio Tinto Coal Australia also manages the neighbouring Hunter Valley Operations mine. As environmental management is undertaken by a shared Environmental Services team, there is no formal cooperation agreement in place with respect to air quality between MTW and HVO. Where practical however, monitoring systems and reactive processes are common across both HVO and MTW. This includes access to all real time monitoring data to operational personnel at both sites.	MTW operates an air quality monitoring programme and TARP that is consistent with neighbouring mines. The air quality monitors measure air quality at receptors which includes particles from all sources (not just MTW). MTW also receives alerts triggered by the Upper Hunter Air Quality Monitoring network which measures ambient air quality. Coordination consists of as needs contact with Bulga and Wambo to share complaint information or real time data that indicates the level of dust emissions. This is reciprocated. Warkworth operate under the same Air Quality management system as Mount Thorley so there is no need for communication as actions and information transfer are consistent across the 2 operations. Hunter Valley Operations are presently 5km away from the Warkworth operation. HVO is operated by the same company and uses the same management system as MTW. There is an ability to communicate monitoring results with HVO.	Compliant			
5 MANAGEMENT AND MITIGATION							
Management of Mine Owned Residences	5.3						
		Schedule 3, Condition 18 (WML) and Schedule 3, Condition 16 (MTO) of the Approvals outline specific requirements for the management of mine-owned residences. Specifically, MTW: 1. Must ensure that the air quality criteria listed in Schedule 4 are not exceeded at any occupied residence on mine-owned land (including land owned by adjacent mines), unless a range of administrative measures are undertaken; and 2. Must ensure that prescribed notification requirements are met.	No exceedances in the audit period	Compliant			
	5.3.1	Coal & Allied Owned, Occupied, Residences					
		To comply with these requirements at Coal & Allied owned and occupied residences MTW will:					
	1	• As soon as practicable after an exceedance of Air Quality criteria: Provide the tenant with written notice of the exceedance;	No exceedance of air quality criteria in the audit period	Not Triggered			
	2	Provide the tenant with regular monitoring results until the development is again complying with the relevant criteria previously exceeded;	No exceedance of air quality criteria in the audit period	Not Triggered			
	3	Provide the tenant with a copy of the NSW Health fact sheet entitled "Mine Dust and You" (if not recently provided); and	No exceedance of air quality criteria in the audit period	Not Triggered			
	4	Provide the tenant with a copy of the most recent 'monthly meaningful summary', submitted to the EPA in accordance with the data reporting requirements of the PoEO Act. The data is in an appropriate format for the tenant's medical practitioner to assist them in making an informed decision on the health risks associated with continued occupation of the property.	No exceedance of air quality criteria in the audit period	Not Triggered			
		• Subject to giving reasonable written notice, permit tenants to terminate their tenancy agreement without penalty.	No exceedance of air quality criteria in the audit period	Not Triggered			
		• Install air mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) at the residence if the tenant so requests.	No exceedance of air quality criteria in the audit period	Not Triggered			
		• Provide particulate matter monitoring data collected from existing nearby monitors (see Appendix A – Air Quality Monitoring Programme). This data will be provided upon request, and presented in a form suitable for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property.	No exceedance of air quality criteria in the audit period	Not Triggered			
		MTW has provided written notification to the tenants of Coal & Allied owned residences of their rights as described above.	No exceedance of air quality criteria in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016							
	5.3.2	Other Mine Owned, Occupied, Residences					
		To comply with the relevant requirements for tenants and landowners of residences owned by mining companies, other than Coal & Allied, MTW will:	No exceedance of air quality criteria in the audit period	Not Triggered			
		• As soon as practicable after an exceedance of applicable air quality criteria:	No exceedance of air quality criteria in the audit period	Not Triggered			
		o Provide the landowner with a notice of an exceedance;	No exceedance of air quality criteria in the audit period	Not Triggered			
		o Provide the landowner with regular monitoring results until the development is again complying with the relevant criteria previously exceeded;	No exceedance of air quality criteria in the audit period	Not Triggered			
		o Provide the landowner with a copy of the NSW Health fact sheet entitled "Mine Dust and You" (if not recently provided);	No exceedance of air quality criteria in the audit period	Not Triggered			
		o Provide the landowner with a copy of the most recent 'monthly meaningful summary', submitted to the EPA in accordance with the data reporting requirements of the PoEO Act. The data is in an appropriate format for the tenant's medical practitioner to assist them in making an informed decision on the health risks associated with continued occupation of the property; and	No exceedance of air quality criteria in the audit period	Not Triggered			
		o Request that the landowner provide a copy of all this information to any tenant occupying those residences.	No exceedance of air quality criteria in the audit period	Not Triggered			
		• Install air mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) at the residence if the tenant and landowner jointly requests such, unless:	No exceedance of air quality criteria in the audit period	Not Triggered			
		o the listed mitigation measures are required as a condition in the neighbouring mine's existing project approval; and/or	No exceedance of air quality criteria in the audit period	Not Triggered			
		o the listed mitigation measures are already installed at the affected property.	No exceedance of air quality criteria in the audit period	Not Triggered			
		• Provide particulate matter monitoring data collected from existing nearby monitors (see Appendix A – Air Quality Monitoring Programme). This data will be presented in a form suitable for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property.	No exceedance of air quality criteria in the audit period	Not Triggered			
		MTW has provided written notification of these rights to the landowners and request that a copy of the notification be passed on to the tenants of those properties which are occupied now or in the future.	No exceedance of air quality criteria in the audit period	Not Triggered			
6 MITIGATION MEASURES/MANAGEMENT CONTROLS							
Operational Controls	6.3						
	6.3.1	Standard Mitigation Measures					
	6.3.1.1	Disturbed Areas					
		• Minimise advance clearing to reduce wind erosion. Only the minimum area necessary for mining and associated infrastructure will be disturbed;	Discussed at interview with site Short Term Mine Planner, confirmed these requirements and sighted evidence in site inspection	Compliant			
		• Design overburden placement to minimise the disturbance area;	Discussed at interview with site Short Term Mine Planner, confirmed these requirements and sighted evidence in site inspection	Compliant			
		• Progressively reshape, topsoil and rehabilitate completed overburden emplacement areas. Temporary cover crops will be used to stabilise rehabilitation areas if sowing of long term species is unlikely to occur within four weeks (waiting for more favourable sowing conditions in Autumn/Spring);	Discussed at interview with site Short Term Mine Planner, confirmed these requirements and sighted evidence in site inspection	Compliant			
		• Temporary stabilisation of unused areas or dump slopes will be undertaken annually by way of aerial seeding or similar. Autumn and Spring are the preferred times to undertake temporary stabilisation to assist successful vegetation establishment. Review of operating areas will be conducted in the weeks leading up to each seeding event. Seed will be applied to any area foreshadowed to be inactive for six months or more;	Discussed at interview with site Rehabilitation Specialist, confirmed these requirements and sighted evidence in site inspection	Compliant			
		• Cleared vegetation is mulched and incorporated into topsoil and then used for stabilising rehabilitated landforms; this may include spreading of mulch and branches on completed overburden landform; and	Discussed at interview with site Short Term Mine Planner and Rehabilitation Specialist, confirmed these requirements and sighted evidence in site inspection	Compliant			
		• Watering of cleared areas during construction activities, and reapplication of water as required.	Discussed with Environment Team at interview, no topsoiling was observed in the site inspection but other activities were observed with adequate controls in place.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016							
	6.3.1.2	Handling of Materials					
		<ul style="list-style-type: none"> During topsoil stripping, make dust suppression options available to increase topsoil moisture if significant dust lift off occurs during stripping; and 	Equipment downtime noted, confirmed at interview, no topsoil stripping observed in the site inspection, this process was not documented apart from here. Projects Team Leader interview: The topsoiling contractor has a 3 articulated water carts on hand and they were used when dust levels require suppression. Run the water cart behind the mulchers. Topsoil is pushed into windrows then crusted with water carts, then surveyed and the projects team run the water cart around trafficed routes. A short haul dump is used to cut traffic by using larger trucks from the short haul to the final location. Topsoil operations are stopped when weather is adverse.	Compliant			
		<ul style="list-style-type: none"> Cease or modify activities as required following valid trigger (see section 6.3.3) during adverse conditions. 	Equipment downtime verifies this activity occurs	Compliant			
	6.3.1.3	Roads design					
		Consideration should be given to: <ul style="list-style-type: none"> Using the largest practical and cost-effective truck size for transporting coal and overburden; and Major Haul Roads will be constructed using preferentially selected material. 	Truck size used is a function of location in the pit and the constraints associated with that location, otherwise the largest available plant is used for efficiency. Gravel is sourced at MTW and crushed to suit. It is preferentially selected for wear and dust characteristics.	Compliant			
	6.3.1.4	Roads, all					
		<ul style="list-style-type: none"> Impose speed limits on all roads; 	These were in place	Compliant			
		<ul style="list-style-type: none"> Utilise the existing watercart fleet to maintain road dust control effectiveness; 	Water cart fleet working during the audit	Compliant			
		<ul style="list-style-type: none"> Suspend operations of unused road networks as soon as practicable; 	This was policy at the time of the audit.	Compliant			
		<ul style="list-style-type: none"> Roads which are seldom used will be watered as appropriate; 	Noted in the audit site inspection	Compliant			
		<ul style="list-style-type: none"> Obsolete roads will be rehabilitated; 	Haulroad into South Pit dumped over and rehabilitated	Compliant			
		<ul style="list-style-type: none"> Minor roads will be constructed in a proper manner; 	Noted in the audit site inspection	Compliant			
		<ul style="list-style-type: none"> Implement a system to track water application rates on major haul roads; 	Water carts are monitored by Dispatch, recorded in MinView.	Compliant			
		<ul style="list-style-type: none"> Continue to implement a monitoring programme to measure and report on watering effectiveness in accordance with the relevant EPL condition; and 	This condition related to the Haul Road Dust PRP has been satisfied and the condition removed from the EPL.	Compliant			
		<ul style="list-style-type: none"> Where practical, haul roads will have edges clearly defined with marker posts or equivalent to control their locations, especially when crossing large overburden emplacement areas. 	All haul roads have windrows for safety that fill this requirement	Compliant			
	6.3.1.5	Other unsealed roads and tracks					
		<ul style="list-style-type: none"> Road vehicles should aim to remain on formed roads and tracks at all times, i.e. limited discretionary offroad driving. Limit off-road driving to necessary situations, e.g. survey/ inspection work; Closure of auxiliary roads as required under adverse conditions. 	No evidence of damage to rehab or shaped up areas by unnecessary vehicular traffic. Noted	Compliant Noted			
	6.3.1.6	Topsoil stockpiles					
		<ul style="list-style-type: none"> Long term stockpiles will be re-vegetated as soon as practicable following completion. 	Sighted in the site inspection and discussed with the Rehabilitation Specialist.	Compliant			
	6.3.1.7	Drilling and blasting					
		<ul style="list-style-type: none"> Conduct blasting when dispersion is favourable in accordance with the permissions page, unless otherwise required for safety reasons; 	This is addressed in the BMP	Compliant			
		<ul style="list-style-type: none"> Blasting will not be undertaken under adverse weather conditions without the prior approval of the Mining Superintendent Dragline Drill and Blast or higher; 	This is addressed in the BMP	Compliant			
		<ul style="list-style-type: none"> Periodically review and update the Blasting Permissions pages over the life of the development, in line with progression of mining, changes in land ownership, and growth in knowledge regarding blast cloud behaviour; 	This is addressed in the BMP	Compliant			
		<ul style="list-style-type: none"> Production drill rigs will utilise water injection or be fitted with dust mitigation such as sprays and dust aprons will be lowered during drilling. Production drill rigs will not be operated without adequate dust control. Stem blast holes to prevent venting of explosion gases; 	Production drilling on mud so not vacuum not required but skirts and sprays are used.	Compliant			
		<ul style="list-style-type: none"> Use adequate stemming in drill holes at all times; 	Stemming used on all holes a mix of site developed material and imported sized stemming material	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016							
	6.3.1.8	CHPP					
		<ul style="list-style-type: none"> Maintain and utilise the enclosed ROM Hoods at the Warkworth CHPP; 	Sighted in site inspection	Compliant			
		<ul style="list-style-type: none"> Water sprays will be employed at the feeder, crusher, conveyor and transfer points unless operating conditions do not necessitate additional suppression; 	Sighted in site inspection	Compliant			
		<ul style="list-style-type: none"> All conveyors will be fitted with appropriate cleaning and collection devices; 	No evidence of excessive spills sighted in site inspection	Compliant			
		<ul style="list-style-type: none"> Where possible use of 'hood and spoon' chutes; 	Sighted in site inspection	Compliant			
		<ul style="list-style-type: none"> Regularly clean areas where spilt material can build up, e.g. under transfer chutes and conveyors, and paved areas; 	No evidence of excessive spills sighted in site inspection	Compliant			
		<ul style="list-style-type: none"> Daily completion of area environmental inspection; 	Inspections provided as evidence.	Compliant			
	6.3.2	Proactive Mitigation Measures					
	6.3.2.1	Proactive management					
		<ul style="list-style-type: none"> Predictive modelling is undertaken and received by MTW Environmental and Drill and Blast staff on a daily basis, which is used to identify periods of the day where air pollutant (particularly blast plume) dispersion is favourable / unfavourable. The forecast dispersion conditions are reviewed and used to inform drill and blast staff of the optimum time to fire, based on the risk of plume trajectory towards sensitive receptors. 	The process and elements of this activity were demonstrated by the Senior Drill and Blast Engineer to the auditor.	Compliant			
		<ul style="list-style-type: none"> Predictive meteorological forecast information is received on a daily basis by a range of MTW personnel. The forecast data describes hourly temperature wind speed and rainfall probabilities. The forecast information highlights periods of the day which are predicted to present potential dust risk, which have been derived through desktop review of the key meteorological risk factors evident on elevated PM10 days in recent years. The system is used to identify periods of the day where adverse dust conditions are forecast. During such times, MTW will review operating conditions to understand and prepare the mitigating actions which are to be taken if the forecast adverse conditions eventuate, including: <ul style="list-style-type: none"> Communication of the forecast to relevant personnel; Ensuring as far as is practicable the availability of the watercart fleet; Identification of low / in-pit dump options which may be available; Water application to identified 'at risk' inactive areas; and/or Closure or restricted access to areas which are unable to be serviced by the watercart fleet. 					
	6.3.3	Reactive Mitigation Measures – Adverse Conditions					
	6.3.3.1	Real Time Air Quality Alarms					
		<p>Real time alarms are received by Environmental Services personnel, MTW Community Response Officers, and / or Shift Co-ordinators (depending on staff roster). The initial response to an alert is an assessment of the validity of the alert (correct monitor function), followed by an inspection of at risk areas. The inspection will take account of the elevation and wind exposure of active mining and dumping areas, and dragline activities. Where the inspection identifies excessive dust being generated from operating equipment, remedial action is taken as soon as practicable, commensurate with the nature and severity of the dust event, and includes at least one of the following:</p> <ul style="list-style-type: none"> Send Water cart to area; Operational modification eg change haul route, lower dig rate, minimise dragline drop heights; Change dump location (lower / less exposed dump); Reduce equipment numbers; Shut down task; and/or Complete site shutdown (with the exception of reject trucks and watercarts as required) 	<p>NAG system gives alerts for air quality go the Mining Manager, CROs, Dispatch and they inform the Shift supervisors Camera monitoring assists enviros to manage Yellow alarms are triggers which trigger inspections then actions as described in 6.3.3.1 Red alarms are exceedances.</p>	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																			
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Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016																								
		<p>Task modifications and remedial actions will be recorded in the mine monitoring and control system for reporting purposes. Following modification to operating activities, an assessment of the effectiveness of any mitigating actions will be undertaken by way of active monitoring of real-time air quality and meteorological conditions, and visual inspections.</p> <p>Table 3 - Real Time Air Quality Alarm System Overview</p> <table border="1"> <thead> <tr> <th>Monitoring location</th> <th>Trigger level</th> <th>Response actions</th> </tr> </thead> <tbody> <tr> <td>MTW Charlton Ridge Met Station</td> <td>Wind Speed >8m/sec</td> <td></td> </tr> <tr> <td>Bulga TEOM</td> <td> Stage one • 10 min average PM₁₀ > 150µg/m³ • 1 hour average PM₁₀ > 50µg/m³ for three consecutive hours </td> <td rowspan="2"> • Validation of alarm (verify monitors functioning correctly and review meteorological conditions) • Notify relevant Open Cut Examiner </td> </tr> <tr> <td>Wallaby Scrub Road TEOM</td> <td> Stage two • rolling 24hr average PM₁₀ > 50µg/m³ for six consecutive hours (winds in arc of mine to monitor) </td> </tr> <tr> <td>Warkworth TEOM</td> <td> • 10min average PM₁₀ >150 µg/m³ for three consecutive hours (winds in arc of mine to monitor) </td> <td> • Response per section 6.3.3.2 </td> </tr> <tr> <td>MTIE Early Warning Unit</td> <td> • 10 min average PM₁₀ > 200µg/m³ </td> <td> • Inspection (field inspection or dust cameras) • Response per section 6.3.3.2 </td> </tr> </tbody> </table>	Monitoring location	Trigger level	Response actions	MTW Charlton Ridge Met Station	Wind Speed >8m/sec		Bulga TEOM	Stage one • 10 min average PM ₁₀ > 150µg/m ³ • 1 hour average PM ₁₀ > 50µg/m ³ for three consecutive hours	• Validation of alarm (verify monitors functioning correctly and review meteorological conditions) • Notify relevant Open Cut Examiner	Wallaby Scrub Road TEOM	Stage two • rolling 24hr average PM ₁₀ > 50µg/m ³ for six consecutive hours (winds in arc of mine to monitor)	Warkworth TEOM	• 10min average PM ₁₀ >150 µg/m ³ for three consecutive hours (winds in arc of mine to monitor)	• Response per section 6.3.3.2	MTIE Early Warning Unit	• 10 min average PM ₁₀ > 200µg/m ³	• Inspection (field inspection or dust cameras) • Response per section 6.3.3.2	Shift report from the 11 7 (OCE) details modifications and actions All actions are followed up to ensure they have been effective	Compliant			
Monitoring location	Trigger level	Response actions																						
MTW Charlton Ridge Met Station	Wind Speed >8m/sec																							
Bulga TEOM	Stage one • 10 min average PM ₁₀ > 150µg/m ³ • 1 hour average PM ₁₀ > 50µg/m ³ for three consecutive hours	• Validation of alarm (verify monitors functioning correctly and review meteorological conditions) • Notify relevant Open Cut Examiner																						
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	6.3.4	Odour																						
		Measures will be put in place to ensure, as far as practicable, that no offensive odours, as defined under the PoEO Act, are emitted from MTW.	Noted, discussed with D&B engineer with regard to fume and blast planning	Compliant																				
	6.3.4.2	Spontaneous Combustion																						
		<p>The following preventative measures are currently in place at MTW to manage the risk of Spontaneous Combustion in coal stockpiles and in the pit:</p> <ul style="list-style-type: none"> • Keeping discrete piles separate where possible; • Avoid building stockpiles by coning. Coning increases the surface area and tends to encourage size segregation of the coal; and • Prompt turnover of coal on both Raw and Product stockpiles. 	Discussed with site personnel at a number of times through the interviews, the site does not have a strong history of spon com and there have been no serious outbreaks in the audit period.	Compliant																				
Management of Unpredicted Impacts	6.4																							
		<p>In the unlikely event that unpredicted air quality impacts are found to be occurring at nearby privately owned residences, MTW will consider management options such as:</p> <ul style="list-style-type: none"> • Entering into an impact cooperation agreement with the landowner; • Review of management controls and monitoring systems specific to the affected residence; • Mitigation options (such as installation of double glazed windows and air conditioning units); or • Acquisition of the affected property. 	None in the audit period	Not Triggered																				
Continuous Improvement	6.5																							
		In accordance with the requirements of the Rio Tinto Coal Australia Health, Safety, Environment and Quality Management System, MTW will continuously seek to further air quality management by way of improving existing controls and investigating new and emerging technologies, implementing new controls where required, and thoroughly investigating any exceedance and noncompliance events.	MTW use internal audits, review of complaints and incidents, regulatory inspections and internal Corrective Actions to pursue continual improvement.	Compliant																				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016							
7 MONITORING PROGRAM							
Independent Review and Land Acquisition Process	7.1						
		In accordance with the relevant conditions of the approvals, landowners who consider the development(s) to be exceeding the air quality criteria can request Independent Review of air quality impacts at any time. Such requests must be made in writing, to the Secretary.	No such requests in the audit period	Not Triggered			
		The Secretary will assess the request and, if satisfied that an Independent Review is warranted, will communicate same to MTW to commence the Review.	No such requests in the audit period	Not Triggered			
		Upon receiving direction to undertake Independent Review, MTW will complete the review in accordance with the requirements of the approvals.	No such requests in the audit period	Not Triggered			
		Where Independent Review determines MTW to be exceeding the relevant impact assessment criteria, MTW will work with the Dept. and the resident to implement appropriate measures to ensure compliance with the relevant criteria.	No such requests in the audit period	Not Triggered			
		Where Independent Review determines MTW to be exceeding the relevant land acquisition criteria, MTW will acquire the residence in accordance with the requirements of the relevant condition(s).	No such requests in the audit period	Not Triggered			
8 IMPLEMENTATION OF THE AIR QUALITY MANAGEMENT PLAN							
Reporting	8.1						
	8.1.1	Internal Reporting					
		Determining exceedances of air criteria will be undertaken in accordance with the protocol for evaluating compliance (Air Quality Monitoring Programme), reproduced in Appendix A.	No exceedances in the audit period	Not Triggered			
		Internal reporting of air quality incidents (exceedances and non-compliances of air quality criteria) will be undertaken in accordance with Rio Tinto Coal Australia HSEQ14 – Incident and Action Management.	No exceedances in the audit period	Not Triggered			
		The Environmental Specialist – Systems and Monitoring will report any potential or confirmed exceedance / non-compliance to relevant site personnel, including the General Manager, Manager – Mining, and Manager Environment NSW.	No exceedances in the audit period	Not Triggered			
		Non-compliance events will be investigated. Where additional controls are identified for implementation to reduce the risk of repeated non-compliance, these will be assigned to the relevant accountable person. Actions are tracked to completion.	No exceedances in the audit period	Not Triggered			
	8.1.2	External Reporting					
		The Environmental Specialist – Systems and Monitoring will report any potential or confirmed exceedance / non-compliance in writing to the Dept. as soon as practicable following receipt of information indicating any such potential or confirmed exceedance / non-compliance. No further agencies are considered relevant, and thus do not require notification of non-compliance events.	No exceedances in the audit period	Not Triggered			
		Affected residences will be notified in writing in the event of a confirmed non-compliance with air quality conditions.	No exceedances in the audit period	Not Triggered			
		Air Quality monitoring data, collected in accordance with this AQMP will be made available on the Rio Tinto Coal Australia website (www.riotintocoalaustralia.com.au) via the Monthly Environmental Management Report, and Annual Review.	No exceedances in the audit period	Not Triggered			
	8.1.3	Keeping the local community informed					
		In addition to the Monthly Report, MTW is committed to providing up-to-date information on matters of environmental management to near-neighbours, and is well advanced in the development of a website which will provide information on air quality management, updated each weekday. It is anticipated that the website will be online and functioning by the end of March 2016.	The INSITE website was up and running at the time of the audit	Compliant			
		To communicate the availability of the website described above, this AMP, and air quality management more broadly, MTW will host a public information session within six months of the granting of the approval.	Bulga Information session, May 2016, sighted presentation,	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Air Quality Management Plan - Approved 1 February 2016							
Complaints Management	8.2						
		Community Complaints are lodged via the Community Complaints line, 1800 656 892. The hotline number is prominently displayed on the Rio Tinto coal Australia website and regularly advertised in the local newspaper. The Complaints Hotline operates 24 hours per day, seven days a week. Complaints will be recorded and investigated by MTW staff. Complaints lodged via other MTW-10ENVMP-SITE-062 MTW Air Quality Management Plan Rio Tinto 36 means (letter, in person, fax etc) will also be recorded and investigated.	The hotline is displayed on the website. Advertised in the local newspaper. Hotline operates 24 x 7 based on complaints records.	Compliant			
		Where the investigation identifies potential noncompliance with a consent or licence condition, action to mitigate the cause of the complaint will be taken.	Complaints actions have been reviewed in this audit and found complaint with this requirement.	Compliant			
		The details of all dust complaints, and any mitigating actions taken, will be circulated to senior management and other key personnel. Where requested, follow-up correspondence with the complainant will be provided.	Complaints actions have been reviewed in this audit and found complaint with this requirement.	Compliant			
		It is a condition of EPL's 1376, 1976 and 24 that MTW maintain a register of pollution complaints. MTW maintains a register of all complaints, recording the following information (at minimum): <ul style="list-style-type: none"> • Date and time of the complaint • Method by which the complaint was made • Any personal details of the complainant which were provided • The nature of complaint • Any action taken in relation to the complaint • If no action, the reason why no action was taken 	Sighted register, complaints reported and trends analysed in the ARs	Compliant			
		A record of each complaint will be kept for a minimum of four years, and will be produced on request to any authorised officer of the EPA.	Complaints retained, no such requests from the EPA	Compliant			
Review of this Management Plan	8.3						
		This AQMP will be reviewed within three months of the submission of the Annual Review and updated to the satisfaction of the Secretary of the DP&E where necessary.	Latest Version is 1st February 2016, no triggers in the audit period.	Compliant			
		This AQMP will also be reviewed, and revised if necessary, within three months of the completion of an independent environmental audit, any non-compliance of the Approvals' criteria or any modification to the conditions of the Approvals.	Latest Version is 1st February 2016, no triggers in the audit period.	Compliant			
		Any major amendments to this AQMP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. Minor changes such as formatting edits may be made with version control on the Project website.	Latest Version is 1st February 2016, no triggers in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk												
					Consequence	Likelihood	Risk										
Biodiversity Management Plan																	
3 Operational Land																	
Minimisation measures	3.2																
	3.2.1	Progressive Clearing															
		All vegetation clearing is progressive, that is a staged operation immediately in advance of mining operations.	Observed at site inspection and discussed with short term mine Planner	Compliant													
		Vegetation clearing is avoided during the breeding season of identified threatened fauna species.	Sighted evidence in GDPs and at interview with Environment staff	Compliant													
		The area of vegetation cleared ahead of mining operations is kept to a minimum, consistent with the space required by the pre-stripping fleet, which is usually about a 100m wide mining strip. The clearing area allows for the establishment of mine infrastructure, such as haul roads and access tracks, power lines, pipelines, transformers and drainage control structures.	Observed at site inspection and discussed with short term mine Planner	Compliant													
	3.2.2	Pre-clearing surveys															
		Pre-clearing surveys are undertaken to identify important habitats and confirm the absence of known threatened species. Habitat trees and appropriate microhabitats such as fallen logs are surveyed and marked to determine if fauna are using them. Any marked trees that show signs of current or recent use are reserved for latest possible removal to encourage fauna to abandon the area of their own accord or undertake possible physical relocation.	Evidence provided in the way of surveys, pre-clearance surveys are triggered by the GDP process.	Compliant													
		Following the removal of useable timber for habitat features, as well as collection of viable seed for use in rehabilitation, the remaining smaller vegetation is generally mulched and incorporated into the topsoil, and may be relocated to rehabilitation areas.	Sighted stored and in rehabilitated areas	Compliant													
	3.2.3	Translocation of salvaged resources															
		Resources salvaged from areas to be cleared for mining activity, such as topsoil, mulch, timber and plant material, are considered valuable resources for the re-establishment of a similar vegetation community in a different location. It provides an opportunity to transfer ecological characteristics to the re-establishment site to support natural regeneration, such as seed sources and microbial soil organisms. The use of these materials is dependent upon their availability and should be used when safe and practical.	Sighted in site inspection	Compliant													
		The following outlines critical factors in the use and management of these resources: • Topsoil management: – Stockpiling of material is to be avoided where possible. – To translocate the majority of seed it is recommended that the top ten centimetres is scalped. – Complete assessment of the in situ vegetation community in the area where the topsoil is to be sourced. The following performance measures and criteria are to be used as a minimum standard to assess the potential value of the topsoil to be targeted as a resource salvageable as a potential seed source.	Discussed at interview with the Rehabilitation specialist. Scalping occurs where weed infestation is problematic (interview) Noted. Topsoils that were stored were managed in a GIS database	Compliant													
		<table border="1"> <thead> <tr> <th>Measure</th> <th>Criteria</th> </tr> </thead> <tbody> <tr> <td>Weed species</td> <td>Absence of noxious weeds</td> </tr> <tr> <td>Ground cover</td> <td><10% weed species</td> </tr> <tr> <td>Suitable growing media</td> <td>Presence of A horizon in soil profile</td> </tr> <tr> <td>Native species area producing seed</td> <td>Evidence of recruitment of native flora; presence of fruit/ seed</td> </tr> </tbody> </table>	Measure	Criteria	Weed species	Absence of noxious weeds	Ground cover	<10% weed species	Suitable growing media	Presence of A horizon in soil profile	Native species area producing seed	Evidence of recruitment of native flora; presence of fruit/ seed					
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		• Mulch: – All overstorey and understorey vegetation at the disturbance site may be coarsely mulched to provide a potential seed source at the re-establishment site. – To mitigate the potential lock up of nutrients in the soil, composted mulch should be applied prior to application, to a depth of 5cm. This will also provide soil disturbance and prepare the restoration site.	This was a general rule for vegetation clearing ahead of topsoil stripping at MTW, observed and discussed at interview.	Compliant													
		• Timber: – Large trees, with their branches intact and roots removed, are to be relocated to provide seed sources, habitat augmentation and protect the soil to create an improved micro climate for restoration.	Sighted in site inspection	Compliant													
		• Plant material: – Seeds, cuttings and plants should be salvaged from the disturbance area to further assist in the establishment of ecological characteristics in the re-establishment areas. Species that are known to be difficult to grown from seed will be targeted for cuttings and transplanting from the disturbance areas. – It is preferable that seed for planting and seeding activities in the BAs and rehabilitation areas is from local or endemic provenances. To support the BA re-establishment programme, viable seed is collected prior to clearing vegetation, when it is safe and practical.	Seed is collected, some plants have ben translocated with differing results.	Compliant													

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Management Plan							
	3.2.4	Weed and vertebrate pest control					
		Across the operational areas the weed species targeted for control include those listed as Weeds of National Significance, noxious and/or environmental weeds. Coal & Allied Environmental Procedure 10.4- Weed Control guides the on-ground control of weeds. The assessment of the impact of weeds across the MTW site is ongoing, with the results from the regular monitoring programmes used to update the Annual Work Schedule. Weed control treatments are conducted annually and at other times as determined by seasonal conditions that may promote excessive weed growth, and is reported in the Annual Environmental Reporting.	Assessed in the MOP section of this audit	Compliant			
		The management of vertebrate pests is updated seasonally based on recommendations from the quarterly Vertebrate Pest Control Reports. This approach allows maximum flexibility to react to sightings, monitoring results, or particular pest infestations and allows customisation of the programme to effectively address these infestations. The quarterly Vertebrate Pest Control Reports provide a basis for all decision making on vertebrate pest control on the site.	Assessed in the MOP section of this audit	Compliant			
		Vertebrate Pest species control is undertaken quarterly and may include trapping, baiting and/or shooting. Performance of vertebrate pest species control is reported in the Annual Environmental Reporting.	Assessed in the MOP section of this audit	Compliant			
	3.2.5	Bushfire Management					
		Bushfire management is undertaken in accordance with Coal & Allied Bushfire Management Plan (2015) that has been developed in consultation with the NSW Rural Fire Services and Singleton Council. The following controls may be implemented to control the risk associated with bushfire: - Fuel reduction actions, including grazing, mowing, slashing, ploughing, flailing and manual removal as required to reduce fuel loads and fire risk in peak seasons; - Establishment and maintenance of fire breaks, including around critical infrastructure; - Maintenance of rescue truck and water carts to be available in the event of fires; and - Periodic review, testing and training of relevant personnel in the site Emergency Response Procedure.	Noted	Noted			
	3.2.6	Erosion, Sedimentation and Salinity					
		Clean water diversion structures are employed to divert clean water away from the active pits. Prior to release from site this water is managed to minimise sediment load. A Ground Disturbance Permit is required for all disturbance activities. Prior to disturbance, appropriate erosion and sediment controls consistent with current best practice standards will be established. Where ground conditions allow, erosion and sediment controls will be designed generally in accordance with the 'Blue Book': Managing Urban Stormwater: soils and construction (Volume 1 and 2E – Mines and Quarries).	Assessed in the Water MP in this audit.	Compliant			
	3.2.7	Grazing					
		Grazing in rehabilitation and non-operational areas returned to grasslands will be controlled through formal licence agreements with the graziers involved. The typical arrangements under Coal & Allied Licence Agreements include: • Licence conditions requiring the Licensee to manage the property in accordance with best agricultural and environmental practice i.e. grazing management, bushfire management, weed management and avoidance of vegetation clearing; • Property inspections by the Specialist – Land Management , Land & Tenements to audit quality of property management; and • Soil testing to check nutrient and soil carbon levels are being maintained.	No evidence of overgrazing or damage to rehabilitated areas or offset areas due to poor grazing management. Sighted inspections proforma and database of inspections. Evidence of baseline soil testing provided, follow up testing planned to support this requirement - evidence provided by Specialist Land Management included a spreadsheet of soil analysis that include dthe buffer properties referred to here.	Compliant Compliant Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Management Plan							
Rehabilitation	3.3						
	3.3.2.3	Monitoring and Reporting					
		The monitoring program will be based on the performance indicators described for each stage of rehabilitation. It will utilise methodologies that can provide quantitative data to assess changes occurring over time.	The Rehabilitation Moitoring report included these requirements.	Compliant			
		A consistent and quantitative methodology will be implemented and undertaken on a periodic basis, ensuring a satisfactory number of analogue/baseline sites are established to inform target setting. Data from analogue sites will be used to establish target values for key biophysical parameters and indicators related to vegetation diversity/structure and habitat complexity. Permanent quadrants will be established and reassessed at a maximum of two year intervals, at least in the short term, to ensure restorative strategies (i.e. maintenance of soil health, maintenance of ground cover, achievement of suitable species richness etc.) are progressing as desired.	The Rehabilitation Moitoring report included these requirements.	Compliant			
		In new revegetation sites, an annual monitoring program will be required as the site rapidly changes and can be vulnerable to effects of climate, pests and diseases. In addition, general inspections for erosion (particularly drainage lines), survival, mortality, weed control and pests will be undertaken more regularly and at least biannually until the sites have become well established. The duration between monitoring periods can be lengthened to five yearly intervals once it has been established that the restorative strategies are appropriate and that conservation objectives are being met. Inspections of drainage lines in rehabilitation areas will be conducted on a quarterly basis during the first year.	The Rehabilitation Moitoring report included these requirements.	Compliant			
4 Biodiversity Areas							
BioBanking Agreements	4.3						
		The offset areas within the BAs are to be secured under a BioBanking Agreements under the TSC Act. The BioBanking Application will be supported by the following documentation:	MTW are still going through the process of securing the BAs through VCA	Not Triggered			
		• BioBanking Assessment Report, to verify the offset areas and calculate the ecosystem and species credits, completed by an OEH accredited BioBanking Assessor;	Biobanking Assessments were completed (Biodiversity Portal)	Compliant			
		• Expert report, to verify species credits when there are no recorded sighting within the offset area; the report is prepared by a specialist expert approved by OEH;	Biobanking Assessments were completed (Biodiversity Portal)	Compliant			
		• BioBanking Management Plan; and	Included in the Offset management plans	Compliant			
		• Total Fund Deposit Calculation; summary of costs to manage the offset areas over 40 years.	Completed and Bond lodged.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Local Offset Management Plan							
4 Conservation Management Strategies							
Controlled Activities	4.1						
		All employees, contractors, consultants and visitors must be aware of their responsibilities when entering the BAs and Offset Areas.	Noted	Noted			
		Under no circumstances are the following activities permitted within the Offset Areas: <ul style="list-style-type: none"> • littering or dumping; • removal of firewood, native plants or animals; • removal of rocks, sand or gravel; • disturbance of cultural heritage sites; • clearing or destruction of native vegetation (some exemptions for construction and maintenance of infrastructure (see Chapter 4.9), clearing of power line easements or regrowth control for conservation outcomes); • hunting; • trapping or shooting (unless controlling pest animals); • use of fertilisers; • aerial application of herbicide from planes or helicopters; • grazing of livestock; • use of livestock feed; • keeping or bringing exotic animal including dogs, cats and European bee hives; or • lighting camp fires. 	Offset areas are fenced and gates locked.	Compliant			
		To minimise the impact of vehicles on the BAs, vehicles should be driven on defined access tracks and by authorised personnel. Vehicles should be driven to road conditions and not exceed the legal speed limits for roads or 40km/hour for internal access tracks.	Access limited and inductions for MTW are clear on driving permissions	Compliant			
		Access to the BAs is controlled through locked gates and fences. Entry points are signposted to inform all visitors they are entering a protected area.	Offset areas are fenced and gates locked.	Compliant			
		The WSW Offset Area and Putty Road Offset Area are to be protected under a conservation (Bio Banking) agreement and will have legal protection.	Biobanking assessment completed, VPA being established at the time of the audit.	Not Triggered			
		Exploration drilling may be permitted in areas of the BAs that are outside the Wollombi Brook Aboriginal Cultural Heritage Conservation Area. Prior to drilling disturbance, a detailed re-establishment plan will be prepared and implemented immediately after drilling is completed and will be assessed and approved by the appropriate authorities. The number and location of the drill sites will be reported in the Annual Environmental Report to DPE.	Not in the audit period	Not Triggered			
Re-establishment of Warkworth Sands Woodlands	4.2						
		Translocation of salvaged resources					
		The following outlines critical factors in the use and management of these resources: <ul style="list-style-type: none"> • Topsoil management: – Stockpiling of material is to be avoided where possible. – To translocate the majority of seed it is recommended that the top ten centimetres is scalped. • Mulch: – All overstorey and understorey vegetation at the disturbance site should be coarsely mulched to provide a potential seed source at the re-establishment site. – To mitigate the potential lock up of nutrients in the soil, composted mulch should be applied prior to application, to a depth of 5cm. This will also provide soil disturbance and prepare the restoration site. • Timber: – Medium trees, with their branches intact and root removed, are to be relocated to provide seed sources, habitat and protect the soil to create an improved micro climate for restoration. • Plant material: – Seeds, cuttings and plants should be salvaged from the disturbance area to further assist in the establishment of ecological characteristics in the re-establishment areas. Species that are known to be difficult to grown from seed will be targeted for cuttings and transplanting from the disturbance areas, these species include Grevillea Montana, Pimelea linifolia and Brachyloma daphnoides. 	Topsoils is generally placed in trucks and transported immediately to the WSW offset area. Top 10cm verified at interview. Mulching occurs. Verified at interview. Observed in site inspection. Plantings in offset area observed.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																								
					Consequence	Likelihood	Risk																						
Local Offset Management Plan																													
		Seed collection																											
		<p>It is preferable that seed for planting and seeding activities is from local or endemic provenances. It will be permissible to collect seed from remnant patches of ecological communities across the BAs. However seed collection must be for non-commercial purposes and meet the standards of the "Guidelines and Codes of Practice" developed by Florabank (www.florabank.org.au), or subsequent equivalent, and the following limitations and permissions apply:</p> <ul style="list-style-type: none"> • collect seed in the BA only if seed of the particular species and genotype is not available elsewhere or if the seed collected is intended for seedlings that will be planted within the BA; • seeds may be collected from within endangered ecological communities; • seeds may not be collected from species individually listed on schedules 1, 1A or 2 of the TSC Act without prior written approval from the Director General, or under a licence granted under S132c of the Act or S91 of the TSC Act; • seeds may be collected from any protected species listed under Section 131 (Schedule 13) of the TSC Act; and • seeds may be collected from any other native species. 	Assessed and found generally compliant within the vagaries of seasonal and climatic changes and availability of seed resources in association with rehabilitation works. Note it is early in the process and as the offset matures more rigour may be required in filling gaps in species diversity and species list for WSW.	Compliant																									
		Planting																											
		Planting techniques may include direct seeding or planting of tube stock. Planting will be undertaken in areas that have been highly disturbed, with limited ability to naturally regenerate and/or require soil stabilisation.	Noted																										
		<p>Table 12 Key Planting activities</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Minimum requirement</th> </tr> </thead> <tbody> <tr> <td>Species selection</td> <td>Species selected are to be listed on the description of the vegetation communities issued by the NSW Scientific Committee or NSW government description. Seed can be collected from site or regionally from equivalent vegetation communities.</td> </tr> <tr> <td>Cultivation</td> <td>Cultivation for tube stock planting should be to a depth of 500-600mm at least 6 months prior to planting and when soil moisture is low to improve sub surface soil shatter. 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Soil conditioner is to be applied into the planting hole and all plants should be planted deep, with their root plug at least 50mm below ground and gently firmed in to remove any air pockets in the soil. The spacing of tube stock planting may occur in rows or clusters to create appropriate shelter effects.</td> </tr> <tr> <td>Direct seeding</td> <td>Seed is to be free of weed seed. Seeding must only occur when there is suitable soil moisture, typically 1 -2 days after 25mm of rainfall, in spring or autumn. 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	4.2.3	<p>All re-establishment activities are to be reported by Coal & Allied, including location, area, method and date. Information will be stored on and accessed via the online Biodiversity Offsets Portal. An annual re-establishment project plan is to be prepared, this plan shall include:</p> <ul style="list-style-type: none"> § management areas § prescription for each management area, including site preparation, species of tubestock and seed, spacing of tube stock, amount of seed and maintenance; and § schedule of activities. <p>All re-establishment activities are dependent upon suitable climatic condition and may be postponed as required. If this occurs, weather records will be reported to support any delay in activities.</p> <p>Survival assessments are to be completed at 3 and 6 month post planting to assess the success of tubestock planting and natural regeneration from the translocation of resources. The overall transition of the areas from grassland to woodland will be assessed by vegetation and habitat plots as part of the ecological monitoring programme. Details of the monitoring programme are provided in Chapter 5.</p>	Monitoring reports provided as evidence.	Compliant																									

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Re-establishment of Ironbark Woodland	4.3	<p>Seed collection activities in the BAs will commence in 2014 and continue into 2015. Seed collected will target the key stone species for Ironbark woodland from the ground, shrub and canopy layers. Planting of tubestock is scheduled for autumn 2016. All re-establishment activities are to be reported by Coal & Allied, including location, area, method and date. Information will be stored on and accessed via the online Biodiversity Offsets Portal. The re-establishment project plan shall include: § management areas § prescription for each management area, including site preparation, species of tubestock and seed, spacing of tube stock, amount of seed and maintenance; and § schedule of activities. All re-establishment activities are dependent upon suitable climatic condition and may be postponed as required. If this occurs, weather records will be reported to support any delay in activities. Survival assessments are to be completed at 3 and 6 month post planting to assess the success of tubestock planting and natural regeneration from the translocation of resources. The overall transition of the areas from grassland to woodland will be assessed by vegetation and habitat plots as part of the ecological monitoring programme. Details of the monitoring programme are provided in Chapter 5.</p>	Noted, the work done to the date of the audit follows this outline and the ecologist specialists assessment of the progress is further discussed in the audit report.	Compliant																		
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Quarry Rehabilitation Trial	4.4	<p>There is a disused sand quarry in the Southern BA, this area is to be rehabilitated and a small trial established to investigate the feasibility of rehabilitation of WSW, using the translocation of sub surface sand, topsoil and mulch salvaged from mining operations. The aim of the trial is to assess the effectiveness and feasibility of re-establishment methods for WSW on rehabilitation areas. Kleinfelder consultants prepared a Rehabilitation Plan, Warkworth Sands Woodland Quarry in December 2013 to guide this implementation of the trial.</p> <p>4.4.1 Management Objective To rehabilitate the 2.7ha quarry and establish a trial to guide best practice rehabilitation.</p> <p>4.4.2 Method The quarry void is to be filled with sub surface sand salvaged from mining operations, the sand will be shaped to create a natural land form. The sand depth would be on average 2m deep, with a minimum depth of 1m.</p> <p>Soil treatments A 5cm layer of composted mulch is to be applied, a small section will be left as sub surface sand only as a demonstration or control area. The two soil treatments to be assessed are: § topsoil and green mulch salvaged from mining operations, the top 10cm is to be stripped and applied at a depth of 5cm; and § composted mulch to a depth of 5cm only. The green mulch is a product of mulching all standing vegetation from the area to be cleared for mining and will create another potential source of seed.</p>	This occurred primarily prior to the audit period though monitoring continues.	Not Triggered												
		<p>Vegetation treatments The three revegetation treatments include: § nil (control) § direct seeding; § tubestock planting; and § direct seeding and tubestock planting. A total of 32 plots (20m x 15m) will be established to provide 4 replicates; the following indicates the treatments by plots.</p>	Noted, plots were as described.	Noted												
		<p>Direct Seeding A native seed mix comprised of key stone WSW species are to be collected from local WSW or purchased from commercial seed supplier, approximately 10kg of seed will be used. Each of the 16 plots to be directed seeded will have 62.5 grams of seed applied.</p> <p>Tubestock planting Each plot is 0.03ha in size, and assuming a target stocking of 800 stems /per ha for canopy (400 stems/ha) and shrub / ground cover (400 stems/ha) a total of 24 tubestock are to be planted into each plot, Table 13 list the species and quantities. All tubestock are to be randomly but evenly spaced through the plot.</p>	WSW rehabilitation monitoring reports	Compliant												
	4.4.4	<p>Performance and completion criteria The following provides the PC and CC for this strategy.</p> <table border="1"> <thead> <tr> <th></th> <th>Year 1 PC</th> <th>Year 2 PC</th> <th>Year 3 PC</th> <th>CC</th> </tr> </thead> <tbody> <tr> <td>Rehabilitation trial established and measured</td> <td>Establish trial and commence measurement.</td> <td>Complete measurement and report results.</td> <td>Complete measurement and report results.</td> <td>Collection of three years of measurement data and report findings.</td> </tr> </tbody> </table>		Year 1 PC	Year 2 PC	Year 3 PC	CC	Rehabilitation trial established and measured	Establish trial and commence measurement.	Complete measurement and report results.	Complete measurement and report results.	Collection of three years of measurement data and report findings.	Noted	Noted		
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	4.12	<p>Habitat Augmentation</p> <p>Where the ecological monitoring indicates the requirement for habitat augmentation, the installation of additional habitat ponds and/or installation of nesting boxes will be included in the schedule for infrastructure improvements.</p>	Noted.	Noted																		

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	4.13	Grazing Stock grazing currently occurs on land to the south of Putty Road, grazing will be removed from these areas to support the implementation of the re-establishment of these exotic grasslands. Grazing will be excluded for all other areas of the Southern and Northern BA. Grazing to control fire risks maybe used and when this is proposed it will be reported prior to commencement of grazing.	Noted, stock were not in the southern BAs at the time of the audit.	Noted																																																																																			
Monitoring Programme	5																																																																																						
	5.1	All monitoring results will be stored and accessible on the Biodiversity Offsets Portal. Table 16 Monitoring Schedule <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> </tr> </thead> <tbody> <tr> <td colspan="9">Landscape</td> </tr> <tr> <td>Aerial photo analysis</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td colspan="9">Ecological</td> </tr> <tr> <td>Vegetation</td> <td></td> <td>Sept-Nov</td> <td></td> <td>Sept-Nov</td> <td></td> <td>Sept-Nov</td> <td></td> <td>Sept-Nov</td> </tr> <tr> <td>Bird Assemblage</td> <td></td> <td>July-Aug</td> <td></td> <td>July-Aug</td> <td></td> <td>July-Aug</td> <td></td> <td>July-Aug</td> </tr> <tr> <td colspan="9">Restoration</td> </tr> <tr> <td>Rapid Condition Assessment</td> <td>Sept-Nov</td> <td>Sept-Nov</td> <td>Sept-Nov</td> <td>Sept-Nov</td> <td>Sept-Nov</td> <td>Sept-Nov</td> <td>Sept-Nov</td> <td>Sept-Nov</td> </tr> <tr> <td>Survival Assessment</td> <td></td> <td>3 and 6 month post planting</td> <td>3 and 6 month post planting</td> <td>3 and 6 month post planting</td> <td>3 and 6 month post planting</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		2013	2014	2015	2016	2017	2018	2019	2020	Landscape									Aerial photo analysis	X							X	Ecological									Vegetation		Sept-Nov		Sept-Nov		Sept-Nov		Sept-Nov	Bird Assemblage		July-Aug		July-Aug		July-Aug		July-Aug	Restoration									Rapid Condition Assessment	Sept-Nov	Sept-Nov	Sept-Nov	Sept-Nov	Sept-Nov	Sept-Nov	Sept-Nov	Sept-Nov	Survival Assessment		3 and 6 month post planting	3 and 6 month post planting	3 and 6 month post planting	3 and 6 month post planting				Verified in the portal.	Compliant		
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	5.2 and 5.3	Landscape and Ecological Monitoring Review monitoring reports and check compliance against the methodology in the Local Offset Management Plan	Reported on broadly in the AR	Compliant																																																																																			
	5.4	Restoration Monitoring Rapid Condition Assessment Assessments of mature and regrowth vegetation are to be undertaken on an annual basis, according to the following methodology, to provide regular feedback on the effectiveness of management strategies and inform ongoing management decisions such as: § weed control - new or significant changes to noxious weed infestations and control activities; § pest animal control - damage or presence of feral pest animal and control activities; and § fire management - fire fuel hazard assessments and control activities; and § habitats - presence or absence of key habitat components. The RCA requires answering true or false to a series of questions, with a tally of the "True" scores indicating woodland health.	Sighted assessment sheets. Verified in the 2015 EPBC audit.	Compliant																																																																																			

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Regional Offset Management Plan																											
4 Conservation Management Strategies																											
Controlled Activities	4.1																										
		All employees, contractors, consultants and visitors must be aware of their responsibilities when entering the BAs and Offset Areas.	Noted	Noted																							
		Under no circumstances are the following activities permitted within the Offset Areas: <ul style="list-style-type: none"> • littering or dumping; • removal of firewood, native plants or animals; • removal of rocks, sand or gravel; • disturbance of cultural heritage sites; • clearing or destruction of native vegetation (some exemptions for construction and maintenance of infrastructure (see Chapter 4.9), clearing of power line easements or regrowth control for conservation outcomes); • hunting; • trapping or shooting (unless controlling pest animals); • use of fertilisers; • aerial application of herbicide from planes or helicopters; • grazing of livestock; • use of livestock feed; • keeping or bringing exotic animal including cats and European bee hives; or 	Offset areas are fenced and gates locked.	Compliant																							
		To minimise the impact of vehicles on the BAs, vehicles should be driven on defined access tracks and by authorised personnel. Vehicles should be driven to road conditions and not exceed the legal speed limits for roads or 40km/hour for internal access tracks.	Access limited and inductions for MTW are clear on driving permissions	Compliant																							
		Access to the BAs is controlled through locked gates and fences. Entry points are signposted to inform all visitors they are entering a protected area.	Offset areas are fenced and gates locked.	Compliant																							
		The WSW Offset Area and Putty Road Offset Area are to be protected under a conservation (Bio Banking) agreement and will have legal protection.	Biobanking assessment completed, VPA being established at the time of the audit.	Not Triggered																							
	4.2.4	<p>Weed Management</p> <p>4.2.4 Performance and completion criteria</p> <table border="1"> <thead> <tr> <th></th> <th>Year 1 PC</th> <th>Year 2 PC</th> <th>Year 3 PC</th> <th>CC</th> </tr> </thead> <tbody> <tr> <td>Weed extent and density mapping</td> <td>Baseline and year 1 revision completed as part of ecological monitoring programme</td> <td>Year 2 revision completed as part of ecological monitoring programme</td> <td>Year 3 revision completed as part of ecological monitoring programme</td> <td>All revisions completed</td> </tr> <tr> <td>Weed control programme</td> <td>Weed control programme implemented, mapped and reported</td> <td>Weed control programme implemented, mapped and reported</td> <td>Weed control programme implemented, mapped and reported</td> <td>All weed control events implemented mapped and reported</td> </tr> <tr> <td>Weed species and extent</td> <td></td> <td>Minimum 5% Exotic Plant Cover as recorded during monitoring programme compared to previous year</td> <td>Minimum 5% Exotic Plant Cover as recorded during monitoring programme compared to previous year</td> <td>Weeds should not have spread to previously un-infested areas. Overall reduction in of at least 10% Exotic Plant Cover as recorded baseline data and ongoing monitoring data.</td> </tr> </tbody> </table>		Year 1 PC	Year 2 PC	Year 3 PC	CC	Weed extent and density mapping	Baseline and year 1 revision completed as part of ecological monitoring programme	Year 2 revision completed as part of ecological monitoring programme	Year 3 revision completed as part of ecological monitoring programme	All revisions completed	Weed control programme	Weed control programme implemented, mapped and reported	Weed control programme implemented, mapped and reported	Weed control programme implemented, mapped and reported	All weed control events implemented mapped and reported	Weed species and extent		Minimum 5% Exotic Plant Cover as recorded during monitoring programme compared to previous year	Minimum 5% Exotic Plant Cover as recorded during monitoring programme compared to previous year	Weeds should not have spread to previously un-infested areas. Overall reduction in of at least 10% Exotic Plant Cover as recorded baseline data and ongoing monitoring data.	No significant weed issues noted by the ecology specialist	Compliant			
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	4.3	<p>Vertebrate Pest Control</p> <p>4.3.4 Performance and completion criteria</p> <table border="1"> <thead> <tr> <th></th> <th>Year 1 PC</th> <th>Year 2 PC</th> <th>Year 3 PC</th> <th>CC</th> </tr> </thead> <tbody> <tr> <td>Pest control and monitoring</td> <td>At least one control period complete. Report complete and recommendation followed</td> <td>At least one control period complete. Report complete and recommendation followed</td> <td>At least one control period complete. Report complete and recommendation followed</td> <td>All control events completed and reported</td> </tr> </tbody> </table>		Year 1 PC	Year 2 PC	Year 3 PC	CC	Pest control and monitoring	At least one control period complete. Report complete and recommendation followed	At least one control period complete. Report complete and recommendation followed	At least one control period complete. Report complete and recommendation followed	All control events completed and reported	No significant pest issues noted by the ecology specialist	Compliant													
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	5.1	<p>All monitoring results will be stored and accessible on the Biodiversity Offsets Portal.</p> <p>Table 17 Monitoring Schedule</p> <table border="1"> <thead> <tr> <th></th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> </tr> </thead> <tbody> <tr> <td>Landscape Monitoring</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>Habitat Restoration and Bird Assemblage Monitoring</td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td>X</td> </tr> <tr> <td>Rapid Condition Assessment</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Adaptive Management Monitoring</td> <td></td> <td></td> <td></td> <td colspan="5">Monthly (if livestock within MZ) Quarterly (if no livestock with MZ)</td> </tr> </tbody> </table>		2013	2014	2015	2016	2017	2018	2019	2020	Landscape Monitoring	X							X	Habitat Restoration and Bird Assemblage Monitoring		X		X		X		X	Rapid Condition Assessment	X	X	X	X	X	X	X	X	Adaptive Management Monitoring				Monthly (if livestock within MZ) Quarterly (if no livestock with MZ)					Monitoring was on the Biodiversity Portal.	Compliant			
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	5.2 and 5.3	<p>Landscape and Habitat Restoration and Bird Assemblage Monitoring</p> <p>Review monitoring reports and check compliance against the methodology in the Local Offset Management Plan</p>	Sighted these reports for the audit period.	Compliant																																																
	5.4	<p>Restoration Monitoring</p> <p>Rapid Condition Assessment</p> <p>Assessments of mature and regrowth vegetation are to be undertaken on an annual basis, according to the following methodology, to provide regular feedback on the effectiveness of management strategies and inform ongoing management decisions such as:</p> <ul style="list-style-type: none"> § weed control - new or significant changes to noxious weed infestations and control activities; § pest animal control - damage or presence of feral pest animal and control activities; and § fire management - fire fuel hazard assessments and control activities; and § habitats - presence or absence of key habitat components. <p>The RCA requires answering true or false to a series of questions, with a tally of the "True" scores indicating woodland health.</p>	Sighted assessment sheets. Verified in the 2015 EPBC audit.	Compliant																																																

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Regional Offset Management Plan							
	5.5	<p>Adaptive Management Monitoring</p> <p>Adaptive management monitoring will be undertaken on a monthly basis where livestock grazing is present, or quarterly if there is no livestock grazing present, to provide regular feedback on the effectiveness of management strategies and to ensure early detection of emerging threats within grassland and semi-cleared vegetation. This monitoring will focus on the MZB, MZC and D that have been degraded from previous land management practices and therefore require management intervention to restore habitat values.</p> <p>Adaptive management monitoring will include an assessment of ground cover characteristics (total % cover, % cover native plants, herbage mass), weeds abundances, feral animal activity and rainfall data as well as a record of any observation of threatened species, special habitat features and infrastructure condition. This information will inform management decisions including:</p> <ul style="list-style-type: none"> § Weed control - new or significant changes to noxious weed infestations and control activities; § Pest animal control - damage or presence of feral pest animal and control activities; § Strategic Grazing – requirements for grazing, changes in seasonal growing conditions and grassland growth; § Fire management - fire fuel hazard assessments and control activities; § Bird survey locations – sites where threatened birds have been observed or where there are flowering trees will be re-visited during bird assemblage monitoring; and § Infrastructure improvements - requirements for new infrastructure as well as maintenance or repair of existing infrastructure (roads/fences). 	Evidence provided as completed reports of each of the regional BA s	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
Document Number: MTW-10-ENVMP-SITE-060							
5 BLAST MANAGEMENT CONTROLS							
Operational controls	5.2						
	5.2.1	Permissible Blasting Hours					
		Blasting at MTW is permissible between the hours of 7am and 5pm, Monday to Saturday inclusive. Blasting will be undertaken in accordance with the blasting frequency limits specified in the approvals:	Blast register confirms compliance with this requirement	Compliant			
		<ul style="list-style-type: none"> WML – 3 blasts per day, and 12 blasts per week (averaged over a calendar year), and not more than 1 blast per day within 500m of the Putty Road and/or Golden Highway and MTO – 2 blasts per day, and 6 blasts per week (averaged over a calendar year), and not more than 1 blast per day within 500m of the Putty Road. 	Blast register and road closure records confirms compliance with this requirement	Compliant			
		No blasting will be undertaken on Sundays, public holidays or any other time, unless written approval is obtained from the Secretary. In such circumstances (possible under extraordinary circumstances), MTW will also endeavour to telephone the DP&E Singleton office and the EPA to seek verbal approval from the regulatory authorities. <ul style="list-style-type: none"> DP&E Singleton Compliance Office – (02) 6575 3400 Environment Protection Authority Newcastle Office – (02) 4908 6800, or self-report line 131 555 	Noted	Noted			
	5.2.2	Meteorological considerations					
		Blasting is scheduled and undertaken in a responsible manner, taking account of best available weather forecast information as follows:					
		<ul style="list-style-type: none"> 4 – 7 days in advance of blasting – scheduling undertaken in consideration of forecast meteorological conditions (use of publically available forecast information); 	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		<ul style="list-style-type: none"> 1 – 3 days in advance of blasting - site specific blast plume predictions and updated weather forecast information is used to refine the blast schedule, taking account a range of factors such as shot size and location, requirement for closure of public roads, and risk-assessed likelihood of dust / fume associated with the blast; 	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		<ul style="list-style-type: none"> Morning of the planned blast – Site specific blast plume predictions are used to determine the optimum time for firing. 	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		<ul style="list-style-type: none"> Approaching blast detonation - review of the blasting permissions page for the appropriate Pit area (see Appendix B) which considers wind speed and wind direction relative to sensitive receptors and public roads; 	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		<ul style="list-style-type: none"> There may be circumstances where blasts may need to be fired in less than ideal weather conditions. In these circumstances MTW will take additional controls to minimise impacts such as implementation of exclusion zones. Such decisions will be taken at the appropriate level of the organisational hierarchy; 	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
	5.2.3	Best Practice measures					
		<ul style="list-style-type: none"> MTW will monitor blasts as mining progresses, in accordance with the existing blast monitoring system, so that blast prediction site laws can be further refined and future blast designs can be optimised based on more detailed site information; and Where possible, and for investigative purposes MTW will collect photos and video footage of blasts, including images of blast plumes in the event of offsite migration. 	Blast register and D&B blast documentation indicate general compliance. On the 8-06-16 a blast was not monitored by the Bulga Village blast monitor due to a software malfunction. DP&E and EPA were notified.	Not Compliant	E	3	Low
			This is done as a general rule for all larger blasts	Compliant			
	5.2.4	Notifying Interested Parties					
		<ul style="list-style-type: none"> Where mandated, notice of temporary road closures will be provided via the posting of signs on the affected road(s) in the 24 hours prior to blasting; Where necessary, information will be made available to neighbouring mines, relevant authorities (in the event of a road closure), and internal contacts prior to blasting. The blasting hotline number will be advertised in road closure notifications placed in local print media, as well as MTW's Daily Report website, anticipated for release before the end of March 2016. 	Sighted in site inspection and noted on road closure checklist	Compliant			
			Sighted emails, where road closures can be coordinated, they are.	Compliant			
			Sighted on website, and sighted advertisement in the local paper.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
	5.2.5	Monitoring and Administration					
		<ul style="list-style-type: none"> Documentation of the date, location of the blast and quantity of explosive used each day; Detailed monitoring of blasts over the life of MTW at relevant blast sensitive locations; 	Blast register	Compliant			
		<ul style="list-style-type: none"> Ad-hoc visual monitoring of blast events where pre-blast risk assessment identifies the need, including use of cameras situated on Charlton Ridge and WML Maintenance Workshop; Training will be provided to all relevant personnel on environmental obligations in relation to blasting controls. 	the AR presents blasting results and they are also posted on the MTW website in the MERs This is conducted, see above.	Compliant			
		<ul style="list-style-type: none"> Periodic internal reviews of blast management procedures to evaluate performance and identify corrective action if required. 	The conduct of the training was confirmed at interview, however, no entries in the SGS STAX system nor any other training register were able to be provided to verify the statements made at interview.	Not Compliant	D	4	Low
			This occurs every time there is an unusual outcome from a blast that is environmental, safety or engineering related.	Compliant			
Management of Flyrock							
	5.3	The generation of fly rock is managed by incorporating appropriate controls in blast designs.					
		These controls include design of stemming lengths and stemming materials to minimise the potential for generating flyrock. Adequate burden, which is the distance from a charge to a free face, is maintained to minimise the risk of generating flyrock due to face bursting. These measures are used to minimise the risk of damage to property, equipment or powerlines from flyrock.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		Appropriate stemming will be used to improve stemming confinement and hence reduce the chance of flyrock and elevated airblast overpressure.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		An appropriate exclusion zone will be established around each blast site in accordance with relevant mine safety regulations prior to firing a blast. Generally, the blast exclusion zone will be a minimum of 300 metres for equipment and 500 metres for personnel. The exclusion zone will be established beyond the expected range of any fly rock with an additional safety margin. The establishment of this zone will minimise the risk of any injuries to people or livestock due to flyrock.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
		Where an unusual level of flyrock is generated by blasting this information will be recorded and used to continually re-assess the adequacy of blast design controls in reducing the generation of flyrock. The information will also be used to re-assess the size of the safety exclusion zone established for people and livestock in the vicinity of a blast.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments.	Compliant			
Management of Unpredicted Impacts							
	5.4						
	5.4.1	Blast Fume					
		Blast fume is managed in accordance with the MTW Postblast fume generation mitigation and management plan.	See Fume Management Plan reviewed elsewhere in this audit	Compliant			
	5.4.2	Airblast overpressure / Ground Vibration exceedance					
		In the event that a blast event registers airblast overpressure or ground vibration results greater than the allowable limits, or significantly different from the predicted results, MTW will undertake a detailed investigation into the event. Where corrective actions are identified to prevent a recurrence, these will be entered into the Rio Tinto Action Management System, and tracked to completion.	No exceedances n the audit period.	Compliant			
Continuous Improvement							
	5.5	In accordance with the requirements of the Rio Tinto Coal Australia Health, Safety, Environment and Quality Management System, MTW will continuously seek to further improve blasting management through the following:					
		<ul style="list-style-type: none"> Investigation into new and emerging technologies, implementing new controls where required; Learning from incidents and improving controls; Thoroughly investigating any exceedance and non-compliance events; and Review of blast monitoring data for emerging trends. 	The Drill and Blast engineers share informatin across the Coal and Allied business and attend conferences and seminars where new and innovative technologies are presented. MTW use internal audits, review of complaints and incidents, regulatory inspections and internal Corrective Actions to pursue continual improvement. The is done in the Drill and Blast team and presented in the Annual Review	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
Monitoring Programme	5.6						
		Blast and vibration monitoring at MTW will be undertaken in accordance with the Blast Monitoring Programme set out in Appendix E. The monitoring programme includes a protocol for evaluating compliance with the blasting criteria in the approvals.	Data from blast register and AR's confirm compliance with App E	Compliant			
5 PROPERTY INVESTIGATIONS AND INSPECTIONS							
Property Inspections	6.1						
		In accordance with Condition 12 of Schedule 3 (WML) and Condition 10 of Schedule 3 (MTO), MTW will undertake the actions as described to establish the baseline condition of buildings and/or structures, or to update a previous inspection.	See Approval condition relating to this issue, Schedule 3 Condition 11	Compliant			
Property Investigations	6.2						
		If Coal & Allied receives a written claim that buildings and/or structures on a landowners' land have been damaged as a result of blasting on site then MTW will investigate the claim and, where the property investigation confirms the landowner's claim, repair the damage in accordance with the requirements of Condition 13, Schedule 3 (WML) or Condition 11 of Schedule 3 (MTO) of the Approvals, whichever is relevant.	Not in the audit period	Not Triggered			
Independent Review and Land Acquisition Process	6.3						
		Where the owner of privately-owned land has reasonable grounds to believe that MTW (WML or MTO) is exceeding blast criteria, they may request an independent review from the Secretary, as per Condition 4 of Schedule 4 of the Approvals. If the independent review determines that WML / MTO is not complying with the relevant criteria, then MTW will work in conjunction with the landowner and the Secretary to develop and implement remedial actions as appropriate.	Not in the audit period	Not Triggered			
7 IMPLEMENTATION OF THE BMP							
Reporting	7.1						
	7.1.1	Internal reporting					
		Determining exceedances of blasting criteria will be undertaken in accordance with the protocol for evaluating compliance (Blast Monitoring Programme), reproduced in Appendix E.	Noted, no exceedances in the audit period	Noted			
		Internal reporting of blasting incidents (blast fume events and overpressure / vibration exceedances of criteria) will be undertaken in accordance with Rio Tinto Coal Australia HSEQ14 – Incident and Action Management.	Noted, no exceedances in the audit period	Noted			
		The Senior Drill and Blast Engineer will report any potential or confirmed blast exceedance to relevant site personnel, including the Site Environmental Co-ordinator, Manager – Mining and Manager – Environmental Specialist. The initial advice will include an in-house assessment of meteorological conditions and the validity of the peak airblast overpressure and ground vibration results. Where the peak results are confirmed to have occurred outside of the calculated arrival time window, no escalation of the possible exceedance will occur, and a theoretical value will be used in place of the measured peak.	Noted, no exceedances in the audit period	Noted			
		Where the in-house assessment is unable to discount the result on the basis of meteorology or arrival time, the result will be referred to a specialist consultant for determination.	Noted, no exceedances in the audit period	Noted			
		If there is a non-compliance with the blast impact assessment criteria an investigation will be undertaken, assessing the circumstances of the non-compliance.	Noted, no exceedances in the audit period	Noted			
		Resulting actions will be developed and assigned to the appropriate person, and tracked to completion.	Noted, no exceedances in the audit period	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
External Reporting	7.1.2	External Reporting					
	7.1.2.1	Emergency / Non-compliance reporting					
		The Environmental Specialist – Systems and Monitoring will co-ordinate the reporting of any confirmed noncompliance in writing to the Dept. as soon as practicable following receipt of information confirming the noncompliance. Airblast Overpressure / Ground vibration non-compliances will also be reported to the EPA as required.	Noted, no exceedances in the audit period	Noted			
		The Environmental Specialist – Operations will coordinate the reporting of any confirmed reportable blast fume events in line with the clarification note issued by the Department of Planning and Environment on 7th July 2014: "Notify the Department of Planning and Environment compliance office in Singleton of any blast producing post-blast fume that rates 3 at its highest extent and leaves the site (see definition below), and any blast that rates 4 or 5. It is not the intention that all shots required to be reported will require a formal incident report, as this will depend on a number of factors. Within this report the quantity of explosive and/or the number of blast holes should be included. The purpose of this is to provide a guide to size the fume event; Site – includes any active mine site's project approval boundary and any closed portion of public road."	Noted, no exceedances in the audit period	Noted			
		In addition, in accordance with the relevant conditions of the Approvals, within seven days of becoming aware of the incident, MTW will provide the Secretary and any relevant agencies with a detailed report of the incident.	Noted, no exceedances in the audit period	Noted			
		The report will include the following details: • The date, time and nature of exceedance/incident; • Identify the likely cause of exceedance/incident; • Describe the response action that has been undertaken to date; and • Describe the proposed measures to address the exceedance/incident.	Noted, no exceedances in the audit period	Noted			
		MTW will implement mitigation measures for future blasts as necessary and will monitor future blasts for effectiveness and improvement opportunities.	Noted, no exceedances in the audit period	Noted			
		In accordance with Condition 3 of Schedule 4 of the Approvals, as soon as practicable after obtaining monitoring results showing a non-compliance of the blasting criteria, Coal & Allied will notify the affected landowner and/or tenants in writing of the noncompliance, and provide regular monitoring results to each of these parties until the project is again complying with the relevant criteria.	Noted, no exceedances in the audit period	Noted			
	7.1.2.2	Regular reporting					
		Blast monitoring data, collected in accordance with this BMP will be made available on the Rio Tinto Coal Australia website (www.riotintocoalaustralia.com.au) via the Monthly Environmental Management Report, and Annual Review.	MEMRs contain blast data and are loaded onto the website monthly	Compliant			
		Ground Vibration and Airblast Overpressure data will also be presented in the Monthly Meaningful Summary and Obtained Data reports to satisfy the reporting requirements of the POEO Act.	MEMRs contain blast data and are loaded onto the website monthly	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
Complaints Management	7.2						
		Community Complaints are lodged via the Community Complaints line, 1800 656 892. The hotline number is prominently displayed on the Rio Tinto Coal Australia website and regularly advertised in the local newspaper. The Complaints Hotline operates 24 hours per day, seven days a week. Complaints will be recorded and investigated by MTW staff. Complaints lodged via other means (letter, in person, fax etc) will also be recorded and investigated by the Environmental Coordinator.	The hotline is displayed on the website. Advertised in the local newspaper. Hotline operates 24 x 7 based on complaints records.	Compliant			
		Where the investigation identifies potential noncompliance with a consent or licence condition, action to mitigate the cause of the complaint will be taken.	Complaints actions have been reviewed in this audit and found complaint with this requirement.	Compliant			
		The details of all complaints, and any mitigating actions taken, will be circulated to senior management and other key personnel. Where requested, follow-up correspondence with the complainant will be provided.	Complaints actions have been reviewed in this audit and found complaint with this requirement.	Compliant			
		It is a condition of EPL's 1376, 1976 and 24 that MTW maintain a register of pollution complaints. MTW maintains a register of all complaints, recording the following information (at minimum): <ul style="list-style-type: none"> • Date and time of the complaint; • Method by which the complaint was made; • Any personal details of the complainant which were provided; • The nature of complaint; • Any action taken in relation to the complaint; and • If no action, the reason why no action was taken. 	Sighted register, complaints reported and trends analysed in the ARs	Compliant			
		A record of each complaint will be kept for a minimum of four years, and will be produced on request to any authorised officer of the EPA.	Complaints retained, no such requests from the EPA	Compliant			
		A monthly summary of complaints received will be reported on the Rio Tinto Coal Australia website (www.riotintocoalaustralia.com.au).	Included in the MEMR	Compliant			
Review of this Management Plan	7.3						
		This BMP will be reviewed within three months of the submission of the Annual Review and updated to the satisfaction of the Secretary where necessary.	Latest revision August 2016, no triggers since then.	Compliant			
		This BMP will also be reviewed, and revised if necessary, within three months of the completion of an independent environmental audit, any non-compliance of the Approvals' criteria or any modification to the conditions of the Approvals.	Latest revision August 2016, no triggers since then.	Compliant			
		Any major amendments to this BMP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. Minor changes such as formatting edits may be made with version control on the Project website.	Latest revision August 2016, no triggers since then. The August version includes approval letter from DP&E and notes consultation with EPA, Singleton Council, RMS and the plan was presented to the CCC.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
Road Closure Management Plan							
5 Procedures for Road and Traffic Closures							
Temporary Road Closure	5.1						
		Roads will be temporarily closed whenever blasting is carried out within 500m of the road or to ensure public safety. These closures will be typically for a period of less than 15 minutes.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
		Authorised personnel who have received Roads and Marine Services (RMS) approved traffic controller training will manage traffic flow during these closures.	Senior Drill & Blast Engineer has RMS training and supervises road closure. Road closure team consists of a Traffic Control company supported by site personnel	Compliant			
		Traffic control signs will be set up in accordance with the approved traffic control plan.	See road closure checklist	Compliant			
		Temporary road closures will be scheduled, where practicable, for outside peak traffic flow periods.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
		Closures will occur just prior to the blast, and reopening will occur only after a thorough safety inspection has been completed. Closures will occur at strategic locations along the road that are highly visible to oncoming traffic and will seek to minimise potential impacts on road users accessing alternate routes. Closure locations will take into consideration the accumulated traffic volume so as where possible, normal traffic access to side roads is not compromised. Specific locations of the closure points will be determined during preparation of the Traffic Control Plan. Blasts requiring road closures will not be conducted when adverse environmental conditions (or other prevailing conditions) make road closures hazardous.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
		The duration of closure events will be minimised by delaying closures until just prior to blasts and by completing post-blast safety inspections immediately following blasts. Although Mount Thorley Warkworth (MTW) will endeavour to minimise the duration of closures, public safety is the primary objective and will not be compromised by efforts to reduce closure duration. It is envisaged that road closures will occur for a period of approximately 10-15 minutes.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
		Misfires identified while public roads are closed will be treated as separate blasts to avoid lengthy road closures. In addition to measures to minimise the duration of closures on an event basis, road closures will be minimised on a weekly basis by designing blasts to minimize the number of road closures required and by scheduling blasts requiring road closure to achieve an even distribution among weeks where practicable. Road closures will be scheduled to avoid peak traffic periods as far as practicable and will generally occur Monday-Saturday between the hours of 9am - 5pm. Where possible, school bus times will be avoided.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
Traffic Control Plan	5.2						
		The following procedures will be implemented: <ul style="list-style-type: none"> • Both vehicular and pedestrian access will be prevented during blasting activities when a blast occurs within 500m of nominated roads • Traffic controllers will be utilised to control traffic on Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway to prevent access to the area • All affected roads will be inspected immediately following the blast to ensure no damage to the road surface has occurred and to remove any flyrock should it occur. • Traffic will only be permitted to proceed through the area after approval to do so, and approval has been received from the shotfirer in charge of the blast. 	There have been recent incidents of members of the public interfering with road closures but this was rectified with the assistance of NSW Police. Otherwise compliant	Compliant			
Personnel involved – roles and responsibilities	5.3						
		Drill & Blast Engineer: <ul style="list-style-type: none"> • Notify Singleton Council of planned blasting within 500m of Putty Road and/or Wallaby Scrub Road and/or Charlton Road or Golden Highway one day prior to blast • Coordinate road closure signage on Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway including updating for delayed blasts • Coordinate blasting times with neighbouring mines • Advertise road closure in Singleton Argus • Notify residents who have driveways affected by road closures 	Emails provided verifying contact with Council and neighbouring mines. There are no residents with driveways in the currently impacted sections of the roads to be closed. Road closure advertised in the Argus.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
		<p>Blast supervisor:</p> <ul style="list-style-type: none"> Update phone information to inform callers of road closure details Organise traffic controllers for (Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway) as required. Co-ordinate inspection of (Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway) pre and post blast, and apply remedial actions as required. Organise traffic controllers for (Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway) as required. Co-ordinate inspection of (Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway) pre and post blast, and apply remedial actions as required. 	Preblast checklist and road closure checklist	Compliant			
		<p>Shotfirer:</p> <ul style="list-style-type: none"> Whilst the Shotfirer-in-Charge is ultimately the person accountable for the blast on site, the 'Road Runner' manages operations on the public road itself. <p>Road Runner:</p> <ul style="list-style-type: none"> The 'Road Runner' is an MTW employee who is charged with responsibility of ensuring the public road is secured and cleared. Instruct the Traffic Controllers to close and open the road when directed by the Shotfirer- Charge. Clear the public road between the Traffic Controllers in a systematic manner to ensure that the road is clear of people or vehicles at risk. In the event where dust/fume/blast debris are covering the road, inform traffic controllers to maintain closure until notified by Road Runner. 	Preblast checklist and road closure checklist	Compliant			
		<p>Traffic Controller:</p> <ul style="list-style-type: none"> Close and secure open the public road in accordance with the 'Road Runner's' instructions. The Traffic Controller shall call up to stop the blasting sequence at any time if a breach of the road closure occurs. If a breach has occurred, the public road will require clearing again before recommencing blasting operations. 	Preblast checklist and road closure checklist	Compliant			
Notification of appropriate parties	5.5						
		<ul style="list-style-type: none"> The Blasting Schedule Hotline is the primary tool by which members of the public can find information relating to MTW temporary road closures. MTW uses its best endeavours to align the road closure with the advertised time and limit the road closure duration to minimise inconvenience to road users. It should be noted however that the primary concern for MTW is to mitigate safety and environmental impacts from blasting, hence this will take precedence over adherence to road closure scheduling. A number of factors including meteorological conditions, operations impediments and unforeseen circumstances on the public road will often result in road closures being brought forward or delayed from the scheduled time. Advertised road closure times publicised via the methods described herein represent MTW's best assessment of the likely blasting time at the time of publish, and are subject to change. 	Noted	Noted			
		<ul style="list-style-type: none"> Approval will be sought from Singleton Council to temporarily close roads for the purpose of blasting annually; also approval from RMS to temporarily close roads for the purpose of blasting will be sought every six months. 	Approvals from Council and RMS provided as evidence	Compliant			
		<ul style="list-style-type: none"> Where mandated, notice of temporary road closures will be provided via the posting of signs on the affected road(s) in the 24 hours prior to blasting. Road closure signage will not be updated from the initial advertised time unless the road closure is postponed to another day. Signs will comply with AS 1743-2001 Road Sign Specifications. 	Preblast checklist and road closure checklist	Compliant			
		<ul style="list-style-type: none"> Notification of forthcoming road closures will be provided to the local community through advertisements in the Singleton Argus. Advertisements in Tuesday's Argus for a Wednesday, Thursday, Friday or Saturday blast and in Friday's Argus for a Monday or Tuesday blast. 	Preblast checklist and road closure checklist	Compliant			
		<ul style="list-style-type: none"> Singleton Council Operations Management will be notified by email prior to 12pm the day prior to a road closure after 10am. 	Preblast checklist and road closure checklist	Compliant			
		<ul style="list-style-type: none"> The Blasting Hotline is updated on the morning of each day on which there is a scheduled road closure and can be reached on (freecall) 1800 099 669. The hotline will advise of a one hour window for the proposed road closure (e.g between 10am and 11am); 	Preblast checklist and road closure checklist	Compliant			
		<ul style="list-style-type: none"> In the event that a road closure is to occur outside the blasting window, and once the revised time is understood, MTW will update the hotline for another one hour window; and 	Preblast checklist and road closure checklist, Noted	Compliant			
		<ul style="list-style-type: none"> Where necessary, information will be made available to neighbouring mines, relevant authorities and internal contacts prior to blasting. 	Preblast checklist and road closure checklist	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan							
Protocol for management of Emergency Services	5.6	In the event that emergency vehicles require clear and immediate access through a closed section of public road, the Traffic Controller will immediately communicate with Shotfirer to ensure a safe thoroughfare is provided for emergency services vehicles. Where possible, and with the safety of all persons being maintained, blasting will be postponed until emergency services have passed safely.	Noted, not able to be verified but discussions with Senior Drill and Blast Engineer align with this requirement	Compliant			
Management of dust and fume							
	5.7	The positioning of Traffic Controllers will be dependent upon the prevailing weather conditions on a given day. The Traffic Controllers will be positioned at selected points to ensure the safety of all road users. The section of the blocked road shall be large enough to contain any potential passing dust and fume.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
		Following blasting, the decision to re-open the road will be made after a detailed visual inspection of the road conditions, including fume level monitoring. In the event of slow dissipation of dust and/or fume the traffic controllers will ensure that the roadway remains closed. The road will be re-opened when the dust and/or fume have either passed the blocked road or have sufficiently dispersed that they no longer present any risk to passing traffic.	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments	Compliant			
Management of flyrock							
	5.8	Following blasting, the affected roads (Putty Road, Wallaby Scrub Road, Charlton Road and Golden Highway) will be visually inspected to determine whether any flyrock or other hazards are present. In the event that flyrock has impacted upon the road, Traffic Controllers will: <ul style="list-style-type: none"> • Immediately notify the Blast Supervisor who will initiate a clean-up and repair response with removal of any rock. • Traffic controllers will continue to keep roads closed and monitor road traffic until authorised to reopen the road by the Blast Supervisor 	Discussed with Senior Drill and Blast Engineer who ran through the entire process backed up by shift reports, road closure checklists and weekly D&B planning sheets. Preblast checklist and fume risk assessment were also supplied and supported the interviewees comments. Senior D&B Engineer confirmed a road sweeper is kept ready should material be deposited on the road when closed for a blast.	Compliant			
Auditing / review							
	5.9	This management plan is to be reviewed at least every three years or as otherwise directed by the Director-General of DP&E (Department of Planning and Environment). The review process is to reflect changes in environmental legislation and guidelines, and changes in technology or operational procedures. This management plan will be reviewed and revised if necessary, including where there are changes to the blast management plan as a result of changes in mine development.	Latest revision August 2016, no triggers since then.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Post Blast Fume Generation Mitigation and Management Plan							
6 Management of fumes							
		Any shot expected to produce fume that is in close proximity to the aforementioned public areas require a road closure as per MTW-Road Closure Management Plan within site boundaries, the blasting exclusion one and sentry procedures take into account the location of mine personnel on the lease at the time of detonation. A minimum 500 m exclusion zone is the standard for MTW however may be extended to any distance at the shotfirer's discretion. This includes reducing the risk of exposure to personnel downwind of a blast with the potential for fume.	Mapping of fume potential reviewed for a blast, road closures were governed by the 500m exclusion zone and the predictions for fume generation and travel post blast.	Compliant			
		Identify factors contributing to potential fume: <ul style="list-style-type: none"> • Horizon history • Clay / weak material • Rain during loading • Holes slumping • Product selection issues • Product delivery issues • Excessive sleep time • Dynamic water 	Noted	Noted			
		Defining Fume Management Zones					
		Extent of zone based on: <ul style="list-style-type: none"> • Likely fume level at blast to be assessed by group based on above factors • Wind speed and direction • Inversions • Cloud cover • Time of day • Atmospheric stability • Temperature • Humidity • Dispersion model (Fume dispersion site-law under development) 	The fume prediction model was based on weather forecasts. Whether a site model had yet been developed was not able to be verified but the predictions looked conservative. The Fume dispersion Model has been finalised by Todoroski Air Sciences.	Compliant			
		Fume management zone notifications					
		A hardcopy plan with FMZ clearly marked on current aerial photo along with any sensitive sites (Roads, Bulga Coal, Industrial Area). Internal notifications include: <ul style="list-style-type: none"> • Daily blast schedule email, Daily planning meeting • Time permitting – TBT fume • protocols - windows up, a/c on recirculation • ESO to be on standby for high potential events Bulga Coal where appropriate Road closure notifications - As per Road Closure Management Plan External Stakeholders such as DP&E, EPA, community, etc.	Notifications reviewed with the Senior Drill and Blast Engineer at site and documentation retained by the auditor support this approach.	Compliant			
		Firing Blast					
		<ul style="list-style-type: none"> • Fume level measurements as part of road inspection • Fume protocol for vehicle occupants - Verbal or document - Windows up and a/c on recirculation • Fume observation - Warning message to potentially impacted parties if required - Windows up and a/c on recirculation • To utilize fume monitor when conducting post blast inspection • Video blast • Fume level measurements (monitoring) 	Road closure checklist	Compliant			
		Fume Emergency					
		Shot firer, supervisor or sentry or any witness to raise emergency based on observations. ESO and OCE to coordinate response. Advice for anyone potentially affected by fume: <ul style="list-style-type: none"> • Get out of the cloud. • Seek fresh air. • Use water to reduce the amount of exposure to wash out eyes and clear nose and throat 	Noted - not reviewed in this audit	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Post Blast Fume Generation Mitigation and Management Plan							
		<p>Reporting</p> <ul style="list-style-type: none"> Assess FMZ against forecast Update fume dispersion site law based on new measurements Notify Explosives Supplier of fume event to aid in investigation and communication <p>The following fume events shall be raised as incidents:</p> <ul style="list-style-type: none"> Any blast fume required to be reported to external stakeholders (see below); the visible fume cloud travels beyond the blast exclusion zone; when any person has been directly exposed to fumes <p>Note that a road closed for the purpose of blasting is considered part of the site</p> <p>The following factors should be considered for inclusion in any post-blast incident report:</p> <ul style="list-style-type: none"> date and time of blast; explosives type, quantity, initiation type; ground geology (soft, faults, wet); post-blast NOx gas rating, eg 0 – 5 & A-C; duration of any post-blast NOx gas event (measure of time to disperse); direction of movement of any post-blast NOx plume; movement of any post-blast NOx gas plume relative to the established exclusion zone and any established management zone (ie maintained within, exceeded); climate conditions, including temperature, humidity, wind speed and direction, cloud cover, rain; results/readings of any NOx monitoring equipment employed for the blast video results of blast where relevant. 	Reviewed post blast records, they were compliant with these requirements.	Compliant			
		<p>Notify the Department of Planning and Infrastructure of any blast producing post blast fume that rates 3 (at its greatest extent) which leaving the site, and any blast that rates 4 or 5.</p> <p>Where the fume leaves the site and has the potential to cause material harm (to the public/environment), immediately notify the following as per the Pollution Incident Response Plan:</p> <ul style="list-style-type: none"> EPA Environmental Line (131 555) DoPI (02 6575 3402) Ministry of Health (Newcastle Public Health Unit (02 4924 6477) WorkCover (13 10 50) Singleton Council (02 6578 7290, a/h 02 6572 1400) Fire and Rescue NSW (000) <p>Escalate fume events to Mining Manager & Hunter Valley Environmental Services.</p> <p>Reporting of fume events to Mines Inspectorate as appropriate.</p>	two fume notifications and associated documentation were provided as evidence.	Compliant			
7	Documentation and records						
		<p>Blast design and performance record</p> <ul style="list-style-type: none"> Blast Design Drill Pattern Plans Preload risk rating Load Sheet Blasting Schedule Location of Blast Type of Blast Pre-fire risk rating Video of blast Operator is to ensure that filming continues post detonation, to ensure any potential fume or dust clouds are captured. Environmental records Air Blast Vibration Fume rating Measured fume concentration and weather details Video frame jpegs representative of plume dispersion Monthly reconciliation of blasted volumes 	Reviewed with Senior Drill and Blast Engineer.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Post Blast Fume Generation Mitigation and Management Plan							
		Shotfiring Report					
		<ul style="list-style-type: none"> • Date/time of firing • Name, type and location of shot • Explosives type, tonnages delivered of explosives used • Number of holes charged (for day/total) • Pattern Size • Hole Diameter • Average Hole Depth • Numbers of holes fired • General comment on blast loading progress or results. • Environmental comments • Fume Category 	Reviewed with Senior Drill and Blast Engineer.	Compliant			
		Drill Shift Report					
		<ul style="list-style-type: none"> • Drill Number • Location/Pattern No. • Burden & Spacing • Operator Name • Bit Size • Date/Time/Shift • Drilling task by the Hour • Hole Number • Hole Depth • Comments – including where holes are drilled off the designed location by more than 0.5m • Total Summary for shift 	Reviewed with Senior Drill and Blast Engineer.	Compliant			

	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
HUNTER VALLEY OPERATIONS / MOUNT THORLEY WARKWORTH Environmental Management Strategy							
Sep-16							
6 Monitoring Programmes							
		Figures 6 to 16 of the EMS detail the monitoring to be carried out in accordance with the various approved strategies, plans and programs for each development. Monitoring locations are reviewed periodically and may be updated from time to time to account for progression of mining and changes in land ownership.	Assessed in the relevant MPs and associated strategies elsewhere in this audit.	Compliant			
7 Review of the Strategy							
		The Strategy and all associated documentation will be reviewed in accordance with the requirements of the procedure RTCAHSEQ08.00.001 Documentation and Document Control.					
		The Strategy and all associated documentation will be reviewed in accordance with the requirements of the procedure RTCAHSEQ08.00.001 Documentation and Document Control. In addition, and as required by the relevant conditions of Approvals', the Strategy shall be reviewed, and if necessary revised to the satisfaction of the Secretary within three months of the submission of an: <ul style="list-style-type: none"> • Annual review (formerly the AEMR); • Incident report under the relevant conditions of approval; • Independent audit under the relevant conditions of approval; or • Modification to the conditions of consent. 	According to the revision history, the EMS has been updated regularly including 3 times in 2016.	Compliant			
Complaints Management							
		The EMS refers to a number of procedures for the management of complaints	Reviewed CNA-09-EWI-SITE-058 CNA Environmental Complaints Database MTW-14-PROC-512 Element 14: Non Conformance, Incident and Action Management Communication and consultation - Element 9. Communication and consultation during the process of the audit, these procedures and the association with managing complaints and enquiries from the public were found to be followed through and appropriate to manage the issues. The content of the procedures is reproduced in part in many of the management plans.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Noise Management Plan							
Document Number: MTW-10-ENVMP-SITE-061							
Sep-16							
6 MITIGATION MEASURES /MANAGEMENT CONTROLS							
Standard Mitigation Measures	6.2						
		The following controls are implemented under standard conditions:					
		<ul style="list-style-type: none"> plant, machinery and haul roads will be maintained in good condition according to manufacturer's specification and repaired as required to ensure that equipment remains in a serviceable operating condition; 	MTW operate a planned maintenance system that was reviewed in the last audit and found suitable. The road and an other surface features observed in the site inspection were satisfactory.	Compliant			
		<ul style="list-style-type: none"> noise impacts will be considered during risk analysis and change management procedures for substantive changes to operating conditions; 	New noise limits were managed via this method in January 2017 (WML) and March 2016 (for MT). Sighted electronic Change Management System, reinforced systems already in place to manage noise impacts.	Compliant			
		<ul style="list-style-type: none"> sound power level testing of equipment will be undertaken annually; 	Evidence of SPL testing provided as evidence.	Compliant			
		<ul style="list-style-type: none"> activities that generate complaints will be monitored and modified if supplementary monitoring results confirm that noise criteria are potentially being exceeded; 	Evidence of the action of CROs and responses provided to support this	Compliant			
		<ul style="list-style-type: none"> environmental inductions will ensure that relevant employees are aware of potential impacts on sensitive receptors from equipment and its operation; 	Reviewed inductions, noise issues were presented.	Compliant			
		<ul style="list-style-type: none"> all new trucks, dozers, drills and excavators purchased for use onsite will be commissioned as noise suppressed (attenuated) units; 	No new equipment in the audit period, the attenuation of existing fleet was completed at the end of the audit period.	Noted			
		<ul style="list-style-type: none"> Coal haulage by rail or conveyor, and programs to encourage staff car-pooling to minimise the road noise of the development; 	No road haulage of coal. No substantive evidence of car pooling encouragement programs.	Not Compliant	E	3	Low
		<ul style="list-style-type: none"> attended monitoring of noise will be undertaken on a monthly basis at representative sites, by a qualified acoustic consultant; 	Reports provided as evidence, MERs on website show history.	Compliant			
		<ul style="list-style-type: none"> Directional real-time monitoring with frequency filtering capabilities will be employed at sensitive receptor locations. Noise alarms will be generated, received and responded to in real time to effectively manage noise emissions; and 	Noise compass, barn owls.	Compliant			
		<ul style="list-style-type: none"> Frequent reporting on the Rio Tinto Coal Australia website on the outcomes of real time and attended noise monitoring. 	Insite and MEMRs	Compliant			
Proactive Measures	6.3						
	6.3.1	Sound Suppressed Fleet					
		Based on known and predicted noise risk, the sound suppressed units will be deployed preferentially to manage noise.	All units area attenuated, preferential deployment no longer necessary.	Not triggered			
		MTW will report on the progress of the sound attenuation program annually in the Annual Review (AR).	attenuation program is reported in Section 6.2.2 of the 2016 Anural Review.	Compliant			
	6.3.2	Sound Power Control					
		Sound power control will be managed by a combination of sound power testing, a rigorous maintenance schedule and daily pre start checks.	Noted, there was no evidence of noisy vehicles, the sound power testing was being conducted, maintenance has been found suitable in previous audits, daily pre-starts are conducted.	Compliant			
	6.3.2.1	Sound Power Level Testing					
		Subsequent to completion of the sound attenuation program described in 6.3.1 above, sound power level testing (sound screening) will be undertaken on 33% of the attenuated HME fleet annually. In this way, 100% of attenuated equipment will be screened on a rolling three year cycle. The results of sound screening will be used for the following:					
		<ul style="list-style-type: none"> to inform MTW of equipment which is experiencing degradation in suppression equipment and requiring repair; 	Sound attenuation completed at the end of the audit period, SPL testing has continued but none of the attenuation modifications would be expected to fail in a short period.	Compliant			
		<ul style="list-style-type: none"> to inform MTW of fleet types and units which can be preferentially deployed into or removed from noise risk areas; and 					
		<ul style="list-style-type: none"> to compare against the predicted noise levels in the environmental assessment, reported annually in the AR (model validation). 					
		When one piece of equipment measures >3 dB(L) against operational specifications (126dB(lin)), MTW maintenance staff will inspect and assign the piece of equipment to the appropriate maintenance schedule.	SPL testing was provided as evidence, no evidence of failure to meet SPL requirements was provided.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																												
					Consequence	Likelihood	Risk																										
Mount Thorley Warkworth Noise Management Plan																																	
	6.3.2.2	Routine Maintenance Scheduling																															
		Routine equipment inspections include assessment of the condition of the attenuation components. If, during the C45 services and inspections, a major noise attenuation component is found to be absent, worn or broken to the point of being ineffective, that piece of equipment will be repaired or replaced. Routine maintenance is undertaken at a frequency of six weeks for Komatsu 830E haul units, and four weeks for all other haul units. Additional maintenance events can be scheduled within two weeks where required.	Routine inspection checklists were provided that showed the inspections took place. A maintenance schedule showing work planned and completed on attenuation equipment was also provided as evidence.	Noted																													
	6.3.2.3	Daily pre-start inspections																															
		Daily pre-start inspection is undertaken by the operators, which includes walking around equipment and undertaking a visual inspection of the vehicle, including any installed sound attenuation equipment. Vehicle operators will be trained to assess the attenuation components. Where potentially defective plant is identified (major noise attenuation component absent or broken), these will be noted and reported to the appropriate staff. Maintenance staff will assess the severity of the defect (with respect to the effectiveness of the sound attenuation equipment) and action accordingly. If the potential defect is confirmed (major noise attenuation component absent or broken), that piece of equipment will be assigned to the appropriate maintenance schedule for rectification. Where possible, maintenance will be completed to address more serious / severe defects.	Prestarts include a visual inspection of the noise suppression equipment Maintenance is notified of any faults Site Enviro and CROs observe noise around the site and report noisy equipment	Compliant																													
	6.3.3	Proactive Planning																															
		At this time, preferential placement of equipment will occur on the basis of utilising the best performing mobile fleet in at risk areas.	Fleet is now fully mitigated/noise suppressed	Compliant																													
		Handheld noise monitoring is undertaken on a proactive basis in neighbouring communities on a night-to-night basis, as well as in response to triggers and complaints.	CROs conduct this monitoring	Compliant																													
Reactive Measure	6.4																																
	6.4.1	Real Time Noise monitoring network – BarnOwl monitors																															
		The real time noise alarm process operates as follows: • A noise alarm is generated following two consecutive 15min measurements at a monitor location from the directions of MTW operations (<1000Hz low pass data, from the direction of either of MTO, WML, or MTW combined) above the trigger threshold, detailed in Table 3: <i>Table 3 - BarnOwl alarm triggers</i>																															
		<table border="1"> <thead> <tr> <th>Monitoring Location</th> <th>Consent Area</th> <th>Amber Alert (dB(A))</th> <th>Red Alert (dB(A))</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Bulga</td> <td>WML</td> <td>36</td> <td>38</td> </tr> <tr> <td>MTO</td> <td>36</td> <td>38</td> </tr> <tr> <td rowspan="2">Wambo Road</td> <td>WML</td> <td>36</td> <td>38</td> </tr> <tr> <td>MTO</td> <td>36</td> <td>38</td> </tr> <tr> <td>Inlet Road West</td> <td>MTW</td> <td>N/A</td> <td>35</td> </tr> <tr> <td>Long Point</td> <td>WML</td> <td>35</td> <td>37</td> </tr> </tbody> </table>	Monitoring Location	Consent Area	Amber Alert (dB(A))	Red Alert (dB(A))	Bulga	WML	36	38	MTO	36	38	Wambo Road	WML	36	38	MTO	36	38	Inlet Road West	MTW	N/A	35	Long Point	WML	35	37	NAG System also receives input from the barn owls (as well as TEOMs) and this prompts handheld measurements at the barnowl location, if measurements are exceeding criteria the CRO will remain in place to check that criteria are achieved following changes to operations.	Compliant			
Monitoring Location	Consent Area	Amber Alert (dB(A))	Red Alert (dB(A))																														
Bulga	WML	36	38																														
	MTO	36	38																														
Wambo Road	WML	36	38																														
	MTO	36	38																														
Inlet Road West	MTW	N/A	35																														
Long Point	WML	35	37																														
		• Real time noise data is compared against current meteorological conditions, and operate to a conservative wind threshold (higher than the applicable wind conditions listed in the INP, 2000, and do not consider inversion conditions);	Met conditions are considered in analysing and acting on Noise alarms	Compliant																													
		• Alerts are active between 8pm and 5am, seven days per week;	NAG System also receives input from the barn owls (as well as TEOMs) and this prompts handheld measurements at the barnowl location, if measurements are exceeding criteria the CRO will remain in place to check that criteria are achieved following changes to operations.	Compliant																													
		• Triggers are followed up with an assessment of validity; and	NAG System also receives input from the barn owls (as well as TEOMs) and this prompts handheld measurements at the barnowl location, if measurements are exceeding criteria the CRO will remain in place to check that criteria are achieved following changes to operations.	Compliant																													
		• Where handheld assessment supports the alarm (noise issue identified), remedial actions are implemented to reduce the noise level accordingly (see section 6.4.6).	None of the noise reports supplied as evidence had results that required changes in operations but the previous audit found evidence that this was the case the operational downtime numbers for equipment shows that equipment is shut down on occasion due to inability to meet noise criteria. reports	Compliant																													

Reference	Condition	Requirement	Evidence	Audit Finding	Risk												
					Consequence	Likelihood	Risk										
Mount Thorley Warkworth Noise Management Plan																	
6.4.2	Real Time Noise monitoring network – Environmental Noise Compass monitor																
	<p>Noise alarms from the Environmental Noise Compass function as follows:</p> <ul style="list-style-type: none"> A noise alarm is generated following two consecutive 15min measurements at a monitor location from the directions of MTW operations (<1000Hz low pass data, from the direction of either of MTO or WML above the trigger threshold, detailed in Table 4; <p><i>Table 4 - Environmental Noise Compass alarm triggers</i></p> <table border="1"> <thead> <tr> <th>Monitoring Location</th> <th>Consent Area</th> <th>Amber Alert (dB(A))</th> <th>Red Alert (dB(A))</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Mount Leonard (ENC)</td> <td>WML</td> <td>33</td> <td>35</td> </tr> <tr> <td>MTO</td> <td>36</td> <td>38</td> </tr> </tbody> </table>	Monitoring Location	Consent Area	Amber Alert (dB(A))	Red Alert (dB(A))	Mount Leonard (ENC)	WML	33	35	MTO	36	38	Reviewed in the site inspection, went through the process with site representatives	Compliant			
Monitoring Location	Consent Area	Amber Alert (dB(A))	Red Alert (dB(A))														
Mount Leonard (ENC)	WML	33	35														
	MTO	36	38														
	<ul style="list-style-type: none"> Real time noise data is compared against current meteorological conditions, and operate to a conservative wind threshold (higher than the applicable wind conditions listed in the INP, 2000, and do not consider inversion conditions); 	Reviewed in the site inspection, went through the process with site representatives	Compliant														
	<ul style="list-style-type: none"> Alerts are active between 8pm and 6am, seven days per week; 	Reviewed in the site inspection, went through the process with site representatives	Compliant														
	<ul style="list-style-type: none"> Triggers are followed up with an assessment of validity by MTW personnel; and 	Reviewed in the site inspection, went through the process with site representatives	Compliant														
	<ul style="list-style-type: none"> Where handheld assessment supports the alarm (noise issue identified), remedial actions are implemented to reduce the noise level accordingly. 	Reviewed in the site inspection, went through the process with site representatives	Compliant														
6.4.3	Supplementary handheld noise monitoring																
	<p>A program of targeted supplementary attended noise monitoring is operated at MTW to support the real-time directional monitoring network and ensure the highest level of noise management is maintained. The supplementary program is undertaken by MTW personnel and involves:</p> <ul style="list-style-type: none"> Undertaking routine inspections from both inside and outside the mine boundary; Routine and as-required handheld noise assessments (undertaken in response to noise alarm and/or community complaint), comparing measured levels against consent noise limits; and Validation monitoring following operational modifications to assess the adequacy of the modifications. 	This is the monitoring conducted through the audit period by the CROs. Evidence provided in the form of shift reports to support these requirements.	Compliant														
6.4.4	Operations Modifications																
	<p>Where noise assessment undertaken identifies noise emissions which are exceeding the consent noise limit for any particular residence, modifications will be made so as to ensure that the noise event is resolved within 75 minutes of identification. The actions taken are commensurate with the nature and severity of the noise event, but can include:</p> <ul style="list-style-type: none"> Replacement of non-attenuated equipment with sound attenuated equipment; Changing the haul route to a less noise sensitive haul; Changing dump locations (in-pit or less exposed dump option); Reducing equipment numbers; Shut down of task; or Site shut down 	[as measured by the CROs]															
	<ul style="list-style-type: none"> When noise has been reduced to an acceptable level, a 15 minute period of monitoring will be undertaken to confirm noise is maintained at this level. Any subsequent restart of equipment will be accompanied by an initial period of monitoring so as to prevent as far as practicable any return to previously elevated noise. 	This is the hierarchy discussed with the site Environment representatives.	Compliant														
	<ul style="list-style-type: none"> When noise has been reduced to an acceptable level, a 15 minute period of monitoring will be undertaken to confirm noise is maintained at this level. Any subsequent restart of equipment will be accompanied by an initial period of monitoring so as to prevent as far as practicable any return to previously elevated noise. 	This is the monitoring conducted through the audit period by the CROs. Evidence provided in the form of shift reports to support these requirements.	Compliant														
	<ul style="list-style-type: none"> In the event that subsequent instances of elevated noise are detected at the same monitoring location (which may occur from time to time due to changes in operating practice and location, or more commonly, changes in meteorological conditions), MTW will resolve these events within 75 minutes of detection. 	This is the monitoring conducted through the audit period by the CROs. Evidence provided in the form of shift reports to support these requirements.	Compliant														

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Noise Management Plan							
	6.4.5	Validation of Real Time monitoring locations					
		To ensure that the prescribed real time monitoring locations adequately represent all privately owned land surrounding MTW, validation surveys will be undertaken on an as required basis. The surveys will be conducted upon request by way of either attended or unattended monitoring at private residence(s) (subject to landowner agreement) for a nominal period to enable comparison with measured levels at the corresponding real time monitoring location. Where monitoring data indicates that real time triggers are not ensuring noise levels below the relevant impact assessment criteria at a particular residence the triggers will be reviewed.	Not conducted in the audit period, not required.	Not Triggered			
	6.4.6	Sound Power Level Testing – ad-hoc					
		Where MTW staff identify equipment which is perceived to be experiencing degradation of sound attenuation, adhoc sound power level testing will be arranged as required to assess the equipment. MTW maintenance staff will inspect the equipment, and where a defect is identified, it shall be actioned accordingly.	Noted, not in the audit period	Not Triggered			
Management of Unpredicted Impacts	6.5						
		In the event that unpredicted noise impacts are found to be occurring at nearby privately owned residences, MTW will consider management options on a case-by-case basis such as:					
		• Entering into an impact cooperation agreement with the landowner	No unpredicted impacts	Not Triggered			
		• Review of management controls and monitoring systems specific to the affected residence	No unpredicted impacts	Not Triggered			
		• Mitigation options (such as installation of double glazed windows and air conditioning units)	No unpredicted impacts	Not Triggered			
		• Acquisition of the affected property	No unpredicted impacts	Not Triggered			
Continuous Improvement	6.6						
		In accordance with the requirements of the Rio Tinto Coal Australia Health, Safety, Environment and Quality Management System, MTW will continuously seek to further noise management by way of improving existing controls and investigating new and emerging technologies, implementing new controls where required, and thoroughly investigating any exceedance and noncompliance events.	Sound compass, equipment attenuation, CROs are all evidence of the consideration of and compliance with this requirement.	Compliant			
		In accordance with Clause 3.6 of the Rio Tinto standard for Hazard Identification and Risk Management, MTW will continue to develop action plans to reduce the risk of noncompliance with the relevant noise conditions of the Approvals. Identified actions will be documented in the site HSEQ Improvement Plan, recorded in the action management system, and tracked to completion.	MTW use internal audits, review of complaints and incidents, regulatory inspections and internal Corrective Actions to pursue continual improvement. Corrective actions have not been identified in the audit period but evidence of the implementation of corrective actions includes the CROs.	Compliant			
7 MONITORING PROGRAM							
Independent Review and Land Acquisition Process	7.1						
		In accordance with the relevant conditions of the approvals, landowners who consider the development(s) to be exceeding the noise criteria can request Independent Review of noise impacts at any time. Such requests must be made in writing, to the Secretary. The Secretary will assess the request and, if satisfied that an Independent Review is warranted, will communicate same to MTW to commence the Review. Where Independent Review determines MTW to be exceeding the relevant criteria, MTW will work with the Dept. and the resident to implement appropriate measures to ensure compliance with the relevant criteria.	This has not occurred in the audit period	Not Triggered			
8 IMPLEMENTATION OF THE NOISE MANAGEMENT PLAN							
Reporting	8.1						
	8.1.1	Internal Reporting					
		Determining exceedances of noise criteria will be undertaken in accordance with the protocol for evaluating compliance (Noise Monitoring Programme), reproduced in Appendix A.	Noted	Noted			
		Internal reporting of noise incidents (exceedances and non-compliances of noise criteria) will be undertaken in accordance with Rio Tinto Coal Australia HSEQ14 – Incident and Action Management.	Noted	Noted			
		The Environmental Specialist – Systems and Monitoring will report any potential or confirmed exceedance / noncompliance to relevant site personnel, including the General Manager, Manager – Mining, and Manager Environment NSW.	Noted	Noted			
		Non-compliance events will be investigated. Where additional controls are identified for implementation to reduce the risk of repeated non-compliance, these will be assigned to the relevant accountable person. Actions are tracked to completion.	Investigations were reviewed and the process was sound though no noise incidents were explicitly reviewed they followed the same process as other incidents.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Noise Management Plan							
	8.1.2	External Reporting					
		The Environmental Specialist – Systems and Monitoring will report any potential or confirmed exceedance / non-compliance in writing to the Dept. as soon as practicable following receipt of information indicating any such potential or confirmed exceedance / non-compliance. As required by the Approvals, non-compliances will also be reported to the EPA as soon as practicable. No further agencies are considered relevant, and thus do not require notification of noise non-compliance events.	A Number of exceedances were reported in the audit period however MTW was of the opinion that they were not warranted due to the application of the low frequency noise modifying factor. No penalties were issued by the regulators for noise exceedances.	Compliant			
		Affected residences will be notified in writing in the event of a confirmed non-compliance with noise conditions.	As MTW did not consider the exceedances to be warranted, they were not communicated to residents.	Compliant			
		Noise monitoring data, collected in accordance with this NMP will be made available on the Rio Tinto Coal Australia website (www.riotintocoalaustralia.com.au) via the Monthly Environmental Management Report, and Annual Review.	These items are on the website, noise data is also on the incite website.	Compliant			
	8.1.3	In addition to the Monthly Report, MTW is committed to providing up-to-date information on matters of environmental management to near-neighbours. To facilitate this, MTW launched "InSite" on April 1, 2016. An interactive website, InSite displays noise and meteorological data, as well as any operational changes made during shift. Accessible at http://insite.riotinto.com/, the website is best viewed on the Google Chrome C127 browsing platform, but is compatible with most browsers. The website is also smartphone compatible. To address the addition to Schedule 5, Condition	These items are on the website, noise data is also on the insite website.	Compliant			
		To address the addition to Schedule 5, Condition 11 (both approvals), which requires MTW to make available on the website "the results of real time noise monitoring, updated daily (unless otherwise agreed by the Secretary), the following information is published to "InSite" each weekday:					
		• Results of supplementary attended monitoring collected by MTW personnel, for the previous night, including descriptions of audible noise sources noted during these measurements; and	These items were on the Insite website	Compliant			
		• Details of any operational changes made in response to triggers, managed through the TARP process.	These items were on the Insite website	Compliant			
Comparison of Attended and real-time monitoring data	8.2	Schedule 3, Condition 5(d) (MTO) and Schedule 3, Condition 7(d) (MTO) requires that the Noise Monitoring Programme "includes a program to calibrate and validate real-time noise monitoring results with attended monitoring results over time (so the real time program can be used as a better indicator of compliance with the noise criteria and as a trigger for additional attended monitoring". The supplementary handheld noise monitoring regime is structured so as to allow for additional attended noise monitoring on nights where noise enhancement is witnessed. This includes identification of increased noise through both proactive handheld monitoring and the receipt and validation of real-time alarms.	The noise management plan and noise monitoring programme specify the use of both real-time and attended monitoring for the management of noise. The real-time monitors provide a trigger for attended monitoring, with the attended monitoring used to validate the level recorded by the real-time monitor. Note in this context we interpret the word "calibrate" to mean correlation of real-time and attended noise data. Calibrating the noise monitor must be done against a standard and would be improper to adjust the accuracy of a directional monitor based on the results of attended monitoring. The validation and correlation of monitoring results has occurred on a nightly basis since MTW employed the services of Community Response Officers in 2013 to undertake supplementary attended monitoring. The use of supplementary attended monitoring formally became part of MTW's noise management plan in 2014. The primary reason for commencing supplementary attended monitoring was based on the limitation of Barnowl monitors to consistently and correctly assign directional mine only noise levels due to other competing noise sources. At this time MTW also installed a state of the art Noise Compass which has much greater capacity to resolve level and direction of noise from multiple sources. As a result of these substantive and industry leading changes to its noise management plan, MTW has not recorded a noise non-compliance since Q1 2013. This would demonstrate that the programme in place to continuously validate real-time monitors using supplementary attended monitoring is adequately managing risk of non-compliance with noise criteria in the consent. It would also demonstrate that this programme is consistent with the intent of condition 7 (e) to ensure MTW have an operational noise monitoring programme in place that supports compliance with noise criteria. The MTW Noise Management Plan was last approved by DP&E on 2 February 2018, which was the eighth version approved by DP&E following the granting of SSD6464, including condition 7 (e). " Message from Coal & Allied to DPE in 2018. The auditor agreed, in general, with the content of this message.	Compliant			
			Noise monitoring program is located in Appendix A of the 2016 NMP. The evaluation and reporting noted is present in the 2016 Annual Review. The program to calibrate was demonstrated by the provision of a Global Acoustics report "Real Time Data Analysis - Krey Property". This report compared real time results with the assessment criteria and also with attended monitoring results.				
		Triggers and processes for increased frequency of attended monitoring per the Dept. guidance note is described in the Protocol for determining compliance.	Attached as Appendix A to the Noise management Plan.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Noise Management Plan							
Annual Assessment and model validation	8.3						
		The Annual Review prepared each year for MTW will include all noise monitoring results for the corresponding year. The Review will also include a comparison of monitoring results against the predictions from the noise model. This will be done by directly comparing the measured results against the predictions for INP weather conditions in the closest operating scenario to the actual operating conditions for the given year.	The AR included this data and the analysis and comparisons required.	Compliant			
Complaints Management	8.4						
		Complaints will be recorded and investigated by MTW staff (see Section 6.4.5). Complaints lodged via other means (letter, in person, fax etc) will also be recorded and investigated by the Environmental Coordinator. Where the investigation identifies potential noncompliance with a consent or licence condition, action to mitigate the cause of the complaint will be taken. The details of all noise complaints, and any mitigating actions taken, will be circulated to senior management and other key personnel. Where requested, follow-up correspondence with the complainant will be provided. It is a condition of EPL's 1376, 1976 and 24 that MTW maintain a register of pollution complaints. MTW maintains a register of all complaints, recording the following information (at minimum): • Date and time of the complaint • Method by which the complaint was made • Any personal details of the complainant which were provided • The nature of complaint • Any action taken in relation to the complaint • If no action, the reason why no action was taken. A record of each complaint will be kept for a minimum of four years, and will be produced on request to any authorised officer of the EPA.	Complaint investigation was reviewed and found compliant, a detailed review is located in the EMS section of this audit.	Compliant			
Review of this Management Plan	8.5						
		This NMP will be reviewed within three months of the submission of the Annual Review and updated to the satisfaction of the Secretary of the DP&E where necessary.	Not triggered in the audit period	Not Triggered			
		This NMP will also be reviewed, and revised if necessary, within three months of the completion of an independent environmental audit, any non-compliance of the Approvals' criteria or any modification to the conditions of the Approvals.	Not triggered in the audit period	Not Triggered			
		Any amendments to this NMP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. This NMP may also be revised due to: • deficiencies being identified; • introduction of additional mitigation measures or controls; • results from the monitoring and review programme, including exceedances of criteria; • recommendations resulting from the monitoring and review programme; • the outcomes of any annual review and/or validation of real-time monitoring locations; • changing environmental requirements; • improvements in knowledge or technology becoming available; • changes in legislation; • identification of a requirement to alter this NMP following a risk assessment; or • updating of the Mining Operation Plan.	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Water Management Plan							
7 SURFACE WATER MANAGEMENT PLAN							
Water Quality	7.2						
		The Surface Water Monitoring Programme will be modified to include new dams as they are constructed.	Noted	Noted			
Water Flow	7.3						
		To limit the loss of catchment progressive rehabilitation is undertaken. The Hunter River catchment area (excluding Wollombi Brook catchment) will be restored to 99.96% of its pre-mining area, whilst the Wollombi Brook catchment will be restored to 99.56% of its pre-mining area.	Hydrology studies underway on landform as it progresses and returning catchment to the various original catchments around the MTW Complex.	Not Triggered			
Water Management System	7.4						
	7.4.1	Clean Water Diversions					
		Clean water diversion structures are employed to divert clean water away from the active pits. Prior to release from site this water is managed to minimise sediment load. Where required sediment control structures are implemented generally in accordance with 'Managing Urban Stormwater Volume: 2E mines and Quarries'.	Sighted in site inspection. Generally in accordance with Blue Book. MTW has minimal clean water diversions in place as the mine advances downslope towards Wollombi Brook. Nonetheless, the water management particularly clean water diversion was reviewed on site and was not found to be inadequate or non-compliant.	Compliant			
	7.4.3	Erosion and Sediment Controls					
	7.4.3.1	Overview					
		A Ground Disturbance Permit is required for all disturbance activities. Prior to disturbance, appropriate erosion and sediment controls consistent with current best practice standards will be established.	Reviewed GDPs	Compliant			
		Where ground conditions allow, erosion and sediment controls will be designed generally in accordance with the 'Blue Book': Managing Urban Stormwater: soils and construction (Volume 1 and 2E - Mines and Quarries).	Sighted in site inspection. Generally in accordance with Blue Book.	Compliant			
		Sediment mobilisation and erosion will be minimised by:					
		• Where practical, diverting runoff from undisturbed catchments around disturbed areas via diversion drains and banks to discharge into natural watercourses;	Observed in site inspection.	Compliant			
		• Retaining runoff from disturbed areas in sediment dams to settle out suspended sediment with possible treatment prior to discharge back to the natural system;	In 6th January 2016, a sediment dam overtopped resulting in an uncontrolled discharge.	Not Compliant	D	2	Medium
		• Return water back to the mine water system if water quality is not suitable for release;	Observed in site inspection.	Compliant			
		• Installing appropriate erosion and sediment controls prior to disturbance of any land;	Observed in site inspection.	Compliant			
		• Limiting the extent of disturbance to the practical minimum and maintaining groundcover;	Observed in site inspection.	Compliant			
		• Reducing the flow rate of water across the ground on disturbed surfaces;	Observed in site inspection.	Compliant			
		• Progressively stripping and stockpiling topsoil for later use in rehabilitation and stabilisation;	Observed in site inspection.	Compliant			
		• Stabilising topsoil stockpiles to minimise erosion;	Observed in site inspection.	Compliant			
		• Progressively rehabilitating disturbed land to increase ground cover, increase infiltration and reduce erosion potential;	Observed in site inspection.	Compliant			
		• Constructing drainage controls such as scour protection to improve stability in concentrated flow areas; and	Observed in site inspection.	Compliant			
		• Restricting access to rehabilitation and nondisturbed areas.	Observed in site inspection.	Compliant			
Detailed Plans	7.5						
	7.5.1	Final Voids					
		The rehabilitation objective of the mine site, including the final void is to be safe, stable and non-polluting. Design and management of the voids will be in accordance with the Mine Operations Plan. The Project Approval depicts one final void at WML.	Final voids not yet detailed, The MOP will be renewed in November 2021 (if not triggered prior to that) and mine life (approved) is 2036.	Not Triggered			
	7.5.2	Emplacement Facilities					
		The rehabilitation objective of the mine site, including the emplacement facilities (waste dumps) is to be safe, stable and non-polluting. Design and management of the waste dumps will be in accordance with the Mine Operations Plan.	Site inspection did not indicate any variance from the MOP Plans. AR reports on waste management	Compliant			
	7.5.3	Final Rehabilitation Drainage					
		The rehabilitation objective of the mine site, including the final landform drainage is to be safe, stable and nonpolluting. Design and management of the final landform hydrology will be in accordance with the Mine Operations Plan.	Hydrology report on final lanform, MOP and landform design. Geofluvial design on remaining unfinished emplacement areas.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Water Management Plan							
8 GROUND WATER MANAGEMENT PLAN							
Overview	8.1						
		MTW will continue to meet all commitments under the relevant water sharing and Hunter River Salinity Trading Scheme. Continued groundwater monitoring combined with an independent review of the site numerical groundwater model with every independent environmental audit will inform future decision making with respect to quantifying impacts on the groundwater environment.	No HRSTS discharges in the audit period. GW model review in 2015	Compliant			
Impacts on Groundwater and Monitoring	8.3						
		Groundwater monitoring will be undertaken in accordance with the Groundwater Monitoring Programme in Appendix C. This programme is in accordance with AS 5667.1:-1998, Guidance on the Design of Sampling Programs, Sampling Techniques and the Preservation and Handling of Samples and AS 5667.11-1998, Guidance on Sampling of Groundwaters.	The AR includes the groundwater reports and trends, there was no evidence of unwarranted divergence from the GW Program in the AR or MERs. Evidence was not provided to support compliance with the Australian Standards quoted but the contractor has verbally confirmed compliance.	Compliant			
		In accordance with Schedule 3, condition 27(b) of the Warkworth Consent and Schedule 3, condition 25(b) of the Mount Thorley Consent, the Groundwater Monitoring Programme should address the predicted impacts.	The previous groundwater model review found no issues in this area apart from the replacement of one bore that had been mined through.	Compliant			
	8.3.1	Groundwater Inflows to the Open Cut Pits					
		Should any unexpected increased groundwater inflow occur the time, location and volume shall be recorded. Groundwater inflows will be reported annually in the AR.	No such increases in the audit period	Not Triggered			
	8.3.3	Regional and Local Aquifers					
		There are three permanent nested monitoring bores constructed in the shallow alluvium and underlying Permian overburden along the Wollombi Brook (Sites PZ7, PZ8 and PZ9). Installation of an additional three nested monitoring bores along the Wollombi Brook (PZ10, PZ11 and PZ12) shall be completed within twelve months of the Project Approval being granted. Locations for the bores have been undertaken in consultation with NOW.	These bores had been installed. Sighted in GW Reporting and locations sighted in the modified monitoring plan	Compliant			
	8.3.4	Groundwater Supply of Potentially Affected Landowners					
		Trigger levels (using statistical methodologies) will be established for the proposed Wollombi Brook alluvial bores to monitor groundwater levels. These will be established once a statistically valid data set has been collected. In the interim data will be routinely reviewed to determine if any trend exists that may warrant further investigation.	There was not yet enough data to establish trigger levels, work underway to establish regular data assessments on the new bores.	Not Triggered			
	8.3.5	Groundwater Dependent Ecosystems and Riparian Vegetation					
		within twelve months of the Project Approval being granted, monitoring bores shall be constructed in the Warkworth Sands system.	Bores installed late 2015. Most bores were dry so data loggers were installed.	Compliant			
		Potential impact on GDEs will be monitored via the existing (including proposed additional bores) surface and groundwater monitoring programmes.	Was to be reported in the next RA (2017)	Not Triggered			
Validation of Groundwater Model	8.4						
		With every independent environmental audit MTW will instigate an independent review of the groundwater model, including comparison of monitoring results with modelled predictions.	Noted, this was not conducted for this audit due to the audit being done in the first 12 months of the operation of the development. Last GW Model review in 2015, next due in 2018.	Compliant			
9 ASSESSMENT, REPORTING AND REVIEW							
Performance Criteria & Trigger Levels	9.1						
	9.1.1	Channel Stability, Stream and Riparian Vegetation Health					
		A programme to monitor and report on surface water flows and quality, stream and riparian vegetation health in Wollombi Brook potentially affected by the development will commence by 26 November 2016 (within 12 months of the Project Approval being granted). Performance criteria will be established on the basis of the monitoring programme.	The baseline study was completed in mid 2016. A subsequent study in 2017 will allow comparison against this baseline in the 2017 AR.	Compliant			
		A programme to monitor surface water flows and quality, stream and riparian vegetation health in Loders Creek potentially affected by the development will commence by 26 November 2016 (within 12 months of the Project Approval being granted). This will include a programme to maintain or improve baseline channel stability and improve riparian health potentially affected by the development.	The baseline study was completed in mid 2016. A subsequent study in 2017 will allow comparison against this baseline in the 2017 AR.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Water Management Plan							
Response to Exceedance & Performance Indicators	9.2						
		In the event that a water quality measurement exceeds a predetermined trigger value, exceedances will be recorded and MTW will initiate a site specific investigation if: <ul style="list-style-type: none"> professional judgement determines that the single deviation or a developing trend could result in environmental harm; or three consecutive measurements of EC or pH exceed trigger values. One measurement of TSS exceeds the trigger value. 	The MEMR reporting is managed through a spreadsheet that trends and checks against trigger values. There has been one TSS exceedance (not in the audit period) that required investigation. These exceedances are collated and summarised in the AR. Trigger levels have been dropped to 50 mg/L which has increased the oversight of TSS issues at the site.	Compliant			
		The investigation will: <ul style="list-style-type: none"> Determine the source and risk of impact on downstream water quality. Determine the need for and extent of contingency measures. Communicate outcomes to senior management Be reported in the AR. 	AR outlines the investigations conducted in the 2016 reporting year.	Compliant			
Management of Unpredicted Impacts	9.3						
		Contingency measures will be implemented commensurate with the degree of impacts determined by the investigation. Depending on the outcomes of an investigation, one or a number of remedial actions may be taken.	No remedial measures implemented in the audit period	Not Triggered			
		Remedial actions for surface water may include: <ol style="list-style-type: none"> intercepting and pumping the water back into the mine water management system; establishment of containment or diversion systems upstream to prevent the water discharging offsite; establishing controls to improve the water quality; and/or cease or modify any activity that may be degrading the water quality; and/or additional water licences or water allocations will be sourced if required to ensure that MTW's water allocation is not exceeded. 	No remedial measures implemented in the audit period	Not Triggered			
		Remedial actions for groundwater may include: <ol style="list-style-type: none"> more intensive monitoring and/or seeking professional advice in regards to model predictions; and/or geotechnical investigations; and/or structural assessments; and/or consideration of changes to the mine plan if required. 	No remedial measures implemented in the audit period	Not Triggered			
		Monitoring and reporting would be continued to demonstrate the effectiveness of the actions in remediating the water excursion.	No remedial measures implemented in the audit period	Not Triggered			
		Should the water supply to the owner of any privately owned land whose basic landholder water rights as defined in the Water Management Act 2000 be adversely and directly impacted as a result of the development, MTW shall provide a compensatory water supply. This supply shall be provided in consultation with NOW, and to the satisfaction of the Secretary.	No compensatory supplies in the audit period	Not Triggered			
		The compensatory water supply shall provide an alternative long-term supply of water that is equivalent to the loss attributable to the Project Approval. Equivalent water supply shall be provided (at least on an interim basis) as soon as practicable from the loss being identified, unless otherwise agreed with the landowner.	No compensatory supplies in the audit period	Not Triggered			
		If MTW 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.	No compensatory supplies in the audit period	Not Triggered			
		If MTW is unable to provide an alternative long-term supply of water, then MTW shall provide alternative compensation to the satisfaction of the Secretary.	No compensatory supplies in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth Water Management Plan							
Complaints Management	9.5						
		The hotline number will be prominently displayed on the Rio Tinto Coal Australia website, and regularly advertised in the local newspaper.	2-05-17 - 3.04pm, Hotline number was sighted on website.	Compliant			
		The Complaints Hotline will be in operation 24 hours per day, seven days a week. Complaints will be recorded and investigated by MTW staff. All other complaints lodged via letter, in person or by fax, will also be recorded and investigated by the Environmental Coordinator.	Complaints reviewed showed out of hours complaints were accepted by the call centre and acted on by MTW.	Compliant			
		All complaints will be investigated, and, where the investigation identifies potential non-compliance with a consent or licence condition, mitigating action will be taken.	Reviewed most recent completed complaint from receipt of call, through review and investigation through to call back to the complainant.	Compliant			
		The details of all water related complaints, and any mitigating actions taken, will be circulated to senior management. Where requested, follow-up correspondence with the complainant will be provided.	No water related complaints in the audit period.	Not Triggered			
		In accordance with the conditions of EPL's 1376 and 1976 relating to handling of pollution complaints, MTW will maintain a register of complaints, recording the following information (at minimum): <ul style="list-style-type: none"> • Date and time of the complaint • Method by which the complaint was made • Any personal details of the complainant which were provided • The nature of the complaint • Any action taken in relation to the complaint • If no action, the reason why no action was taken. 	Sighted register. Register posted on website, this was up to date (monthly revision) Reviewed most recent completed complaint from receipt of call, through review and investigation through to call back to the complainant.	Compliant			
		A record of each complaint will be kept for a minimum of four years, and will be produced on request to any authorised officer of the EPA.	The records are kept in a site database where records are not retired.	Compliant			
Continuous Improvement	9.6						
		In accordance with the requirements of the Rio Tinto Coal Australia Health, Safety, Environment and Quality Management System, MTW will continuously seek to further water management by way of improving existing controls and investigating new and emerging technologies, implementing new controls where required, and thoroughly investigating any exceedance and noncompliance events.	MTW use internal audits, review of complaints and incidents, regulatory inspections and internal Corrective Actions to pursue continual improvement.	Compliant			
11 REVIEW							
		The WMP will be reviewed within three months of the submission of the AR and updated to the satisfaction of the Director-General of the P&E where necessary.	Current version dated January 2016. Revision planning spreadsheet. Provided as evidence.	Compliant			
		The WMP will also be reviewed within three months of the completion of an independent environmental audit, submission of an incident report, any exceedance of the Approvals' criteria or any modification to the conditions of the Approvals.	Not in the audit period.	Not Triggered			
		Any major amendments to the WMP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. Minor changes such as formatting edits may be made with version control on the Project website.	Not in the audit period.	Not Triggered			
		The WMP may also be revised due to: <ul style="list-style-type: none"> • deficiencies being identified; • introduction of additional mitigation measures or controls; • results from the monitoring and review programme, including exceedances of criteria; • recommendations resulting from the monitoring and review programme; • changing environmental requirements; • improvements in knowledge or technology becoming available; • changes in legislation; • identification of a requirement to alter the WMP following a risk assessment; or, • updating of the Mining Operation Plan. 	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Mount Thorley Warkworth, Pollution Incident Response Management Plan							
Document Number: MTW-12-ENVMP-SITE-057							
Part 1 - General							
		Introduction As the holder of three environment protection licences (EPL 24, EPL 1976 and EPL 1376) Mount Thorley Warkworth Operations (MTW) is required to comply with Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO Act) to prepare, keep, test and implement a pollution incident response management plan. The PIRMP must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO (G) Regulation (clause 98B). Appendix I outlines where the required information can be found in this document.	Noted	Noted			
Definitions							
		Pollution Incident A pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act where: (a) harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and; (b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment. MTW shall report pollution incidents immediately to the EPA, NSW Health, Fire and Rescue NSW, WorkCover NSW and the local council. 'Immediately' has its ordinary dictionary meaning of promptly and without delay. Notification to EPA follows an assessment of the severity of an incident and initial containment of any pollution.	No incidents report through the PIRMP in the audit period.	Not Triggered			
		Document Maintenance This plan will be reviewed by the Environment Specialist annually and after any incident or test, which provides suggestions for improvements. Additionally, changes can be made as a result of: • Practice reviews; • Local regulatory or procedural changes; and • Amendments to Mount Thorley Warkworth (MTW) policies and procedures.	No incidents report through the PIRMP in the audit period. Reviews follow annual testing of the PIRMP but records are not kept outside the document, the revision register in the document shows the annual reviews conducted..	Not Triggered Compliant			
Part 2 - Incident Response							
		In the case of an incident that presents an immediate threat to the health and safety of people or threat to property the emergency notification procedure shall be enacted.	No incidents reported through the PIRMP in the audit period.	Not Triggered			
		Where there is no immediate threat to the health and safety of people or threat to property the event must be immediately communicated to the individual's supervisor. The supervisor or incident reporter must then immediately notify a member of the Environment & Communities team, to ensure that any impact is appropriately managed and an assessment made as to whether the event is notifiable under the PIRMP.	No incidents reported through the PIRMP in the audit period.	Not Triggered			
Part 4 - Notification to Neighbours and Community							
		A current register of near neighbours and residents is kept internally and will be used to inform the necessary people of a pollution incident.	Used for Blast notification and notification of exceedances on private properties.	Compliant			
		Communication mechanisms may include incident notifications placed on the Coal & Allied website; the use of telephone calls or SMS, as appropriate to the circumstances. The most appropriate communication mechanism will be employed based on the particular details of the incident, such as time of day, incident severity, available communication mechanisms and persons directly or immediately affected by the incident.	Noted, most residents nominate a preferred contact method.	Compliant			
Part 5 - Contact Information							
		Centre of Expertise Database					
		There is a primary contact list of key personnel for all MRU's within MTW. This list will be referred to in order to establish contacts. Phone listings are maintained by MRU document controllers.	Mutual Recognition Unit - community and environment community contact people.	Noted			
		Part 5.7 of the Protection of the Environment Operations Act 1997 (POEO Act) requires the occupier of premises, the employer or any person carrying on the activity which causes a pollution incident to immediately notify relevant authorities when material harm to the environment is caused or threatened.	Noted	Noted			

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Appendix D. Compliance with Recommendations from the Previous Audit

Reference	Recommendation	Close out comments 2nd May 2016 and Current Status	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Independent Environmental Audit, Peter Horn 2016						
	1. Further management of pest and weed species is required in Biodiversity Areas, the audit draws attention specifically to the WSW and quarry rehabilitation sites.	The Annual Weed and Pest Management plan includes the Warkworth Sands Woodlands and Quarry re-establishment areas for targeted weed control activities. No weed control issues were noted in this audit and weed control activities in the WSW offsets were sighted and discussed with MTW Environment Staff.	Compliant			
	2. Increased attention should be paid to the agreed revision cycle for future Aboriginal and Cultural Heritage Management Plans.	Revision cycle of approved Heritage Management Plans to be incorporated into Development Consent conditions compliance register schedule.	Compliant			
	3. Earlier attention to applications such as the Care Agreement is warranted to avoid expiry prior to renewal.	MTW Care and Control Agreement pre-expiry re-approval timeframe to be incorporated into Development Consent conditions compliance register schedule.	Compliant			
	4. Attention to some fencing of the Indigenous surface stone artefacts is warranted to maintain the integrity of the protective boundary and signage.	The approved MTO (2014) and WML (2016) AHMP's incorporate prescriptive measures for barricading, fencing and signage of ACH sites and condition monitoring and maintenance requirements. No evidence of non-compliance in this audit	Compliant			
	5. Implementation of a predictive dust risk forecast tool using detailed mine plans.	A predictive meteorological forecast tool is utilised on a daily basis to inform MTW personnel of instances of heightened air quality risk. Development Consent instruments issued in 2015 (Warkworth Continuation Project SSD-6464 and Mount Thorley Operations SSD-6465) require the following: "The Applicant shall: 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" The approved MTW Air Quality Management Plan describes the measures that are currently implemented to satisfy this requirement. No further work is proposed at this time. This was in place at the time of the audit	Compliant			
	6. Based on the number of complaints, the procedures for location and orientation of mobile lighting plant should be reviewed to see where improvements can be made.	MTW received 44 complaints regarding lighting in 2015, an increase from years' previous (15 complaints received in 2014, 20 complaints received in 2013). It should be noted that 65% of all 2015 lighting complaints were received from a single complainant to the east of the operation, who had previously registered one lighting complaint in 2013 and zero lighting complaints in 2014. MTW has engaged with this resident throughout 2015 to identify and resolve issues associated with lighting at the residence. With the exception of the complaints from this residence, lighting complaints received in 2015 were consistent with years' previous. MTW will continue to position lighting plants so as to minimise impacts on neighbouring communities, and will implement improvements where they are identified and considered reasonable and feasible going forward. 16 complaints regarding lighting in 2016. All other evidence points to adequate management of mobile lighting plant.	Compliant			
	7. Develop a way of documenting the document review process so that when a review does not result in a revision of the document there is an audit trail to show the review was conducted.	Recommendation to be implemented through an appropriate change / addition to MTW's document control system. A review spreadsheet is now kept by the environment group for relevant document reviews	Compliant			

Reference	Recommendation	Close out comments 2nd May 2016 and Current Status	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Independent Environmental Audit, Peter Horn 2016						
	8. Review the requirement to include Ironbark - Spotted Gum - Grey Box Forest at the Putty Road Offset Area and ensure it is not replicated in the new approval or supporting documents as there is no spotted gum currently at the site.	This recommendation is not considered relevant, as the requirement is not replicated in the 2015 Warkworth and Mount Thorley Approvals or supporting documentation.	Compliant			
	9. In the induction section on air quality, include photos showing what unacceptable dust levels look like from offsite (a public perspective) to reinforce the site photos.	Recommendation to be implemented at next revision of site induction / familiarisation materials. A copy of the specific site induction for employees and contractors showed offsite photos of dust levels considered unacceptable.	Compliant			
	10. Consider posting AHIPs on the website as they are considered a statutory approval (WML DA300-9-2002-I – Access to information).	Copies of AHIP's are provided to all Registered Aboriginal Parties and are publically available on the OEH website. With the approval of the WML SSD-6464 and MTW SSD-6465 development approvals in November 2015 the requirement for AHIP consents is now redundant as management of ACH sites are regulated through the provisions of approved Aboriginal Heritage Management Plans (AHMP). The MTO and WML AHMP documents are posted and publically available on the Rio Tinto website.	Not Triggered			
	11. Review data support for the development of weed and feral animal control programs to ensure programs are targeted and effective.	The design of weed and vertebrate pest management programs will be based on an analysis of results from previous programs, sighting reports (both weeds and vertebrate pests) and surveys (weeds) to ensure programs are targeted and effective. No further action is proposed at this time.	Noted			
	12. Ensure the mining fleet noise attenuation program is complete by the proposed time (end 2016).	The Mining fleet was not fully attenuated by the end of 2016. The one remaining dozer was done in early 2017 but was not in service in the post 2016 period as such the intent of the commitment / requirement was met.	Compliant			
	13. Review aboriginal heritage site protection / fencing and signposting.	The approved MTO (2014) and WML (2016) AHMP's incorporate prescriptive measures for barricading, fencing and signage of ACH sites and condition monitoring and maintenance requirements.	Compliant			
	14. A review to ensure the Accelerated Rehabilitation Plan – Warkworth South Pit objectives are met in the medium term should be conducted in the next independent environmental audit.	A review of rehabilitation progress against that forecasted in the Accelerated Rehabilitation Plan – Warkworth South Pit will be conducted in the next Independent Environmental Audit. The 2016 AR noted that the rehabilitation required for the Accelerated Rehabilitation Plan for South Pit was 19.8ha ahead of plan. The MTW survey team provided spatial mapping and cross sections for verification of overall compliance with the MOP. The auditors also compared aerial photographs from Google Earth (dated 8-06-17) and aerial mapping from a Design Conformance Report (MTW 2016-17) with the MOP Plan 3C 2017 and 3C 2016. The cross sections were generally compliant with the slope gradient requirements in the MOP and the Accelerated Rehabilitation Plan for South Pit. The spatial extend of rehabilitation looked to be aligned with the Accelerated Rehabilitation Plan for South Pit at the date reviewed (8-06-17). The Accelerated Rehabilitation Plan for South Pit was scheduled to be completed in Quarter 4 2018. Based on works to date, the plan looks to be on schedule for completion.	Compliant			
	15. Where required by water licences, report water take annually to DPI Water or negotiate a change in licence conditions.	Under Development Consent instruments issued in 2015 (SSD-6464, SSD-6465) an Annual Groundwater Impacts Report will be completed which will routinely model (based on actual monitoring data) groundwater inflows and compare these to those predicted. Comparisons of water quality against EA predictions are currently included in the Annual Review. A copy of the report to be sent to DPI Water on an annual basis.	Compliant			