



Integra Coal Operations Pty Ltd
Independent Environmental Audit
of Integra Mine Complex for Submission to the
NSW Department of Planning & Infrastructure
December 2011





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Submitted To

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Project No. P3715-01



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Authorisation

This Report is authorised by:

Graham A Brown M.Sc. FAusIMM, FEIANZ, CPEA

NAME

SIGNATURE

10th May 2012

DATE



Limitations

Independent Environmental Audit of Integra Mine Complex

This is to certify:-

1. Graham A Brown & Associates (the Auditor) has prepared the accompanying Conformance Audit Report as at 2nd December 2011 (the Report) from certain information provided to it by Integra Coal Operations Pty Ltd (the Auditee) at the request of and exclusively for the use and benefit of Integra Coal Operations Pty Ltd (the Client).
2. Under the terms of the Auditor's engagement the Auditor has conducted the audit in accordance with Schedule 5, Condition 8 of the Project Approval for the Integra Underground Project (Project 08_0101) and the Integra Open Cut Project (Project 08_0102) dated 26th November 2010. The Auditor has relied on information provided by the Client. The Auditor expresses no opinion as to the accuracy, truth, sufficiency or legality of the information provided by the Client in respect of the Client's compliance with the Project Approval.
3. This Report has been prepared in accordance with generally accepted practices (including the standards set out in *ISO19011: 2011 Guidelines for auditing management systems*) using standards of care and diligence normally practiced by recognised consulting firms performing services of a similar nature.
4. The Lead Auditor, Graham Brown, whose qualifications and experience satisfy the criteria set out in *ISO19011*, is a Registered Lead Environmental Auditor (Australia); a Principal Environmental Auditor (UK); and a Certified Professional Environmental Auditor (CPEA – USA). The Auditor is not responsible for the accuracy of information provided by other individuals or entities which is used in this Report. This Report presents the Auditor's professional judgement based upon data and findings identified in this Report and interpretation of such data based upon the Auditor's experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.
5. It is a condition of the provision of this Report that any liability of the Auditor to the Client for anything contained or stated herein shall be limited to the amount of the fee actually paid or payable by the Client to the Auditor for this Report. It is a further condition of the provision of this Report that any liability of the Auditor to the Client for anything contained or stated in the Report to the fullest extent permitted by law is hereby excluded unless the claim giving rise to such liability is made in writing to the Auditor within twelve (12) months of the date of this Report.
6. This Report is issued with the understanding that it is the responsibility of the Client, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law.
7. Neither the Auditor nor any member associate or employee of the Auditor undertakes any responsibility for any injury, loss or damage claimed by the Client arising out of a claim by any third party against the Client in connection with this Report.



Abbreviations

Abbreviation	Definition
ACHMP	Aboriginal Cultural Heritage Management Plan
AEMR	Annual Environmental Monitoring Report
ANZECC	Australian and New Zealand Environment Conservation Council
AR	Annual Report
ARI	Average Recurrence Interval of rainfall
ARTC	Australian Rail Track Corporation
AS	Australian Standard
AS 2601:2001	AS 2601:2001 The Demolition of Structures
AS 2923:1987	AS 2923-1987 Ambient Air-Guide for Measurements of Horizontal Wind for Air Quality
AS/NZS ISO14001:2004	AS/NZS ISO 14001:2004 Environmental management systems - Requirements with guidance for use
ISO19011:2011	ISO19011:2011 Guidelines for auditing management systems
AS4282 (INT) 1995	AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting
BCA	Building Code of Australia
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
DA	Development Approval
DCCEW	Department of Environment, Climate Change and Water, now OEH
DECC	Department of Environment and Climate Change, now OEH
DII	Department of Industry and Investment, now Department of Trade and Investment, Regional Infrastructure and Services (includes NSW Mineral Resources)
DoP	Department of Planning, now DP&I
DP&I	NSW Department of Planning & Infrastructure
DPI	Department of Primary Industry, the Department formerly including NSW Mineral Resources
DPI-MR	Department of Primary Industry, the Department formerly including NSW Mineral Resources



Abbreviation	Definition
DRE	NSW Department of Resources & Energy
DTIRIS	Department of Trade and Investment, Regional Infrastructure and Services (includes NSW Mineral Resources)
DWE	Department of Water and Energy, now NSW Office of Water
EA	Environmental Approval
EEO	Energy Efficiency Opportunities
EM	Environmental Management
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPL	Environment Protection Licence issued under the POEO Act
GABA	Graham A Brown & Associates
GGMP	Greenhouse Gas Management Plan
GHG	Greenhouse Gas
GIS	Geographic Information System
GRI	Global Reporting Initiative
HRRWSP	Hunter Regulated River Water Sharing Plan
HURAWSP	Hunter Unregulated River and Alluvium Water Sharing Plan
HVAS	High Volume Air Sampler
I&I NSW	Department of Industry and Investment, now Department of Trade and Investment, Regional Infrastructure and Services (includes NSW Mineral Resources)
ICO	Integra Coal Operations Pty Ltd
Integra	Integra Coal Operations Pty Ltd
MOP	Mine Operations Plan
MP	Management Plan
MSB	NSW Mine Subsidence Board
Mtpa	Million Tonnes per Annum
NATA	National Association of Testing Authorities, Australia
NGERS	National Greenhouse and Energy Reporting Scheme
NOW	NSW Office of Water
OC	Open Cut
OEH	NSW Office of Environment and Heritage



Abbreviation	Definition
OHS	Occupational Health and Safety
PA	Project Approval
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
QHSE	Quality, Health, Safety and Environment
RABQSA	RABQSA International (Australia)
REMP	Rehabilitation Management Plan
ROM	Run of Mine
RTA	Roads and Traffic Authority NSW, now Roads and Maritime Services
SMP	Subsidence Management Plan
SW&GWMP	Surface Water and Groundwater Management Plan
TEOM	Tapered Element Oscillating Microbalance, an automated continuous particle monitor
TSP	Total Suspended Particles
UG	Underground
Vale	Vale Australia
XMO	Xstrata Mt Owen



Audit Summary

Audit Title:	Independent Environmental Audit of Integra Mine Complex for Submission to the NSW Department of Planning & Infrastructure
Site:	Integra Mine Complex, 653 Bridgman Rd, Singleton NSW 2330
Approval Holder:	Integra Coal Operations Pty Ltd
Main Client Contact:	Alaine Trevor
Position:	Acting Environmental Superintendent
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Specialist Advisor Noise	Katie Weekes M.Env.Man., B.Env Sc. Environmental Scientist – Acoustics, Global Acoustics Pty Ltd, Thornton, NSW
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Date of Assessment:	2 nd December 2011



Executive Summary

Audit Requirement

Schedule 5, Condition 8 of the Project Approval for the Integra Underground Project (Project 08_0101) and the Integra Open Cut Project (Project 08_0102) approved by the NSW Minister for Planning on 26th November 2010, requires that:

By the end of December 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the projects. This audit must

- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
- (b) include consultation with the relevant agencies;
- (c) assess the environmental performance of the projects and whether they are complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
- (d) review the adequacy of any approved strategies, plans or programs required under these approvals; and, if appropriate
- (e) recommend measures or actions to improve the environmental performance of the projects, and/or any strategy, plan or program required under these approvals.

Schedule 5, Condition 9 requires that:

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

With the approval of the delegate of the Director-General, Integra commissioned Graham A Brown & Associates to conduct the 2011 audit, with specialist advice on noise management issues being provided by Global Acoustics.

Background

The Integra Mine Complex is a major mining operation located near Singleton in the NSW Hunter Valley. The mine site is some 10Km from the outskirts of Singleton, but is located in the Glennies Creek valley, where it is shielded from the township by topography. The Main Northern Railway intersects the mine site, while the New England Highway passes a section of the south-western boundary. The area around the mine site is occupied by relatively small rural properties, some of which are impacted by mine operations.

The Complex produces premium semi hard and semi-soft metallurgical coals used in the steel making industry, principally in Japan. It also produces thermal or "steaming" coal which is sold to international customers for power generation, steel making and a variety of other uses.

Total mining capacity is 8.6 Mtpa run of mine coal, from which 4.5 Mtpa of product coal is produced for sale, although actual production in 2010 and 2011 has been somewhat below these levels.



Open cut operations on the site were commenced by Camberwell Coal Pty Ltd in 1991. A development consent for underground mining was issued to Glennies Creek Coal Pty Ltd in the same year, but the underground mine did not enter full operation until 1999. These two operations were merged to form the Integra Joint Venture in 2006. Principal ownership of the Integra Joint Venture and its operating company, Integra Coal Operations Pty Ltd, was acquired by Vale Australia in 2008. Vale, a Brazilian-based company, is the second largest metals and mining company and one of the 25 largest publicly traded companies in the world, having a market capitalization of around \$US 165 billion. Vale is the world's largest producer of iron ore and iron ore pellets and the world's second largest producer of nickel. Other products include manganese, ferroalloys, thermal and coking coal, copper, cobalt, platinum group metals, and fertilizer nutrients.

A new Project Approval was sought for the Complex to provide for the continuation and expansion of operations in the period 2011 to 2022, and to provide for the integrated management and operation of the complex. This Approval, issued on 26th November 2010, currently governs the operation of the Complex.

The Integra Mine Complex currently comprises the following major areas and infrastructure:

- North Open Cut, which is the most northern open cut mining area located between the site tailings dams and a major mine water storage dam known as Possum Skin Dam;
- South Pit, where mining is currently approaching completion and which will form a significant part of the overburden emplacement area for the Extended South Pit (Western Extension);
- Extended South Pit (Western Extension) is to be developed as the primary area of open cut mining activities;
- Underground workings, currently longwall mining in the Middle Liddell seam with development works occurring to access the coal resource in the Hebden Seam;
- Underground related surface infrastructure, which includes administration facilities, gas drainage infrastructure and ventilation shaft site along with the water management structures;
- Coal Handling and Preparation Plant (CHPP), which receives, stockpiles and washes coal from both the underground and open cut and loads product coal via the rail load out facility into trains for transport to the port of Newcastle;
- Tailings dams. Previously three independent tailings dams were used for tailings disposal. The tailings dams are currently being raised and augmented to increase tailings storage capacity; and
- Underground/open cut related facilities, which includes administration areas, workshop and major hydrocarbon storage areas.

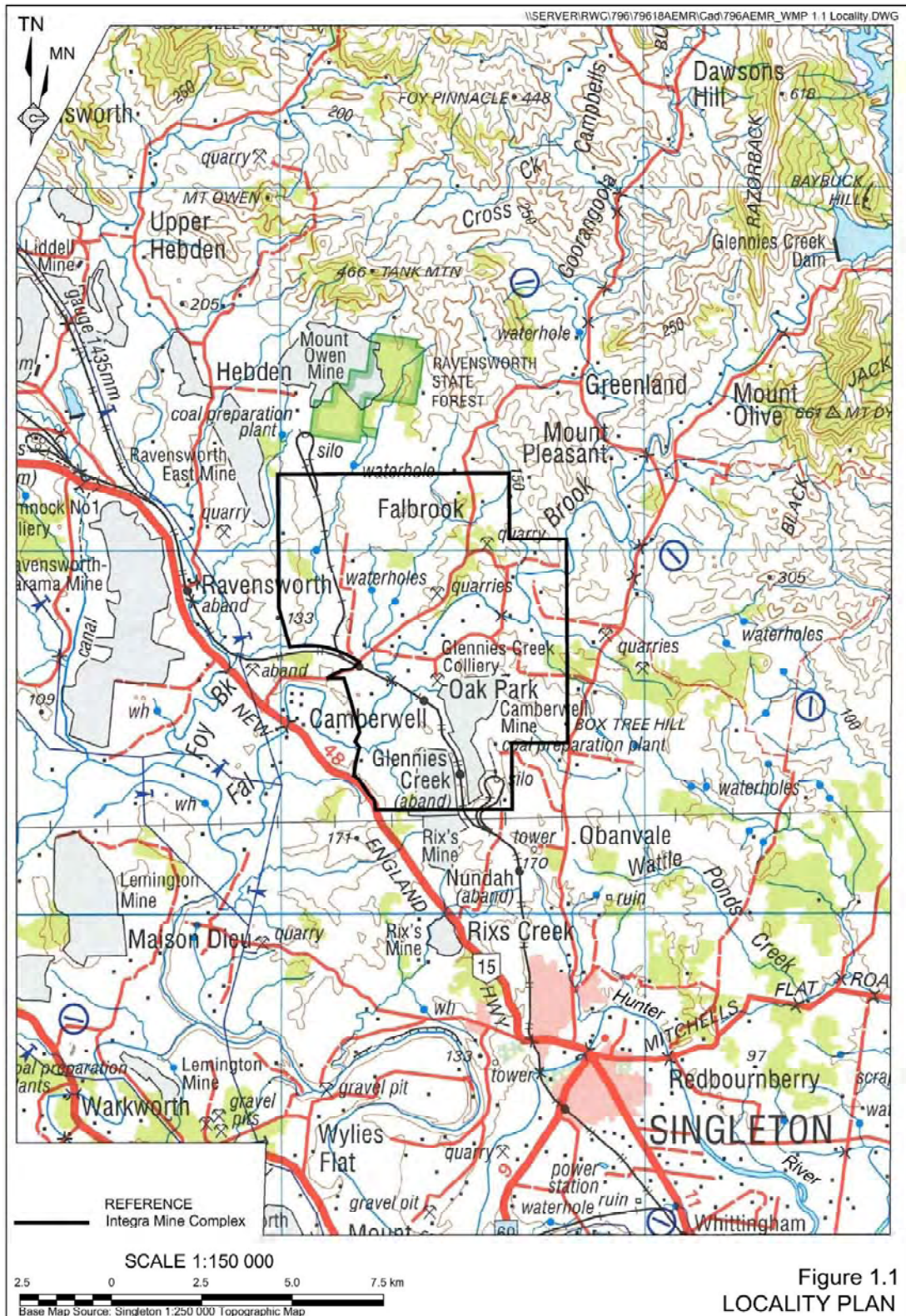


Figure 1 Location Map

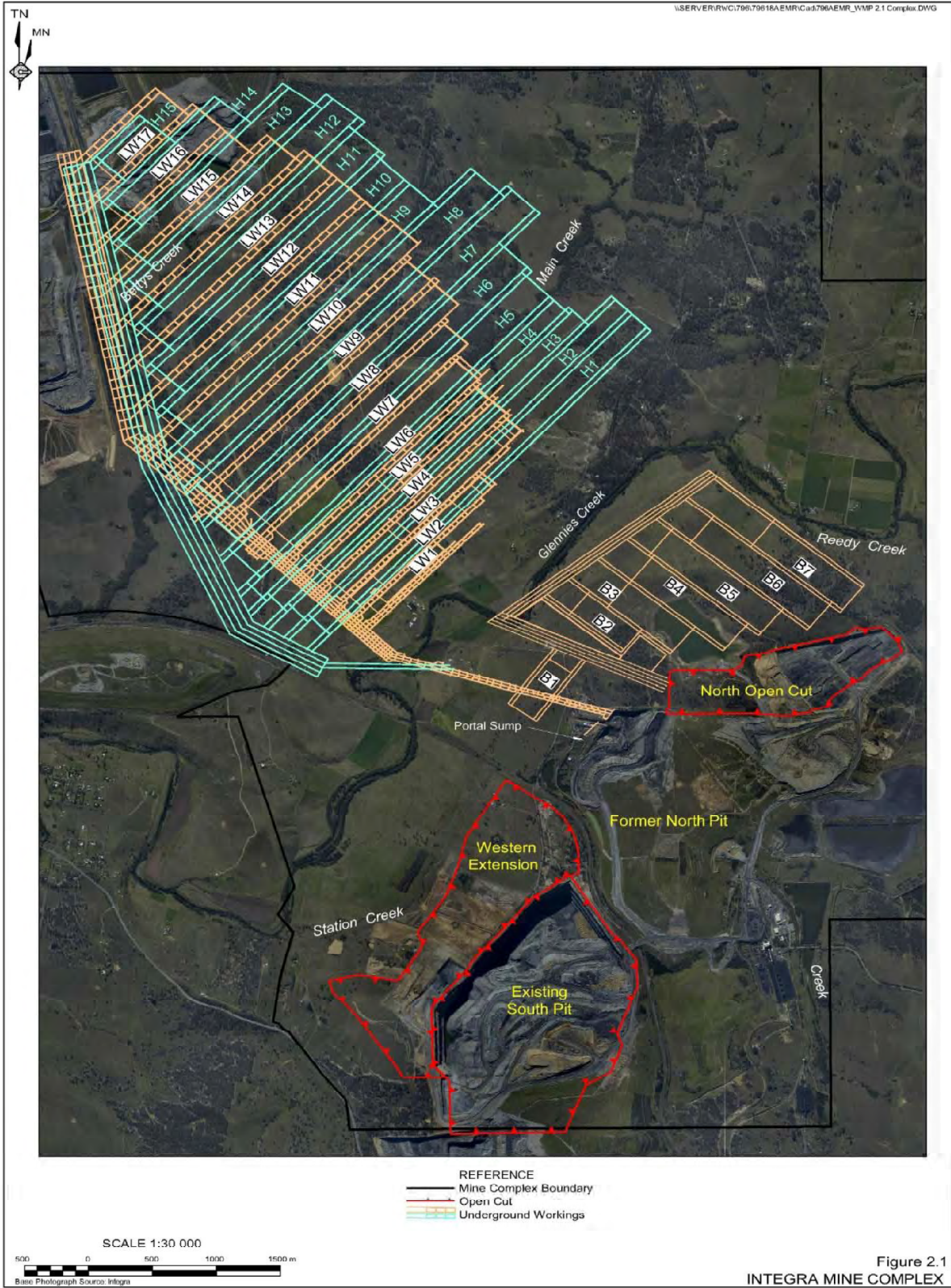


Figure 2 Integra Mine Complex – Actual and Planned Site Workings



Overview of Environmental Management Issues

The principal finding of this audit is that the Integra Mine Complex has been operated materially in accordance with the 2010 Project Approval and with good mining practice. Monitoring and management practices are in place which enable the mine to operate within the requirements of the Approval and to demonstrate that it has done so.

The key areas of land and water management (including subsidence management) which are essential to the long term environmental condition of the site are managed effectively, consistent with established long term strategies.

Dust, noise and blasting have very localised impacts in the neighbourhood of the mine. They have been managed in accordance with the Approval conditions with only very rare and minor exceedances. Notwithstanding this high level of compliance, some complaints do occur. It is important that the mine continues to operate strictly within the parameters of its approval as well as maintaining communications with the surrounding community.

The 2010 Project Approval required the preparation of a new Environmental Management Strategy and Management Plans for the site. This has been a major focus of environmental management activity at the site. Early completion and approval of these new plans is important to enable the site to focus its activities on implementation and continual improvement in environmental management.

Land

At the time when mining commenced (1991), the Integra site had been used as grazing land for some 150 years and consisted principally of pasture with some areas of remnant vegetation. The site has generally been managed in accordance with good mining practice including confining mining operations to defined areas of the site, avoiding disturbance of unmined areas and maintaining groundcover. The reduction in pastoral activities on the site, as well as the provision of additional water storages, has resulted in an increase in the biodiversity of the site. Unmined areas of the site are currently maintained in good condition. The relatively wet seasonal conditions prevailing at the time of the audit have contributed to vegetation growth and have not resulted in any significant observed erosion damage.

Land management activities at the site are directed at achieving long term outcomes consistent with the rehabilitation management strategy for the site.

Subsidence

Mine subsidence is an issue of concern with all underground operations. At Integra, Subsidence Management Plans have predicted relatively limited subsidence impacts, and these have been achieved in practice, resulting in minimal changes to surface landforms. The Project Approval includes a series of requirements designed to ensure that subsidence impacts continue to be effectively managed in future operations. However at the time of the audit, additional underground mining programs are still in the planning phase and these requirements are not applicable.



Water

The system of water management that has been established at Integra has been very effective in minimising adverse environmental impacts. The main features of water management of the site are:

- Effective diversion of clean water away from operational areas of the site;
- Avoidance of mining operations which impact on watercourses;
- Use of water pumped from open cut and mine workings as the principal and preferential source of process water for coal washing and dust suppression; and
- Storage of mine water (dirty water) and sediment laden water on site in dams which provide for evaporation and deposition of sediment. Back-up storage is available in open cut workings if dam storage proves inadequate.

These arrangements mean that no clean water is extracted from watercourses, other than in exceptional circumstances, and no mine water is discharged off the site. In accordance with the provisions of successive Groundwater Management Plans, excess mine water is piped to Ashton Coal (when needed) to assist in meeting their process water requirements. There is no impact on surface water or groundwater resources used for agriculture. Comprehensive monitoring of water quality and flows is undertaken.

The Water Management Plan and planning for future open cut and underground operations follows these established principles. Some potential impacts on watercourses will need to be considered in planning for future underground mining.

Air

Dust control on the site relies on the standard techniques of minimising exposed areas, water spraying and control of dust-generating activities. The ready availability of water on the site enables water spraying to be conducted at optimal levels. There have been significant improvements in air quality management in recent years. In 2008 and 2009 there were some 10 exceedances of permitted PM₁₀ emissions. This was reduced to one exceedance in 2011.

Noise

Integra has been materially compliant with its obligations to monitor and control the noise from its operations. The Specialist Advisor, Katie Weekes notes that pending approval of the draft Noise Management Plan prepared in accordance with the 2010 Project Approval, monitoring and reporting is still being carried out on the basis of previous approvals. Implementation of the Plan provides scope for a better coordinated and more effective monitoring program.

Blasting

Noise and vibration impacts of blasting have been managed with only a small number of minor exceedances. Blasting operations have been analysed to progressively improve performance. A range of mechanisms are available to warn affected people of impending blasts, and these have been progressively enhanced over time.



Mine Rehabilitation

Progressive rehabilitation of the mine site has been a requirement of the successive approvals under which the mine has operated. Rehabilitation and landscape management have been planned to be consistent with the long term integrated strategy for the rehabilitation of mines presented in “*Synoptic Plan: Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of NSW*” (“the Synoptic Plan”) prepared by the Department of Primary Industries – Mineral Resources in 2003.

One of the principal requirements of the 2010 Project Approval is the preparation of a new Rehabilitation Management Plan which consolidates previous approved documents and demonstrates a strategy for progressive and effective rehabilitation for the Integra Mine Complex. Comments by the Specialist Advisor, Dr Mark Burns, indicate that while the current draft Rehabilitation Management Plan appears to meet the specific requirements of the Project Approval, there would be value in enhancing the plan to become a more comprehensive and stand-alone document which develops the strategies set out in previous approved documents and provides a sequential view of the rehabilitation process. It is also important that a timetable for rehabilitation activities be progressively developed in conjunction with forward planning for mining operations.

Community Relations

Because of its location, the direct environmental impacts of mining at Integra, so far as they extend beyond the mine site itself, affect only a relatively small number of surrounding rural properties in the Glennies Creek Valley. The main impacts are noise and dust, and there has been a history of complaints by some local landowners. Integra has maintained contact with these landowners and has provided investigations and ameliorative modifications to properties in accordance with the present and previous project approvals.

Over time, Integra has taken opportunities to acquire a number of neighbouring properties, most of which are now successfully occupied and operated on a leasehold basis.

For the broader community of Singleton and the Upper Hunter, the impact of Integra is overwhelmingly positive, as the mine provides employment and economic benefits with little adverse environmental impact.

Since the issue of the 2010 Project Approval, there have been a number of areas where communications processes have not occurred strictly in accordance with the project approval, including where public information provided on the website and through newsletters has not been kept up to date. It is important that these avenues of communication with stakeholders be maintained to enhance trust in the organisation’s commitment to minimising adverse impacts of its operations. An area of particular sensitivity is the need to ensure that all persons affected by blasting have access to blast information in the form most convenient to them, whether through the Integra website, SMS alerts or notices.

Coordination with Other Mines

There are a number of requirements in the Project Approval for coordination with nearby mines in relation to blast, noise and dust management. Integra has generally made attempts to establish communications with the other mines in relation to these matters but has not always been successful. It is understood that the other mines may not have similar coordination requirements in their approvals. If more successful coordination arrangements are to be developed, there may be a need for Integra’s efforts to be actively supported by the regulatory agencies.



Management Plans

One of the principal features of the 2010 Project Approval is that it requires the preparation of a new Environmental Management Strategy and Management Plans for the site. Some 12 Management Plans are specified in the Project Approval. These new Management Plans are designed to provide for the operation of the mining complex on an integrated basis, rather than as separate underground and open cut projects and provide consolidated documentation of environmental management practices in place at Integra. The Plans are required to reflect the conditions of approval, including commitments made by the mine in relation to previous approvals of the underground and open cut operations. Required dates for submission of the draft Management Plans to DP&I were specified in the Project Approval, covering the period 31 March 2011 to 31 December 2011.

A considerable investment of time and resources, including the services of a range of specialist consultants, has been applied to the development of these Management Plans.

The Plans have been prepared in a consistent format which clearly identifies how they address the requirements of the Project Approval. The Plans were developed in accordance with the required timetable, subject to minor variations in timing agreed with DP&I. The only plan which has not yet been submitted is the Biodiversity Management Plan

Currently, only two plans have been approved, the Aboriginal Heritage Management Plan and the European Heritage Management Plan Stage 1. DP&I provided comments on a number of plans at a meeting on 6 October 2011 which are documented in a record of meeting, however, it is not clear whether these represent the Department's full assessment of the plans.

The auditors consider that it is important that Integra and DP&I work cooperatively to ensure that these Management Plans are finalised and approved as soon as possible. Approval would remove any doubt about the operating arrangements at the mine stemming from the transition to the new approval, assist in planning for approved mine expansion and set a basis for continual improvement in environmental performance.

Continual Improvement

For the period of this audit, and in particular the period since the issue of the 2010 Project Approval, environmental management at Integra has focused heavily on the preparation of the Environmental Management Strategy and Management Plans required by the Approval.

Once the Strategy and Plans have been approved and implemented, there will be scope for Integra to move beyond a strict focus on compliance requirements to the development of a program to investigate and implement ways to improve the environmental performance of the mine over time, as envisaged by Condition 5.2 of the Approval. This should involve development of an annual environmental improvement program for the site incorporating objectives and targets, based on the approach set out in the Standard, ISO 14001:2004.



Compliance

Integra's compliance with the requirements of the 2010 Project Approval, as found by this audit is summarised in the table below.

Compliance Result	Number of Results	Per Cent
Complies	225	61.6%
Complies, with Opportunity for Improvement	29	7.9%
Does Not Comply	32	8.8%
Not Applicable	79	21.6%
Total excluding non-compliant	333	91.2%
TOTAL	365	100.0%

Out of the total 365 compliance requirements audited, Integra achieved an overall compliance rate of 91.2%, including all "Compliance", "Not Applicable", and "Opportunity for Improvement" results recorded. There were 32 Non Compliances observed at the time of the audit, amounting to 8.8% of the overall number of compliance requirements. There were 29 opportunities for improvement identified (7.9%) and 79 of the 365 requirements were not applicable at the time of the audit (21.6%).

It should be emphasised that the bulk of the non-compliances identified in this audit relate to the process of reviewing management plans and other documentation associated with the 2010 Project Approval, and do not detract from our finding that the fundamental processes of environmental management and monitoring at the site are undertaken to a high standard.

The table below summarises the recommendations of this audit

Detailed findings presented in accordance with the Project Approval, are provided in the table of Findings, Audit Evidence and Recommendations below.



Audit Recommendations

Clause	Recommendation
S2.9	It is recommended that Train Movement statistics be updated on the Integra website on at least a monthly basis.
S2.18	It is recommended that Integra prepare and submit revised drafts of all Management Plans on which DP&I have provided comments, and seek final approval of the plans, to enable full implementation of planned improvements in environmental management.
S3.2	<p>It is recommended that attended monitoring reports should be revised to include comparison to the criteria detailed in the current approval as there are some differences in limits. LA1,1min is not currently being assessed and should also be included in future reports (where relevant). It is recommended that low frequency noise, which is not currently being assessed, should also be included in future reports.</p> <p>It is recommended that all attended measurement result analysis should consider criteria applicability (impact, mitigation, cumulative and acquisition criteria) with regard to wind speed and vertical temperature gradient.</p> <p>It is recommended that recommendations of the Independent Review, October 2011, should be carried out.</p> <p>It is recommended that the requirement to assess affectation of 25% of privately owned land should be removed as a requirement (for all criteria) as it is not practical to determine, and has no relevance to resident amenity.</p>
S3.8	<p>It is recommended that Pacific National/ARTC be requested to provide noise test results for all locomotives that access the rail loop.</p> <p>It is recommended that, as suggested by DP&I, the revised Noise MP needs to include wording that <i>'the mines rail spur is only accessed by locomotives that are approved to operate in accordance with noise limits'</i>, and provide detail how this will be managed.</p>
S3.9	<p>(a) It is recommended that sound modelling be extended to incorporate the impact of the Western Extension, and that results of this modelling should be incorporated in the Noise MP.</p> <p>(b) It is recommended that real time monitoring procedures be incorporated into revised Noise MP. Results from real time monitoring system should not be used to determine compliance. Any modifications to the site operations as a result of real time noise monitoring should be documented.</p> <p>(c) It is recommended that a procedure for the assessment and management of cumulative noise from the Complex and surrounding mines to be developed and incorporated into the revised Noise MP.</p>
S3.10a	It is recommended that a revised draft Noise Management Plan be prepared and submitted to DP&I, taking account of comments raised by DP&I.
S3.10b	It is recommended that the revised Noise Management Plan include more proactive controls. See also recommendation S3.10a.
S3.10c(2)	It is recommended that the revised Noise Management Plan include a more detailed protocol for determining exceedances of the relevant conditions of approval.
S3.11	<p>It is recommended that all non-allowable blasting exceedances be reported to DP&I in accordance with S5.6.</p> <p>It is recommended that all instances of blasting exceedances be investigated and the results of the investigations recorded.</p> <p>It is recommended that corrective action be taken to minimise the risk of further exceedances.</p> <p>It is recommended that consideration be given to negotiating revised blasting limits and other conditions for the Dulwich property, given that the site is not continuously occupied.</p>



Clause	Recommendation
S3.14	It is recommended that a procedure for property baseline inspections be developed, and a date field be added to the Structural Property Survey Proforma. It is recommended that future property inspections are undertaken by investigators who have already been approved by DP&I.
S3.15	It is recommended that a procedure for property investigations be developed, and future property inspections are undertaken and that reports of property investigations be provided to the landowner within the required 2 month period.
S3.16b	It is recommended that Integra initiate discussions with the Ashton Mine and Rix's Creek Mine to develop a protocol to minimise and manage the cumulative impacts from blasting along the lines set out in Sec. 4.18 of the Blast Management Plan.
S3.16c	It is recommended that the current system for updating the blast information hotline and website be reviewed to ensure that the public have access to up to date information on the proposed blasting schedule, consistent with the arrangements specified in the Blast MP. It is recommended that errors in internal cross-references in the Blast MP be corrected to improve readability of the document.
S3.17a	It is recommended that arrangements for advising Singleton Council of road closures be specified in the Blast Communications Package, including the requirement to maintain a record of all communications.
S3.17c	It is recommended that arrangement for obtaining blasting approvals from ARTC (where required) be specified in the Blast Communications Package, including the requirement to maintain a record of all communications.
S3.19a	It is recommended that a revised version of the Blast Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.21	It is recommended that the draft Greenhouse Gas MP be revised to include processes for continual improvement of GHG management and energy efficiency improvement into the future and for ensuring that GHG and energy efficiency issues are taken into account in purchasing decisions. It is recommended that a revised version of the Greenhouse Gas Management Plan addressing DP&I comments and recommendations of this audit be prepared and submitted for approval as soon as possible.
S3.22	It is recommended that a revised version of the Air Quality Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.24	It is recommended that a formal procedure is prepared for responding to requests from landowners for dust mitigation measures, including criteria for the acceptance of requests.
S3.25b	It is recommended that an outline of how existing dust mitigation measures reduce visible air pollution be included in the Air Quality Management Plan.
S3.25c	It is recommended that minutes of daily operational meetings include reference to the impact of actual or projected weather conditions on operational decisions.
S3.25d	It is recommended that Integra continue to seek the cooperation of neighbouring mines in minimising cumulative air quality impacts, and that any difficulties in achieving cooperation be brought to the attention of DP&I.
S3.40	It is recommended that a revised version of the Water Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.42	It is recommended that DP&I's concurrence be sought with the approval given by OEH for the revised Biodiversity Offset Areas being set aside to meet the requirements of condition 3.42 in the context of approval of the Biodiversity Management Plan.
S3.43	It is recommended that following DP&I's approval of the revised Biodiversity Offset Areas, legal processes be commenced to ensure that these areas are protected in perpetuity.
S3.44a	It is recommended that the Biodiversity Management Plan be completed and submitted to DP&I as soon as possible.



Clause	Recommendation
S3.44b	See Recommendation S3.44a. It is recommended that the Biodiversity Management Plan should be closely integrated with Rehabilitation Management Plan as part of a consistent approach to land management at the site.
S3.47c	It is recommended that the Aboriginal Heritage MP be updated to reflect conditions included in DP&I's approval of the Plan.
S3.48	It is recommended that Integra proceed as a matter of urgency with its proposal for variation of this condition of approval, so that the matter can be resolved before the extended deadline of 30/6/2012.
S3.53b	It is recommended that a documented procedure be developed for storage of general waste.
S3.54a	It is recommended that a revised version of the Waste Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.54f	It is recommended that the Waste MP be amended to indicate that statistics on waste collections and off-site disposal provided by Thiess Services will be reviewed to identify opportunities for waste reduction and improved waste treatment, and that procedures be put in place for such reviews to be undertaken regularly by Integra environmental staff.
S3.56	It is recommended that the Rehabilitation MP include specific targets which would demonstrate that the objectives and outcomes set out in the Plan have been achieved. It is recommended that ARs include reports on progress towards rehabilitation objectives.
S3.57	It is recommended that the Rehabilitation MP provide for development of a timetable for rehabilitation which is regularly updated to take account of changes in planned mining operations.
S3.58a	It is recommended that a reference be included in the final Rehabilitation MP to the results of initial stakeholder consultation on the plan.
S3.58d	It is recommended that a revised version of the Rehabilitation Management Plan addressing DP&I comments and recommendations of this audit be prepared and submitted for approval as soon as possible.
S4.1a	It is recommended that Integra ensure recommendations for mitigation from the Independent Review, October 2011 are carried out.
S5.2f	It is recommended that an annual environmental improvement program incorporating objectives and targets be developed for the site.
S5.3a	It is recommended that the 2011 AR, to be prepared by 31/3/2012, provide an integrated account of the environmental management of the complex (including both underground and open cut operations) consistent with the requirements of the approval.
S5.10a	It is recommended that periodic information required to be published on the Integra website be uploaded on a timely basis, where possible within one month.
A10.3	It is recommended that the community newsletter planned for publication in the first quarter of 2012 outline the changes in operations associated with the current Project Approval and progress with their implementation. It is recommended that Integra resume the publication of community newsletters on a regular basis.
A10.21	It is recommended that prior to the longwall being extended under Forest Road, a communication mechanism to advise of possible impacts be established and communicated to relevant stakeholders.
A10.32	It is recommended that weed surveys targeting <i>Bothriochloa biloba</i> be undertaken in advance of any mining activity impacting on the Bettys Creek area.
A10.47	It is recommended that a formal program be established to maintain a photographic record of key locations on creeks and dam walls to provide evidence of rates of erosion over time.
A10.65	It is recommended that the air quality monitoring results on the integral website be updated on at least a monthly basis to allow public access to more recent monitoring data.



Clause	Recommendation
A10.67	It is recommended that estimates of greenhouse gas production as reported for NGERs be made available on the Integra website.
A10.69a	It is recommended that any changes resulting from MOD2 be incorporated into the Noise Management Plan once approved.
A10.69b	It is recommended that Integra carry out any works required under MOD2.
A10.69c	It is recommended that Integra improve documentation and record keeping of noise test results. It is recommended that Integra carry out attenuation of equipment identified in sound power tests as not meeting the relevant limit. It is recommended that modelling of noise emissions using actual sound power levels and possible operating scenarios be conducted to allow proactive management of site operations, particularly at night.
A10.69d	It is recommended that the requirement to undertake noise audits at boundary positions to static sources be removed from the Project Approval.
A10.69e	It is recommended that Integra continue to proactively address noise-related concerns with residents.
A10.69f	It is recommended that Integra commence monitoring at representative receivers (under the revised Noise Management Plan) as soon as practicable, and continue to incorporate recommended additional monitoring locations from Independent Review where appropriate.
A10.74	It is recommended that action be taken to ensure that empty bulk chemical containers are returned to suppliers for reuse on a regular basis.
A10.76	It is recommended that the need for and scope of a social impact monitoring strategy be discussed with the CCC.
A10.89	It is recommended that an inventory of available soil for rehabilitation activities be maintained and reviewed on a regular basis.
A10.115	It is recommended that the Biodiversity Management Plan, incorporating a Flora and Fauna Management Plan, be completed as soon as possible and that it include measures for minimising the impacts of operations on flora and fauna. It is recommended that the Biodiversity Management Plan include requirements for pre-clearance surveys and management measures during land clearing.
A10.116	It is recommended that the Biodiversity Management Plan include a statement of control measures for fauna management.
A10.117	It is recommended that future threatened species monitoring programs be undertaken prior to further major land clearing and include diurnal searches for birds, nests and roosts and searches for microbats.
A10.119	It is recommended that groundcover clearance practices be addressed in the Biodiversity Management Plan and Rehabilitation Management Plan.
A10.120	It is recommended that fencing and other exclusion requirements to protect biodiversity should be addressed in the Biodiversity Management Plan and Rehabilitation Management Plan.
A10.121	It is recommended weed and pest management be addressed in the Biodiversity Management Plan. It is recommended that monitoring arrangements set out in the existing Weed Management Plan be implemented.
A10.123	It is recommended that monitoring arrangements to demonstrate compliance with the Glennies Creek Riparian MP be implemented. See also Recommendation A10.121.
A10.130	It is recommended that evening and night dump locations be selected to minimise noise emissions. It is recommended that modelling of noise emissions using actual sound power levels and possible operating scenarios be undertaken to allow proactive management of site operations, particularly at night.
A10.131	It is recommended that the time of tree clearing and soil stripping operations be documented.



Clause	Recommendation
A10.155	It is recommended that Sec 5.3 of the Air Quality MP be updated to include the correct cross reference to air quality trigger levels.
A10.180	It is recommended that reporting of rehabilitation activity in ARs include details of progress in establishment of habitat corridor linkages across the site.



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Specialist Comments - Noise

*Prepared by Katie Weekes – Environmental Scientist – Acoustics, Global Acoustics Pty Ltd,
March 2012*



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Integra Coal Complex

Independent Audit, December 2011

Noise

Prepared for

Integra Coal Operations Pty Ltd



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Integra Coal Operations Pty Ltd

Independent Audit, December 2011 Noise

Reference: 11419_R01

Report date: 4 April 2012

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Director

Global Acoustics Pty Ltd ~ Environmental noise modeling and impact assessment ~ Sound power testing ~ Noise control advice ~ Noise and vibration monitoring ~ OHS noise monitoring and advice ~ Expert evidence in Land and Environment and Compensation Courts ~ Architectural acoustics ~ Blasting assessments and monitoring ~ Noise management plans (NMP) ~ Sound level meter and noise logger sales and hire

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1 INTRODUCTION

1.1 Background

Integra Coal Operations (ICO) engaged Global Acoustics, to conduct an independent noise audit on its operations, near Singleton NSW.

On the 26 November 2010 the Minister for Planning granted an approval for the Integra mine complex. This approval includes Project Application 08_0101 and 08_0102 for Integra Underground Project and Integra Open Cut Project respectively.

Activities considered in the audit, based on the November 2010 project approval, included the operation of:

- ❑ Integra Underground;
- ❑ Integra South Open Cut; and
- ❑ Integra North Open Cut.

2 METHODOLOGY

2.1 Project Approval

The audit against the November 2010 project approval specifically considered the following:

- ❑ *Schedule 3 Environmental Performance Conditions.* Conditions 2 to 7 address the noise conditions that the project (underground and open cut) must meet. This includes impact assessment, mitigation, acquisition and cumulative criteria;
- ❑ *Schedule 3 Environmental Performance Conditions.* Conditions 8 and 9 consider rail and operational noise conditions;
- ❑ *Schedule 3 Environmental Performance Conditions.* Condition 10 addresses preparation and implementation of a noise management plan;
- ❑ *Schedule 4 Additional Procedures.* Condition 2 in relation to exceedance of relevant criteria;
- ❑ *Appendix 10 Statement of Commitments.* Including:
 - Use of haul roads instead of conveyors and use of acoustics bunds where recommended;
 - Using monitoring results to refine on-site mitigation measures and procedures;
 - Regular discussions with residents to proactively identify noise issues;
 - Quarterly monitoring undertaken at representative receivers;
 - Mitigation or negotiated agreements with landowners where there are demonstrated exceedances;
 - Ensuring the community are aware of the community information line for Integra; and
 - Using real time noise monitoring to manage, assess and control emissions from Integra.

2.2 Review of Documents

Documents considered as part of the audit include:

- ❑ Project Approval, November 2010;
- ❑ Integra Coal North Open cut Noise Management Plan, August 2010;
- ❑ Integra Coal Underground Noise Management Plan, March 2007;
- ❑ Integra Coal Open Cut Noise Management Plan, January 2008;
- ❑ Integra Project Noise Management Plan, April 2011;
- ❑ Construction Noise Management Plan, Integra North Open Cut, Stony Creek Road Amenity Bund, Heggies Pty Ltd, March 2009;
- ❑ ARTC Loads for Coal Trains – TOC Waiver 11327, 23 December 2011;
- ❑ Noise Level of Plant Specification (OC) Appendix B, Vale Integra, 5 August 2011 (print date);
- ❑ Real time noise monitor screenshot, Integra Coal, 20 January 2012;
- ❑ Email from Pacific National, 22 November 2011;
- ❑ ICO file note, meeting regarding data sharing with the Mt Owen Mining Complex, 22 December 2011;
- ❑ Letter from ICO to Ashton Coal Project regarding data sharing, 25 November 2011;
- ❑ Proposal for Integra Management Plans (noise and air) cumulative issues, from EMGA Mitchell McLennan, 9 December 2011;
- ❑ Letter to the Department of Planning regarding the submission of the Noise Management Plan, from R.W. Corkery & Co. Pty Limited on behalf of Integra Coal, 6 May 2011;
- ❑ Changes to Management Plans, summary of Department of Planning and Infrastructure (DP&I) comments, 6 October 2011;
- ❑ Sandvik DR580 Drill Sound Power, Intensity and Operator Noise Exposure, Global Acoustics Pty Ltd, 7 December 2011;
- ❑ Caterpillar D11TXQ Dozer Sound Power and Operator Noise Exposure, Global Acoustics Pty Ltd, 9 January 2012;

- ❑ ICO file note regarding meeting with resident in Camberwell Village, 21 February 2012;
- ❑ Vale Integra Community Newsletter, June 2010;
- ❑ Integra Coal Complex Independent Review, EMGA Mitchell McLennan, 28 October 2011;
- ❑ Mitigation letters from ICO to four residents, November 2011;
- ❑ Quarter 1 2012 attended monitoring reports for the North Open Cut and Open Cut, Spectrum Acoustics, February 2012;
- ❑ Integra Coal Open Cut CCC meeting minutes, 7 February 2012;
- ❑ Integra Coal Complaints Register, January 2012;
- ❑ Agreement letters from ICO to two residents, April 2000;
- ❑ Various emails from Sam Taylor, Integra Coal, February and March 2012; and
- ❑ Integra Opencut Mobile Plant Sound Power Testing, Global Acoustics Pty Ltd, 1 December 2008.

2.3 Adequacy of Documentation

The documentation provided as part of the audit ranged from detailed consultants reports to emails from Integra Coal staff and Pacific National. Documentation used to assess compliance would normally be in the form of a letter or report with letterhead, which would support any claims or findings. Statements in emails without results to support the claims are generally considered insufficient.

3 STATEMENT OF FINDINGS

3.1 Non-Compliances

Non-compliances identified from Schedule 3 of the project approval:

- ❑ S3.2. The Independent Review suggests there were exceedances of impact assessment and mitigation criteria at three and one locations respectively during monitoring undertaken as part of the review. As the Integra L_{Aeq} is often shown as a range of values for each measurement, it is difficult to determine the actual exceedance. Further, it appears there was no consideration of applicability of criteria with regard to vertical temperature gradient for individual measurements;
- ❑ S3.8. The informal email from Pacific National stating that in order to maintain accreditation all locomotives and wagons must pass noise emission testing and pollution control approval before they can be brought into operation on any network is insufficient; and
- ❑ S3.9 and S3.10d. While it is acknowledged that co-ordinated noise management with other mine sites is a complex issue, there has been little headway made towards establishing measures for managing cumulative noise.

Non-compliances identified from *Appendix 10 Statement of Commitments* from the project approval:

- ❑ A10.69c. There was no evidence that attenuation of equipment has been carried out to meet site sound power specifications or levels modelled in the noise assessment for the Northern Extension.

3.2 Recommendations

Recommendations as a result of the audit are as follows:

- ❑ Attended monitoring reports should be revised to include comparison to the criteria detailed in the current approval, as there are some differences in limits. $L_{A1,1min}$ should also be included in future reports (where relevant). Assessment of low frequency noise should be included in future reports. All attended measurement result analysis should consider criteria applicability (impact, mitigation, cumulative and acquisition criteria) with regard to wind speed and vertical temperature gradient;
- ❑ While it is acknowledged that assessing cumulative noise is a complex issue and there has been some steps made in recent months, a procedure for the assessment and management of cumulative noise from the Complex and surrounding mines needs to be developed and incorporated into the revised Integra Complex NMP;

- ❑ Improved documentation and record keeping of noise test results is needed;
- ❑ Commence monitoring at representative receivers (under the revised Integra Complex NMP) as soon as practicable. Continue to incorporate recommended additional monitoring locations from Independent Review where appropriate;
- ❑ The requirement to assess affectation of 25% of privately owned land should be removed as a requirement (for all criteria); it is not practical to determine, and, has no relevance to resident amenity;
- ❑ Pacific National/ARTC need to provide noise test results for all locomotives that access the rail loop. As suggested in the DP&I Response, the revised Complex NMP needs to include wording that 'the mines rail spur is only accessed by locomotives that are approved to operate in accordance with noise limits and provide detail how this will be managed';
- ❑ Modelled sound powers need to be incorporated into the Integra Western Extension. In accordance with DP&I philosophy, this information should be incorporated into the revised Integra Complex NMP;
- ❑ A real time monitoring procedure is to be incorporated into the revised Integra Complex NMP. Results from the real time monitoring system should not be used to determine compliance. Compliance is the official performance of the site reported back to regulators, whereas management a real time evaluation of compliance in comparison to compliance limits. Uncertainties associated with methodology, cannot be officially reported as compliance. Any modifications to the site operations as a result of real time noise monitoring should be documented;
- ❑ Attenuation of equipment identified in previous sound power tests as not meeting the relevant limit should be undertaken as soon as practical;
- ❑ Modelling of noise emissions using actual sound power levels and possible operating scenarios to allow proactive management of site operations, particularly at night. Consider evening and night dump locations to minimise noise emissions;
- ❑ Condition A10.69 point (d), the requirement to monitor static sources at the project boundary should be removed from the project approval as it is not relevant; and
- ❑ Recommendations of the Independent Review (October, 2011) should be carried out and the site should continue to proactively address issues of concern with residences.

3.3 Summary

This audit was carried out against the consolidated consent approved for Integra Coal Complex (November 2010).

The consent has certain requirements in relation to impact, mitigation, acquisition and cumulative criteria; however, the revised noise management plan has not yet been approved. While the new criteria apply, the physical monitoring still occurs as currently approved (in existing noise management plans).

As a result, noise monitoring and reporting is currently undertaken in accordance with three previous approvals, with three noise reports produced per quarter (ie. a total of 12 quarterly noise reports annually). In the short-term, these attended monitoring reports should all be revised to include an assessment against the requirements of the most recent project approval (in addition to the previous approvals).

Data was sourced from lots of different places and it appeared there was a disconnect between various departments at Integra. It is important that all site staff develop a coordinated approach to site noise management that incorporates attended monitoring, real time monitoring, sound power testing and proactive noise modelling.

In order to streamline noise monitoring and reporting in future, the new NMP should be finalised and approved by DP&I and any changes to the monitoring program implemented as soon as possible.

Global Acoustics Pty Ltd



Specialist Comments - Rehabilitation

Prepared by Dr Mark Burns – Director Global Soil Systems March 2012

Dr Mark Burns was requested to undertake a review of GABA's draft report of its Independent Environmental Audit (IEA) of Integra Complex. As a component of this review it was also requested that key documentation, principally the Rehabilitation Management Plan (RMP) also be reviewed in light of its relevance to the above audit. Within this context brief comments on the effectiveness of the Mine's rehabilitation strategy, in meeting the requirements of the Project Approval, are provided. Other comments have been included as considered relevant.

Rehabilitation Management Plan

The main comments on the RMP include:

1. *Lack of a Systematic Approach to Key Issues.* There are numerous ways of preparing an RMP and each has its advantages. Ideally, the RMP should be a practical document that contains sufficient detail in a logical sequence which provides clear sequential guidance and steps the reader through the relevant rehabilitation steps (with sufficient supporting detail) for each of the domains. Ideally, it should include and expand on detail already provided (and approved) in the EA and, if relevant, the Rehabilitation Strategy. In summary, it should be a practical and usable document. In this regard the Integra RMP had some deficiencies as follows:
 - a. Sections 1. To 9. Adequately cover relevant topics. Section 10 (Rehabilitation) worked on area basis (e.g. Rehabilitation of Disturbed Land etc.) and this is considered a reasonable approach. However, for each domain there did not appear to be a systematic approach to addressing the key sequential rehabilitation steps such as:
 - i. Landform Establishment – incorporates gradient, slope, aspect, drainage, substrate material characterization and morphology;
 - ii. Growing Media Development – incorporates physical, chemical and biological components of the growing media and ameliorants that are used to optimize the potential of the media in terms of the preferred vegetative cover;
 - iii. Ecosystem and Land Use Establishment – incorporates revegetated lands and habitat augmentation, species selection, species presence and growth together with weed and pest/animal control/management; and establishment of flora;
 - iv. Ecosystem and Land Use Sustainability – incorporates components of floristic structure and function, soil development and erosion (land form stability) issues;
 - v. Decommissioning – removal of hard stand areas, buildings, contaminated materials and hazardous materials.

The above structure then forms the basis for development of the monitoring program (later in the report) involving performance criteria, measures and indicators.

While some key rehabilitation issues are variously discussed in Section 10, for most domains there appears to be no systematic or comprehensive approach. This jeopardizes the practical use of the document. The document is essentially short of practical detail and trying to find this detail in other reports is difficult.



2. *Not a Stand-Alone Document.* The above mentioned lack of detail is partly compensated for by extensive and frequent cross referencing – mainly to Appendix 4 (*Draft Rehabilitation and Decommissioning Strategy for the Integra Open Cut Coal project and Extended South Pit – GSS Environmental October 2008*) and the MOP. While some cross referencing to supporting documents is understandable and necessary it should be in support of information in the main document and not as a substitute. In many ways Appendix 4 is a more comprehensive and systematic document than the RMP and much of the content in the former could easily have been used as the basis for the current RMP. The practical outcome of extensive cross referencing, resulting in inadequate content in the main document, is that the RMP does not flow and its use as a practical guide is diminished as few people will make the effort to jump between documents to get necessary information.
3. *The RMP Does Not Appear to Build on Information in the EA.* While minor reference is made in the RMP to the EA the RMP does not appear to build on the foundation and strategy outlined in the EA and to utilize strategies therein. It is important that subsequent documents support and enhance earlier strategies and details and greater linkage with the EA would have been beneficial. However, as the EA was not reviewed this is partly conjecture based on the more extensive reference to Appendix 4 than the EA.
4. *Other Comments.*
 - a. Page 16 section 10.1.1 refers to domains and links to Map 1 in Appendix 2. There appears to be some discrepancy between domain description, numbering and sequence in Section 10.1.1 as opposed to Map 1 in Appendix 2. Also Map 1 Plans in Appendix 2 small and difficult to read and interpret.
 - b. Page 19 section 10.5. Maybe helpful to establish a stronger link in the document between surface water management and erosion and sediment control.
 - c. Page 20 Section 10.6. May need to also test for contamination in *Other Infrastructure Areas*.
 - d. Page 20 Section 10.7.2. Trial and possible future use of hybrid eucalypts not consistent with Objectives and Outcomes on page 7 which states ‘...*self-sustaining eco-systems comprised of local* (author’s emphasis) *native plant systems.....*). Hybrid eucalypts are not local species.
 - e. Page 22 section 10.8.5. Natural regeneration of native trees and shrubs from respread topsoil will only occur if topsoil coming from cleared forest areas. Topsoil from cleared grazing country will have mostly weeds. Where is topsoil coming from? Maybe need to distinguish between sources of topsoil. Also page 27. Has the mine seen recruitment from respread topsoil on other sites?
 - f. Page 26. Species list in Table 10.2 shows a strong reliance on native grasses. Most of these have not been proven and are suspect in terms of germination, persistence and erosion control.
 - g. Page 27 Section 10.10.2. Some good info in here that may warrant bringing into a more general context.
 - h. General - Grazing. The mines grazing policy is unclear. What areas will eventually be grazed? Strongly recommend keeping stock permanently out of treed and eco-enhancement areas.
 - i. General. A lot of questions after reading the RMP but some of these answered after an intensive review of Appendix 4. Not an easy process. Didn’t have access to the MOP or EA, so not sure what detail is in these.
 - j. Proposed use of felled timber not well explained.



- k. Page 28 section 10.11. List of potential high risk factors appears very limited. What about slope failure, erosion and water quality, weed invasion, safety issues with final void etc.?
- l. Monitoring section in Appendix 4 is good. Would be worthwhile bringing key elements of this back into the RMP.
- m. Different approach to environmental monitoring between GSSE plan in Appendix 4 (Nicholls 2006) and the LFA analysis approach in DnA's Environmental report also in Appendix 4. Section 12.1 page 31 says a hybrid of the above two methodologies will be used but no details provided. What are the details of this hybrid?
- n. A table showing which sections of the RMP address which approval conditions (Section 6.1) would be beneficial.
- o. Some Maps in Appendix 2 not clearly linked to the main text e.g. Map 3.

Brief Comments on the Mine's rehabilitation strategy

In summary, comments on the effectiveness of the Mine's proposed rehabilitation strategy are as follows:

- The most obvious comment is that the main part of the RMP (not including appendices) does not have enough detail to operate as a stand-alone guide to someone without extensive or specific Integra mine experience (e.g. a new EO). The RMP relies heavily on other reports for important content and extensively cross references a range of other documents, particularly Appendix 4, which contains two separate reports with two separate monitoring strategies and a range of important detail that could have been summarized and brought back into the main text. In this context the GSSE report in Appendix 4 provides a more logical, detailed and sequential guide to mine rehabilitation than the Plan proper. While the need to link the RMP to previous plans and documents is understandable, the over reliance on other reports to provide the necessary detail has resulted in a fragmented document that requires extensive cross referencing to other related source documents in order to clarify what is being proposed. This requires a lot of effort and few people will invariably go to the effort. The consequence of this is that the RMP is not the simple practical document it should be, nor a succinct and logical summary of what is proposed and what needs to be done. This, in my mind, should be the purpose of the RMP. An amalgamation of the main text of the RMP with the more detailed and better sequenced Appendix 4 (particularly the *Rehabilitation and Decommissioning Strategy*) would have made for simpler reading and a more usable document. This is further complicated by the separation of the Rehabilitation Management Plan and the Biodiversity Management Plan (which are often combined into a single plan at other mines because of the overlap of content e.g. revegetation strategies etc.).
- Other comments on the '*effectiveness of the Mine's planned rehabilitation strategy in meeting the requirements of the Project Approval*' are contained in the above comments on the RMP. As relevant Project Approval Conditions are relatively general (see Section 6 of the RMP) the RMP (with cross referencing) appears to meet the requirements of the Project Approval. However, as the cross referenced MOP and EA were not reviewed as part of this brief further comment on the effectiveness of the Mine's rehabilitation strategy in meeting the Project Approval commitments was not possible.

Comments by Dr Burns on the detailed findings and recommendations of this Audit in relation to rehabilitation issues have been incorporated in the Findings, Audit Evidence and Recommendations section below.



Audit Methodology and Processes

This Independent Environmental Audit was undertaken in accordance with ISO 19011: 2011 *Guidelines for auditing management systems*.

Audit Team

Lead Auditor

Graham A Brown M.Sc. FAusIMM, FEIANZ, CPEA
Registered Lead Environmental Auditor (RABQSA - Australia)
Principal Environmental Auditor (IEMA – UK)
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Audit Team Members

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Ken Page, B.A. (Hons) (Economics)
Compliance Specialist

Specialist Advisor Noise

Katie Weekes M.Env.Man., B.Env Sc.
Environmental Scientist – Acoustics, Global Acoustics Pty Ltd, Thornton, NSW

Specialist Advisor Mine Site Rehabilitation

Dr Mark Burns B.Sc.(Hons) (Forestry, Master Resource Science, Ph.D (Plant Science)
Principal, Global Soil Systems, Maitland NSW

Details of the qualifications and experience of audit team members are provided at Appendix 4.

Audit Methodology

A formal protocol for the audit was developed based on the requirements of the Project Approval, including the Statement of Commitments made in the relevant environmental assessments. Other compliance requirements, including requirements resulting from legislation, EPL 3390, environmental assessments and Management Plans required as part of the Project Approval, are generally reviewed in the context of the relevant provisions of the Project Approval, with additional findings and recommendations being included where necessary. This protocol was provided to the auditee in advance of the audit.

Audit evidence was provided by the auditee during the site visit and in response to subsequent inquiries. Audit evidence was verified by:

- Document review (highest standard)
- Inspections, including photography



- Interviews, including seeking a management response to each question in the audit protocols (lowest standard)

The essence of the audit methodology is that, for each issue raised in the protocol, Integra should indicate its view of its performance, and the auditors should verify or challenge that view on the basis of evidence collected through inspections, personnel interviews and document review. The auditors then use their training, experience and professional judgement to identify inadequacies in performance and areas for possible improvement which can be addressed through recommendations.

The audit process has also included input by the specialist consultants in noise management and mine rehabilitation issues, and consideration of any issues raised by regulatory agencies.

Consultation

In accordance with Schedule 5 Condition 8(b) of the Project Approval, an opportunity was provided for relevant NSW Government authorities to provide any comments or guidance in relation to the conduct of the audit and the matters that should be considered during the audit process. Responses were as follows:

Agency	Officer	Response
Department of Planning & Infrastructure	Julia Pope Senior Compliance Officer (Mining) Singleton, NSW	Guidance on the form and content of Audit Report provided as part of the approval of the audit team.
Office of Environment & Heritage	Rebecca Scrivener A/Head Regional Operations Unit – Hunter Newcastle, NSW	No Comment
Department of Trade and Industry	Greg Summerhayes Principal Environmental Officer Resources & Energy Maitland, NSW	No Comment

These responses have been taken into account in the preparation of this Audit Report.

Audit Process

The site audit was undertaken on 1st and 2nd December 2011, and included an Opening Meeting, interviews with Integra staff and a site inspection. Copies of documentation were obtained for review during report preparation.

The audit report was written in the offices of Graham A Brown & Associates in Newcastle, NSW. A draft report was provided to Integra to provide an opportunity for mine staff to respond to the issues raised, and the results of this process have been included, where appropriate, in the final report.



This audit reviewed available information provided by the auditee, the client and other parties. No additional research or independent investigations, apart from field inspections, were conducted by the Auditor. The Auditor expresses no opinion as to the accuracy, truth, sufficiency or legality of the information provided by the auditee in respect of the auditee's environmental standards. While the Auditor is not responsible for the accuracy of information which is used in this Report provided by other individuals or entities, the information reviewed was assessed for acceptability as audit evidence, and is qualified in the body of the report if necessary.

Specialist Reports

The Specialist Advisor – Noise, Katie Weekes, participated in the site audit and prepared the findings, audit evidence and recommendations relating to noise. Sections of the report prepared by Ms Weekes are marked with blue shading in the first column of the table.

The Specialist Advisor – Rehabilitation, Dr Mark Burns, reviewed the findings, audit evidence and recommendations relating to rehabilitation matters and his comments have been incorporated in the report.

Both Specialist Advisors provided summary comments outlining their findings, which have been included above.

Format of Audit Report

The detailed analysis contained in this Audit Report is contained in the following **Table of Findings, Audit Evidence and Recommendations**. This table is structured as follows:

- **Compliance Requirement** – a requirement of the Project Approval. Where appropriate, compliance requirements arising from other sources including legislation, EPL 3390, environmental assessments and Management Plans required as part of the Project Approval, may be addressed in conjunction with related requirements of the Project Approval.
- **Compliance** – the auditor's view of the auditee's compliance with the requirement categorised as;
 - **Complies**
 - **Complies but an Opportunity for Improvement has been identified**
 - **Does Not Comply**
 - **Not Applicable**
- **Audit Finding** – results of the evaluation of the collected audit evidence against the Compliance Requirement.
- **Objective Evidence** – verifiable evidence in support of the audit finding (records, statements of fact, results of inspections or other evidence) that is provided by the auditee or identified by the auditor.
- **Recommendations** – the professional opinion of the auditor in relation to action to achieve compliance or to improve the auditee's environmental management of the site.

The table of Findings, Audit Evidence and Recommendations is supplemented by a **Summary of Recommendations**. This table provides a ranking of the recommendations resulting from this audit based on the Environmental Recommendations Ranking scheme (ERR) as shown in the table below.

The ERR is designed to indicate priorities for the audit recommendations. It highlights those recommendations that are considered by the auditor to be the most important (Emergency or Urgent) and which must be



addressed within an agreed time frame, and to distinguish them from those that can be managed through normal operational practices that do not require a target time for completion (Improvement or Normal).

ERR	Proposed Action
<p>“E” (Emergency)</p>	<p>The defect is severe and poses immediate risk to the plant or the environment, to regulatory compliance or to the reputation of the organisation. This may include organisational (including management) defects that will lead to rapid deterioration of the plant or operations or the inability to securely and safely deal with an incident (i.e. lack of competent staff, failure of a management process, no emergency plan, inadequate equipment to deal with an emergency, lack of environmental security, etc). In many cases, the organisation will have legal obligations to report the defect to regulators.</p> <p><i>Action: Management should ensure that action is committed to minimise or eliminate the identified risk immediately, or otherwise within a time frame agreed with the auditor, or as required by regulatory requirements or agreement with the appropriate government officials or agencies. In extreme cases, the deficiency must be corrected prior to the auditor departing the site.</i></p>
<p>“U” (Urgent)</p>	<p>The defect presents a serious situation, but may not necessarily impact immediately on human health or safety, assets, the environment, property, security or the community. There may be a risk which is not immediate, of regulatory non-compliance or adverse publicity affecting the organisation’s public image or business reputation.</p> <p><i>Action: A firm deadline should be set by management to correct the deficiency by an agreed date.</i></p>
<p>“I” (Improvement)</p>	<p>Improvement is required, and can be achieved through regular channels of management, maintenance, capital improvements, or assigned to environmental management staff.</p> <p><i>Action: Documented action plans to achieve the recommended outcome should be established, e.g. through setting and reviewing Objectives and Targets. Management may decide not to undertake the recommended improvement, and should document the reasons for not doing so.</i></p>
<p>“N” (Normal)</p>	<p>No specific action is considered necessary, the recommendation is considered to be covered by the organisation’s normal environmental management procedures, however it should be documented through Objectives and Targets or other process, such as a Work Order.</p>



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Findings, Audit Evidence and Recommendations



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Integra Coal Operations Pty Ltd
Independent Audit for Department of Planning & Infrastructure
Detailed Findings and Recommendations

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
SCHEDULE 2 - ADMINISTRATIVE CONDITONS					
Obligation to Minimise Harm to the Environment					
S2.1	The Proponent 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 projects.	C	The mine is operated in accordance with management plans, systems and procedures designed to prevent harm to the environment and to progressively rehabilitate the site following mining activity.	Management Plans Site inspection	There is no recommendation
Terms of Approval					
S2.2	The Proponent shall carry out the open cut project generally in accordance with the: (a) previous open cut EAs; (b) open cut project EA; (c) OC statement of commitments; and (d) conditions of this approval.	C	Operation of the open cut project is based on the documentation specified in this condition. This is demonstrated in the Management Plans developed pursuant to the current Project Approval.	Management Plans Site inspection	There is no recommendation
S2.3	The Proponent shall carry out the underground project generally in accordance with the: (a) previous underground EAs; (b) underground project EA; (c) UG statement of commitments; and (d) conditions of this approval.	C	Operation of the underground project is based on the documentation specified in this condition. This is demonstrated in the Management Plans developed pursuant to the current Project Approval.	Management Plans Site inspection	There is no recommendation
S2.5	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits, or correspondence that are submitted in accordance with the conditions of this approval; and (b) the implementation of any actions or measures contained in these documents.	C	The process of developing Management Plans pursuant to this approval has been undertaken broadly in accordance with the timetable provided for in this approval, and draft Plans have been submitted to DP&I for approval. Where comments have been received from DP&I, action has been undertaken to modify Management Plans. This process is reviewed in detail below in relation to individual Management Plans. The mine maintains regular contact with DP&I in relation to implementation of conditions of the approval and Management Plans and has taken careful account of departmental requirements and advice. Specific instances of this process are reviewed below in relation to specific conditions of approval.	Management Plans Correspondence with DP&I Staff Interviews	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Limits on Approval					
S2.8	Coal Production The Proponent shall not extract more than: (a) 1.5 million tonnes of ROM coal from the open cut mining operations in the northern mining area in a calendar year; (b) 4.5 million tonnes of ROM coal from the open cut mining operations in the western mining area in a calendar year; and (c) 4.5 million tonnes of ROM coal from the underground mining operations on site in a calendar year.	C	Coal production from the Integra Complex is currently well within the limits set by the licence. Production in 2010 was 4.2 million tonnes including 0.45 million from the North Open Cut and 2.2 million from underground mining operations. Production in 2011 was 2.6 million tonnes including 0.52 million from the North Open Cut and 0.7 million from underground mining operations. Projected production in 2012 is 5.9 million tonnes including 1.0 million from the North Open Cut and 2.5 million from underground mining operations. Production from the North Open Cut is increasing progressively as the site is developed. Production from underground mining operations in 2011 was reduced below normal levels as a result of operational issues including elevated methane levels in the open cut mine. Production from the Western Mining Area has not yet commenced.	Coal Production Spreadsheet	There is no recommendation
S2.9	Coal Transport The Proponent shall not: (a) export more than 7.3 million tonnes of coal from the site in a calendar year; (b) dispatch more than 7 trains a day from the site; and (c) dispatch more than 3 trains a day from the site, when averaged over each calendar year.	O	A record of coal train movements is published on the Integra website. In the 11 months to November 2011, 809,000 tonnes of coal was transported. A maximum of 4 trains were dispatched from the site on any one day, with an average of one train every 3 days. At full production, approximately one train per day is dispatched. This record should be maintained on the Integra website in a timely manner, particularly as the site returns to higher levels of production.	Train Movement Records 2011	It is recommended that Train Movement statistics be updated on the Integra website on at least a monthly basis.
S2.10	Coal Transport The Proponent shall not transport coal from the site by road, except in an emergency situation and with the prior written approval of the Director-General.	C	No facilities exist for transport of coal from the site by road, and no such transport takes place.	Site inspection Staff interviews	There is no recommendation
S2.11	Hours of Operation The Proponent shall only carry out: (a) open cut mining operations in the northern mining area during the day and evening; and (b) vegetation clearing and topsoil stripping on site between 7am and 6pm.	NC	A formal breach of sub-condition (a) occurred on 32 occasions on Sundays and public holidays between 26 November 2010 and 13 July 2011, when mining operations were continued between 6.00pm and 10.00pm, due to a failure to recognise that approved operating hours had changed from those provided for in previous approvals. This breach was formally reported to DP&I on 20 July 2011, and a Manager's Directive was issued to modify operating hours in the northern mining area. No complaints were received in relation to the breach.	Breach Report Operating Hours	There is no recommendation
Surrender of Consents and Approvals					
S2.12	By the end of June 2011, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents and project approvals for the site (other than this approval and the development consent for the Glennies Creek to Ashton Water Pipeline granted by Council on 13 February 2004) in accordance with Sections 75YA and 104A of the EP&A Act.	C	Integra wrote to DP&I on 29 June 2011 agreeing that all existing consents and approvals will be formally surrendered on 29 June 2012, notably:: · DA 86/2889 – Camberwell Coal Project, granted 19 March 1990 · DA105/90 – Glennies Creek Coal Mine, granted 1 November 1991 · PA 06_0057 – Glennies Creek Coal Mine – Surface Facilities Project, granted 31 January 2007 · PA 06_0073 – Glennies Creek Open Cut Coal Project, granted 2 December 2008 · PA 06_0213 – Glennies Creek Underground Coal Project, granted 16 June 2008 This surrender provides for the Integra Mine Complex to operate solely under the terms of this approval.	Letter surrender of Consents and Approvals	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Structural Adequacy					
S2.14	The Proponent 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.	C	The only buildings and structures erected in the period covered by this audit are 6 ATCO transportable buildings in the administration area (February 2010) and a screening wall adjacent to the New England Highway (September 2011). This work has been certified as consistent with relevant codes and standards.	Compliance Statement Modular Buildings Compliance Statement Wall	There is no recommendation
Demolition					
S2.15	The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	C	The only demolition work recently undertaken was demolition of two houses in the area of the Western Extension. The quotation provided by the contractor, Australian Demolition Industries, specifies that this work was to be carried out in accordance with AS 2601:2001 and other relevant legislation and codes of practice.	Quote House Demolition	There is no recommendation
Operation of Plant and Equipment					
S2.16	The Proponent shall ensure that all the plant and equipment used on site, or to transport coal from the site, is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	C	The auditors observed that the site is operated in an orderly, highly controlled and professional manner. Systems are in place and implemented for the proper maintenance of equipment and its safe and efficient operation.	Site inspection Staff interviews	There is no recommendation
Structural Adequacy					
S2.17	With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.	C	This provision was used for submission of the Non-Aboriginal Heritage MP. See S3.47a.	Non-Aboriginal Heritage MP Stage 1 Non-Aboriginal Heritage MP Stage 2 Letter Approval Matters	There is no recommendation
S2.18	Until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall continue to implement the existing strategies, plans or programs for development on site that have been approved under previous consents or approvals.	C	The status of strategies, plans and programs required under this approval is shown in Appendix 3 Management Plans. The bulk of the required plans are currently awaiting DPI approval. As the approval relates to an ongoing operation, it has been possible for environmental management of the site to continue on the basis of existing strategies, plans and programs modified to take account of specific requirements of this approval. However early approval of the current draft plans will assist in implementation of the practice improvements associated with this approval, particularly the integrated environmental management of the complex.	Appendix 3	It is recommended that Integra prepare and submit revised drafts of all Management Plans on which DP&I have provided comments, and seek final approval of the plans, to enable full implementation of planned improvements in environmental management.
SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS					
Acquisition Upon Request					
S3.1	Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in Conditions 6-7 of Schedule 4.	C	Adjacent landowners with rights to acquisition were advised on 17/12/2010 of the terms of the current approval and their rights to request acquisition of their properties. Discussions were subsequently held with some landowners. Three landowners have so far requested acquisition by letters dated 10/1/2011, 3/2/2011 and 9/2/2011. Offers to purchase were made to these landowners on 8/2/2011, 4/4/2011 and 8/4/2011 respectively. All three landowners accepted the offers.	Letter Land Acquisition Requests for Acquisition Letters Property Acquisition Staff interviews	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Noise					
S3.2	<p>Noise Criteria</p> <p>Except for the noise-affected land referred to in Table 1, the Proponent shall ensure that the noise generated by the projects does not exceed the criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land. However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	NC	<p>As stated in Condition 18 of the Project Approval November 2010, <i>until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall continue to implement the existing strategies, plans or programs for development on the site that have been approved under previous consents or approvals</i> . While new criteria apply, the physical monitoring still occurs as currently approved.</p> <p>Quarterly attended noise monitoring reports indicate that there were no exceedances of noise impact assessment criteria for Integra Underground, Opencut or North open cut during 2011.</p> <p>The Independent Review, October 2011 suggested there were exceedances at three locations. However, as the Integra LAeq is often shown as a range of values for each measurement, it is difficult to determine the actual exceedance. Further, it appears there was no consideration of applicability of criteria with regard to vertical temperature gradient for individual measurements.</p> <p>None of the monitoring and assessment of impact considered INP modifying factors, particularly low frequency noise (for which there is potential), or, affectation of 25% of privately owned land.</p>	<p>2011 monitoring reports for Integra Underground, Integra Opencut, Integra North Opencut Integra 2010/2011 AEMR Independent Review, October 2011</p>	<p>It is recommended that attended monitoring reports should be revised to include comparison to the criteria detailed in the current approval as there are some differences in limits. LA1,1min is not currently being assessed and should also be included in future reports (where relevant).</p> <p>It is recommended that low frequency noise, which is not currently being assessed, should also be included in future reports.</p> <p>It is recommended that all attended measurement result analysis should consider criteria applicability (impact, mitigation, cumulative and acquisition criteria) with regard to wind speed and vertical temperature gradient.</p> <p>It is recommended that recommendations of the Independent Review, October 2011, should be carried out.</p> <p>It is recommended that the requirement to assess affectation of 25% of privately owned land should be removed as a requirement (for all criteria) as it is not practical to determine, and has no relevance to resident amenity.</p>
S3.3	<p>Noise Acquisition Criteria</p> <p>If noise generated by the projects exceeds the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land in accordance with the procedures in Conditions 6-7 of Schedule 4.</p>	C	<p>As stated in Condition 18 of the Project Approval November 2010, <i>until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall continue to implement the existing strategies, plans or programs for development on the site that have been approved under previous consents or approvals</i> . While new criteria apply, the physical monitoring still occurs as currently approved.</p> <p>There were no exceedances of noise acquisition criteria identified for Integra Underground, Opencut or North open cut during 2011.</p>	<p>2011 monitoring reports for Integra Underground, Integra Opencut, Integra North Opencut Integra 2010/2011 AEMR Independent Review, October 2011</p>	<p>See Recommendations S3.2</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.4	<p>Cumulative Noise Criteria Except for the noise-affected land referred to in Table 1, the Proponent shall implement all reasonable and feasible measures to ensure that the noise generated by the projects combined with the noise generated by other mines in the area does not exceed the criteria in Table 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p>	<p>C</p>	<p>As stated in Condition 18 of the Project Approval November 2010, <i>until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall continue to implement the existing strategies, plans or programs for development on the site that have been approved under previous consents or approvals</i> . The current approved NMP's for Integra Underground and Opencut do not require consideration of cumulative noise.</p> <p><i>Integra Underground:</i> Attended monitoring reports for Integra Underground do not address cumulative noise. However, due to the low noise contributions (often inaudible) from Integra Underground, cumulative noise impacts are not relevant and can be considered to have been addressed as required (although not specifically reported).</p> <p><i>Integra North Opencut:</i> 2011 attended monitoring reports for Integra North Opencut indicate that cumulative noise did not exceed relevant criteria, however, this was not clearly reported.</p> <p><i>Integra Opencut:</i> Attended monitoring reports for Integra Opencut do not address cumulative noise.</p> <p>The Independent Review, October 2011 indicates in the conclusion that <i>'cumulative noise is considered to result in exceedance of criteria'</i> . The summary for cumulative noise (Section 4.3) indicates that Locations 105 and 112 have specific criteria from the project approval and may be exposed to cumulative noise impacts. The report acknowledges that during certain meteorological conditions, cumulative impacts are unlikely and also states that <i>'we would therefore expect that mining noise at these two properties is unlikely to exceed the cumulative noise criteria'</i>.</p>	<p>2011 monitoring reports for Integra Underground, Integra Opencut, Integra North Opencut Integra 2010/2011 AEMR Independent Review, October 2011</p>	<p>See Recommendations S3.2</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.5	<p>Cumulative Noise Acquisition Criteria</p> <p>If the noise generated by the projects combined with the noise generated by other mines in the area exceeds the criteria in Table 5 at any residence on privately-owned land or on more than 25 percent of privately-owned land, then upon receiving a written request for acquisition from the landowner, the Proponent shall acquire the land on as equitable basis as possible with the relevant mines in accordance with the procedures in Conditions 6-7 of Schedule 4.</p>	NC	<p>As stated in Condition 18 of the Project Approval November 2010, <i>until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall continue to implement the existing strategies, plans or programs for development on the site that have been approved under previous consents or approvals</i> . The current approved NMP's for Integra Underground and Opencut do not require consideration of cumulative noise.</p> <p><i>Integra Underground:</i> Attended monitoring reports for Integra Underground do not address cumulative noise. However, due to the low noise contributions (often inaudible) from Integra Underground, cumulative noise impacts are not relevant and can be considered to have been addressed as required (although not specifically reported).</p> <p><i>Integra North Opencut:</i> 2011 attended monitoring reports for Integra North Opencut indicate that cumulative noise did not exceed relevant criteria.</p> <p><i>Integra Opencut:</i> Attended monitoring reports for Integra Underground do not address cumulative noise.</p> <p>The Independent Review, October 2011 indicates in the conclusion that '<i>cumulative noise is considered to result in exceedance of criteria</i> '. The summary for cumulative noise (Section 4.3) indicates that Locations 105 and 112 have specific criteria from the project approval and may be exposed to cumulative noise impacts. The report acknowledges that during certain meteorological conditions, cumulative impacts are unlikely and also states that '<i>we would therefore expect that mining noise at these two properties is unlikely to exceed the cumulative noise criteria</i> '.</p>	<p>2011 monitoring reports for Integra Underground, Integra Opencut, Integra North Opencut, Integra 2010/2011 AEMR, Independent Review, October 2011</p>	<p>See Recommendations S3.2</p>
S3.6	<p>Additional Noise Mitigation Measures</p> <p>Upon receiving a written request from the owner of any residence:</p> <p>(a) on the land listed in Table 1; or (b) on land listed in Table 6; or (c) on privately-owned land where subsequent noise monitoring shows the noise generated by the projects is greater than or equal to the criteria in Table 7, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible.</p> <p>If within 3 months of receiving this request from the owner, the Proponent 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 Director-General for resolution.</p>	NC	<p>The Independent Review, October 2011 suggested there was an exceedance of mitigation criteria at one location. However, as the Integra LAeq is often shown as a range of values for each measurement, it is difficult to determine the actual exceedance.</p> <p>There is no evidence of written requests for mitigations measures, however, Sam Taylor has indicated that some noise mitigation has been undertaken on residences listed in Table 1 and Table 6 of the Project Approval, November 2010. In addition, mitigation offers have been made to four residences (November 2011) resulting from recommendations in the Independent Review, October 2011.</p>	<p>Pers comm Sam Taylor, 23 February 2012, Independent Review, October 2011, Mitigation Letters.</p>	<p>See Recommendations S3.2</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.7	<p>Additional Noise Mitigation Measures</p> <p>If the cumulative noise generated by the projects combined with the noise generated by other mines in the area exceeds the criteria at any residence on the land referred to in Table 8, then upon receiving a written request from the owner, the Proponent shall implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner.</p> <p>These measures must be reasonable and feasible, The Proponent shall share the costs associated with implementing these measures on as equitable basis as possible with the relevant mines,</p> <p>If within 3 months of receiving this request from the owner, the Proponent 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 Director-General for resolution.</p>	C	<p>The Independent Review, October 2011 suggested there was an exceedance of mitigation criteria at one location. It is assumed, although not stated in the report, that this does not include cumulative noise.</p> <p>There is no evidence of written requests for mitigation measures, however, Sam Taylor has indicated that some noise mitigation has been undertaken on residences listed in Table 1 and Table 6 of the Project Approval, November 2010. In addition, mitigation offers have been made to four residences (November 2011) resulting from recommendations in the Independent Review, October 2011.</p>	<p>Pers comm Sam Taylor, 23 February 2012, Independent Review, October 2011</p>	<p>There is no recommendation</p>
S3.8	<p>Rail Noise</p> <p>The Proponent shall seek to ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6A in RailCorp's EPL (No. 12208) and ARTC's EPL (No. 3142) or a Pollution Control Approval issued under the former Pollution Control Act 1970.</p>	O	<p>An informal email from Pacific National states that in order to maintain accreditation all locomotives and wagons must pass noise emission testing and pollution control approval before they can be brought into operation in any network. More formal test results should be requested from Pacific National to assess compliance.</p> <p>The auditors agree with DP&I's comment on the Noise MP that the plan should include detail of how limits on locomotive noise can be managed.</p>	<p>Pacific National November 2011 Changes to MPs</p>	<p>It is recommended that Pacific National/ARTC be requested to provide noise test results for all locomotives that access the rail loop.</p> <p>It is recommended that, as suggested by DP&I, the revised Noise MP needs to include wording that '<i>the mines rail spur is only accessed by locomotives that are approved to operate in accordance with noise limits</i>', and provide detail how this will be managed.</p>
S3.9	<p>Operating Conditions</p> <p>The Proponent shall:</p> <p>(a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, low frequency, and rail noise generated by the projects;</p> <p>(b) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval; and</p> <p>(c) co-ordinate the noise management on site with the noise management at nearby mines to minimise the cumulative noise impacts of the mines, to the satisfaction of the Director-General.</p>	NC	<p>(a) Viewed Noise Level of Plant Specification (Appendix B) prepared by Vale Australia in August 2011. This goes someway towards identifying operational noise levels in order to minimise offsite levels.</p> <p>(b) Viewed screenshot of real time noise monitor setup (including SMS alerts) and email from Sam Taylor detailing procedure for modifying the operation where required (including notifying the OCE). January 2012</p> <p>Complaints Register indicates that the real time monitoring system is being used to assess compliance. No occasions viewed where actions or modifications to the operation have been required.</p> <p>(c) Viewed file note by John Trotter from a meeting with Glendell/Mt Owen Complex regarding the possibility of data sharing in Camberwell Village.</p> <p>Viewed letter from Colin Davies to Ashton Coal regarding the possibility of data sharing in Camberwell Village.</p>	<p>(a) Noise Level of Plant Specification.</p> <p>(b) Real time noise screenshot, 20 January 2012, pers comm Sam Taylor, 23 February 2012.</p> <p>(c) Viewed proposal from EMGA Mitchell McLennan regarding a coordinated approach to the assessment and management of cumulative noise.</p> <p>Viewed file note from John Trotter from meeting with Xstrata.</p> <p>Viewed letter from Colin Davies from meeting with Ashton Coal.</p>	<p>(a) It is recommended that sound modelling be extended to incorporate the impact of the Western Extension, and that results of this modelling should be incorporated in the Noise MP.</p> <p>(b) It is recommended that real time monitoring procedures be incorporated into revised Noise MP. Results from real time monitoring system should not be used to determine compliance. Any modifications to the site operations as a result of real time noise monitoring should be documented.</p> <p>(c) It is recommended that a procedure for the assessment and management of cumulative noise from the Complex and surrounding mines to be developed and incorporated into the revised Noise MP.</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.10a	<p>Noise Management Plan</p> <p>The Proponent shall prepare and implement a Noise Management Plan for the projects to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW, and submitted to the Director-General for approval by the end of March 2011</p>	C	<p>An extension was sought from the Department to the end of April 2011.</p> <p>An Integra Complex NMP prepared by Vale Australia, SLR Consulting Australia and Global Acoustics and submitted to DP&I on 6 May 2011.</p> <p>Comments from DP&I received on 6 October 2011.</p> <p>Action is under way to address DP&I comments.</p>	<p>Integra Complex NMP</p> <p>Submission Letter Noise</p> <p>DP&I response</p>	<p>It is recommended that a revised draft Noise Management Plan be prepared and submitted to DP&I, taking account of comments raised by DP&I.</p>
S3.10b	<p>Noise Management Plan</p> <p>(b) describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time noise management system that employs both reactive and proactive mitigation measures</p>	C	<p>Management measures addressed in S4.7 and 4.8 of Integra Complex NMP. Real time noise monitoring addressed in S4.6.3 of Integra Complex NMP.</p> <p>Mitigation measures addressed in S7 of the Integra OC NMP.</p> <p>Mitigation and management measures addressed in S4 of the Integra NOC NMP. Real time noise monitoring addressed in S5.2 of the Integra NOC NMP.</p>	<p>Integra Complex NMP</p> <p>IntegraOC NMP</p> <p>Integra NOC NMP</p>	<p>It is recommended that the revised Noise Management Plan include more proactive controls.</p> <p>See also recommendation S3.10a.</p>
S3.10c(1)	<p>Noise Management Plan</p> <p>(c) include a noise monitoring program that:</p> <ul style="list-style-type: none"> uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the projects 	C	<p>S4.6.2 of the Integra Complex NMP addresses attended monitoring, S4.6.3 of the Integra Complex NMP addresses unattended monitoring, to evaluate the performance of the projects.</p> <p>S5 of the Integra Underground NMP addresses attended monitoring.</p> <p>S8 of the Integra OC NMP addresses attended monitoring.</p> <p>S5.2 of the Integra NOC NMP details real time monitoring procedures and responses, S5.3 of the Integra NOC NMP addresses attended monitoring locations and procedures for evaluating the performance of the site. S5.4 details complaint response procedures (attended and real time). S6 of the Integra NOC NMP addresses monitoring protocols for attended and real time noise monitoring.</p>	<p>Integra Complex NMP</p> <p>Integra Underground NMP</p> <p>Integra OC NMP</p> <p>Integra NOC NMP</p>	<p>See Recommendation 3.10b.</p>
S3.10c(2)	<p>Noise Management Plan</p> <p>(c) include a noise monitoring program that:</p> <ul style="list-style-type: none"> includes a protocol for determining exceedances of the relevant conditions of this approval 	C	<p>S4.6.2 of the Integra Complex NMP provides a protocol for assessing the results from the attended monitoring and determining exceedances.</p> <p>S4.6.3 of the Integra Complex NMP provides a protocol for assessing the results from real time monitoring and determining exceedance of triggers. This following applies to previous approvals, but these NMP's are in use until a new NMP is approved:</p> <p>S6 of the Integra Underground NMP provides details for assessing results and determining exceedances during attended monitoring.</p> <p>S8 of the Integra OC NMP details the noise monitoring protocol for assessing compliance with the development consent criteria. S9 provides details for independent noise investigations of exceedances.</p> <p>S5 of the Integra NOC NMP details the noise monitoring program. S5.3.6 specifies the attended noise monitoring procedures and determining a noise exceedance. S5.2.4 details real time monitoring procedures and discusses exceedances of trigger levels.</p>	<p>Integra Complex NMP</p> <p>Integra Underground NMP</p> <p>Integra OC NMP</p> <p>Integra NOC NMP</p>	<p>It is recommended that the revised Noise Management Plan include a more detailed protocol for determining exceedances of the relevant conditions of approval.</p>
S3.10d	<p>Noise Management Plan</p> <p>(d) include a protocol that has been prepared in consultation with the owners of the nearby mines to minimise the cumulative noise impacts of the mines.</p>	NC	<p>Viewed file note by John Trotter from a meeting with Glendell/Mt Owen Complex regarding the possibility of data sharing in Camberwell Village.</p> <p>Viewed letter from Colin Davies to Ashton Coal regarding the possibility of data sharing in Camberwell Village.</p>	<p>Viewed proposal from EMGA Mitchell McLennan regarding a coordinated approach to the assessment and management of cumulative noise.</p> <p>Viewed file note from John Trotter from meeting with Xstrata.</p> <p>Viewed letter from Colin Davies from meeting with Ashton Coal.</p>	<p>See Recommendation S3.9(c)</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Blasting					
S3.11	<p>Blasting Criteria</p> <p>The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 9. However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner or infrastructure owner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	NC	<p>A Blast monitoring network is in place, operated under contract by Ecotech. Data from these blast monitors is available online and results can be exported to an Excel spreadsheet or automatically sent via SMS to internal stakeholders.</p> <p>There have been a number of blast exceedances, within the allowable exceedence levels for Airblast Overpressure (over 115dB(Lin Peak)) and Ground Vibration (over 5ppv (mm/s)). These exceedences fall within the allowable exceedence level of 5% of the total number of blasts over a 12 month period.</p> <p>There have been two recorded exceedences at the Dulwich property with a recorded Airblast Overpressure of 125.2dB on the 29/12/2011 at 12:27pm, and a recorded Airblast Overpressure of 120.9dB on the 30/09/2011 where there is 0% allowable exceedence over 120dB.</p> <p>It is understood that the Dulwich property is not continuously occupied, and it may be possible to negotiate less stringent blasting limits which <u>would not damage the amenity of the landowner.</u></p>	Consolidated Blast Results	<p>It is recommended that all non-allowable blasting exceedances be reported to DP&I in accordance with S5.6.</p> <p>It is recommended that all instances of blasting exceedances be investigated and the results of the investigations recorded. It is recommended that corrective action be taken to minimise the risk of further exceedances.</p> <p>It is recommended that consideration be given to negotiating revised blasting limits and other conditions for the Dulwich property, given that the site is not continuously occupied.</p>
S3.12	<p>Blasting Hours</p> <p>The Proponent shall only carry out blasting on site between 9am 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 Director-General.</p>	C	<p>Blast monitoring results were reviewed for the months of February, July and October and all blast times were within the 9.00am to 5.00pm time period.</p>	Consolidated Blast Results	There is no recommendation
S3.13a	<p>Blasting Frequency</p> <p>The Proponent shall not carry out more than: (a) 1 blast a day in the northern mining area unless an additional blast is required following a blast misfire</p>	C	<p>Blast monitoring results were reviewed for the months of February, July, September, October and December and the blast frequency did not exceed more than 1 blast per day in the Northern pit.</p>	Consolidated Blast Results	There is no recommendation
S3.13b	<p>Blasting Frequency</p> <p>(b) 2 blasts a day in the existing Camberwell south pit, and then 1 blast a day when the mining moves from this pit into the western mining area unless an additional blast is required following a blast misfire</p>	C	<p>Blast monitoring results were reviewed for the months of February, July, September, October and December. There were no days with more than 2 blasts occurring on the same day in the South pit.</p>	Consolidated Blast Results	There is no recommendation
S3.13c	<p>Blasting Frequency</p> <p>(c) 10 blasts a week on site, averaged over any 12 month period.</p>	C	<p>Blast monitoring results were reviewed for the months of February, July, September, October and December. There were no instances where more than 10 blasts per week were carried out.</p>	Consolidated Blast Results	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.14	<p>Property Inspections</p> <p>If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pits 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 report updated, then within 2 months of receiving this request the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General to:</p> <ul style="list-style-type: none"> • establish the baseline condition of the buildings and/or structures on the land or update the previous property inspection report; and • identify any measures that should be implemented to minimise the potential blasting impacts of the projects on these buildings and/or structures; and <p>(b) give the landowner a copy of the new or updated property inspection report.</p>	O	<p>A Structural Property Survey Proforma is available for residents to complete and provide to Integra, and requests can also be logged by phone or email. It was noted that there was no date field on this Proforma, so the response time could not be verified. There are no formal procedures relating to the use of this proforma or the property inspection process. Kelly Covey Group Pty Ltd, Lindsay & Dynan Pty Ltd and Terrock Pty Ltd were all approved as suitable investigators by DP&I on the 13/12/2009. A number of structural building investigation reports were sighted, including an inspection undertaken by Kelley Covey Group Pty Ltd during the afternoon of 26/2/2009. It is noted that this date is prior to the DP&I approval.</p>	<p>Request for Survey Appointment of Property Inspection Experts Building Investigation Report.</p>	<p>It is recommended that a procedure for property baseline inspections be developed, and a date field be added to the Structural Property Survey Proforma. It is recommended that future property inspections are undertaken by investigators who have already been approved by DP&I.</p>
S3.15	<p>Property Investigations</p> <p>If any landowner of privately-owned land within 2 kilometres of any approved open cut mining pit on site claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this request the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p>	NC	<p>It was confirmed that there is a process whereby reinvestigation reports are carried out upon request by land owners by suitably qualified personnel approved by DP&I, and that landowners are provided with a copy of the report, and repair works are undertaken as a result of the report findings. However, this process has not been documented. Repairs had been made at 3 properties at the time of the audit. It was advised that one issue has gone to DP&I for Independent review, as required by this clause, however the correspondence could not be provided at the time of the audit.</p> <p>It was noted that an investigation was conducted at one property on the 24/9/2010, however the letter providing a copy of the report to the landowner was dated 10/1/2011, which is outside the required 2 month period.</p>	<p>Building re-investigation report Quotes for repair works Appointment of Property Inspection Experts</p>	<p>It is recommended that a procedure for property investigations be developed, and future property inspections are undertaken and that reports of property investigations be provided to the landowner within the required 2 month period.</p>
S3.16a	<p>Operating Conditions</p> <p>The Proponent shall:</p> <p>(a) implement best blasting management practice on site to:</p> <ul style="list-style-type: none"> • protect the safety of people and livestock in the surrounding area; • protect private or public property in the surrounding area; • minimise the dust and fume emissions of the blasting 	C	<p>The site utilises a Blast MP as well as a Blast Monitoring Program to implement best blasting practices.</p> <p>The safety of people in the surrounding area is protected through a number of strategies outlined in the Blast MP, particularly Section 4.12. It was indicated that blasts are occasionally rescheduled due to weather, and wind conditions are taken into consideration during blast scheduling.</p>	<p>Blast MP Consolidated Blast Results</p>	<p>There is no recommendation</p>
S3.16b	<p>Operating Conditions</p> <p>(b) co-ordinate the blasting on site with the blasting at nearby mines to minimise the cumulative blasting impacts of the mines</p>	NC	<p>Section 4.18 of the Blast MP provides for coordination with neighbouring mines to minimise cumulative impacts from blasting, however it was indicated that contact with surrounding sites was only made if there was a blast planned within 300m of a common boundary. It was asserted that the neighbouring mines do not currently have approval conditions requiring consultation.</p> <p>See also S3.19e</p>	<p>Blast Management Plan Staff Interview</p>	<p>It is recommended that Integra initiate discussions with the Ashton Mine and Rix's Creek Mine to develop a protocol to minimise and manage the cumulative impacts from blasting along the lines set out in Sec. 4.18 of the Blast Management Plan.</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.16c	Operating Conditions (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.	O	<p>It was found that there are suitable systems in place to enable the public to get up to date information, however the information in these systems are not kept up to date, and there appears to be a discrepancy between the Blast MP and the procedure being followed by staff.</p> <p>Local residents can elect to be notified of blasts via SMS, while the Integra website and a blast hotline provide public information on the next blast, and any road closures. There are also signs on public roads for times of road closures, where road closures are required for a blast. There were no dates or times on any of the blast warning signs sighted on the days of the Audit.</p> <p>The Blast Communications Package provides a checklist of all notifications which may need to be made both internally and externally. It was noted that on this document, it states that updating the "hotline" message and updating the Integra website is "only required for road closures", however the Blast MP states that these will be updated for "next blast time and any local road closures".</p> <p>It was found that as of 12:00pm on 1/12/2011, the website had not been populated with the next blast schedule, which occurred on 2/12/2011. The website and blast information hotline were checked on 19th and 23 January 2012 and both provided out of date information relating to a blast on 13 January, which included a 20 minute closure of Stony Creek Road. Blast monitoring data for January confirms that blasts occurred on 13, 17, 18, 19, 20 and 24 January 2012, which is consistent with an internal procedure of only updating for road closures.</p> <p>Section 4.7.4 of the Blast MP makes reference to Blast Notification Boards being addressed in section 4.10.1, however they are covered in section 4.9.1.</p>	<p>Blast warning recipients list</p> <p>Integra Website</p> <p>Site Inspection (Blast warning signs)</p> <p>Blast Hotline</p> <p>Blast Communications Package</p>	<p>It is recommended that the current system for updating the blast information hotline and website be reviewed to ensure that the public have access to up to date information on the proposed blasting schedule, consistent with the arrangements specified in the Blast MP.</p> <p>It is recommended that errors in internal cross-references in the Blast MP be corrected to improve readability of the document.</p>
S3.17a	Operating Conditions The Proponent shall not undertake blasting within 500 metres of: (a) Middle Falbrook Road or Stony Creek Road without the approval of Council	O	<p>It was asserted that an arrangement had been made with Singleton Council whereby a fax would be sent 24 hours prior to the road closure notifying the Council of the details of the road closure.</p>	<p>Staff interviews</p>	<p>It is recommended that arrangements for advising Singleton Council of road closures be specified in the Blast Communications Package, including the requirement to maintain a record of all communications.</p>
S3.17b	Operating Conditions The Proponent shall not undertake blasting within 500 metres of: (b) the New England Highway without the approval of the RTA	NA	<p>It was asserted that no blasting has been undertaken within 500m of the New England Highway prior to the date of the audit.</p>	<p>Staff interviews</p>	<p>There is no recommendation</p>
S3.17c	Operating Conditions The Proponent shall not undertake blasting within 500 metres of: (c) the Main Northern Railway without the approval of the ARTC.	O	<p>It was asserted that there are no longer any mining activities which require blasting within 500m of the Main Northern Railway. It was also asserted that during the period where blasting was undertaken within 500m, all approvals from ARTC were granted over the phone, and therefore no documented evidence could be provided to verify this assertion.</p>	<p>Staff interviews</p>	<p>It is recommended that arrangement for obtaining blasting approvals from ARTC (where required) be specified in the Blast Communications Package, including the requirement to maintain a record of all communications.</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.18	<p>Operating Conditions</p> <p>The Proponent shall not carry out blasting in the northern or western mining areas that is within 500 metres of any privately-owned land or land not owned by the Proponent unless:</p> <p>(a) the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement; or</p> <p>(b) the Proponent has:</p> <ul style="list-style-type: none"> demonstrated to the satisfaction of the Director-General that the blasting can be carried out without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; 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 land. 	C	<p>The Blast MP outlines operating conditions which include clause S3.18, as well as a statement of commitment in table 4 (G-14) that no blasting will be undertaken within 500m of the Dulwich residence, or 200m from the property boundary, until the safety of such activities can be demonstrated to the Director General. This commitment has been adhered to.</p> <p>Blasting has been occurring in the North-West corner of the Southern pit which is approximately 250m from the Dulwich property boundary, while the residence on the property is more than 500m from the blasting. It was asserted that approximately 60-100 blasts have occurred in this location in the past.</p> <p>It was asserted that a sentry is often stationed on the property boundary and residents are notified of blasts via SMS.</p> <p>See also S3.11.</p>	<p>Staff Interviews</p> <p>Consolidated Blast Monitoring Results</p> <p>Blast warning recipients list</p> <p>Blast MP (Table 4, G-14)</p>	See Recommendation 3.11.
S3.19a	<p>Blast Management Plan</p> <p>The Proponent shall prepare and implement a Blast Management Plan for the open cut mining operations on site to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW, and submitted to the Director-General for approval by the end of March 2011</p>	O	<p>The Blast MP was prepared by SLR Consulting and submitted to DP&I on 8 April 2011. Comments on the draft plan were provided by DP&I at a meeting on 6/10/2011. A revised plan has not been submitted to DP&I, and formal approval has not been received.</p>	<p>Blast MP</p> <p>DP&I Meeting Minutes 6/10/2011</p> <p>Changes to MPs</p>	It is recommended that a revised version of the Blast Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.19b	<p>Blast Management Plan</p> <p>The Proponent shall prepare and implement a Blast Management Plan for the open cut mining operations on site to the satisfaction of the Director-General. This plan must:</p> <p>(b) describe the blast mitigation measures that would be implemented to ensure compliance with the relevant condition of this approval</p>	C	<p>Blast management strategies are set out in Secs 4.7 to 4.11 of the Blast MP.</p>	<p>Blast MP, Secs 4.7 - 4.11</p>	There is no recommendation
S3.19c	<p>Blast Management Plan</p> <p>The Proponent shall prepare and implement a Blast Management Plan for the open cut mining operations on site to the satisfaction of the Director-General. This plan must:</p> <p>(c) describe the measures that would be implemented to ensure that the public can get up-to-date information on the proposed blasting schedule on site</p>	C	<p>The Blast MP provides for all landowners/residents within a 2km radius of the planned blasting activity to be invited to be included in the existing automated system for the North Open Cut which will provide details of the next blast date, time and any road closures. The nature of the notification system will be determined in consultation with each resident/landowner. Integra also operate their Blasting Hotline (1800 505 361) which includes an automated SMS and/or email message identifying the next blast time and any local road closures, generally on the day before the blast. This same information will be provided on Integra's website and on the blast notification boards near affected roads.</p> <p>See also S3.16c.</p>	<p>Blast MP, Secs 4.7.4</p>	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.19d	Blast Management Plan The Proponent shall prepare and implement a Blast Management Plan for the open cut mining operations on site to the satisfaction of the Director-General. This plan must: (d) include a blast monitoring program to evaluate the performance of the project	C	Blast monitoring arrangements are set out in Sec 4.21 of the Blast MP. Arrangements for reporting and review of monitoring data are set out in Secs 4.11.2 and 4.11.3. Event data for each monitoring location is automatically provided to the Drill and Blast Engineer and Environmental Advisor. The Environmental Advisor checks for exceedances and prepares reports. Landowners/residents at each monitoring location may elect to receive a blast report confirming compliance or otherwise with the nominated criteria. Blast details are included in Monthly Environmental Reports published on the Integra website and are discussed by the CCC. Annual summaries are included in the AEMP.	Blast MP, Secs 4.11 and 4.21. Monthly Environmental Reports	There is no recommendation
S3.19e	Blast Management Plan The Proponent shall prepare and implement a Blast Management Plan for the open cut mining operations on site to the satisfaction of the Director-General. This plan must: (e) include a protocol that has been prepared in consultation with the owners of the nearby mines for minimising and managing the cumulative blasting impacts of the mines.	NC	Sec 4.18 of the Blast MP addresses consultation arrangements to minimise the occurrence of simultaneous blasting from surrounding mines. No formal protocol to give effect to these arrangements has yet been agreed with the Ashton Mine and Rix's Creek Mine. See S3.16b.	Blast MP, Sec 4.18	See Recommendation 3.16b.
Air Quality					
S3.20	Odour The Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.	C	There were no detectable odours on the day of the Audit, and there have been no prosecutions relating to odour at Integra Coal. It was asserted that only a single odour complaint has been lodged, which is one of 2 complaints in the 2011 Complaints Register classified as "other".	Complaints register Austlii prosecutions search	There is no recommendation
S3.21	Greenhouse Gas Emissions The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.	O	A Draft Greenhouse Gas MP was submitted to DP&I on 30/3/2011. Comments on the draft plan were provided by DP&I at a meeting on 6/10/2011. A revised plan has not been submitted to DP&I, and formal approval has not been received. As required by legislation, Integra provides annual NGERS reports and EEO reports, and prepares voluntary Global Reporting Initiative (GRI) sustainability reports at a corporate (Vale) level. Previous GHG and Energy Efficiency Plans were prepared for the North Open Cut and underground operations in 2009. The main focus of these reports was on capture of methane extracted from gas drainage boreholes from the underground workings and its transfer to the Glennies Creek Power Station for electricity production, and the improved monitoring and management of mining equipment to improve operational efficiency and reduce energy use. EEO assessments of the open cut and underground operation were conducted by Energetics Pty Ltd in 2010. These are significant GHG savings measures which have been built into planning for future operations. The GHG MP outlines the GHG and energy efficiency initiatives currently identified and includes a commitment to implementation, however it does not address processes for identifying further initiatives in the future. There is no management strategy in the GHG MP providing for the efficiency of all new and upgraded mobile and fixed equipment to be considered during procurement, and POL_2014 (Supplier quality assurance procedure) does not make mention of environmental factors in the procurement process, only in the disposal process.	Greenhouse Gas MP Submission Letter Air and GG MPs DP&I Meeting Minutes 6/10/2011 Changes to MPs EEO report Supplier QA Procedure	It is recommended that the draft Greenhouse Gas MP be revised to include processes for continual improvement of GHG management and energy efficiency improvement into the future and for ensuring that GHG and energy efficiency issues are taken into account in purchasing decisions. It is recommended that a revised version of the Greenhouse Gas Management Plan addressing DP&I comments and recommendations of this audit be prepared and submitted for approval as soon as possible.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.22	<p>Air Quality Criteria</p> <p>Except for the air quality-affected land referred to in Table 1, the Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the projects do not exceed the criteria listed in Tables 10, 11 or 12 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p>	O	<p>A draft Air Quality MP was submitted to DP&I on 30/3/2011. Comments on the draft plan were provided by DP&I at a meeting on 6/10/2011. A revised plan has not been submitted to DP&I, and formal approval has not been received. A range of dust suppression controls and dust emissions management measures are set out in the Air Quality MP which are directed at meeting the criteria set out in this condition. Trigger levels for immediate action are specified.</p> <p>There were a number of dust mitigation measures being employed on the day of the audit, including water trucks spraying roads, blasting being carried out earlier than scheduled due to wind forecasts, water shields on drilling equipment and revegetation of long term stockpiles. Due to rain on days prior to the audit, a number of other dust suppression measures were not in use and so were unable to be verified.</p> <p>It was observed that Integra utilise a real time air quality monitoring system.</p>	<p>Site Inspection</p> <p>Air Quality MP</p> <p>Submission Letter Air and GG MPs</p> <p>DP&I Meeting Minutes 6/10/2011</p> <p>Changes to MPs</p>	<p>It is recommended that a revised version of the Air Quality Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.</p>
S3.23	<p>Air Quality Acquisition Criteria</p> <p>If particulate matter emissions generated by the projects exceed the criteria in Tables 13, 14 or 15 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner the Proponent shall acquire the land in accordance with the procedures in Conditions 6-7 of Schedule 4.</p>	NA	<p>It was advised that there have been no requests for acquisition on the basis of particulate matter emissions.</p>	<p>Staff Interviews</p>	
S3.24	<p>Additional Dust Mitigation Measures</p> <p>Upon receiving a written request from the owner of any residence:</p> <p>(a) on the air quality-affected land listed in Table 1; or</p> <p>(b) on the land listed in Table 16; or</p> <p>(c) on privately-owned land where subsequent air quality monitoring shows the dust generated by the projects is greater than or equal to the applicable criteria in Tables 10, 11 or 12 on a systemic basis, the Proponent shall implement additional dust mitigation measures (such as a first flush roof system, internal or external air filters, and/or air conditioning) at the residence in consultation with the owner.</p> <p>These measures must be reasonable and feasible.</p> <p>If within 3 months of receiving this request from the owner, the Proponent 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 Director-General for resolution.</p>	O	<p>There is a process in place whereby requests for dust mitigation measures are outlined in a spreadsheet, describing the source, nature, cost, and the current status of the request, however there is no documented procedure which details this process.</p> <p>Eligible owners were informed in a letter dated 17/12/2010 of the terms of this condition and them of their ability to claim. A number of responses were received.</p> <p>Letters requesting dust mitigation works were sighted and the spreadsheet outlining all requests for dust mitigation works included requests for air conditioning units, water filter systems and first flush diverters, solar panels (to offset air conditioner power consumption), shade cloth and insulation. Not all requests were considered reasonable, and some were rejected.</p> <p>Some of the agreed works have been completed, while others are pending approval or receipt of quotations.</p> <p>No formal procedure appears to have been developed to guide this process, and in particular there appear to be no formal criteria for decisions on whether to agree to requested works.</p>	<p>Resident dust mitigation register</p> <p>Requests for mitigation works</p> <p>Quotes for mitigation works</p> <p>Invoice for mitigation works</p>	<p>It is recommended that a formal procedure is prepared for responding to requests from landowners for dust mitigation measures, including criteria for the acceptance of requests.</p>
S3.25a	<p>Operating Conditions</p> <p>The Proponent shall:</p> <p>(a) implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site Odour, fume and dust emissions generated by the projects</p>	C	<p>The Air Quality MP outlines management strategies for dust mitigation, however identifies that odour issues have not been a problem historically, and therefore is not included in the scope of this document. The most likely source of odours or fumes would be machinery operating on site. There are are unlikely to give rise of off-site impacts, and any impacts are minimised by the proper maintenance and efficient operation of machinery.</p> <p>See also S3.22.</p>	<p>Air Quality MP</p> <p>Site Inspection</p>	<p>There is no recommendation</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.25b	Operating Conditions The Proponent shall: (b) minimise any visible air pollution generated by the projects	O	Dust is the main source of visible air pollution on the site and the main focus of the Air Quality MP.	Air Quality MP	It is recommended that an outline of how existing dust mitigation measures reduce visible air pollution be included in the Air Quality Management Plan.
S3.25c	Operating Conditions The Proponent shall: (c) regularly assess the real-time air quality monitoring and meteorological forecasting data and relocate, modify and/or stop operations on site to ensure compliance with the relevant conditions of this approval	C	There is a comprehensive monitoring system in place which allows dispatch staff to monitor a number of air quality and meteorological conditions in real time. It was asserted during the audit that blasting schedules are often changed due to meteorological forecasts and it was observed that the schedule for a blast on the 1 December was brought forward several hours due to favourable wind conditions. It was asserted that weather conditions were discussed at the daily meetings held at 9:00 however this could not be verified as it is not currently being recorded in minutes.	Site Inspection Staff Interviews	It is recommended that minutes of daily operational meetings include reference to the impact of actual or projected weather conditions on operational decisions.
S3.25d	Operating Conditions The Proponent shall: (d) co-ordinate air quality management on site with the air quality management at the nearby mines to minimise the cumulative air quality impacts of the mines, to the satisfaction of the Director-General.	O	Integra has provided letters to Ashton Coal, Xstrata and Mt Owen outlining their intention to seek an agreement for sharing of environmental monitoring data in order to facilitate the co-ordinated management of cumulative air quality impacts with nearby mines. Table AQ 12 of the Air Quality MP outlines an intention of Integra to develop an agreed protocol to managing cumulative impacts with other mines in the area. It was noted that there has been no date, action plan or person responsible allocated to meet this requirement. It was asserted that at this stage, the other mines do not have an approval condition requiring that they do co-ordinate with Integra to manage cumulative air quality impacts, which would severely limit the ability of Integra to negotiate an acceptable protocol. It was also asserted however, that this will be a likely inclusion in the new approval conditions which are being sought for mine expansions in the area, which will provide a motive for co-ordinated management to begin.	Air Quality MP Letter to Mt Owen Letter to Ashton Coal Staff Interviews Sighted email trail with Ashton	It is recommended that Integra continue to seek the cooperation of neighbouring mines in minimising cumulative air quality impacts, and that any difficulties in achieving cooperation be brought to the attention of DP&I.
S3.26a	Air Quality & Greenhouse Gas Management Plan The Proponent shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the Integra mine complex to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with DECCW, and submitted to the Director-General for approval by the end of March 2011	C	Air Quality and Greenhouse Gas MPs were prepared by PAEHolmes and were submitted to DP&I on 30/3/2011. OEH were provided with an opportunity to comment on these plans, but declined.	Air Quality MP Greenhouse Gas MP Submission Letter Air and GG MPs	There is no recommendation
S3.26b	Air Quality & Greenhouse Gas Management Plan The Proponent shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the Integra mine complex to the satisfaction of the Director-General. This plan must: (b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time air quality management system that employs proactive and reactive mitigation measures	C	Management measures to control dust emissions are set out in Sec 5 of the Air Quality MP. Arrangements for real time air quality monitoring, including response measures to be implemented at various trigger levels, are set out in Sec 7.5.3. The real time system monitors can be viewed by dispatch staff and enable real time mitigation measures to be implemented depending on the severity of the problem.	Air Quality MP, Secs 5, 7.5 Site Inspection	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.26c	<p>Air Quality & Greenhouse Gas Management Plan</p> <p>The Proponent shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the Integra mine complex to the satisfaction of the Director-General. This plan must:</p> <p>(c) describe in detail the specific measures that would be implemented to minimise the dust impacts on the Dulwich property while it remains in private ownership</p>	C	<p>Proposed measures to minimise dust impacts at the Dunwich site are set out in Sec 5.1 of the Air Quality MP. These are the same measures as were identified in the URS Submissions Report on the EA. Modelling results set out in Sec 2.2 of the Air Quality MP indicate that even with these measures Dunwich is likely to experience dust impacts above trigger values in the first 3 years of operation. A PM₁₀ High Volume Air Sampler has been established at the residence to monitor impacts.</p> <p>Monitoring results provided from September 2010 to August 2011 show multiple exceedences at the Dulwich residence as expected, however the Annual average is below the maximum annual average criteria.</p>	<p>Air Quality MP, Secs 2.2, 5.1</p> <p>Air Quality data (Sep 2010 to Aug 2011)</p>	There is no recommendation
S3.26d	<p>Air Quality & Greenhouse Gas Management Plan</p> <p>The Proponent shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the Integra mine complex to the satisfaction of the Director-General. This plan must:</p> <p>(d) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> • uses a combination of real-time monitors, high volume samplers and dust deposition gauges to minimise the air quality impacts of the projects on site, and evaluate the performance of these projects; and • includes a protocol for determining exceedences with the relevant conditions of this approval. 	C	This air quality monitoring program is set out in Sec 7 of the Air Quality MP.	Air Quality MP, Sec 7	There is no recommendation
S3.26e	<p>Air Quality & Greenhouse Gas Management Plan</p> <p>The Proponent shall prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the Integra mine complex to the satisfaction of the Director-General. This plan must:</p> <p>(e) include a protocol that has been prepared in consultation with the owners of the adjoining mines for minimising and managing the potential cumulative air quality impacts of the projects on site when combined with the air quality generated by other mines in the area.</p>	NC	<p>Sec 5.2 of the Air Quality MP includes an undertaking to develop an agreed protocol with neighbouring mines around Camberwell Village to manage cumulative impacts from all the mines. It is indicated that this would require a revision of the current Air Quality MP. See S3.25d.</p> <p>Part of this joint management of impacts would relate to the management of cumulative blast impacts discussed in S3.16b and S3.19e.</p>	<p>Air Quality MP, Sec 5.2</p> <p>Blast M.P</p>	See 3.25d.
Meteorological Monitoring					
S3.27a	<p>During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:</p> <p>(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline</p>	C	<p>The Air Quality MP indicates that a meteorological station has been in operation since 2002 operating in accordance with AS 2923-1987 Ambient Air-Guide for Measurements of Horizontal Wind for Air Quality Applications, and sampling at 10 minute intervals. This system provides live data viewable by dispatch staff and Interfaces with Air Quality monitoring data.</p>	Air Quality MP, Sec 6.2	There is no recommendation
S3.27b	<p>During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy.</p>	C	<p>There is no mechanism in place to measure lapse rate in real time, however the lapse rate is calculated as required from the culmination of data collected from 3 monitors which are at different elevations. This approach is consistent with the NSW Industrial Noise Policy.</p>	Staff Interviews	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Subsidence					
S3.28	Performance Measures The Proponent shall ensure that the underground project does not cause any exceedance of the performance measures in Table 17.	C	The Subsidence MP 2007 included estimated subsidence impacts that are consistent with the performance measures in Table 17. Subsidence Management Status Reports are prepared fortnightly with a consolidated report being prepared every 4 months. Copies of these reports are provided to NOW, DII and Xstrata Mt Owen. These reports demonstrate that subsidence impacts have not differed materially from the estimates in the Subsidence MP.	Subsidence MP 2007 Subsidence Management Reports	There is no recommendation
S3.29	First Workings The Proponent shall not carry out first workings on site that are inconsistent with the approved mine plans without the written approval of the Director-General.	C	The current underground workings at the site are represent the final stage of the first workings, notably the extraction of Longwall Panels 10 - 17 of the Middle Liddell Seam. These works are being conducted in accordance with the approved Subsidence MP for the site, comprising: - the Subsidence MP 2007 as approved on 20/10/2008 - A series of 13 specific Management Plans dealing with particular subsidence impacts (Annexes A - M to the Subsidence MP 2007) - Variations to plans agreed by NSW Mineral Resources	Subsidence MP 2007 Approval Subsidence MP 2008 Annexes Approval Variation of MOP 2011	There is no recommendation
S3.30a	Extraction Plan The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must: (a) be prepared by a team of suitably qualified and experienced persons whose appointment has been endorsed by the Director-General	NA	Planning for second underground workings on site - extraction of the Hebden seam - is under way. However this seam is located beneath the current workings and extraction will not commence until the first workings are largely completed.	Staff interviews	
S3.30b	Extraction Plan The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must: (b) be approved by the Director-General before the Proponent undertakes any second workings covered by the plan	NA	See S3.30a.		
S3.30c	Extraction Plan The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must: (c) include detailed plans of the proposed second workings and any associated surface development	NA	See S3.30a.		
S3.30d	Extraction Plan The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must: (d) include detailed performance indicators for each of the performance measures in Table 17	NA	See S3.30a.		

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.30e	Extraction Plan The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must: (e) describe the measures that would be implemented to ensure compliance with the performance measures in Table 17, and remediate any predicted subsidence impacts and/or environmental consequences	NA	See S3.30a.		
S3.30f	Extraction Plan The Proponent shall prepare and implement an Extraction Plan for all second workings on site to the satisfaction of the Director-General. This plan must: (f) provide revised predictions of the conventional and non-conventional subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this approval, that specifically addresses the incremental and cumulative subsidence effects and impacts of multi-seam mining	NA	See S3.30a.		
S3.30g	(1) include the following to the satisfaction of 1&1 NSW: • a subsidence monitoring program to: - provide data to assist in the management of the risks associated with subsidence; - validate the subsidence predictions; and - analyse the relationship between the subsidence effects and impacts under the Extraction Plan and any ensuing environmental consequences	NA	See S3.30a.		
S3.30g	(2) include the following to the satisfaction of 1&1 NSW: • a Built Features Management Plan, which has been prepared in consultation with the owners of such features, to manage the potential impacts and consequences of subsidence on any built features	NA	See S3.30a. The Built Features MP will take account of the plans prepared for the first workings, which cover a similar surface area and the Non-Aboriginal Heritage MPs prepared in accordance with this approval.	Non-Aboriginal Heritage MPs	
S3.30g	(3) include the following to the satisfaction of 1&1 NSW: • a Public Safety Management Plan to ensure public safety in the underground project area	NA	See S3.30a.		
S3.30g	(4) include the following to the satisfaction of 1&1 NSW: • a revised Rehabilitation Management Plan	NA	See S3.30a. This Plan will draw on the overall Rehabilitation MP for the site prepared in accordance with this approval.	Rehabilitation MP	
S3.30h	This condition does not apply to any second workings that are covered by an existing Subsidence Management Plan approval at the date of this approval. (1) include: • a revised Water Management Plan, which has been prepared in consultation with DECCW and NOW, to manage the potential impacts and consequences of subsidence on surface water and groundwater resources, flooding and existing and proposed creek diversions	NA	See S3.30a. The GeoTerra Groundwater Assessment provides analysis and modelling of groundwater impacts applicable to both mining of the Middle Liddell seam and possible subsequent workings. The Plan will also draw on the overall Water MP for the site prepared in accordance with this approval.	Groundwater Assessment 2009 Water MP	

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.30h	(2) include: • a revised Biodiversity Management Plan, which has been prepared in consultation with DECCW, to manage the potential impacts and consequences of subsidence on biodiversity	NA	See S3.30a. This Plan will draw on the overall Biodiversity MP for the site prepared in accordance with this approval.	Biodiversity MP	
S3.30h	(3) include: • a Land Management Plan, which has been prepared in consultation with relevant landowners, to manage the potential impacts and consequences of subsidence on land in general	NA	See S3.30a.		
S3.30h	(4) include: • a revised Heritage Management Plan to manage the potential impacts and consequences of subsidence on heritage sites or values	NA	See S3.30a. This Plan will draw on the overall Aboriginal and Non-Aboriginal MPs for the site prepared in accordance with this approval.	Aboriginal Heritage MP Non-Aboriginal Heritage MPs	
S3.30h	(5) include: • a program to collect sufficient baseline data for future Extraction Plans.	NA	See S3.30a.		
S3.31	Payment of Reasonable Costs The Proponent shall pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent persons (if required) to review the adequacy of any aspect of the Extraction Plan.	NA	Relates to future planning for second workings at the site.		
Soil and Water					
S3.32	Water Supply The Proponent shall ensure that it has sufficient water for all stages of the projects, and if necessary, adjust the scale of mining operations to match its water supply.	C	The main source of water supply for mine operations (coal washing and dust suppression) is water pumped from the Open Cuts and the Portal Sump and stored in a dam on site (D1). The mine has three other potential sources of water supply: - Pumped inflows from sediment dams; - Pumped flows from the clean water diversion system; and - Licenced extraction from Glennies Creek. Clean water use is minimised by taking water from D1 as the first priority water source. The history of operation of the mine over recent years has shown that sufficient water is normally available within the mine water system without the need to access clean water supplies, and excess water from mine operations is exported to Ashton Coal. Available water supply is not currently a constraint on the level of mining operations.	Water MP Sec 6.5	There is no recommendation
S3.33	Baseflow Offsets The Proponent shall offset the loss of any baseflow to the surrounding watercourses and/or associated creeks caused by the projects to the satisfaction of the Director-General.	C	No losses of baseflow in surrounding watercourses have been observed. Water assessments conducted for the 2007 EA and the current practice of relying on water supply from within mining operations indicate that losses of baseflow due to Integra operations are unlikely. The Water MP commits Integra to assess any loss of baseflow and to develop a strategy to minimise any adverse impacts caused by the mine.	Water MP Sec 7.6	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.34	<p>Compensatory Water Supply</p> <p>The Proponent shall provide compensatory water supply to any landowner of privately-owned land whose water entitlements are impacted (other than an impact that is negligible) as a result of the projects, in consultation with NOW, and to the satisfaction of the Director-General.</p> <p>The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply must be provided (at least on an interim basis) within 24 hours of the loss being identified.</p> <p>If the Proponent 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 Director-General for resolution.</p> <p>If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the Director-General.</p>	C	<p>No adverse impact on groundwater users has so far been identified. The Water MP provides for monitoring of groundwater yields if requested and a commitment that if monitoring identifies a reduction in the standing water level within a private bore or well which exceeds the identified trigger, and it is established to be a consequence of mining, Integra will enter into negotiations with the affected landowner/s with the intent of formulating an agreement which provides for one or a combination of:</p> <ul style="list-style-type: none"> - Re-establishment of saturated thickness (alluvial aquifer) or standing water level (basement aquifer) in the affected bore(s) through bore deepening; - Establishment of additional bores to provide a yield at least equivalent to the affected bore prior to mining; - Provision of access to alternative sources of water; or compensation to reflect increased water extraction costs, e.g. due to lowering pumps or installation of additional or alternative pumping equipment. 	Water MP Sec 7.6	There is no recommendation
S3.35	<p>Surface Water Discharges</p> <p>The Proponent shall ensure that all surface water discharges from the site comply with the:</p> <p>(a) discharge limits (both volume and quality) set for the projects in any EPL; or</p> <p>(b) relevant provisions of the POEO Act or Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.</p>	NA	<p>The design of the mine water system is intended to ensure that all mine water is contained within the mine site (or exported for use in other mining operations). Under EPL 3390, the Mine does not hold a licence to discharge any amount of mine water off site, and Integra is not a member of the Hunter River Salinity Trading Scheme. While Camberwell Coal is a member of the Hunter River Salinity Trading Scheme, there is currently no discharge infrastructure in place.</p>	Water MP Sec 6.5 - 6.6	There is no recommendation
S3.36	<p>Glennies Creek and Station Creek Alluvial Aquifers</p> <p>The Proponent shall not undertake any open cut mining operations within 150 metres of the Glennies Creek alluvial aquifer or Station Creek alluvial aquifer without the prior written approval of the Director General.</p> <p>In seeking this approval, the Proponent must consult with NOW and demonstrate to the satisfaction of the Director-General that adequate safeguards have been incorporated into the Surface and Groundwater Response Plan (see below) to minimise, prevent and/or adequately offset groundwater leakage from the alluvial aquifers.</p>	C	<p>No open cut mining operations are undertaken or planned within 150 metres of the Glennies Creek alluvial aquifer or Station Creek alluvial aquifer .</p>	Water MP Figure 6.3 Site Inspection	There is no recommendation
S3.37	<p>Creek Diversions for the Underground Project</p> <p>The Proponent shall carry out the proposed diversions of Bettys Creek and Main Creek in the underground project area to the satisfaction of the Director-General.</p>	NA	<p>This condition relates to future development of underground mining operations and is not applicable during the period of this audit.</p>		
S3.38	<p>Within 6 months of completing the construction of the diversions, the Proponent shall submit an as-executed report, certified by a practising engineer, to the Director-General and NOW.</p>	NA	<p>See S3.37.</p>		

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.39	<p>Xstrata Mt Owen Bettys Creek Diversions</p> <p>The Proponent shall:</p> <p>(a) commission a suitably qualified and independent expert, whose appointment has been approved by the Director-General, to carry out a detailed survey of geotechnical, geomorphic and ecological baseline condition of the Xstrata Mt Owen Bettys Creek Diversions:</p> <ul style="list-style-type: none"> • prior to carrying out any second workings under the creek diversions; and • within 6 months of completing the second workings under these creek diversions; and <p>(b) provide a copy of these surveys to the Department within a month of the completion of each survey.</p>	NA	This condition relates to future development of underground mining operations and is not applicable during the period of this audit.		
S3.40	<p>Water Management Plan</p> <p>The Proponent shall prepare and implement a Water Management Plan for the projects to the satisfaction of the Director-General. This plan must be prepared in consultation with DECCW, NOW and I&I NSW, and submitted to the Director-General for approval by the end of June 2011.</p>	C	An extension of time for submission of the Water MP was requested on 2/8/2011 and granted by DP&I on 4/8/2011. The draft plan was submitted to DP&I on 31/8/2011. Comments on the draft plan were provided by DP&I at a meeting on 6/10/2011. A revised plan has not been submitted to DP&I, and formal approval has not been received.	Water MP Letter Approval Matters 2/8/2011 Letter Approval Matters 4/8/2011 Submission Letter Water MP DP&I Meeting Minutes 6/10/2011 Changes to MPs	It is recommended that a revised version of the Water Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.40a	<p>Water Management Plan</p> <p>In addition to the standard requirements for management plans (see Condition 2 of Schedule 5), this plan must include:</p> <p>(a) a Site Water Balance, which must:</p> <ul style="list-style-type: none"> • include details of: <ul style="list-style-type: none"> - sources and security of water supply; - water use on site; - water management on site; and - any off-site water transfers, and • describe what measures would be implemented to minimise clean water use on site. 	C	The Water MP meets the standard requirements for Management Plans (See S5.2). The Site Water Balance is detailed in Sec 6.5 based on modelling undertaken by WRM Water & Environment Pty Ltd in 2009. Water management practices on site, designed to minimise clean water use are detailed in Sec. 6.6. The site relies principally on water collected on site, with minimal extraction of water from sources originating off-site. See also S3.32.	Water MP	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.40b	<p>Water Management Plan</p> <p>(b) a Creek Diversion Management Plan for the proposed creek diversions in the underground project area, which must:</p> <ul style="list-style-type: none"> • be consistent with any related requirements in future Extraction Plan(s); and • include: <ul style="list-style-type: none"> - a vision statement for the creek relocations; - an assessment of the water quality, ecological, hydrological and geomorphic baseline conditions within each creek; - the detailed design specifications for the creek relocations; - a construction program for the creek relocations, describing how the work would be staged, and integrated with mining operations; - a revegetation program for the relocated creeks using a range of suitable native species; - water quality, ecological, hydrological and geomorphic performance and completion criteria for the creek relocations based on the assessment of baseline conditions; and - a program to monitor and maintain the water quality, ecological, hydrological and geomorphic integrity of the creek diversions; 	NA	<p>Sec 6.8 of the Water MP indicates that as underground mining in the Bettys Creek locality is not planned until 2016, a detailed Creek Diversion Plan will be developed 18 months prior to activities occurring in consultation with NOW and OEH. Construction of the diversion will commence 12 months before underground mining activities in this area to ensure vegetation is re-established to reduce any erosion of the diversion channel.</p>	Water MP, Sec 6.8	
S3.40c	<p>Water Management Plan</p> <p>(c) an Erosion and Sediment Control Plan, which must:</p> <ul style="list-style-type: none"> • identify activities that could cause soil erosion and generate sediment; • describe measures to minimise soil erosion and the potential transport of sediment to downstream waters; • describe the location, function and capacity of erosion and sediment control structures; and • describe what measures would be implemented to maintain these structures for the life of the projects 	C	<p>Sec 6.9 of the Water MP provides an Erosion and Sediment Control Plan for the site including identification of sources of erosion and sedimentation, general control measures, specific measures including structures to be implemented on particular areas of the site, and a program for maintenance of drainage systems and structures over the life of the project.</p>	Water MP, Sec 6.9	There is no recommendation
S3.40d	<p>Water Management Plan</p> <p>(d) a Surface Water Management Plan, which must include:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in creeks and other water bodies that could potentially be affected by the projects; • surface water impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts from the projects; • a program to monitor and assess surface water flows and quality, impacts on water users and stream health 	C	<p>Surface water base line data is set out in Sec 6.7 and Appendices A and B of the Water MP.</p> <p>Sec 6.10 sets out the surface water monitoring program.</p> <p>Section 6.11 sets out potential risks to the surface water environment including proposed ameliorative actions and trigger points for response.</p>	Water MP, Secs 6.7, 6.10-6.11, Appendices A - B	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.40e	<p>Water Management Plan</p> <p>(e) a Groundwater Management Plan, which must include:</p> <ul style="list-style-type: none"> • detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores, which could be affected by the projects; • groundwater impact assessment criteria including trigger levels for investigating any potentially adverse groundwater water impacts from the projects; and • a program to monitor and assess: <ul style="list-style-type: none"> - groundwater inflows to the open cut mining operations; and - impacts of the projects on the region's aquifers, any groundwater bores and surrounding watercourses, in particular Glennies Creek and Station Creek and adjacent alluvium 	C	The Groundwater Management Plan is set out in Sec 7 of the Water MP including baseline data (Sec 7.1 and Appendices E - G), a monitoring program (Sec 7.2) and impact assessment criteria (Secs 7.3 and 7.4).	Water MP, Sec 7, Appendices E - G	There is no recommendation
S3.40f	<p>Water Management Plan</p> <p>(f) a Surface and Groundwater Response Plan, which must include:</p> <ul style="list-style-type: none"> • a response protocol for any exceedances of the surface water and groundwater assessment criteria; • measures to offset the loss of any baseflow to watercourses caused by the projects; • measures to compensate landowners of privately-owned land whose water supply is adversely affected by the projects; and • measures to mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation. 	C	Surface Water and Groundwater Response Plans are set out in Secs 6.11 and 7.6 of the Water MP respectively. The Groundwater Response Plan includes arrangements to address any adverse impact on groundwater or stream flows, including compensatory supply to landowners.	Water MP, Secs 6.11, 7.6	There is no recommendation
Biodiversity					
S3.41	<p>Biodiversity Offset</p> <p>The Proponent shall implement the offset strategy summarised in Table 18, described in the open cut and underground project EAs, and shown conceptually in the figure in Appendix 8 to the satisfaction of the Director-General.</p>	C	Integra has set aside the identified Biodiversity Offset Areas within its land holdings and is undertaking flora and fauna studies and implementing land management practices consistent with the status of these areas. The identified offset areas have been agreed by OEH (see S3.42), but no formal approval has yet been provided by DP&I.	Letter Biodiversity Offset Strategy Biodiversity Offset Assessment 2011 Letter Approval Biodiversity Offset Strategy Site Inspection	See Recommendation S3.43
S3.42	<p>By the end of June 2011, unless the Director-General agrees otherwise, the Proponent shall revise the offset strategy referred to above, in consultation with DECCW, and to the satisfaction of the Director-General.</p> <p>The revised offset strategy must:</p> <p>(a) ensure provision of at least 140 hectares of Narrow-leaved Ironbark-Spotted Gum-Forest Red Gum Forest (or a suitable equivalent) to further offset the impact of the open cut project; and</p> <p>(b) include an additional 6 hectares of Central Hunter Swamp Oak Forest (or a suitable equivalent) to offset the impact of the underground project on the Glendell Biodiversity Offset Area.</p>	C	A revised offset strategy to meet the requirements of this condition was proposed by Integra and submitted to OEH for approval on 29/6/2011. This provides for the setting aside of an additional area of 210Ha known as the Martins Creek Offset Area which is identified as containing sufficient areas of Narrow-leaved Ironbark-Spotted Gum-Forest Red Gum Forest and Central Hunter Swamp Oak Forest to meet the requirements of this condition. This revision to the strategy means that a total 583Ha of offset areas will be set aside. The revised strategy was agreed by OEH on 30/8/2011, but no formal approval has yet been provided by DP&I.	Letter Biodiversity Offset Strategy Biodiversity Offset Assessment 2011 Letter Approval Biodiversity Offset Strategy	It is recommended that DP&I's concurrence be sought with the approval given by OEH for the revised Biodiversity Offset Areas being set aside to meet the requirements of condition 3.42 in the context of approval of the Biodiversity Management Plan.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.43	<p>Long Term Security of Offsets</p> <p>By the end of December 2011, the Proponent shall make suitable arrangements to provide appropriate long term security for all the areas in the revised offset strategy to the satisfaction of the Director-General.</p>	NC	The identified offset areas are under the ownership and control of Integra and are protected and managed consistent with that status. As DP&I have not finally approved the offset areas, no legal processes have yet been commenced to protect the status of the land in perpetuity.	Letter Biodiversity Offset Strategy Staff interviews	It is recommended that following DP&I's approval of the revised Biodiversity Offset Areas, legal processes be commenced to ensure that these areas are protected in perpetuity.
S3.44a	<p>Biodiversity Management Plan</p> <p>The Proponent shall prepare and implement a Biodiversity Management Plan for the projects to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW, and submitted to the Director-General for approval by the end of December 2011</p>	NC	Engaged consultants Environmental Resource Management to complete the Biodiversity Management Plan by 4/1/2012. However the draft plan has not been yet completed and submitted to DP&I for approval.	Purchase Order Biodiversity MP	It is recommended that the Biodiversity Management Plan be completed and submitted to DP&I as soon as possible.
S3.44b	<p>Biodiversity Management Plan</p> <p>The Proponent shall prepare and implement a Biodiversity Management Plan for the projects to the satisfaction of the Director-General. This plan must:</p> <p>(b) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below)</p>	NC	The Biodiversity MP has not yet been completed. It is important that the Biodiversity MP and Rehabilitation MP, which are being prepared by different consultants, are integrated and support each other to provide for a common approach to land management at the site, including rehabilitation and the preservation and enhancement of biodiversity.		See Recommendation S3.44a. It is recommended that the Biodiversity Management Plan should be closely integrated with Rehabilitation Management Plan as part of a consistent approach to land management at the site.
S3.44c	<p>Biodiversity Management Plan</p> <p>The Proponent shall prepare and implement a Biodiversity Management Plan for the projects to the satisfaction of the Director-General. This plan must:</p> <p>(c) include:</p> <ul style="list-style-type: none"> • a description of the short, medium, and long term measures that would be implemented to: <ul style="list-style-type: none"> implement the offset strategy; and manage the remnant vegetation and habitat, both on site and in the offset areas; • detailed performance and completion criteria for the implementation of the offset strategy; • a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: <ul style="list-style-type: none"> - implementing revegetation and regeneration within the offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; - maximising salvage and beneficial use of resources in areas that are to be impacted, including vegetative, soil and cultural heritage resources; - protecting vegetation and soil outside the areas to be impacted; - rehabilitating Bettys Creek and Main Creek; - managing salinity; - conserving and reusing topsoil; - undertaking pre-clearance surveys; - managing impacts on fauna; - landscaping the site to minimise visual impacts; - collecting and propagating seed; 	NC	The Biodiversity MP has not yet been completed.		See Recommendation S3.44a

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.45	Conservation Bond Within 6 months of the approval of the Biodiversity Management Plan (see above), the Proponent shall lodge a conservation bond with the Department to ensure that the offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.	NA	As the Biodiversity Management Plan has not been approved this clause has not been triggered.		See Recommendation S3.44a
Heritage					
S3.46	Further Archaeological Investigation Prior to carrying out any development in the parts of the site outlined in purple on the figure in Appendix 8, unless the Director-General agrees otherwise, the Proponent shall carry out further archaeological testing and investigation within the broader area outlined in purple on the figure in Appendix 8 to the satisfaction of the Director-General.	C	This is documented in the paper "Archaeological Research and Investigation - Integra Coal Archaeological Investigation Area, July 2011" which forms Appendix 2 to both Non-Aboriginal Heritage Management Plans. The Non-Aboriginal Heritage Management Plan was developed in two stages, with the approval of DP&I. This approach was designed to allow for commencement of Environmental & Water Management Works in the investigation area before all aspects of the investigation and development of an on-going management plan were completed. Stage 1 of the Plan, and these works, were approved by DP&I on 4/8/2011.	Non-Aboriginal Heritage MP Stage 1 Non-Aboriginal Heritage MP Stage 2 Letter Approval Matters 4/8/2011	There is no recommendation
S3.47a	Heritage Management Plan The Proponent shall prepare and implement a Heritage Management Plan for the projects to the satisfaction of the Director-General. This plan must: (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Director-General	C	The Aboriginal Heritage MP was prepared by Neville Baker, Associate Director - Environment, AECOM Pty Ltd. Details of his endorsement by DP&I are not available. The Non-Aboriginal Heritage Management Plans were prepared by Tim Adams, Senior Archaeologist, of Umwelt Australia whose appointment had been approved by DP&I.	Aboriginal Heritage MP Non-Aboriginal Heritage MP Stage 1 Non-Aboriginal Heritage MP Stage 2 Letter Approval Matters	There is no recommendation
S3.47b	Heritage Management Plan The Proponent shall prepare and implement a Heritage Management Plan for the projects to the satisfaction of the Director-General. This plan must: (b) be prepared in consultation with DECCW, the Aboriginal community, the Heritage Branch, Council, local historical organisations and any relevant landowners	C	The Aboriginal Heritage MP was prepared in consultation with Aboriginal stakeholders and DECCW. Aboriginal stakeholders were defied during the EA process. An implementation program is included as Sec 5 of the Plan. The Non-Aboriginal Heritage MPs were prepared in consultation with Heritage Branch, OEH, Council, local historical organisations and relevant landowners.	Aboriginal Heritage MP, Secs 3, 5 Non-Aboriginal Heritage MP Stage 2, Sec 4.2 and Appendix 2.	There is no recommendation
S3.47c	Heritage Management Plan The Proponent shall prepare and implement a Heritage Management Plan for the projects to the satisfaction of the Director-General. This plan must: (c) be submitted to the Director-General for approval by the end of March 2011	O	The Aboriginal Heritage MP was approved by DP&I on 23/12/2010, subject to conditions relating to preservation of scarred trees and provision of a final report on the salvage program. The Plan has not been updated to reflect these conditions. DP&I approved a delay in completion of the Non-Aboriginal Heritage MP to allow for completion of archaeological work. Stage 1 of the Non-Aboriginal Heritage MP was approved by DP&I on 4/8/2011, while Stage 2 was submitted on 18/8/2011. No comments or formal approval of the Stage 2 Plan have yet been received from DP&I.	Aboriginal Heritage MP Approval Aboriginal Heritage MP Letter Approval Matters 11/4/2011 Letter Approval Matters 4/8/2011	It is recommended that the Aboriginal Heritage MP be updated to reflect conditions included in DP&I's approval of the Plan.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.47d	<p>Heritage Management Plan</p> <p>The Proponent shall prepare and implement a Heritage Management Plan for the projects to the satisfaction of the Director-General. This plan must:</p> <p>(d) include programs/procedures for the following in relation to Aboriginal heritage management onsite:</p> <ul style="list-style-type: none"> • recording, salvaging and/or managing all Aboriginal sites, objects and deposits that are to be destroyed within the open cut project area; • conserving, managing and monitoring all Aboriginal sites, objects and deposits that are to be protected within the open cut project area, including the 3 scarred trees identified within the western mining area; • maintaining and managing access to Aboriginal sites, objects and deposits by the Aboriginal community, including provision of an appropriate Keeping Place; • managing the discovery of any new Aboriginal objects or skeletal remains identified during the projects; and • ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage values on the site. 	C	<p>Arrangements for management and salvage of aboriginal sites and artefacts are set out in Section 4 of the Aboriginal Heritage MP. Arrangements for ongoing consultation during mining are set out in Sec 3.4.</p> <p>The surface salvage program was completed in July 2011. Salvaged artefacts were returned to the site in December 2011, and a secure Keeping Place is being established.</p>	<p>Aboriginal Heritage MP, Secs 3.4, 4</p> <p>Staff interviews</p>	<p>There is no recommendation</p>
S3.47e	<p>Heritage Management Plan</p> <p>The Proponent shall prepare and implement a Heritage Management Plan for the projects to the satisfaction of the Director-General. This plan must:</p> <p>(e) include programs/ procedures for the following, in accordance with the applicable guidelines of the Heritage Branch:</p> <p>further historical investigation of the area outlined in purple on the figure in Appendix 8 to identify the potential archaeological resources within the area,;</p> <ul style="list-style-type: none"> • archaeological testing of the potential archaeological resources within the area outlined in purple on the figure in Appendix 8; • further archaeological investigation of any areas where the archaeological testing (referred to above) identifies significant archaeological deposits; • archaeological excavation of the known grave on site, identified as the James Halliday Glennie grave site; • detailed archival recording of the Dulwich property if it is to be mined, or the preparation of a detailed conservation management plan for the Dulwich property if it is not to be mined (subject to the agreement of the landowner); • archival recording of any other heritage items to be destroyed by the project; • conserving, managing, monitoring, and where appropriate, relocating any non-Aboriginal sites, objects and deposits on the site; • interpreting the findings of the additional heritage or archaeological investigations carried out on the site; and • managing the discovery of any new non-Aboriginal objects or skeletal remains identified during the projects. 	C	<p>The Non-Aboriginal Heritage Management Plans, supported by the paper "Archaeological Research and Investigation - Integra Coal Archaeological Investigation Area, July 2011" meet these requirements. Procedures for ongoing management of non-Aboriginal sites, objects and deposits are set out in the Stage 2 Plan, Sec 4.</p>	<p>Non-Aboriginal Heritage MP Stage 1</p> <p>Non-Aboriginal Heritage MP Stage 2</p>	<p>See Recommendation S2.18</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Transport					
S3.48	Coal Transport By the end of December 2011, the Proponent shall cease truck haulage of ROM coal from the underground surface facilities to the CHPP, and transport such coal only via overland conveyor, except in an emergency situation and with the prior written approval of the Director-General.	NC	Integra wrote to DP&I on 17/6/2011 seeking variation of this condition, This was supported by correspondence from consultants Environmental Resource Management Pty Ltd, providing evidence that the conveyor option was uneconomic and produced only limited benefits in terms of noise and dust reduction outside the mine site. In a modification to the Project Approval sought in December 2011 (MOD 1), Integra has sought approval for a short term extension to the timeframe stipulated in Condition 48 of the project approvals from 31/12/2011 to 30/6/2012. It is specified that during this period, ROM coal will continue to be hauled by internal road to the CHPP. This extension of time was sought to allow a detailed assessment of potential impacts associated with the amendment to be undertaken, including the scope for potential investment in additional dust amelioration measures. MOD 1 has been placed on public exhibition by DP&I and Integra is currently reviewing submissions received.	Letter Coal Haulage Project Assessment MOD 1 DP&I Website	It is recommended that Integra proceed as a matter of urgency with its proposal for variation of this condition of approval, so that the matter can be resolved before the extended deadline of 30/6/2012.
S3.49	Monitoring of Coal Transport The Proponent shall: (a) keep accurate records of: • amount of coal transported from the site (on a monthly basis); • the date and time of each train movement from the site; and (b) make these records publicly available on its website at the end of each calendar year.	O	A record of coal train movements is published on the Integra website on a monthly basis including the date and time of each train movement and the amount of coal transported. See also S2.9.	Train Movement Records 2011	See Recommendation S2.9
S3.50	Road and Intersection Upgrade Works The Proponent shall design and construct the Middle Falbrook Road intersection to the reasonable satisfaction of Council prior to commencing construction activities that require access from Middle Falbrook Road to the site.	NA	Construction activities requiring access from Middle Falbrook Road to the site had not commenced at the time of the audit.	Site inspection Staff interviews	
Visual					
S3.51a	Visual Amenity and Lighting The Proponent shall: (a) minimise the visual impacts, and particularly the off-site lighting impacts, of the projects	C	The mine site in the Glennies Creek valley is generally shielded by topography from the surrounding area. Visual impacts are generally confined to neighbouring properties. A screening wall was constructed in September 2011 to minimise views of the open cut operations from the New England Highway, including any lighting impacts. A Visual Amenity Study was conducted in 2009 showing the visual impact on each affected property of planned operations at the mine using photomontages of views from each property. This study formed a basis for consideration of additional visual mitigation measures (see 3.52).	Site inspection Compliance Statement Wall Visual Amenity Study	There is no recommendation
S3.51b	Visual Amenity and Lighting The Proponent shall: (b) take all practicable measures to further mitigate off-site lighting impacts from the projects	C	This requirement was addressed through construction of the screening wall to minimise views of the open cut operations from the New England Highway.	Site inspection Compliance Statement Wall	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.51c	Visual Amenity and Lighting The Proponent shall: (c) ensure that all external lighting associated with the Integra mine complex complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, or its latest version, to the satisfaction of the Director-General.	C	Lighting designs and light fittings at the site, particularly in the CHPP, administration areas, and in open cut operations appear to be generally consistent with the standard and include appropriate shielding to minimise sky glow. The auditors were advised that there had been no complaints from neighbouring properties about lighting impacts.	Site inspection Staff interviews	There is no recommendation
S3.52	Additional Visual Mitigation Measures Upon receiving a written request from the owner of any residence on privately-owned land which has significant direct views of the mining operations on site, the Proponent shall implement additional visual mitigation measures (such as landscaping treatments or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards minimising the visibility of the mining operations from the residence. If within 3 months of receiving this request from the owner, the Proponent 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 Director-General for resolution.	C	Following the Visual Amenity Study, Integra wrote to residents potentially subject to visual impacts from the Northern Open Cut development, and discussed potential mitigation measures. Planting of screening vegetation was undertaken at several residences. No further requests for visual mitigation measures have been received.	Visual Amenity Study Letters Visual Amenity Staff Interviews	There is no recommendation
Waste					
S3.53a	The Proponent shall: (a) minimise the waste generated by the projects	C	The Waste MP identifies all waste streams generated at the mine and provides for the application of the waste management hierarchy.	Waste MP Waste reports	There is no recommendation
S3.53b	The Proponent shall: (b) ensure that the waste generated by the projects is appropriately stored, handled, and disposed of, to the satisfaction of the Director-General.	O	Arrangements for handling of mine waste (waste rock and CHPP rejects) are set out in the Waste MP (Sec 9.1). Other waste streams (general waste) are managed and transported off site under contract by Thiess Services. Thiess Services provide detailed reports showing the handling and disposal of waste. The Waste MP sets out overall arrangements for collection and storage of general waste including the use of colour coded receptacles for the efficient separation of specific categories of general wastes, however there was no evidence of a formal procedure for the storage of waste. The waste collection, storage and handling process for general waste is inspected monthly in waste management inspections by an environmental officer.	Waste MP Sec 9 Thiess Reports Waste Management Inspection Sheet	It is recommended that a documented procedure be developed for storage of general waste.
S3.54a	The Proponent shall prepare and implement a Waste Management Plan for the projects to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with 1&1 NSW, and submitted the Director-General for approval by the end of March 2011	C	The Waste MP was submitted DP&I for approval on 30/3/2011. Comments on the draft plan were provided by DP&I at a meeting on 6/10/2011. A revised plan has not been submitted to DP&I, and formal approval has not been received.	Waste MP, Sec 15, Appendix 3 Submission Letter Waste MP DP&I Meeting Minutes 6/10/2011 Changes to MPs	It is recommended that a revised version of the Waste Management Plan addressing DP&I comments be prepared and submitted for approval as soon as possible.
S3.54b	The Proponent shall prepare and implement a Waste Management Plan for the projects to the satisfaction of the Director-General. This plan must: (b) identify the various waste streams of the projects	C	Waste streams are identified in Sec 9 of the Waste MP.	Waste MP, Sec 9	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S3.54c	The Proponent shall prepare and implement a Waste Management Plan for the projects to the satisfaction of the Director-General. This plan must: (c) estimate the volumes of tailings and reject material that would be generated by the projects	C	Sec 9.1.2 of the Waste MP provides forecasts of volumes of tailings and reject material based on estimates prepared for the EAs.	Waste MP, Sec 9	There is no recommendation
S3.54d	The Proponent shall prepare and implement a Waste Management Plan for the projects to the satisfaction of the Director-General. This plan must: (d) describe and justify the proposed strategy for disposing of this waste material	C	Sec 9 of the Waste MP sets out strategies for management and disposal of all identified waste streams.	Waste MP, Sec 9	There is no recommendation
S3.54e	The Proponent shall prepare and implement a Waste Management Plan for the projects to the satisfaction of the Director-General. This plan must: (e) describe what measures would be implemented to meet the requirements set out above	C	Sec 9 of the Waste MP sets out strategies for management and disposal of all identified waste streams.	Waste MP, Sec 9	There is no recommendation
S3.54f	The Proponent shall prepare and implement a Waste Management Plan for the projects to the satisfaction of the Director-General. This plan must: (f) include a program to monitor the effectiveness of these measures.	O	The emplacement of mining waste is a major part of the rehabilitation process for the site and is monitored in that context. For general waste, the contactors, Thiess Services, provide detailed monitoring data which may be used to evaluate management strategies for this waste.	Waste MP, Sec 11 Thiess Reports	It is recommended that the Waste MP be amended to indicate that statistics on waste collections and off-site disposal provided by Thiess Services will be reviewed to identify opportunities for waste reduction and improved waste treatment, and that procedures be put in place for such reviews to be undertaken regularly by Integra environmental staff.
Bushfire Management					
S3.55a	The Proponent shall: (a) ensure that the Integra mine complex is suitably equipped to respond to fires on site	C	A Bushfire Hazard Reduction Procedures is in place for the site. Firebreaks are maintained across site and a range of vegetation management strategies are employed for fuel reduction. Water trucks ,hydrants and suitably trained personnel are located throughout the site. A fire officer, Rod Tuckerman, has been appointed.	Bushfire Hazard Reduction Procedure Fire systems procedure Emergency Preparedness procedure	There is no recommendation
S3.55b	The Proponent shall: (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.	C	The Bushfire Hazard Reduction Procedure was developed in consultation with Singleton Rural Fire Service. The Procedure states that "The Fire Officer will liaise regularly with the Singleton Rural Fire Service to ensure that both parties are aware of fires in and adjoining the Vale Integra Coal Complex". The procedure include arrangements for liaison with Singleton Rural Fire Service for management of fires on and around the site.	Email correspondence RFS Bushfire Hazard Reduction Procedure	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Rehabilitation					
S3.56	Rehabilitation Objectives The Proponent shall rehabilitate the site to the satisfaction of the Director-General of I&I NSW. This rehabilitation must be generally consistent with both the rehabilitation strategy described in the open cut and underground project EAs - and depicted conceptually in the figure in Appendix 9 - and the objectives in Table 19.	O	The Rehabilitation MP is directed at rehabilitating the site in accordance with the conceptual plan of the final landform and offsets which forms Appendix 9 of the Project Approval. Rehabilitation objectives and outcomes consistent with Table 19 of the Project Approval are set out in Sec 4 of the Rehabilitation MP, however these objectives and outcomes are expressed in very general terms and are not accompanied by any specific quantitative or qualitative targets which would demonstrate whether they had been successfully achieved. The Rehabilitation MP also does not refer to any specific process for public reporting on progress with rehabilitation of the site.	Rehabilitation MP Sec 4, Appendix 1 Aerial Photos 2008-20011 AMER 2010, p142 and Appendix 7 plan	It is recommended that the Rehabilitation MP include specific targets which would demonstrate that the objectives and outcomes set out in the Plan have been achieved. It is recommended that ARs include reports on progress towards rehabilitation objectives.
S3.57	Progressive Rehabilitation The Proponent shall carry out rehabilitation of the site progressively, that is, as soon as reasonably practicable following the disturbance.	O	The Rehabilitation MP is progressive, however no clear timeline is identified. Current operational plans provide for placement of mine waste in the South Pit void. Progressive rehabilitation of this key area of the site will therefore be limited until the eastern placement has been completed.	Rehabilitation MP Sec 4, Appendix 1 Aerial Photos 2008-2011 MOP p.48	It is recommended that the Rehabilitation MP provide for development of a timetable for rehabilitation which is regularly updated to take account of changes in planned mining operations.
S3.58a	Rehabilitation Management Plan The Proponent shall prepare and implement a Rehabilitation Management Plan for the Integra mine complex to the satisfaction of the Director-General of I&I NSW. This plan must: (a) be prepared in consultation with the Department, DEECW, NOW, Council and the CCC	O	Sec 7 of the Rehabilitation MP lists relevant stakeholders for consultation. Letters were sent to each stakeholder on 14/7/2011, however no input from stakeholders was received. The plan notes that consultation will be a continuing process, however it is desirable that the results of the initial consultation be referred to in the plan.	Rehabilitation MP Submission for OEH, CCC, NOW, DTRIS, OEH and Singleton Shire Council for Review	It is recommended that a reference be included in the final Rehabilitation MP to the results of initial stakeholder consultation on the plan.
S3.58b	Rehabilitation Management Plan (b) be prepared in accordance with any relevant I&I NSW guideline;	C	The Rehabilitation MP was prepared in accordance with the DTIRIS Guidelines to the Mining, Rehabilitation and Environmental Management Process.	Rehabilitation MP Sec 8	There is no recommendation
S3.58c	Rehabilitation Management Plan (c) build, to the maximum extent practicable, on the other management plans required under this approval	C	The MPs required by the Project Approval have been prepared on a consistent and integrated basis. Cross references to other MPs are provided throughout the Rehabilitation MP. However, it was not possible to assess the degree of consistency between the Rehabilitation MP and the Biodiversity MP, as the latter Plan has not yet been completed.	Rehabilitation MP	See Recommendation 3.44b
S3.58d	Rehabilitation Management Plan (d) be submitted to the Director-General of I&I NSW for approval by the end of June 2011.	C	The Rehabilitation MP was submitted to DP&I on 14/7/2011. Some comments on the draft plan were provided by DP&I at a meeting on 6/10/2011. A revised plan has not been submitted to DP&I, and formal approval has not been received.	Letter of submission 14th July 2011 DP&I Meeting Minutes 6/10/2011 Changes to MPs	It is recommended that a revised version of the Rehabilitation Management Plan addressing DP&I comments and recommendations of this audit be prepared and submitted for approval as soon as possible.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
SCHEDULE 4 - ADDITIONAL PROCEDURES					
Notification of Landowners					
S4.1a	By the end of December 2010, the Proponent 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 Proponent to acquire their land at certain stages during the projects; • any residence on the land listed in Table 1 (noise-affected) or Table 6 of Schedule 3 that they are entitled to ask for additional noise mitigation to be installed at their residence at certain stages during the projects; • any residence on the land listed in Table 1 (air quality-affected) or Table 16 of Schedule 3 that they are entitled to ask for additional air quality mitigation measures to be installed at their residence at certain stages of the projects; and • any privately-owned land within 2 kilometres of any approved open cut mining pit on site 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	C	Affected landowners were notified of their rights in relation to this condition by letter on 17/12/2010. Comments in Relation to Noise The Independent Review, October 2011 suggested there was an exceedance of noise mitigation criteria at one location. However, as the Integra LAeq is often shown as a range of values for each measurement, it is difficult to determine the actual exceedance. There is no evidence of written requests for noise mediations, however, Sam Taylor has indicated that some noise mitigation has been undertaken on residences listed in Table 1 and Table 6 of the Project Approval, November 2010. In addition, mitigation offers have been made to four residences (November 2011) resulting from recommendations in the Independent Review, October 2011.	Letter Land Acquisition AEMR 2011, Quarterly monitoring reports Independent Review, October 2011 Mitigation letters.	It is recommended that Integra ensure recommendations for mitigation from the Independent Review, October 2011 are carried out.
S4.1b	By the end of December 2010, the Proponent shall: (b) 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 open cut or underground project EAs identify that the dust emissions from the projects are likely to be greater than the relevant air quality criteria in Schedule 3 at some stage during the projects.	C	Affected landowners were provided with a copy of the fact sheet by letter in November 2010.	Letter dust fact sheet	There is no recommendation
S4.2a	Within 2 weeks of obtaining monitoring results showing: (a) an exceedance of the relevant criteria in Schedule 3, the Proponent shall notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the projects are complying with the relevant criteria again;	C	AEMR 2011 and quarterly monitoring reports for 2011 show no exceedances. The Independent Review, October 2011 indicates exceedances at three locations. This monitoring was carried out for Vale Australia by EMM, at the request of DP&I. One of the requirements of the Independent Review is that the Director-General and the landowners receive a copy of the report. The date of the report is more than two weeks from the completion of monitoring (it is approximately 4 weeks), however, given the quantity of data that would require processing, this is considered a reasonable timeframe. Letters were sent to the residents identified within two weeks of the report being issued. Several airblast overpressure exceedances were noted on the Dulwich property (See S3.11)	AEMR 2011 Quarterly monitoring reports Independent Review, October 2011 Mitigation letters.	There is no recommendation
S4.2b	Within 2 weeks of obtaining monitoring results showing: (b) an exceedance of the relevant criteria in Conditions 6(c) or 7 of Schedule 3, the Proponent shall notify the applicable owner in writing that they are entitled to ask for additional noise mitigation to be installed at their residence	C	See S4.2a	AEMR 2011 Quarterly monitoring reports Independent Review, October 2011 Mitigation letters.	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S4.2c	Within 2 weeks of obtaining monitoring results showing: (c) an exceedance of the relevant criteria in Conditions 22, 23 of Schedule 3, the Proponent 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)	NA	No instances of dust-related exceedances were identified during the audit. See S3.22.		
S4.2d	Within 2 weeks of obtaining monitoring results showing: (d) an exceedance of the relevant criteria in Condition 24(c) of Schedule 3, the Proponent shall notify the applicable owner of any residences on the land that they are entitled to ask for additional air quality mitigation measures to be installed at their residence.	NA	No instances of dust-related exceedances were identified during the audit. See S3.22.		
Independent Review					
S4.3	<p>If an owner of privately-owned land considers the projects to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the impact of the projects on his/her land.</p> <p>If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:</p> <ul style="list-style-type: none"> • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the projects are complying with the relevant criteria in Schedule 3; and • if the projects are not complying with these criteria then: <ul style="list-style-type: none"> - determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine towards the impact on the land; - identify the measures that could be implemented to ensure compliance with the relevant criteria; and <p>(b) give the Director-General and landowner a copy of the independent review.</p>	C	<p>Two requests for independent reviews were submitted to Integra by DP&I during the audit period.</p> <p>A review on behalf of Ms Craven was requested on 22/10/2010. This review was undertaken by EMGA Mitchell McLennan and completed on 22/12/2010. DP&I agreed by letter dated 14/4/2011 that no further actions was required by Integra other than a continuation of noise monitoring into the winter months of that year.</p> <p>A review on behalf of Mr Garland was requested on 15/4/2011. This review was undertaken by EMGA Mitchell McLennan and completed on 28/10/2011. This recommended an offer of noise mitigation measures. Integra has complied with the requirements in relation to the conduct of independent reviews.</p>	<p>Letter Ind Review Craven Letter Result Ind Review Craven Letter Ind Review Garland Ind Review Garland</p>	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S4.4	<p>If the independent review determines that the projects are complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General. If the independent review determines that the projects are not complying with the relevant criteria in Schedule 3, and that the projects are primarily responsible for this non-compliance, then the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow the exceedances of the relevant criteria, to the satisfaction of the Director-General.</p> <p>If the independent review determines that the projects are not complying with the relevant acquisition criteria in Schedule 3, and that the projects are primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in Conditions 6-7 below.</p>	C	<p>The reviews referred to in S4.3 found that Integra was complying with the relevant emissions criteria, but recommended the undertaking of some further monitoring and mitigation activities.</p>	<p>Letter Ind Review Craven Letter Result Ind Review Craven Letter Ind Review Garland Ind Review Garland</p>	<p>There is no recommendation</p>
S4.5	<p>If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Director-General.</p> <p>if the independent review determines that relevant acquisition criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for the exceedance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s in accordance with the procedures in Conditions 6-7 below.</p>	NA	<p>No such finding has been made.</p>	<p>Letter Ind Review Craven Letter Result Ind Review Craven Letter Ind Review Garland Ind Review Garland</p>	

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Land Acquisition					
S4.6	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent 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 projects, 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 on the land 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 any additional mitigation measures required under Conditions 6,7 or 24 of Schedule 3; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> • relocating within the Singleton or Muswellbrook local government areas, or to any other local government area determined by the Director-General; 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 Proponent 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 Director-General for resolution.</p>	C	<p>The only landowner acquisition requests received during the audit period are those referred to in S3.1.</p> <p>Offers were made to these landowners consistent with the terms of this clause which were accepted by the landowners without any requirement for mediation.</p>	Letters Property Acquisition	There is no recommendation
S4.7	<p>The Proponent shall pay all reasonable costs associated with the land acquisition process described in Condition 6 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.</p>	C	See S3.1 and S4.6.	Letters Property Acquisition	There is no recommendation
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING					
Environmental Management					
S5.1a	<p>Environmental Management Strategy</p> <p>The Proponent shall prepare and implement an Environmental Management Strategy for the projects to the satisfaction of the Director-General. This strategy must:</p> <p>(a) be submitted to the Director-General for approval by the end of March 2011</p>	C	<p>The EM Strategy was prepared by consultants RW Corkery, and submitted for approval by DP&I by 6 May 2011, after DP&I agreed to an extension of time for submission. No comments or formal approval have been received from DP&I. The Strategy is essentially a continuation of the existing approach to environmental management at Integra, taking account of the Management Plans required by this Approval.</p>	EM Strategy EM Strategy emails	There is no recommendation
S5.1b	<p>Environmental Management Strategy</p> <p>(b) provide the strategic framework for the environmental management of the projects</p>	C	<p>The EM Strategy provides a strategic framework for environmental management of the mine, based generally on the standards AS/NZS ISO 14001:2004.</p>	EM Strategy	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S5.1c	Environmental Management Strategy (c) identify the statutory approvals that apply to the projects	C	Set out in the EM Strategy, Sec 4.1	EM Strategy	There is no recommendation
S5.1d	Environmental Management Strategy (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the projects	C	Set out in the EM Strategy, Sec 6	EM Strategy	There is no recommendation
S5.1e	Environmental Management Strategy (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 projects; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the projects; • respond to any non-compliance; and • respond to emergencies 	C	Set out in the EM Strategy, Secs 10 - 11	EM Strategy	There is no recommendation
S5.1f	Environmental Management Strategy (f) include: <ul style="list-style-type: none"> • copies of any strategies, plans and programs approved under the conditions of this approval; and • a clear plan depicting all the monitoring required to be carried out under the conditions of this approval. 	C	Management Plans forming part of the EM Strategy are identified in Sec 4.2. Monitoring requirements are summarised in Sec 12 of the EM Strategy, and set out in detail in relevant Management Plans.	EM Strategy	There is no recommendation
S5.2a	Management Plan Requirements The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data	C	A consistent format has been developed for MPs prepared to meet the requirements of this approval (listed in Appendix 3). This format has been adopted for all plans including those produced by external consultants. All MPs include detailed baseline data, either set out within the plan or by reference to previous planning and monitoring documents.	Management Plans	There is no recommendation
S5.2b	Management Plan Requirements (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; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the projects or any management measures 	C	The standard format for MPs includes reference to relevant legal requirements, all limits or performance measures/criteria specified under those requirements, and performance indicators (trigger values) to be used to judge performance or indicate a requirement for management action.	Management Plans	There is no recommendation
S5.2c	Management Plan Requirements (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria	C	The standard format for MPs includes a description of the measures to be implemented in order to comply with the relevant statutory requirements, limits, or performance measures/criteria.	Management Plans	There is no recommendation
S5.2d	Management Plan Requirements (d) a program to monitor and report on the: <ul style="list-style-type: none"> • impacts and environmental performance of the projects; and • effectiveness of any management measures (see (c) above) 	C	The standard format for MPs includes monitoring programs which set out arrangements for monitoring and reporting on the impacts and environmental performance of the projects, and effectiveness of management measures specified in the plan.	Management Plans	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S5.2e	Management Plan Requirements (e) a contingency plan to manage any unpredicted impacts and their consequences	C	The standard format for MPs includes a response plan for potential risks associated with the activities covered by the plan, including both intended and unplanned contingencies. These response plans include both direct actions to deal with adverse outcomes and arrangements for professional investigation and advice where required.	Management Plans	There is no recommendation
S5.2f	Management Plan Requirements (f) a program to investigate and implement ways to improve the environmental performance of the projects over time	O	Over the past several years, environmental management at Integra has been focused on the development and implementation of this consolidated approval and the measures required for compliance, and on planning to address the environmental impacts of future mining development. The EM Strategy and MPs are principally focused on meeting specified compliance conditions. In some instances performance improvement measures are specified in individual plans. AEMPs include a general statement of the principal environmental management activities planned for the coming year (see S5.3f). There is no consolidated environmental improvement program establishing objectives and targets for continual improvement.	EM Strategy Management Plans AMER Underground 2010 AMER Open Cut 2010	It is recommended that an annual environmental improvement program incorporating objectives and targets be developed for the site.
S5.2g	Management Plan Requirements (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> incidents; complaints; non-compliances with the conditions of this approval and statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria 	C	The standard format for MPs includes provisions for complaints handling and for addressing incidents and non-compliances. This includes responding to incidents in accordance with response plans, reporting and investigating incidents. Any non-compliances with the conditions of this approval and statutory requirements and exceedances of the impact assessment criteria and/or performance criteria are treated as incidents.	Management Plans	There is no recommendation
S5.2h	Management Plan Requirements (h) a protocol for periodic review of the plan.	C	The EM Strategy and individual MPs provide for reviews of each plan to be conducted every 3 years, after independent environmental audits and as required by relevant consent conditions. The purpose of these reviews is defined as being to ensure that the plan remains suitable, adequate and effective.	EM Strategy Management Plans	There is no recommendation
S5.3a	Annual Review By the end of March 2012, and annually thereafter, the Proponent shall review the environmental performance of the projects to the satisfaction of the Director-General. This review must: (a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year	NA	For 2010 and previous years, separate AEMRs were produced for the underground and open cut operations at Integra, in accordance with previous approvals. AEMRs for the period 2006 to 2010 are available on the Integra website. The 2011 AMER, due for submission by 31/3/2012, will be the first to provide an integrated report of the environmental management of the complex. The 2010 AEMRs describe the development (including rehabilitation) carried out in 2010, and the development that is proposed to be carried out in 2011 in a form that would be generally consistent with this requirement.	Integra Website AEMR Underground 2010 AEMR Open Cut 2010	It is recommended that the 2011 AR, to be prepared by 31/3/2012, provide an integrated account of the environmental management of the complex (including both underground and open cut operations) consistent with the requirements of the approval.
S5.3b	Annual Review (b) include a comprehensive review of the monitoring results and complaints records of the projects 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 documents referred to in Conditions 2 or 3 of Schedule 2 	NA	The 2010 AEMRs describe monitoring results for 2010 and record complaints received in a form that would be generally consistent with this requirement.	AEMR Underground 2010 AEMR Open Cut 2010	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S5.3c	Annual Review (c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance	NA	The 2010 AEMRs describe environmental performance under a series of categories, including information on reportable incidents and other non-compliances identified during the year and actions to ensure compliance.	AEMR Underground 2010 AEMR Open Cut 2010	There is no recommendation
S5.3d	Annual Review (d) identify any trends in the monitoring data over the life of the projects	NA	The 2010 AEMRs analyse monitoring results including trends in data over the life of the project.	AEMR Underground 2010 AEMR Open Cut 2010	There is no recommendation
S5.3e	Annual Review (e) identify any discrepancies between the predicted and actual impacts of the projects, and analyse the potential cause of any significant discrepancies	NA	Where relevant, the 2010 AEMRs identify discrepancies between predicted and actual monitoring results and other differences between planned and actual performance, and provide analysis of the causes.	AEMR Underground 2010 AEMR Open Cut 2010	There is no recommendation
S5.3f	Annual Review (f) describe what measure will be implemented over the next year to improve the environmental performance of the projects.	NA	The 2010 AEMRs include a listing of planned environmental improvement measures for 2011.	AEMR Underground 2010 AEMR Open Cut 2010	There is no recommendation
S5.4	Revision of Strategies, Plans & Programs Within 3 months of; (a) the submission of an annual review under Condition 3 above; (b) the submission of an incident report under Condition 6 below; (c) the submission of an audit report under Condition 8 below, or (d) any modification of the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.	C	This is provided for in the EM Strategy and MPs. The Strategy and MPs relating to the 2010 Project Approval are still being finalised. None of the conditions requiring review of strategies, plans and programs have yet been triggered.	EM Strategy Management Plans	There is no recommendation
S5.5	Community Consultative Committee The Proponent shall establish and operate a new Community Consultative Committee (CCC) for the projects in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and to the satisfaction of the Director-General. This CCC must be operating by the end of March 2011.	C	Action to establish a new CCC was commenced in January 2011 with a letter from Integra to Singleton Council and other existing Committee Members. On 11/4/2011, DP&I approved the new Chairman and members of the CCC. The first meeting was held on 10 May 2011, and the CCC has subsequently met on 15/11/2011.	Letter New CCC Letter Approval Matters 11/4/2011 Letter CCC Notice of Meeting CCC Meeting Minutes	There is no recommendation
Reporting					
S5.6	Incident Reporting The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the projects as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	NC	The Integra Incident Register records one incident which was reported to DP&I, a PM10 24hr criteria exceedance on 15/3/2011. Two follow-up monitoring reports were found to be all clear. In addition to the matters in the Incident Register there have been two recorded Airblast Overpressure exceedences at the Dulwich property on 29/12/2011 and 30/09/2011 (See S3.11). These exceedences were reported to OEH and DP&I.	Incident Register Consolidated Blast Results	See Recommendation 3.11.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
S5.7	<p>Regular Reporting</p> <p>The Proponent shall provide regular reporting on the environmental performance of the projects on its website, in accordance with the reporting arrangements in any approved plans or programs of the conditions of this approval.</p>	C	Monthly environmental monitoring results are provided published on the Integra website, as are previous AMERs.	Integra website	There is no recommendation
Independent Environmental Audit					
S5.8	<p>By the end of December 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the projects. This audit must</p> <p>(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the projects and whether they are complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</p> <p>(d) review the adequacy of any approved strategies, plans or programs required under these approvals; and, if appropriate</p> <p>(e) recommend measures or actions to improve the environmental performance of the projects, and/or any strategy, plan or program required under these approvals.</p>	C	Provided for by this audit.		There is no recommendation
S5.9	<p>Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.</p>	NA	To be undertaken following completion of this audit.		There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Access to Information					
S5.10a	From the end of December 2010, the Proponent shall: (a) make copies of the following publicly available on its website: <ul style="list-style-type: none"> the documents referred to in Conditions 2 and 3 of Schedule 2; all current statutory approvals for the projects; all approved strategies, plans and programs required under the conditions of this approval; the monitoring results of the projects, reported in accordance with the specifications in any conditions of this approval, or any approved plans or programs; a complaints register, updated on a monthly basis; minutes of CCC meetings; the annual reviews of the projects; any independent environmental audit of the projects, and the Proponent's response to the recommendations in any audit; and any other matter required by the Director-General; 	O	The listed documents, including drafts of Management Plans not yet approved by DP&I, are published on the Integra website. There have recently been some delays in uploading periodic information such as monitoring reports (including blast monitoring information) and train movement records to the website, and it is important that this source of community information be maintained in a timely manner.	Integra website	It is recommended that periodic information required to be published on the Integra website be uploaded on a timely basis, where possible within one month.
S5.10b	From the end of December 2010, the Proponent shall: (b) keep this information up-to-date, to the satisfaction of the Director-General.	O	See S5.10a.	Integra website	See Recommendation 5.10a
APPENDIX 6 - ALTERNATE NOISE CONDITIONS					
A6.1	Acquisition on Request following Cessation of Open Cut Mining Operations Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in Conditions 6-7 of Schedule 4.	NA	This condition does not apply until open cut mining operations have been substantially completed on site.		
Noise					
A6.2	Noise Criteria Except for the noise-affected land referred to in Table 1, the Proponent shall ensure that the noise generated by the projects does not exceed the criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land. However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.	C	See S4.2(a) and (b) above.		There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
APPENDIX 10 - STATEMENT OF COMMITMENTS - Underground Project Statement of Commitments					
Statutory Requirements					
A10.1	The development will be carried out as outlined in the following: <ul style="list-style-type: none"> • this Environmental Assessment Report (EA); • Project Approval; • Environment Protection Licence; • Subsidence Management Plans (SMPs); • Mining Lease(s); and • any other approvals, licenses or leases. 	C	Implementation of the underground project is based on the documentation specified in this condition. This is demonstrated in the Management Plans developed pursuant to the current Project Approval.	Management Plans Site inspection	There is no recommendation
A10.2	Undertake all activities in accordance with the accepted Mining Operations Plan; environmental procedures; safety management plan and/or site-specific documentation in force at that time.	C	Operation of the underground mine is based on the plans and procedures specified in this condition. This is demonstrated in the Management Plans developed pursuant to the current Project Approval.	Underground MOP Management Plans Site Inspection	There is no recommendation
Stakeholder Consultation					
A10.3	Preparation of a community newsletter following Project Approval.	NC	While Integra staff indicated that 2 community newsletters are normally prepared each year, the most recent community newsletter issued by Integra was in June 2010. General information on the current project approval was included in a letter to affected residents dated 17/12/2011, however no community newsletter was published following the Project Approval. Integra staff indicated that it is planned to issue another community newsletter in the first quarter of 2012.	Integra Website Letter Land Acquisition Staff interviews	It is recommended that the community newsletter planned for publication in the first quarter of 2012 outline the changes in operations associated with the current Project Approval and progress with their implementation. It is recommended that Integra resume the publication of community newsletters on a regular basis.
A10.4	Biannual meetings of the Community Consultative Committee.	C	Meetings have been held on 10/5/2011 and 15/11/2011. See also S5.5.	CCC Meeting Minutes	There is no recommendation
A10.5	Ongoing communication with the management of Xstrata and provision of subsidence monitoring data.	C	Xstrata is included in the distribution list for 4 monthly Subsidence Status Management Reports. As subsidence associated with current workings has generally been within predicted levels, there has not been a requirement for detailed discussions during the period of this audit.	Subsidence Status Reports	There is no recommendation
A10.6	Conduct a more detailed assessment of the potential impacts of subsidence on items of Xstrata infrastructure.	NA	This assessment will be required as part of the planning for future underground workings.		
Subsidence					
A10.7	Subsidence management Subsidence Management Plan applications will be submitted to the DPI detailing strategies to manage subsidence impacts, inclusive of measures referenced in this EA.	NA	Current workings are undertaken in accordance with an approved Subsidence MP. See S3.29. New Subsidence Management Plan applications will be required for future underground workings outside the scope of the current approved plan.		
A10.8	The mine plan for the Barrett seam longwall blocks will be developed and operated to provide a minimum 40 metre separation between the boundary to the connected alluvium and the 20mm subsidence line.	NA	This requirement relates to possible future underground operations. See S3.30.		

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.9	In addition to the overarching SMPs, specific management plans will be developed which will address potential subsidence impacts on specific items or areas of sensitivity, roads and associated infrastructure, transmission lines, communication infrastructure, Bettys Creek, farm fences, farm buildings and farm dams.	C	Specific management plans exist for current workings. New specific management plans will be needed to address areas of sensitivity affected by future underground workings. See A10.8.	Subsidence MP Annexes A-M	There is no recommendation
A10.10	Subsidence monitoring involving cross lines, longitudinal lines and three dimensional surveying will be undertaken to confirm the levels of subsidence occurring and enable refinements to subsidence predictions.	C	For current workings, provided for in Subsidence MP 2007, Appendix A and the Subsidence Monitoring Program	Subsidence MP Subsidence Monitoring Program	There is no recommendation
A10.11	Temporary remediation works will progress during mining, with permanent remediation works completed following full subsidence impacts in an area.	NA	Subsidence impacts have not yet resulted in a requirement for remediation works.	Subsidence MP Subsidence Status Reports	There is no recommendation
A10.12	Management of Subsidence Impacts on Surface Infrastructure. The new Forest Road Subsidence Management Plan to be built upon the existing management plan to reflect the expected subsidence and associated impacts.	NA	The longwall has not yet impacted on Forest Road.		
A10.13	As part of Hebden SMP development, a management plan for Glennies Creek Road and associated infrastructure will be prepared.	NA	Relates to future planning for second workings at the site. See S3.30.		
A10.14	As part of Barrett SMP development, a management plan for Middle Falbrook Road and associated infrastructure will be prepared.	NA	Relates to future planning for second workings at the site. See S3.30.		
A10.15	Possum Skin Dam will be decommissioned.	NA	The timetable for decommissioning will depend on development of the Western Extension and the availability of sections of the South Pit for storage of mine water.		
A10.16	The current Electricity Transmission Lines Subsidence Management Plan will be revised for inclusion in the new SMPs and will detail management of subsidence effects on powerlines.	NA	Relates to future planning for second workings at the site.		
A10.17	The existing management plan for the Forest Road communications/Telstra line will be reviewed and updated in consultation with Telstra to reflect changes resulting from this proposal.	NA	Relates to future planning for second workings at the site.		
A10.18	Stakeholder consultation and monitoring of the existing communication cable adjacent to the Mt Owen Rail Spur will be carried out to ensure the cable remains serviceable during subsidence.	C	The Subsidence MP Annex A Sec 4 provides for monitoring of the cable by Telstra.	Subsidence MP Annex A Sec 4	There is no recommendation
A10.19	Should XMO's mine plan change, any potential subsidence effects on its tailings dams or highwalls will be addressed in the relevant SMPs at that time.	NA	Relates to future mining operations at neighbouring sites.		

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.20	ICO will undertake a more detailed assessment of potential impacts on the Ravensworth East / XMO and Glendell Open Cuts.	NA	Relates to future mining operations at neighbouring sites.		
A10.21	ICO will provide stakeholders such as Singleton Shire Council and landowners who border roads with a monthly update of the location of the longwall face relative to the road, and the estimated progress of the longwall during the following month.	NA	The longwall has not yet impacted on Forest Road. A communication mechanism, such as a notice on the Integra website, will need to be established and communicated to relevant stakeholders before any such impact occurs.		It is recommended that prior to the longwall being extended under Forest Road, a communication mechanism to advise of possible impacts be established and communicated to relevant stakeholders.
A10.22	Signs will be erected by ICO at points on the road at the edge of the longwall subsidence impact zone.	C	Signs have been erected on Forest Road, however the longwall has not yet impacted on this area.	Site Inspection	There is no recommendation
A10.23	Approval will be sought from DPI and ARTC prior to any mining within the Main Northern Railway protection zone. Any proposed workings in the Main Northern Railway protection zone will be designed to be long term stable - taking site conditions into consideration.	NA	No underground workings are planned or being undertaken in the Main Northern Railway protection zone.		
A10.24	A subsidence management plan will be devised in consultation with the MSB and the owners of houses above Barrett Seam Longwall 7.	NA	Relates to future planning for second workings at the site.		
A10.25	Surveys will be conducted prior to, during and after mining, to confirm the levels of subsidence movements and impacts, and identify if triggers for implementation of management measures have been reached.	C	Provided for in the Subsidence Monitoring Program and Subsidence Status Reports.	Subsidence Monitoring Program Subsidence Status Reports	There is no recommendation
A10.26	ICO and the MSB will undertake rebuilding, rectification of structural work, re-leveling and remedial work to surface water drainage and sewerage systems at the existing Glennies Creek Community Hall as required to remediate anticipated subsidence damage.	NA	No underground mining is currently planned or being undertaken that would impact on this site.	Site inspection	
A10.27	Ensure Minimal Subsidence impacts on natural features. The Hebden SMPs to be developed will incorporate and build upon the existing Surface Drainage Management Plan.	NA	Relates to future planning for second workings at the site.		
A10.28	A Bettys Creek Diversion Management Plan will be prepared as part of the Hebden SMPs.	NA	Relates to future planning for second workings at the site.		
A10.29	ICO will prepare: <ul style="list-style-type: none"> • a response strategy to address any destabilisation of Main Creek; • a works programming for any necessary remedial works in Main Creek should subsidence expression initiate incision and headward erosion; • an outline of expansion of piezometric monitoring; and • a TARP as part of a surface water and groundwater monitoring and management program. 	NA	Relates to future planning for second workings at the site.		

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.30	Ensure minimal subsidence impacts on farm infrastructure. The Hebden SMPs and Barrett SMPs to be developed will incorporate and build upon the existing Farm Fences, Farm Buildings and Farm Dams Subsidence Management Plans, as appropriate.	NA	Relates to future planning for second workings at the site.		
A10.31	In consultation with the relevant landowner, ICO will remediate any dam that is damaged by subsidence (or has its storage capacity reduced by more than 10 percent) to a condition similar to that prior to subsidence.	NA	No significant impacts on farm dams have yet occurred.	Subsidence MP Subsidence Status Reports Staff interviews	
Ecology					
A10.32	<ul style="list-style-type: none"> ICO will implement the following flora and fauna management procedures. Revegetate the planned Bettys Creek diversion channel and adjacent areas; Undertake surveys along the creek diversion and revegetated areas to record any significant loss of planted seedlings and monitor the use of revegetated areas by native fauna. Revegetation design, weed management, exclusion of cattle and ongoing monitoring in the area of the Bettys Creek diversion will be coordinated in consultation with Glendell The abandoned Bettys Creek channel will be managed (i.e. weed control and exclusion of cattle) in conjunction with the ongoing management and monitoring of the proposed diversion. Based on the ephemeral nature of the existing channel, consideration will be given to blocking off the abandoned channel at the downstream end to act as a billabong to retain any surface flows. Undertake pre-clearance inspections of borehole sites. Where possible, the inspections will be undertaken during the summer flowering period to optimise detection of <i>Bothriochloa biloba</i> and to avoid impacting directly on any individual plants. 	O	<p>Sec 6.8 of the Water MP indicates that as underground mining in the Bettys Creek locality is not planned until 2016, a detailed Creek Diversion Plan will be developed 18 months prior to activities occurring in consultation with NOW and OEH. Construction of the diversion will commence 12 months before underground mining activities in this area to ensure vegetation is re-established to reduce any erosion of the diversion channel. Revegetation and other land management activities will be considered as part of this planning process. See also S3.40b.</p> <p>Pre clearance inspections of the borehole sites were undertaken in Nov 2010 for gaswell 11 series. <i>Bothriochloa biloba</i> was not targeted by consultants Environmental Resource Management during the borehole inspections.</p> <p>The 2008 Weed MP included GIS mapping of operational and non-operational areas of Integra for known weed locations.</p>	Water MP Photographic survey photos ERM gaswell letter Weed MP	It is recommended that weed surveys targeting <i>Bothriochloa biloba</i> be undertaken in advance of any mining activity impacting on the Bettys Creek area.
Heritage					
A10.33	<p>Artefact scatters (sites 37-3-0597,37-3-0595 and 37-3-0027) that will be destroyed by the proposed Bettys Creek diversion will be salvaged and involve the following.</p> <ul style="list-style-type: none"> During clearing works in the areas where surface earthworks will occur, a qualified archaeologist will undertake field work with assistance from the Aboriginal community. Artefacts will be recorded individually and, once any site is salvaged, all materials and list of details collected for each artefact will be provided to Aboriginal Land Council. 	C	<p>Arrangements for management and salvage of aboriginal sites and artefacts are set out in Section 4 of the Aboriginal Heritage MP. A surface salvage program covering the whole site, including the proposed Bettys Creek diversion was completed in July 2011. Salvaged artefacts were catalogued and returned to the site in December 2011, and a secure Keeping Place is being established.</p> <p>See also S3.47</p>	Aboriginal Heritage MP	There is no recommendation
A10.34	Monitoring of excavation works along the banks of Bettys Creek will be undertaken by a representative of the Aboriginal community,	NA	This condition relates to future development of underground mining operations and is not applicable during the period of this audit.		

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.35	The area to be impacted by the realignment of Main Creek will be resurveyed with the assistance of the local Aboriginal community and any sites fully recorded and logged prior to the confirmation of the channels' locations and designs.	NA	Underground mining has already taken place below Main Creek and no realignment is expected. Comprehensive identification of aboriginal sites and salvage of artefacts has already taken place.	Aboriginal Heritage MP	
A10.36	Should the additional survey works in the area to be impacted by the realignment of Main Creek highlight any areas of high cultural or scientific significance, the alignment of the proposed works will be altered and / or subsurface investigations will be undertaken in consultation with DECC and DoP.	NA	See A10.35		
A10.37	Sites 37-3-0682, 37-3-0683 and any additional sites recorded during the survey will be salvaged prior to construction commencing and all activities requiring soil removal associated with the realignment of Main Creek will be monitored by representatives of the Aboriginal community. The salvage will: <ul style="list-style-type: none"> • be undertaken by a qualified archaeologist during clearing works in the areas where surface earthworks will occur with assistance from the Aboriginal community; and • include recording of individual artefacts. Once any site is salvaged, all materials and list of details collected for each artefact will be provided to the Local Aboriginal Land Council. 	NA	See A10.35		
A10.38	Monitoring of excavation works along the banks of Main Creek will be undertaken by a representative of the Aboriginal community.	NA	See A10.35		
A10.39	Infrastructure will be sited to avoid impacts to known heritage sites. Should impacts be unavoidable, DECC and the local Aboriginal community representatives will be consulted.	C	Procedure PRO_0383 Land Management, requires that prior to disturbing any land associated with mine operations, a land disturbance form shall be completed and a Land Disturbance Permit obtained. The form shall ensure that any disturbance to land such as land clearing will not disturb or damage any archaeological or cultural significant sites or objects. The Land Disturbance Permit process requires the Environmental Advisor to check and approve that archaeological sites have been identified and works designed to avoid disturbance.	Land Management Procedure Land Disturbance Form	There is no recommendation
A10.40	The Aboriginal community will be given the opportunity to collect any surface artefacts from the planned surface (remediation) activities.	C	Provided for in the Aboriginal Heritage MP. See A10.33.	Aboriginal Heritage MP	There is no recommendation
A10.41	In consultation with the local Aboriginal community, the existing Aboriginal Cultural Heritage Management Plan (ACHMP) will be revised and built upon to detail management of project induced effects.	C	Undertaken in the Aboriginal Heritage MP prepared as part of this Approval.	Aboriginal Heritage MP	There is no recommendation
A10.42	DECC and the Local Aboriginal Community Representatives will be consulted should there be impacts to potential Aboriginal deposits as a result of remediation works along creeks and works to rehabilitate cracks.	C	Provided for in the Aboriginal Heritage MP, Sec 3.4, 4.7	Aboriginal Heritage MP	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.43	A qualified archaeologist will assess the potential impact of the planned works.	C	Addressed through the Aboriginal Site Savage Survey	Aboriginal Heritage MP	There is no recommendation
A10.44	Should subsidence levels be greater than predicted, archaeological sub-surface testing may be undertaken in affected areas with the involvement of the Aboriginal stakeholders and DECC.	C	Subsidence levels to date have not been greater than predicted in the Subsidence MP 2007 Annex L Archaeology Subsidence Management Plan.	Subsidence MP 2007 Annex L Staff Interviews	There is no recommendation
A10.45	The Hebden SMPs to be developed will incorporate and build upon the existing Archaeology Subsidence Management Plan.	NA	This condition relates to future development of underground mining operations and is not applicable during the period of this audit.		
Surface Water					
A10.46	ICO will maintain the existing surface water monitoring program, and undertake additional monitoring including collection of grab samples during or immediately after surface runoff events along ephemeral watercourses; monthly water quality sampling of major water major storages on the site; collection of data on water quantity and at least weekly collection of underground mine dewatering and raw water supply volume data.	C	The Water MP, Sec 6.10, provides for the continuation of the existing surface water monitoring program and additional monitoring in accordance with this condition.	Water MP	There is no recommendation
A10.47	ICO will maintain a photographic record of the creeks and dam walls to determine historical (baseline) rates of erosion.	O	A range of photographic evidence, both aerial and terrestrial, is available over the life of the mine which documents the state of watercourses. However no systematic program involving periodic photography of specified locations has been established.	Staff interviews	It is recommended that a formal program be established to maintain a photographic record of key locations on creeks and dam walls to provide evidence of rates of erosion over time.
A10.48	As part of the erosion and flood studies, ICO will assess whether rapid changes in channel or floodplain form occur in the aftermath of runoff events.	C	The Subsidence MP identifies the possibility that temporary or permanent ponding of water in flat areas following heavy rain or flooding may occur as effect of vertical subsidence, although no significant effects were predicted or have been observed in relation to current workings. Monitoring arrangements are set out in the Subsidence MPs for each longwall section.	Subsidence MP Sec 10.3.4 Water MP Sec 6.11.9	There is no recommendation
A10.49	Monitoring results will be reported in the AEMR and distributed to the relevant Government agencies, CCC members and other relevant stakeholders.	C	Water monitoring results are reported in the AEMR and in monthly monitoring reports which are published and distributed to stakeholders.	AEMR Underground 2010 Monthly Underground Environmental Monitoring Reports	There is no recommendation
A10.50	ICO will prepare: <ul style="list-style-type: none"> • a response strategy to address any destabilisation of Main Creek; • a works programming for any necessary remedial works in Main Creek should subsidence expression initiate incision and headward erosion; • an outline of expansion of piezometric monitoring; and • a TARP as part of a surface water and groundwater monitoring and management program. 	NA	This condition relates to future development of underground mining operations and is not applicable during the period of this audit. Current operations do not affect the stability of Main Creek.		
A10.51	No impacts will occur to licensed water users, basic landholder rights or minimum baseflows in Glennies Creek regulated river or environmental water requirements.	C	Water management at the mine has been designed to avoid any impact on other water users. See S3.33 - S3.36.	Water MP	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.52	A Site Water Management Plan will be prepared outlining management measures associated with potential erosivity of the Bettys Creek diversion or degradation of Glennies Creek and any subsidence effects that may occur on the diversion or Glennies Creek and its associated alluvium.	NA	This condition relates to future development of underground mining operations and is not applicable during the period of this audit.		
A10.53	The mine plan will be developed and operated such that no detectable or measureable ingress of surface water into the mine workings will be generated that can't be reversed.	C	The Subsidence MP does not predict any ingress of surface water into underground workings, and there is no history of such ingress.	Subsidence MP Sec 10.3.3	There is no recommendation
A10.54	Integra Coal will not restrict Xstrata Coal's ability to stabilise and reconfigure the diversion to Bettys Creek, and will develop an updated Site Water Management Plan to manage any adverse impacts from extraction of the Hebden Seam panels, including the collection of monitoring data by an independent consultant agreed to by ICO and Xstrata prior to the diversion being undermined.	NA	This condition relates to future development of underground mining operations and is not applicable during the period of this audit.		
A10.55	Integra Coal will provide evidence that their water accounting procedure complies with dealings rules as prescribed under the Hunter Regulated River Water Sharing Plan (HRRWSP) and/or Hunter Unregulated River and Alluvium Water Sharing Plan (HURAWSP).	NA	The Mine does not draw water from watercourses. See S3.32.	Water MP Sec 6.5	
A10.56a	• Integra Coal will ensure it has sufficient water to meet mine operational demands in accordance with the statutory rules of the Hunter Regulated River Water Sharing Plan (HRRWSP) and/or Hunter Unregulated River and Alluvium Water Sharing Plan (HURAWSP), and any other statutory instruments in force under the Water Act 1912, and Water Management Act 2000. Should insufficient water be available to continue mining operations, mining operations will be scaled back to meet water supply requirements.	NA	The Mine does not draw water from watercourses. See S3.32.	Water MP Sec 6.5	
A10.56b	• any proposed workings under Glennies Creek and its associated alluvium will be designed to be stable in the long term, taking site conditions into consideration.	NA	The only workings under Glennies Creek and its associated alluvium are the access tunnel for underground operations which is designed to remain stable.	Subsidence MP Fig 1.2	
Ground Water					
A10.57	The current groundwater monitoring program will continue with ongoing review and possible modification of the program as further data is obtained and interpreted. Annual reports documenting and interpreting the collected data will be prepared.	C	The Water MP, Sec 7.2, provides for the continuation of the existing groundwater monitoring program and additional monitoring as required to monitor groundwater impacts and to provide a data set that enables comparison of the actual impacts of the Open Cuts and Underground Areas with those predicted in their respective Environmental Assessments.	Water MP Sec 7.2	There is no recommendation
A10.58	Groundwater samples will be collected annually from selected piezometers and analysed at a NATA registered laboratory for major ions and selected metals. The groundwater program will be maintained in its current form, with a review of the program after interpretation of the first 12 months' data.	C	These requirements are provide for in the Water MP, Sec 7.2.2.	Water MP Sec 7.2	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.59	<ul style="list-style-type: none"> A private well monitoring program will be initiated to determine its pre mining yield if requested by a private bore owner. Should a reduction in groundwater availability be detected, remedial action will be undertaken by Integra to offset the measured losses. Such actions may include digging the well deeper, installing a new well or installing a replacement bore. 	C	At present there is one active registered groundwater extraction point (well GW67291) within the potential drawdown area for the North Open Cut , Extended South Pit (Western Extension) or Integra Underground. The Water MP provides that in the event of any reported adverse impacts on the yield of the subject water supply well or any private bores or wells that may be developed in the future within the Integra Open Cut and Underground Areas, the cause will be investigated by a suitably qualified and experienced hydrogeologist, and if the impacts can be directly related to the mine following assessment of the available monitoring data, either the affected bore or well will be deepened or an alternative water source will be provided.	Water MP Sec 7.6.1	There is no recommendation
A10.60	Performance indicators will be identified and a statistical assessment will be undertaken to detect when, or if, a significant change has occurred in the groundwater system and to benchmark the natural variation in groundwater quality and standing water levels.	C	Trigger levels for investigation of changes in groundwater quality are set out in the Water MP Sec 7.4.	Water MP Sec 7.4	There is no recommendation
A10.61	Contingency procedures will be developed. Activation of contingency procedures will be linked to the assessment of monitoring results.	C	Set out in the Water MP Sec 7.6.	Water MP Sec 7.6	There is no recommendation
A10.62	Following the completion of extraction of each longwall panel, a report will be prepared that summarises relevant monitoring data. Relevant monitoring and management activities for each year will also be reported in the AEMR.	C	End of panel reports have been prepared for panels where mining has been completed summarising relevant monitoring data. The most recent report relates to Longwall Panel 7 (April 2008). Relevant monitoring and management activities re also reported in AEMRs.	LW 7 End of Panel Report AEMR Underground 2010	There is no recommendation
Air Quality					
A10.63	<ul style="list-style-type: none"> Implement the following air quality control procedures. Coal handling areas, stockpiles, roads and trafficked areas will be maintained in a moist condition using water carts and I or water sprays to minimise wind-blown and traffic-generated dust. Water sprays will be used at the longwall and development face to control particulates. All haul roads will have edges clearly defined with marker posts or equivalent to control their locations, especially when crossing large overburden emplacement areas. Obsolete roads will be ripped and revegetated; Development of minor roads will be limited and the locations of these will be clearly defined. Minor roads used regularly for access etc will be watered/treated to control dust. Due to OHS regulations regarding underground air quality, dust generated underground will be minimised. Currently this includes the application of water and/or use of dust suppressants. 	C	These dust suppression activities are provided for in the Air Quality MP, Sec 5.1 and were observed during the audit.	Air Quality MP, Sec 5.1 Site Inspection	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.64	ICO will continue air monitoring in accordance with the Integra Underground EMS Procedure 002-2, Air Quality Monitoring Program, including monitoring weather conditions, TSP, PM10 (using HVAS), real time PM10 (using TEOM) and dust fallout.	C	Air monitoring is being undertaken according to the Integra underground Air Quality Monitoring Program. One of the TEOM real time dust monitors was malfunctioning on the day of the audit and action was taken immediately to rectify the problem by resetting the device. The contractor was called immediately following this to attend to the device and get it back on line.	Site Inspection Air Quality MP Air Quality Data (Sep 2010 to Aug 2011)	There is no recommendation
A10.65	The results of the ongoing air quality monitoring program will be communicated to residents in the Local Community.	O	Results of the air quality monitoring program are communicated to residents via the CCC meetings, and results are published in AEMRs as well as an environmental monitoring results section which are available on the Integra website. It was noted that the latest website results were for September 2011 which represents a 4 month lag in publication.	CCC meeting minutes AEMR 2010 Integra website	It is recommended that the air quality monitoring results on the integral website be updated on at least a monthly basis to allow public access to more recent monitoring data.
Greenhouse Gases					
A10.66	Fugitive methane emissions will be captured for energy generation where possible. If not feasible, flaring will be adopted, where practicable.	C	Methane captured from the underground operations via ventilation and bore holes are supplied to the Glennies Creek Methane fired power station (Envirogen) .	Greenhouse Gas MP Site inspection	There is no recommendation
A10.67	Greenhouse gas emissions will be estimated and reported annually.	C	As stated in the Greenhouse Gas MP, greenhouse gas emissions are estimated using a combination of electricity usage, diesel usage, estimated methane emissions, methane used for power generation and ROM coal production. These figures are reported via the AEMR, as well as through NGRS reporting. It is stated in the GGMP that these reports will be made available to the public through the NGRS program, however Integra mine is a part of a larger organisation, and therefore is not reported separately in the NGRS publication of data.	Greenhouse Gas MP Integra Website AEMR 2010 AEMR 2009	It is recommended that estimates of greenhouse gas production as reported for NGRS be made available on the Integra website.
A10.68	Energy and greenhouse gas emission reduction initiatives will be implemented throughout the life of the development, including the following. <ul style="list-style-type: none"> The efficiency of all new and upgraded mobile and fixed equipment will be considered during procurement for fuel powered equipment. Ensuring equipment will be maintained to retain high levels of energy efficiency. The inventory of emissions developed for this environmental assessment will be maintained. Emissions and abatement strategies will be reported annually as part of the internal environmental reporting and National Greenhouse and Energy Reporting obligations and in the AEMR. 	NC	A Draft Greenhouse Gas MP was submitted to DP&I on 30/3/2011 and is awaiting formal approval. Implementation of these requirements is addressed in the Greenhouse Gas MP and discussed in S3.21, where it is found that there is a need to modify purchasing procedures to ensure that GHG and energy efficiency considerations are fully addressed. Emissions reporting is addressed in A10.67.	Greenhouse Gas MP AEMR 2010 Supplier QA Procedure NGRS Data	See Recommendations S3.21 and A10.67.
Noise and Vibration					
A10.69a	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Use of conveyors instead of haul roads where approved. 	C	An application to continue hauling coal from Integra Underground by truck to the CHPP until December 2010 was approved in 2005. A modification (MOD 2) is in progress to seek to remove the commitment to use conveyors instead of haul roads.	Integra Opencut NMP, Pers comm Sam Taylor, 23 February 2012	It is recommended that any changes resulting from MOD2 be incorporated into the Noise Management Plan once approved.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.69b	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Construction of acoustic bunds adjacent to haul roads where recommended by an acoustic consultant. 	C	Viewed Amenity Bund Construction Noise Management Plan and the construction of acoustic bunds adjacent to haul roads not recommended anywhere, only for amenity. However, the Integra Opencut NMP states ' <i>a significant portion of the safety bund that would be constructed along the western edge of the proposed RL100 haul road must be built to a height of 3m in order to achieve the predicted noise levels.</i> ' Discussions between Sam Taylor and the Vale Surveyor suggests the safety/noisebund adjacent to RL100 haul road has been constructed to 5 metres.	Amenity Bund Construction NMP and Integra Opencut NMP, Pers comm Sam Taylor, 28 March 2012.	It is recommended that Integra carry out any works required under MOD2.
A10.69c	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Use of routine monitoring results to refine on-site noise mitigation measures and operating procedures. 	NC	Testing of drill and dozer prior to entering service and sound power testing undertaken during 2008. No evidence that attenuation of equipment has been carried out to meet site sound power specifications or levels modelled in the noise assessment for the Northern Extension. No evidence of predicted noise emission levels (based on actual measured on site mobile equipment) or that levels are being achieved at identified receptors.	Drill and dozer sound power test, Sound Power Testing, November 2008, 2011 attended monitoring reports.	It is recommended that Integra improve documentation and record keeping of noise test results. It is recommended that Integra carry out attenuation of equipment identified in sound power tests as not meeting the relevant limit. It is recommended that modelling of noise emissions using actual sound power levels and possible operating scenarios be conducted to allow proactive management of site operations, particularly at night.
A10.69d	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Undertake noise audits at boundary positions to static sources to verify potential change in overall sound emissions. 	NA	While no evidence has been found to demonstrate noise audits have been undertaken at boundary positions to static sources, this requirement is considered unnecessary and redundant.		It is recommended that the requirement to undertake noise audits at boundary positions to static sources be removed from the Project Approval.
A10.69e	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Undertake regular discussions with potentially affected residents to proactively identify noise related issues of concern. 	C	Meeting with Camberwell resident 21 February 2012. Also meeting with 11 receivers as part of 2011 independent review that indicate discussions with potentially affected residents do discuss noise issues. Quarterly CCC meetings are held to discuss issues, including noise. Community representatives have the opportunity to discuss issues, including those raised by other members of the community who may not be present.	File note Camberwell Village, Independent Review October 2011, CCC Minutes	It is recommended that Integra continue to proactively address noise-related concerns with residents.
A10.69f	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Undertake quarterly monitoring at identified representative receivers. 	C	Quarterly monitoring reports and 2011 AEMR indicate that quarterly monitoring is undertaken at representative receivers (under existing NMP's). Independent Review, October 2011 recommends some additional monitoring locations be added to the monitoring program. Viewed February 2012 Quarterly Report that shows monitoring has commenced at 5 of the 6 recommended locations.	2011 quarterly monitoring reports, AEMR 2011, Independent Review, October 2011, February 2012 Quarterly Report.	It is recommended that Integra commence monitoring at representative receivers (under the revised Noise Management Plan) as soon as practicable, and continue to incorporate recommended additional monitoring locations from Independent Review where appropriate.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.69g	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Implement acoustic mitigation at residences where exceedances of the project specific criteria are demonstrated via the monitoring program and requested by the landowner. 	C	The Independent Review, October 2011 suggested there was an exceedance of mitigation criteria at one location. However, as the Integra LAeq is often shown as a range of values for each measurement, it is difficult to determine the actual exceedance. No evidence of written requests, however, Sam Taylor has indicated that some noise mitigation has been undertaken on residences listed in Table 1 and Table 6 of the Project Approval, November 2010. In addition, mitigation offers have been made to four residences (November 2011) resulting from recommendations in the Independent Review, October 2011.	Pers comm Sam Taylor, 23 February 2012, Independent Review, October 2011, Mitigation Letters.	See Recommendation S4.1a
A10.69h	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Consideration of negotiated agreements with landowners where exceedances of the project specific criteria are substantiated by monitoring. 	C	Viewed letters for two negotiated agreements, however, these are not based on substantiated exceedances.	Agreement Letter 1, Agreement Letter 2.	There is no recommendation
A10.69i	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Informing residents that the existing community information line for Integra Underground would apply to this proposal. 	C	Viewed Community Newsletter that states the existing information line applies to Integra Underground.	Community Newsletter, June 2010	There is no recommendation
A10.69j	ICO will implement the following noise management procedures and monitoring programs. <ul style="list-style-type: none"> Existing and / or additional real time noise monitoring will be utilised to manage, assess and control potential emissions from the Integra Open Cut and Underground operations. 	C	Real time noise monitoring system at 116 Thomas Lane (Integra owned property) installed before 4 January 2009, one temporary real time noise monitoring system installed near Camberwell Village (Wattling residence) 28 December 2011. Viewed screenshot of real time noise monitor setup (including SMS alerts) and email from Sam Taylor detailing procedure for modifying the operation where required (including notifying the OCE). January 2012 Complaints Register indicates that the real time monitoring system is being used to assess compliance. No occasions viewed where actions or modifications to the operation have been required.	Pers comm Sam Taylor, 23 February 2012, January 2012 Complaints Register.	See Recommendation 3.9(b)
A10.70	A blast management protocol will be developed in conjunction with XMO to manage potential impacts from other mine's blasting on the underground mining activities.	C	Integra has sought to consult with neighbouring mines to minimise cumulative impacts from blasting. No formal protocol has yet been agreed. It was asserted that neighbouring mines do not currently have approval conditions requiring consultation. See S3.16b and S3.19e.	Blast MP Sec 4.18 Interview with Drill and Blast Staff	See Recommendation S3.16b
A10.71	Integra will investigate the feasibility of installing an overland conveyor to transport coal from the Integra Underground to the Integra CHPP and provide the outcomes of that investigation to the Director-General.	C	See S3.48. An investigation in 2011 by consultants Environmental Resource Management indicated that the conveyor option was uneconomic and produced only limited benefits in terms of noise and dust reduction outside the mine site.	Letter Coal Haulage Project Assessment MOD 1 DP&I Website	See Recommendation S3.48
Transport					
A10.72	A new Mt Owen Rail Spur Management Plan will be prepared in consultation with XMO, and will include monitoring, stakeholder consultation and mitigation measures.	NA	This condition relates to the future development of mining operations and is not applicable during the period of this audit. Requirements to address possible impacts of subsidence on the line will be considered in detailed planning for mining of Longwalls 10-17, as provided for in the Subsidence MP, Sec 9.3	Subsidence MP 2007, Sec 9.3	
A10.73	Current traffic and transport management measures will continue. In addition, linemarking of Stony Creek Road and Middle Falbrook Road will be undertaken if requested by Council.	C	Current mining activities have not yet produced any significant impact on traffic on Stony Creek Road and Middle Falbrook Road.	Staff interviews	There is no recommendation
Waste					

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.74	<p>Wastes will continue to be managed in accordance with the Integra Underground Procedure PRO_0381 - Waste Management, including the following.</p> <ul style="list-style-type: none"> • Reuse of mine water for dust suppression at the Integra Underground and Open Cut, in the CHPP and at neighbouring mines. • Ali waste oils will be pumped into on site storage tanks for subsequent transfer to a registered waste disposal company. • Old batteries will be stored in a designated bin prior to collection by a licensed contractor. • All scrap steel will be stored in dedicated skips and sold to scrap steel merchants for recycling. • Bulk chemical containers will be returned to suppliers for reuse as part of the supply agreement. • Pallets will be collected by a recycling contractor. • Colour-coded recycling containers will be placed in identified areas for collection of cardboard and paper products and collected regularly by licensed contractors / recyclers. • Sewerage waste from site offices, administration building, maintenance areas and bath houses will be treated using an aerated wastewater treatment system before being discharged to an anaerobic and aerobic dam system. The water will then be irrigated onto adjacent land. • Sludge from the aerated wastewater systems will be pumped out as required by contractors and disposed of to a licensed facility. • Hazardous materials will be stored in accordance with Australian Standards. • Old paints preservatives, disused chemicals, solvents and coolants will be stored in allocated areas prior to being removed 	O	<p>Under the terms of this Approval, waste management will be based on the Waste MP, which generally continues the waste management strategies set out in Integra Underground Procedure PRO_0381 - Waste Management.</p> <p>All water for dust suppression is currently provided from mine water and water is exported to Ashton coal. See S3.32.</p> <p>There is evidence that bulk containers are not being returned to suppliers on a regular basis. Over 20 containers were observed sitting on site. The Waste MP indicates that Integra open cut and underground facilities both operate sewerage systems approved by Singleton Council. Each system has a licence detailing conditions of use and reporting requirements. The open cut facility uses an aerobic treatment system while the underground facility uses an anaerobic system. Effluent from each system is irrigated within a designated waste water utilisation area. Sludge from both systems is pumped out as required and disposed at a licensed treatment facility.</p> <p>Other waste streams are managed under the waste management contract with Thiess Services. This contract is due for renewal on 31/1/2012.</p>	<p>Waste MP PRO-381 Waste Management THIESS records THIESS contract THIESS minor services agreement</p>	<p>It is recommended that action be taken to ensure that empty bulk chemical containers are returned to suppliers for reuse on a regular basis.</p>
Rehabilitation					
A10.75	<p>Rehabilitation associated with proposed mining will be undertaken in accordance with the relevant MOP, REMP, Extraction Plans and SMPs.</p>	C	<p>Rehabilitation MP prepared as a result of this approval takes account of rehabilitation planning and activities undertaken in accordance with previous management plans.</p>	<p>Rehabilitation MP MOP report 2009 REMP report</p>	<p>There is no recommendation</p>
Socio-Economic					
A10.76	<p>A social impact monitoring strategy will be developed that quantifies the impacts on the local community and the effectiveness of strategies implemented in minimising these impacts.</p>	NC	<p>There is no evidence that a social impact monitoring strategy has been developed. However, a range of relevant information has been collected in the course of ongoing communication with neighbouring landowners and other residents. It is suggested that any action to meet this condition should be discussed in the first instance with the CCC. It is noted that this condition particularly relates to the development of future underground mining operations.</p>	<p>Staff interviews</p>	<p>It is recommended that the need for and scope of a social impact monitoring strategy be discussed with the CCC.</p>
APPENDIX 10 - STATEMENT OF COMMITMENTS - Open Cut Project Statement of Commitments					
General					
A10.77	<p>Integra will comply with all conditional requirements in all approvals, licences and leases.</p>	C	<p>Integra's compliance with this condition is assessed through this audit.</p>		<p>There is no recommendation</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.78	Integra will conduct all operations in accordance with all relevant documentation including: <ul style="list-style-type: none"> • Mining Operations Plan; • environmental procedures; and • safety management plans and/or site specific documentation. 	C	Integra's open cut operations are conducted in accordance with the terms of this approval, Management Plans developed as a result of this approval, the MOP and relevant environmental and safety procedures.	MOP 2010	There is no recommendation
Soils and Land Capability					
A10.79	Strip material to the depths stated in Table 6-3.	C	Provided for in MOP 2010, Sec 8.1.4. Land disturbance activities at Integra are generally undertaken in accordance with the MOP and the Land Management Procedure. Land Disturbance Forms completed for each land disturbance activity provide for the Environmental Advisor to assess whether appropriate controls are implemented. While no major land disturbance activities were taking place at the time of the audit, observations indicated that the process conducted in a professional manner.	MOP 2010 Land Management Procedure Land Disturbance Form	There is no recommendation
A10.80	Material will not be stripped in either extremely wet or dry conditions.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation
A10.81	Stripped material will be used immediately (where practicable) to avoid the requirement for stockpiling.	C	Provided for in MOP 2010, Sec 8.1.4. See A10.79.	MOP 2010	There is no recommendation
A10.82	Tracking over previously laid soil will be avoided to minimise compression effects.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation
A10.83	The surface of soil stockpiles will be left in as a coarsely textured a condition as possible to promote rainfall infiltration and minimise erosion.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation
A10.84	A maximum stockpile height of 3m will be maintained where practicable.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation
A10.85	Stockpiles will be positioned away from drainage lines and/or upslope water diversion banks or similar controls will be installed.	C	Provided for in MOP 2010, Sec 3.3.2, Sec 8.1.4. See A10.79.	MOP 2010	There is no recommendation
A10.86	Downslope sedimentation controls will be installed until the soil stockpiles are appropriately stabilised.	C	Provided for in MOP 2010, Secs 3.3.2, 8.1.4. See A10.79.	MOP 2010	There is no recommendation
A10.87	If long term stockpiling is planned (i.e. greater than 3 months), stockpiles will be seeded and fertilised as soon as possible.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation
A10.88	Prior to re-spreading stockpiled topsoil onto reshaped overburden, it will be decided if individual stockpiles require herbicide application and / or 'scalping' of weed species prior to topsoil spreading.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation
A10.89	An inventory of available soil will be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities.	O	Provided for in MOP 2010, Sec 8.1.4. A record of an Audit of Topsoil Stockpiles dated July 2010 was sighted.	MOP 2010	It is recommended that an inventory of available soil for rehabilitation activities be maintained and reviewed on a regular basis.
A10.90	Topsoil will be spread to a nominal depth of 0.10m.	C	Provided for in MOP 2010, Sec 3.3.2. See A10.79.	MOP 2010	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Groundwater					
A10.91	Standing water levels and groundwater quality will be assessed in accordance with Table 7.3, Table 7.4 and Table 7.5.	C	The groundwater monitoring program is set out in the Water MP and has been designed to monitor groundwater impacts and to provide a data set that enables comparison of the actual impacts of the Open Cuts and Underground Areas with those predicted in their respective Environmental Assessments.	Water MP Sec 7.2	There is no recommendation
A10.92	All results will be reviewed and updated monitoring and remediation plans will be developed as required in consultation with DWE, DPI-MR and DECC.	C	This is provided for in the Water MP, Sec 7.6. AEMPs provide a detailed review of Groundwater Monitoring Results against modelling predictions, including an analysis of any deviations.	Water MP Sec 7.6 AEMP 2010	There is no recommendation
A10.93	If required, contingency measures will be developed to manage any adverse impacts identified by monitoring that may indicate unanticipated effects in the groundwater system's response to mining in the proposed Pit.	C	Contingency measures to address adverse impacts are set out in the Water MP, Sec 7.6.	Water MP Sec 7.6	There is no recommendation
A10.94	If the impacts of mining on the alluvium and Foybrook Formation groundwater systems are demonstrated to be greater than anticipated, Integra will: <ul style="list-style-type: none"> • assess the significance of these impacts; • investigate measures to minimise these impacts; and • describe what measures will be implemented to reduce, minimise, mitigate or remediate these impacts in the future to the satisfaction of the Director-General. 	C	Trigger levels for investigation of changes in groundwater flows and quality are set out in the Water MP Sec 7.3 and 7.4. The assessment process is discussed in Sec 7.6.	Water MP, Secs 7.3, 7.4., 7.6	There is no recommendation
A10.95	Rehabilitation of groundwater dependent ecosystems will be incorporated as part of the Offset Strategy (refer Commitment E10). Trigger thresholds for the groundwater management response will be identified and included in the Rehabilitation Strategy.	C	There are shallow aquifers on the mine site associated with surface streams, and deeper aquifers associated with the coal measures. The Water MP (currently in draft form) indicates that mining operations are expected to lower Foybrook Formation groundwater levels within coal measures in the vicinity of the North Open Cut, Extended South Pit (Western Extension) and Integra Underground. There are, however, no groundwater dependent ecosystems associated with these aquifers in the vicinity of either Open Cuts or the underground workings. A similar statement is include in the approved North Open Cut Water Management Plan. There is no evidence that aquifers associated with surface streams are currently affected by mining operations.	North Open Cut Water MP Water MP Staff Interviews	There is no recommendation
A10.96	The amount of water pumped into or out of the proposed Pit will be monitored to assess the actual volume of water stored within the pit as well as to assess the groundwater inflows and evaporation effects.	C	Arrangements for monitoring groundwater flows to and from open cut pits are set out in the Water MP, Sec 7.2.3	Water MP, Sec 7.2.3	There is no recommendation
A10.97	All new bores will be installed by suitably licensed drillers after obtaining the relevant license from DWE.	NA	No new bores have been drilled during the audit period or are proposed to be drilled in as part of mining operations	Water MP Staff interviews	
A10.98	If monitoring results indicate the agreed standard or performance indicators are not being achieved, remedial actions will be continuous during and after operations implemented as appropriate.	C	See A10.94.		There is no recommendation
A10.99	An annual report will be prepared by a qualified hydrogeologist and include a statistical analysis of the results of the parameters measured, an interpretation of water quality and standing water level changes.	C	This report will be included in AEMRs. See Water MP Sec 10.	Water MP Sec 10 AEMP 2010	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.100	All relevant monitoring and management activities for each year will be reported in the AEMR.	C	This is consistent with existing practice in AEMRs and is provided for in the Water MP Sec 10.	Water MP Sec 10 AEMR 2010	There is no recommendation
A10.101	ICO will adhere to the operating rules of the Hunter Regulated River Water Sharing Plan (HRRWSP) and the Hunter Unregulated River Water Sharing Plan (HURRWSP), thereby ensuring that the operation of the proposed extended Pit will protect Glennies Creek and its associated well connected alluvial water sources.	NA	The Mine does not draw water from watercourses. See S3.32.		
A10.102	Ongoing verification of the EA predictions and contingency measures will be attained by development and adherence to a Continuous during and after operations surface water and groundwater monitoring and management plan (SW&GWMP) that will be prepared, in consultation with NOW. Cut off thresholds that relate to potential mining induced depressurisation impacts in the connected Glennies Creek Alluvium will be established and documented in the SW&GWMP.	C	Provided for in the Water MP.	Water MP	There is no recommendation
A10.103	During excavation of the western periphery of the pit, geological mapping will be used to assess the potential southerly extension of a fault identified in the drift to the Integra Underground and, if identified, its significance. If the fault is present in the pit, it will be investigated to assess whether It can provide a connective hydrological pathway between the pit and the Glennies Creek alluvium through re-activation of the fault. If appropriate, the hydrological significance of the fault will be assessed through incorporating its hydrological properties into the existing FEFLOW groundwater model.	NA	Excavation of this area has not yet commenced.		
Surface Water					
A10.104	Construct diversions to direct clean water away from areas of disturbance, to a standard suitable to contain an ARI 50 year rainfall event.	C	A comprehensive system of clean water diversions exists, directing clean water away from areas of disturbance. Design standards and construction drawings for clean water diversions are set out in the North Open Cut Water MP, Sec 7.3.1 and in the Erosion & Sediment Control Plan for the Western Extension, Appendix A.	North Open Cut Water MP. Sec 7.3.1 Erosion & Sediment Control Plan Western Extension. Appendix A Water MP, Figure 6.3 Site Inspection	There is no recommendation
A10.105	Construct dirty water diversions to collect stormwater runoff from disturbed areas and deliver this water to sedimentation basins.	C	Principles and management measures for the management of dirty water on site are set out in the Water MP Sec 6.4, and in more detail in the MOP 2010, Sec 3.5.5. An outline of the dirty water management system for the Northern Open Cut, along with design standards for works are set out in the Northern Open Cut Water MP, Sec 7.3.2. Process water and stormwater runoff from disturbed areas is pumped to storage dams and sedimentation basins on site.	Water MP. Figure 6.3, Sec 6.4 MOP 2010 Sec 3.5.5	There is no recommendation
A10.106	Construct sedimentation basins to treat disturbed area runoff prior to discharge.	C	Sedimentation basins for tailings and process water form a significant part of the dirty water management system.	Water MP. Figure 6.3, Sec 6.4	There is no recommendation
A10.107	Continue and extend existing Water Management System.	C	The water management system described in the Water MP is an extension of the existing system which has operated successfully over the life of the mine to date.	Water MP	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.108	Continue the existing Surface Water Monitoring Program and extend to include: <ul style="list-style-type: none"> • collection of grab samples along ephemeral watercourses such as Station Creek, during or immediately after surface runoff events; • monthly water quality sampling of water storages on the site; and • regular collection of data on water quality, storage water levels (including the Portal Sump) and pumping volumes between storages. 	C	The surface water monitoring program described in the Water MP Sec 6.10 meets these requirements.	Water MP Sec 6.10	There is no recommendation
A10.109	All pumped inflows to dirty water storages will cease when the storage water level reaches a defined Maximum Operating Level.	C	See A10.105. The mine water management system has historically been adequate to accommodate all flows. If there is a risk of overflow, the practice is to retain water in the open cuts.	MOP 2010, Sec 3.5.5	There is no recommendation
A10.110	If the weather outlook indicates future significant rainfall, water will be pumped out of any dirty water storage (with the potential to discharge offsite) that is within 100 mm of spilling, provided that a suitable alternative storage location is available elsewhere on the site.	C	See A10.109.	MOP 2010, Sec 3.5.5	There is no recommendation
A10.111	In the event of a dirty water discharge offsite, water samples will be collected at the overflow from the spilling storage and at the surface water sampling locations along Station Creek (for spills within the Station Creek catchment). For a spill from Possum Skin Dam, a sample will be collected at the discharge point and at the point of inflow to Glennies Creek.	C	Provided for in the Water MP, Sec 9. However, the mine water management system, as operated, minimises any risk of mine water discharge off site. See A10.109.	Water MP Sec 6.9 MOP 2010, Sec 3.5.5	There is no recommendation
A10.112	If a spill occurs, an incident report will be prepared which documents the circumstances leading to the spill, the measures taken Continuous during operations to prevent the spill, the estimated spill volume and duration, and the measured water quality results. Any spillage will be reported to DECC in accordance with the requirements of the site's Environment Protection Licence.	C	Provided for in the Water MP, Sec 9.	Water MP Sec 6.9	There is no recommendation
A10.113	After construction of drainage works is complete, disturbed areas will be topsoiled and revegetated using a combination of pasture grasses and cover crops to stabilise the ground surface.	C	This is standard practice for disturbed sites. See Water MP Sec 6.9 (erosion and sediment control).	Water MP Sec 6.9	There is no recommendation
A10.114	As part of the rehabilitation activities, above ground landforms will feature drainage provisions designed to effectively capture and divert surface water run-off to stable disposal areas prior to being discharged into surrounding watercourses.	C	Provided for in Water MP Sec 6.9 and Rehabilitation MP Secs 10.5 and 10.9.	Water MP Sec 6.9 Rehabilitation MP Sec 10.5, 10.9	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
Biodiversity					
A10.115	<p>A Flora and Fauna Management Plan will be developed and include measurements for the minimisation or avoidance of impacts on native flora and fauna. This will include:</p> <ul style="list-style-type: none"> • pre-clearance surveys; • groundcover clearance protocol; • site management measures such a temporary exclusion fencing, maximum vehicle speeds and reducing the use of lighting to decrease impacts on nocturnal fauna; and • limiting vehicular and personnel entry into retained vegetation through temporary exclusion fencing, locating access roads and tracks to avoid habitat and use of signage where necessary. 	NC	<p>No comprehensive flora and fauna management plan currently exists for the site. This plan should form part of the Biodiversity MP, currently in preparation. While many of the control measures for avoidance of impacts on flora and fauna of the type set out in A10.115 to A10.121 operate in practice, they are not currently specified in a management plan. The Land Management Procedure provides a general basis for identifying and addressing impacts of land clearing.</p> <p>A Threatened Species MP was prepared for the site in March 2009 which included control measures for protection of threatened species in both protected areas and areas subject to land clearing, and a range of other flora and fauna surveys have been undertaken. Major land clearing was undertaken for the development of the North Open Cut including clearing of both grassland and woodland vegetation. There does not appear to have been any reporting of the impact of this clearing, particularly in terms of the extent to which control measures set out in the Threatened Species MP were complied with.</p> <p>Ecologists Forest Fauna Surveys Pty Ltd were engaged in 2011 to conduct fauna surveys across the site. Surveys and pre-clearance surveys have been conducted of habitat trees in the area of the Western Extension.</p>	<p>Habitat Tree Maps & Reports (a, b) Form 22.19 for west extension clearing Photographic before and after photos Threatened Species Management Plan Glennies Creek Land Management Procedure</p>	<p>It is recommended that the Biodiversity Management Plan, incorporating a Flora and Fauna Management Plan, be completed as soon as possible and that it include measures for minimising the impacts of operations on flora and fauna. It is recommended that the Biodiversity Management Plan include requirements for pre-clearance surveys and management measures during land clearing.</p>
A10.116	<p>Fauna management procedures will include:</p> <ul style="list-style-type: none"> • monitoring of trees for fauna before and during clearing operations; • avoiding trees with resident fauna as much as practicable; • demarcation and avoidance of identified hollow bearing trees wherever possible; • carefully sawing and placing intact hollow-bearing trunks and branches into adjacent areas of native vegetation; • replacing habitat, such as nest boxes, where habitat trees are to be removed; • maintaining existing maximum vehicle speed limits within the Open Cut Project Area to reduce fauna road fatalities; • limiting vehicular and personnel entry into retained vegetation through temporary exclusion fencing; and • directing lighting at operating equipment to reduce light spill onto nocturnal fauna species in adjacent vegetation. 	NC	<p>There is currently no comprehensive statement of control measures. Most of these control measures are listed in the Threatened Species MP. During the site inspection it was observed that exclusion fencing was used to limit vehicular and person traffic, trees with hollows were marked and nest boxes installed. While light sources on the site are generally well controlled, there was no evidence of lighting design or procedures being adapted to address nocturnal fauna considerations.</p>	<p>Purchase Order to erect offset fencing Habitat Tree Maps & Reports (a, b) Photographic before and after photos Site Inspection</p>	<p>It is recommended that the Biodiversity Management Plan include a statement of control measures for fauna management.</p>
A10.117	<p>Pre-clearance surveys will involve:</p> <ul style="list-style-type: none"> • diurnal searches for birds, nests and roosts including targeted searches for communal nests of the Grey-crowned Babbler; • active searches for microbats, including checking under exfoliating bark; and • nocturnal surveys, including stag watching of identified habitat trees, specifically focusing on observing use of trees by microbats. 	NC	<p>The Threatened Species Monitoring Report 2010-2011 sets out activities to monitor the Grey-crowned Babbler and Brush-tailed Phascogale populations and related environmental factors. The monitoring methodology did not include diurnal searches for birds, nests and roosts or searches for microbats.</p>	<p>Threatened Species Monitoring Report 2011 Habitat Tree Mapping a b Nest Box a</p>	<p>It is recommended that future threatened species monitoring programs be undertaken prior to further major land clearing and include diurnal searches for birds, nests and roosts and searches for microbats.</p>

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.118	If threatened species nests or nestlings are observed within or close to the Open Cut Area then clearing will be postponed until the nestlings have hatched and fully-fledged. If operational constraints mean that this delay is not practicable then DECC will be consulted to determine if relocating the species is acceptable.	NA	The Threatened Species Monitoring Report 2011 indicated that there was no evidence of threatened species nests within or close to the Open Cut Area.	Threatened Species Monitoring Report 2011 Site Inspection	There is no recommendation
A10.119	A groundcover clearance protocol will be implemented and involve: <ul style="list-style-type: none"> • removal of large woody debris using excavator grabs or raking if practicable; • placing of intact large woody debris within adjacent areas of intact vegetation; • stripping and stockpiling leaf litter and topsoil separately from deeper fill material; and • reusing leaf litter and topsoil in rehabilitation works. 	O	A brief groundcover clearance protocol is included in the Land Disturbance Procedure. It is desirable that this be supplemented by more detailed requirements in the Biodiversity MP and Rehabilitation MP. During site inspection of the rehabilitation areas leaf litter was observed piled for reuse.	Land Disturbance Protocol Site inspection	It is recommended that groundcover clearance practices be addressed in the Biodiversity Management Plan and Rehabilitation Management Plan.
A10.120	Fencing will be implemented to exclude grazing by cattle within retained patches of remnant vegetation to improve habitat value and floral diversity.	C	Exclusion fencing is used to exclude cattle grazing in retained areas of remnant vegetation. Fencing and other exclusion requirements should be addressed in the Biodiversity MP and Rehabilitation MP.	Purchase Order to erect offset fencing Photographic before and after photos Site inspection	It is recommended that fencing and other exclusion requirements to protect biodiversity should be addressed in the Biodiversity Management Plan and Rehabilitation Management Plan.
A10.121	A weed and pest management plan will be prepared and implemented as part of management procedures in order to control feral animals and to limit the spread of weeds.	NC	There is a comprehensive Weed MP dated March 2008, however there was no evidence that the reporting arrangements set out in Sec 7 of the Weed MP are currently implemented. While there is no formal plan for management of pest animals, a wild dog baiting program commenced 30th April 2011 and other feral animal control activities have been undertaken.	Weed MP Wild dog notification letter	It is recommended weed and pest management be addressed in the Biodiversity Management Plan. It is recommended that monitoring arrangements set out in the existing Weed Management Plan be implemented.
A10.122	Revegetation of suitable components of the Open Cut Area will be undertaken using species representative of the Ironbark Woodland.	C	This is addressed in the Rehabilitation MP Sec 10.10 and Map 3. Evidence of successful revegetation activities was observed during the site inspection.	Rehabilitation MP Purchase order for trees planted Integra Coal Project Completion Report J00901 –Glennies Creek Riparian Rehabilitation Vale Integra August 2011 Site inspection	There is no recommendation
A10.123	Subject to the receipt of all necessary approvals/permits, a creek rehabilitation program will be undertaken along Station and Glennies Creeks and will include: <ul style="list-style-type: none"> • erosion control, rubbish removal, complementary planting, weed control, habitat enhancement and exclusion of grazing stock from riparian zones; and • a monitoring and management program to identify and manage noxious weed infestations. 	NC	Mining activity has not impacted extensively on Station Creek and rehabilitation is yet to commence. For Glennies Creek, a Riparian MP was prepared in June 2010 by the NSW Soil Conservation Service. Evidence was provided of rehabilitation activities consistent with the plan, however there is no systematic monitoring of progress.	Glennies creek riparian map Hunter land management report year 1 letter sent to minster on 14 July 2011 Weed MP	It is recommended that monitoring arrangements to demonstrate compliance with the Glennies Creek Riparian MP be implemented. See also Recommendation A10.121.

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A10.124	<p>Integra will implement a biodiversity offset package in consultation with DECC to compensate for the potential clearing of 19ha of remnant native vegetation and will include:</p> <ol style="list-style-type: none"> 1. Revegetation of suitable components of the Open Cut Area; 2. Conservation and rehabilitation of the degraded riparian and forest habitat along Glennies and Station Creeks; and 3. Identification and permanent conservation of a suitable woodland offset in the locality, a minimum of 30ha in size, in consultation with DECC. <ul style="list-style-type: none"> • Pending the satisfaction of the 3 components above, Integra will provide a bond or security to DECC which could be used in the event that Integra does not identify a suitable offset in the specified timeframe. 	C	See S3.41 - 3.43. The Biodiversity Offset Strategy and Rehabilitation MP are currently awaiting approval by DP&I.	Letter Biodiversity Offset Strategy Biodiversity Offset Assessment 2011 Letter Approval Biodiversity Offset Strategy	See Recommendation S3.43
Traffic and Transportation					
A10.125	Adhere to RTA and Council restrictions on transport hours and safety/warning requirements for transportation of oversize loads on local roads.	C	These requirements are addressed in the Transport Rules Hazard Management Plan which while relating principally to roads and traffic within the site, also includes provisions relating to transporting heavy and wide loads outside the site.	Transport Rules Sec 15.5	There is no recommendation
A10.126	Minimise the duration of road closures on the southern end of Middle Falbrook Road during blasting.	C	Temporary road closures are required when blasting occurs within 500m of a public road. Blast times are schedules and notified at least one day prior to blasting and maximum closure time is normally 10 minutes.	Blast MP Sec 4.9	There is no recommendation
A10.127	Blasting within 500m of the Main Northern Railway line will be controlled under the existing procedure (PRO_2029 Blasting Adjacent to the Main Northern Railway Line) that has been developed in consultation with ARTC.	C	There are no longer any mining activities which require blasting within 500m of the Main Northern Railway. See S3.17c	Interview with Drill and Blast Staff	There is no recommendation
A10.128	Provide notification on the morning prior to a blast of blast times to residents and others who request to be included on the blast notification list.	C	Part of the blast communication package involves a list of individuals and residents who receive notification in relation to the blast times prior to a blast.	Mail list for Blast Notification SMS Blast Communications package	There is no recommendation
Noise and Blasting					
A10.129	Use noise mitigated mobile equipment to achieve the predicted noise emission levels at the identified receptors.	NC	Testing of drill and dozer prior to entering service and sound power testing undertaken during 2008. No evidence that attenuation of equipment has been carried out to meet site sound power specifications or levels modelled in the noise assessment for the Northern Extension. No evidence of predicted noise emission levels (based on actual measured on site mobile equipment) or that levels are being achieved at identified receptors.	Drill and dozer sound power test, Sound Power Testing, November 2008, 2011 attended monitoring reports.	See Recommendation 10.69c
A10.130	Restrict evening and night-time mining operations, where practicable, to areas that minimise emission levels outside of the Project boundary.	NC	No evidence supplied.		It is recommended that evening and night dump locations be selected to minimise noise emissions. It is recommended that modelling of noise emissions using actual sound power levels and possible operating scenarios be undertaken to allow proactive management of site operations, particularly at night.

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.131	Undertake development activities such as tree clearing and soil stripping during day time operations only, where practicable.	NC	No evidence available. However, discussions with Sam Taylor indicate that these activities are not something that would occur at night due to OHS reasons. In addition, visibility of the strata and topsoil would be required to effectively remove topsoil.		It is recommended that the time of tree clearing and soil stripping operations be documented.
A10.132	Refine on-site noise mitigation measures and operating procedures, i.e. based upon monitoring results.	NC	Testing of drill and dozer prior to entering service and sound power testing undertaken during 2008. No evidence that attenuation of equipment has been carried out to meet site sound power specifications or levels modelled in the noise assessment for the Northern Extension. No evidence that routine attended monitoring is being used to refine onsite operating procedures.	Drill and dozer sound power test, Sound Power Testing, November 2008, 2011 attended monitoring reports.	See Recommendation 10.69c
A10.133	Initiate regular discussions with potentially affected residents to proactively identify noise-related issues of concern.	C	Meeting with Camberwell resident 21 February 2012. Also meeting with 11 receivers as part of 2011 independent review that indicate discussions with potentially affected residents do discuss noise issues. Quarterly CCC meetings are held to discuss issues, including noise. Community representatives have the opportunity to discuss issues, including those raised by other members of the community who may not be present.	File note Camberwell Village, Independent Review October 2011, CCC Minutes	See Recommendation 10.69e
A10.134	Consider acoustic mitigation at residences where exceedances of the project specific criteria are substantiated by monitoring.	C	The Independent Review, October 2011 suggested there was an exceedance of mitigation criteria at one location. However, as the Integra LAeq is often shown as a range of values for each measurement, it is difficult to determine the actual exceedance. No evidence of written requests, however, Sam Taylor has indicated that some noise mitigation has been undertaken on residences listed in Table 1 and Table 6 of the Project Approval, November 2010. In addition, mitigation offers have been made to four residences (November 2011) resulting from recommendations in the Independent Review, October	Pers comm Sam Taylor, 23 February 2012, Independent Review, October 2011, Mitigation Letters.	See Recommendation S3.2
A10.135	Consider negotiated agreements with landowners where exceedances of the project specific criteria are substantiated by monitoring.	C	Viewed letters for two negotiated agreements, however, these are not based on substantiated exceedances.	Agreement Letter 1, Agreement Letter 2.	There is no recommendation
A10.136	Continued implementation of the existing Explosive Hazard Management Plan to ensure the safety of employees and the public during explosives handling and blasting operations.	C	The Explosive Hazard Management Plan prepared in 2008, which specifies safety requirements for blasting operations, continues to operate.	Explosive HMP	There is no recommendation
A10.137	Restrict blasting to between the hours of 9.00am and 5.00pm Monday to Saturday, unless blasts outside this time are required for misfire re-blast, emergency or safety reasons.	C	Blasting Data confirms all blasts were within these hours.	Consolidated Blast Results	There is no recommendation
A10.138	Blast design and Implementation to be undertaken by a suitably qualified blasting engineer and/or experienced shot-firer to ensure ANZEC Guidelines are met at all non-project related residences surrounding the Open Cut Project Area.	C	Blast design and implementation is undertaken by experienced and qualified blast engineer, evidenced by the sign off on the blast package prior to each blast.	Blast Package Engineering Certificate	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.139	Refine blast mitigation measures and operating procedures as required, based on monitoring results.	C	The blasting predictive model for estimation of the K factor was last updated in 2007, is currently being updated by Terrock Engineering. This process will involve comparisons of actual blast data based on the monitoring results with predicted data to develop a more accurate model.	Predictive Model for blast design	There is no recommendation
A10.140	Provide notification on the morning prior to a blast of blast times to local residents and others who request to be included on the notification list.	C	Part of the blast communication package involves a list of individuals and residents who receive notification in relation to the blast times prior to a blast.	Blast Warning Recipients List Blast Communications package	There is no recommendation
A10.141	Use aggregate as the stemming material (not drill dust) in order to fully contain the explosives within the blasthole.	C	Stemming material is imported from Allendale quarry in order to meet this condition.	Stemming invoice for 2010 Blast Package	There is no recommendation
A10.142	In the case of the Part Pit Extent (i.e. Integra is unable to acquire Residence 153 or negotiate an agreement with the owner), blasting will not be undertaken within a 500m Exclusion Zone surrounding the 'Dulwich' residence and 200m from the property boundary until such time that it can demonstrate to the Director-General that blasting can be undertaken without an unacceptable risk to the resident, residents, their stock or residence.	C	Residence 153 (Dulwich Property) had not been acquired at the time of the audit. Blasting has been occurring in the North-West corner of the Southern pit which is approximately 250m from the Dulwich property boundary, while the residence on the property is more than 500m from the blasting. It was asserted that approximately 60-100 blasts have occurred in this location in the past. A blast monitor has been placed on the property and residents are notified of blasts via SMS. See also S3.11 and S3.18		There is no recommendation
Air Quality					
A10.143	Only the minimum area required for the operation of the Open Cut Project will be disturbed. Reshaping, topsoil emplacement and rehabilitation of overburden emplacement areas will occur as soon as practicable after the completion of overburden emplacement.	C	Addressed in Air Quality MP. It was observed on site that topsoil storage locations had been seeded and were grassed at the time of the audit.	Air Quality MP Site Inspection	There is no recommendation
A10.144	Coal handling areas/stockpiles will be kept in a moist condition using water carts to minimise wind-blown and traffic-generated dust.	C	Addressed in Air Quality MP. Water carts were in operation on the day of the audit despite relatively moist conditions experienced due to recent rainfall.	Air Quality MP Site Inspection	There is no recommendation
A10.145	Water sprays will be available for use on ROM coal stockpiles as required to reduce airborne dust.	C	Addressed in Air Quality MP. Water sprays were observed and available however due to the moist conditions on the day of the audit, they were not verified as being functional.	Air Quality MP Site Inspection	There is no recommendation
A10.146	All roads and trafficked areas will be watered when required using water trucks.	C	Addressed in Air Quality MP. Water carts were in operation on the day of the audit despite relatively moist conditions experienced due to recent rainfall.	Air Quality MP Site Inspection	There is no recommendation
A10.147	All haul roads would be clearly defined, especially where they cross overburden emplacement areas.	C	Addressed in Air Quality MP. Haul roads were well defined at the time of the audit.	Air Quality MP Site Inspection	There is no recommendation
A10.148	Development of minor roads will be limited and the locations of these will be clearly defined.	C	Addressed in Air Quality MP. Minor roads were clearly defined and there were no observed roads which did not serve a functional purpose.	Air Quality MP Site Inspection	There is no recommendation
A10.149	Minor roads used regularly for access etc will be watered.	C	Addressed in Air Quality MP. Water trucks were observed on the day of the audit watering the minor access roads.	Air Quality MP Site Inspection	There is no recommendation
A10.150	Obsolete roads will be ripped and re-vegetated.	NA	Addressed in Air Quality MP. It was asserted that none of the roads on the site have been deemed obsolete at this stage.	Air Quality MP Site Inspection	

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A10.151	Access tracks used by topsoil stripping equipment during their loading and unloading cycle will be watered.	C	Addressed in Air Quality MP. There were numerous water trucks operating on the day of the audit for overburden removal and light vehicle access tracks, however there was no topsoil removal observed on the day of the audit so this requirement could not be verified.	Air Quality MP Site Inspection	There is no recommendation
A10.152	Long term soil stockpiles (not used for over 3 months) will be revegetated.	C	Addressed in Air Quality MP. It was observed on site that topsoil storage locations had been seeded and were grassed at the time of the audit.	Air Quality MP Site Inspection	There is no recommendation
A10.153	Dust aprons, dust extraction systems or water injection will be used during drilling operations.	C	Addressed in Air Quality MP. Existing drilling rigs were equipped with dust aprons however there was no active drilling being undertaken during the audit. It was asserted that new drilling equipment had been ordered which utilised the dust extraction systems.	Air Quality MP Site inspection Staff interviews	There is no recommendation
A10.154	Adequate stemming will be used during blasting.	C	Addressed in Air Quality MP. Stemming material is imported from Allendale quarry for use at Integra.	Air Quality MP Stemming invoice for 2010 Blast Package	There is no recommendation
A10.155	A real-time PM10 monitor (TEOM) will be implemented at the location agreed with the DECC in accordance Conditions of Consent for North Open Cut (PA 06_0073). This will be located in the vicinity of Residence 48. Should the 24-hour average concentrations of PM10 approach the cumulative assessment criteria 150 ug/m3, the Operations Manager (Open Cut) of the mine would review the current Open Cut operations and take remedial action to ensure the impact on the property is kept below the criteria. Should the criteria be reached, then all Open Cut operations will cease.	C	There are two real time PM ₁₀ Monitors installed, one in the vicinity of residence 48, and the other in the vicinity of residence 108. Section 7.5.3 of the Air Quality M.P identifies appropriate trigger levels and remediation action to be undertaken if elevated PM ₁₀ concentrations are monitored, which includes cessation of operations if cumulative assessment criteria reaches 150ug/m ³ that can be attributed to mining activities. It was noted that Section 5.3 of the Air Quality M.P makes reference to the Real Time Air Quality trigger levels as being detailed in section 6.4.3, however these triggers are detailed in section 7.5.3.	Air Quality MP Site Inspection	It is recommended that Sec 5.3 of the Air Quality MP be updated to include the correct cross reference to air quality trigger levels.
A10.156	A real-time PM10 (TEOM) will be located in the vicinity of Residences 108 to 112. Should the 24-hour average concentrations of PM10 approach the cumulative assessment criteria 150 ug/m3, the Operations Manager (Open Cut) will review the current Open Cut operations and take remedial action to ensure the impact on the property is kept below the criteria. Should the criteria be reached, then all Open Cut operations will cease.	C	See A10.155.	Air Quality MP Site Inspection	There is no recommendation
A10.157	Rather than establish an additional monitor at Residence 87, Integra will negotiate with Ashton mine the joint use of data from the existing real-time PM10 (TEOM) monitor at this location (see TEOM No.3 on Figure 12-3 for location).	NC	A letter dated 27/10/2011 was viewed addressed to Ashton Coal from Integra, seeking to enter into an agreement to access to a number of environmental monitoring stations, including "Ashton 3" (TEOM number 3). At the time of the audit, it was asserted that Ashton Coal has not responded to this request and there has been no access to environmental monitoring data from Ashton or an agreement entered into to date. Correspondence was received from Ashton Coal on 27/3/2012 agreeing to the sharing of monitoring data and proposing practical arrangements to implement data sharing. See S3.25d	Letter to Ashton Coal Staff Interview Email Ashton data sharing	See Recommendation S3.25d

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.158	Integra will negotiate with Ashton Coal for the joint use of data from the other sites in the Ashton mine monitoring network (see Figure 12-3 for locations). This will enable real-time monitoring of the impacts of the operations to the west of the Open Cut Project Area.	NC	A letter was viewed dated 27/10/2011 addressed to Ashton Coal from Integra, seeking to enter into an agreement to access to a number of environmental monitoring stations, including "Ashton 4" and "Ashton 8" (TEOM number 4 and 8). It was asserted that Ashton Coal has not responded to this request and there has been no access to environmental monitoring data from Ashton or an agreement entered into to date. See S3.25d and A10.158.	Letter to Ashton Coal Staff Interview	See Recommendation S3.25d
A10.159	The results from the dust monitoring program will be regularly reviewed to ensure the data being collected is meaningful. Where warranted, the program will be adjusted in consultation with DECC, with operating/management measures modified accordingly.	C	The results of the dust monitoring program are regularly collated and reviewed. Data is assessed by Integra (or Integra contractors on behalf of Integra) to determine any obvious non-dust impacts – for example insects or other objects in dust deposition gauges – affecting monitoring results. Monitoring results are compared with EPL and/or Project Approval limits. Any anomalous results are queried. Components of the monitoring system are corrected and/or modified to improve monitoring performance (if necessary). Comments are provided in monthly reports comparing results to criteria. There is a system of daily checks of TEOM data and dust hazard rating. There has been no history of exceedances of dust emissions requirements identifiable through monitoring results which would require the consideration of new or modified control measures beyond those provided for in the Air Quality MP.	Air Quality Data (Sep 2010 to Aug 2011)	There is no recommendation
A10.160	During Years 1 -3 of the Part Pit Extent (i.e. in the case that Integra is unable to acquire Residence 153 or negotiate an agreement with the owner), additional controls will be implemented and will include: <ul style="list-style-type: none"> • re-positioning of the main waste and coal haul routes to reduce impacts on Dulwich; • treatment of the main haul routes to achieve a level of dust control greater than 75%; • development of an Environmental Management Plan that will address environmental controls to be implemented as part of pre-operational phase soil removal activities; • control of emissions from drilling operations through the application of water; and • increasing the moisture content of the ROM coal in-pit. 	NA	Apart from some pre-operational soil removal, development of the Western Extension has not yet commenced and this clause is not applicable at this time. However, the main waste and haul roads have been re-positioned and no longer travel along the boundary of the Dunwich property, which has not yet been acquired by Integra. The MOP for the Western Extension, prepared in 2010, addresses soil handling arrangements including pre-operational aspects of soil removal, and the Air Quality MP provides for controls on dust emissions generally consistent with this clause.	Site inspection Air Quality MP	
Aboriginal Archaeology					
A10.161	All actions and strategies for the management of Cultural heritage values will be defined in an Aboriginal Cultural Heritage Management Plan developed in consultation with participating Aboriginal groups.	C	An Aboriginal Heritage MP has been prepared and endorsed by DP&I. See S3.47	Aboriginal Heritage MP	There is no recommendation
A10.162	Prior to any soil disturbing activities, archaeological surveys will be conducted in those areas within the Open Cut Area to be impacted but which have not been surveyed to date. These areas include the Dulwich Property.	C	The Aboriginal Heritage MP provides for site surveys prior to disturbance, and notes that if Integra gain ownership of the Dulwich property, an Aboriginal site survey will be conducted on the land and Aboriginal sites managed in accordance with the Aboriginal Heritage MP prior to any activities occurring. A general surface salvage program covering all areas subject to disturbance was completed in July 2011.	Aboriginal Heritage MP	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.163	Sites which will not be impacted by open cut mining will be identified on mine plans with the requirement not to disturb the ground in these areas. If there is risk of impact, temporary fencing will be erected and restrictions placed on access.	C	Provided for in the Aboriginal Heritage MP, Sec 4.3	Aboriginal Heritage MP, Sec 4.3	There is no recommendation
A10.164	Sites which may be directly or indirectly impacted by activities associated with mining will be identified on mine plans with development avoiding impact to these sites. Where development associated activities occur in close proximity to sites, temporary fencing will be constructed. Where direct impact is unavoidable the strategies outlined in 15 will be followed.	C	Measures to prevent interference with aboriginal sites are set out in the Aboriginal Heritage MP, Secs 4.3 and 3.4	Aboriginal Heritage MP, Sec 4.3, 4.4	There is no recommendation
A10.165	Sites which will be directly impacted by open cut mining will be subject to: <ul style="list-style-type: none"> • collection and recording of surface artefacts and storage in accordance with the requirements of Aboriginal Groups; and • targeted subsurface salvage excavation programs as determined in consultation with the Aboriginal stakeholders. 	C	A general surface salvage program covering all areas subject to disturbance was completed in July 2011. Requirements for management of new sites are set out in the Aboriginal Heritage MP, Secs 4.7 to 4.9.	Aboriginal Heritage MP	There is no recommendation
A10.166	A 'Keeping Place' will be provided for the secure storage of cultural material collected. The Keeping Place will be determined and agreed in consultation with the Aboriginal Groups during the formulation of the Aboriginal Cultural Heritage Management Plan. The Keeping Place will be retained in perpetuity subject to the recommendations of the Aboriginal Groups with regard to the long-term positioning of the sites.	C	A secure Keeping Place is being established on site, initially to house items salvaged and catalogued in the July 2011 surface salvage program.	Aboriginal Heritage MP, Secs 3.4, 4 Staff interviews	There is no recommendation
European Heritage					
A10.167	Work Method Statements for archaeological investigation will be prepared for Zone 1 and, dependant on the acquisition of Dulwich, for Zone 2 as identified in Figure 14-2.	C	See Non-Aboriginal Heritage MP Stage 2, Sec 4.3. This archaeological investigation documented in the paper "Archaeological Research and Investigation - Integra Coal Archaeological Investigation Area, July 2011" which forms Appendix 2 to both Non-Aboriginal Heritage Management Plans	Non-Aboriginal Heritage MP Stage 1 Non-Aboriginal Heritage MP Stage 2	There is no recommendation
A10.168	Project planning and timing will take into consideration any heritage management requirements.	C	Provided for in Non-Aboriginal Heritage MP.	Non-Aboriginal Heritage MP Stage 1 Non-Aboriginal Heritage MP Stage 2	There is no recommendation
A10.169	If Dulwich is acquired, a WMS for heritage management and archaeological investigation will be prepared specifically for Zone 3 (Figure 14-2); or If Dulwich is not acquired, a Conservation Management Plan will be prepared to minimise and monitor project impacts on Dulwich.	C	See Non-Aboriginal Heritage MP Stage 2, Sec 4.5. The Plan includes programs & procedures for the preparation of a detailed Conservation Management Plan for the Dulwich property, which is subject to agreement of the landowner. If Dulwich is not acquired, a Conservation Management Plan will be prepared to minimise and monitor project impacts on Dulwich.	Non-Aboriginal Heritage MP Stage 2	There is no recommendation
A10.170	A forensic anthropologist will be engaged to prepare a detailed management plan for the excavation of the grave of James Glennie.	C	Addressed in Non-Aboriginal Heritage MP Stage 2, Sec 4.4. At present, the James Glennie grave site is outside the area of proposed disturbance and management measures for its protection are to be put in place. If the mine plan changes to include the James Glennie grave site, the grave will be archaeologically excavated.	Non-Aboriginal Heritage MP Stage 2	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.171	Should any other burial sites be exposed during surface scraping operations within the Mine Area, work will cease and appropriate personnel and authorities informed. If the remains are identified as historical in nature, management for skeletal remains will be undertaken by appropriate personnel and a report issued to the Coroner.	C	See Non-Aboriginal Heritage MP Stage 2, Sec 4.9.5.	Non-Aboriginal Heritage MP Stage 2	There is no recommendation
A10.172	In the case of an intersection between European and Indigenous management strategies, or any other environmental management strategy, Integra will co-ordinate appropriate consultation between the parties in order to develop and agreement on how to proceed.	C	Coordination occurred in the preparation of the Aboriginal and Non-Aboriginal Heritage MP. Responsibility for implementation of both plans rests with the Integra Environmental Superintendent who will be in a position to identify an interaction between the plans and initial appropriate consultation.	Aboriginal Heritage MP Non-Aboriginal Heritage MP Stage 2	There is no recommendation
A10.173	Copies of final excavation reports will be issued to local libraries, historical societies, the NSW Heritage Branch Library and State Library of NSW.	C	Provided for in Non-Aboriginal Heritage MP Stage 2 Sec 4.9.6	Non-Aboriginal Heritage MP Stage 2	There is no recommendation
Visual					
A10.174	To the extent practicable, reduce the potential visual impact through the construction of visual amenity bunds/screens or soil stockpiles to temporarily screen views towards the Proposed Open Cut Area.	C	The screening wall constructed along the New England Highway reduces the visual and lighting impact of the project. The 2009 Visual Amenity Study led to the provision of screening vegetation for some landowners affected by development of the Northern Open Cut. See also S3.51. Additional screening measures for the Western Extension are matters for consideration as part of project planning.	Site inspection Compliance Statement Wall Visual Amenity Study	There is no recommendation
A10.175	To reduce lighting impacts to sensitive receptors, work programs will be arranged, where possible, so that some activities that may be visible from surrounding view locations, occur within daylight hours of operation.	C	Lighting impacts from existing workings have been limited and are consistent with the relevant standard. See also S3.51. Any additional lighting controls required for the Western Extension are matters for consideration as part of project planning.	Site inspection Staff interviews	There is no recommendation
A10.176	Floodlights within the Open Cut Extension Area will be positioned to minimise the potential for lighting to impact sensitive receptors.	NA	See A10.175.		
A10.177	Where possible, haulage roads and overburden tipping areas will be configured to minimise the potential impact associated with headlights and flashing lights associated with vehicles travelling across the Open Cut Project Area.	NA	See A10.175.		
A10.178	Integra will consider any reasonable request by a residential receptor for assistance to establish a visual screen within their property through planting and/or landscape works, where such works would effectively reduce the visual impact of activities associated with the proposed Open Cut Extension.	C	A program addressing this condition in relation to the effects of the Northern Open Cut was undertaken following the 2009 Visual Amenity Study. Any additional screening required as a result the Western Extension are matters for consideration as part of project planning.	Visual Amenity Study Letters Visual Amenity Staff Interviews	There is no recommendation
Rehabilitation					
A10.179	Suitable species of vegetation will be planted and established to achieve the nominated post-mine land uses. The rehabilitation plan will clarify the projects rehabilitation goals and outcomes and will confirm the monitoring and management proposals.	C	These issues are addressed in the Rehabilitation MP. For rehabilitation goals see Secs 10.9 - 10.10, for species selection see Sec 10.10, and form monitoring arrangements see Sec 12.	Rehabilitation MP	There is no recommendation

Clause	Project Approval Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
A10.180	The majority of the post-mine landform will be revegetated with a combination of native and improved pasture species with scattered tree lots and tree corridors linking the surrounding rehabilitated areas, proposed tree planting corridors and surrounding existing native vegetation.	O	Provided for in the Rehabilitation MP. See especially Map 3.	Rehabilitation MP	It is recommended that reporting of rehabilitation activity in ARs include details of progress in establishment of habitat corridor linkages across the site.
A10.181	The final landform will be stable and not subject to slumping or excessive erosion which would result in the agreed post mining landform not being achieved.	C	Provided for in the Rehabilitation MP, Sec 4.	Rehabilitation MP	There is no recommendation
A10.182	The outside facing slopes of the post-mine landform will generally be a maximum of 10° where they are above the natural land surface. The internal facing slopes and those below natural surface reporting to the final void (Including the low wall areas) will generally be a maximum of 18°.	C	Provided for in the Rehabilitation MP, Map 3A.	Rehabilitation MP	There is no recommendation



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Appendix 1

Documents Reviewed

Note: Includes documents reviewed by GABA. Documents reviewed by Global Acoustics are listed in the Specialist Comments - Noise.

No.	Document Title	Citation (as referred to in Audit Report)
1	Annual Environmental Management Report 01/01/2009 - 31/12/2009.	2009 Annual Environmental Report
2	Annual Environmental Management Report 01/01/2010 - 31/12/2010.	2010 Annual Environmental Report
3	Aboriginal Heritage Management Plan Integra Open Cut Project, 20/12/2010	Aboriginal Heritage MP
4	Annual Environmental Management Report for the Integra North Open Cut, Reporting Period April 2010 – March 2011, 31/3/2011	AEMR Open Cut 2010
5	Consolidated Air Quality and other Environmental Monitoring Data from September 2010 to August 2011.	Air Quality Data (Sep 2010 to Aug 2011)
6	Air Quality Management Plan, 31/3/2011	Air Quality MP
7	Annual Environmental Management Report Glennies Creek colliery (Integra Underground), 1 January 2010 – 31 December 2010, 31/3/2011	AMER Underground 2010
8	Annual mangement review 2009-10	AMER Open Cut 2010
9	Re: Integra North Open Cut Coal Mine (06_0073) Appointment of Suitably Qualified Experts (Property inspections) - Letter from DP&I on 13/12/2009	Appointment of Property Inspection Experts
10	Integra Mining Complex - Aboriginal Heritage Management Component - Letter from Delegate of D-G DP&I, 23/12/2010	Approval Aboriginal Heritage MP
11	Re: Glennies Creek Coal Mine - LW 10-17 SMP Letter from Chairman SMP Interaency Committee Dept of Primary Industry to Tehcnical Services Manager Integra, 20/10/2008	Approval Subsidence MP 2008
12	Integra Coal Pty Ltd - Integra Underground Mine Mining Operation Plan, Letter DTIRIS to Mine Manager Integra, 14/9/2011	Approval Variation of MOP 2011
13	Biodiversity Assessment Map	Biodiversity Assessment Map
14	Purchase order for \$14,000 to complete the Biodiversity Management Plan on 4/1/12	Biodiversity Management Plan Purchase order
15	Purchase order to install biodiversity offset signage	Biodiversity offset signage purchase order
16	Integra West Extension Blast Communications Package for 01/12/2011 at 12:00pm	Blast Communications Package
17	Integra Blast Hotline, Accessed via 1800585361	Blast Hotline
18	Blast Management Plan, 8/4/2011	Blast MP
19	Shot Record Checklist, Shot number W_280-N4&5 - West Pit Strip5 Block12, 12.11.11	Blast Package
20	Mailing List for Residents within 2km Blast Zone - Modified 08/04/2010	Blast Warning Recipients List
21	Operating outside approved hours in the northern mining area - Report from Environmental Superintendent Integra to DP&I, 20/7/2011	Breach Report Operating Hours
22	Kelley Covey Group Structural Engineering Building Investigation Inspection Report at 75 Thomas Lane, Mount Olive, February, 2009	Building Investigation Report
23	Kelley Covey Group Structural Engineering Building Investigation Re-Inspection Report at 1026 Middle Falbrook Road, Glennies Creek, September, 2010	Building Re-Investigation Report
24	Minutes of Meeting, Integra Coal Open Cut Consultative Committee, Tuesday 10 May 2011	CCC Meeting Minutes
25	Review of Management Plans - record of discussion with DP&I - 6/10/2011	Changes to MP's

No.	Document Title	Citation (as referred to in Audit Report)
26	Coal Production Figures 2010 - 2012 - Spreadsheet supplied by Integra	Coal Production Spreadsheet
27	Integra Complaints Register (Excel file)	Complaints register
28	Interim Occupation Certificate for 6 Modular Buildings, Acro-Cert Pty Ltd, 21/2/2010	Compliance Statement Modular Buildings
29	Design Compliance Confirmation, Modular Wall Systems, 5/9/2011	Compliance Statement Wall
30	Integra Blast Monitoring Results Summary (Months of February, July, October and December, 2011, and January, 2012)	Consolidated Blast Results
31	Integra Meeting - minutes of meeting between Integra & DPI, Singleton - 6/10/2011	DP&I Meeting Minutes 6/10/2011
32	DP&I Website - Major Project Assessments - Integra Mining Complex Open Cut & Underground Projects Modification 1, accessed 7/2/2012	DP&I Website
33	Energetics - EEO Assessment of Integra Mine (Underground) Report, June, 2010	EEO report
34	Integra Coal Operation Pty Ltd Environmental Management Strategy, prepared by RW Corkery & Co Pty Ltd, 30/4/2011	EM Strategy
35	Email records, messages from RW Corkery to DP&I, 3/5/2011 and 6/5/2011	EM Strategy emails
36	Ecotech Automated Blast notification Email for event CWC113 (29/11/2011; 12:33:56). Automatically generated to Sam Taylor by Ecotech.	email notification of blast warning
37	UNSW Bachelor of Engineering (in Mining Engineering) Certificate for Lee Alexander Julian, awarded 03/03/2010	Engineering Certificate
38	0061887L10SH RE: ECOLOGICAL INSPECTION OF GAS WELL LOCATIONS NOVEMBER 2010, ERM	ERM gaswell letter
39	Erosion and Sediment Control Plan – Design Specification Document Western Extension – Year 1 - 3, prepared by GSS Environmental, June 2011	Erosion & Sediment Control Plan Western Extension
40	HMP_2001 Explosives - 27/9/2008	Explosives HMP
41	Project Completion Report J00901 –Glennies Creek Riparian Rehabilitation Vale Integra August 2011	Glennies Creek Riparian Rehabilitation
42	Greenhouse Gas Management Plan, 31/3/2011	Greenhouse Gas MP
43	Middle Lidell, Barrett and Hebden Seam Underground Mining Project Area Groundwater Assessment Integra Underground, NSW, prepared by GeoTerra Pty Ltd, 16/6/2009	Groundwater Assessment 2009
44	Habitat Tree Mapping Report by Forest Fauna Surveys Pty Ltd , April 2009	Habitat Tree Maps & Reports (a)
45	South Pit Open Cut Western Extention Habitat Tree Mapping & Inspection Of Felled Habitat Trees, 20 April 2011	Habitat Tree Maps & Reports (b)
46	Incident Register Spreadsheet, 2005-2011	Incident Register
47	EMGA Mitchell McLennan Integra open cut and underground projects Independent review of noise and dust 28/10/2011	Ind Review Garland
48	http://integra.valeaustralia.com.au/page/integra-complex.html	Integra Website
49	Goulds Building Supplies - Invoice for Shade Screen Materials at Cherry Residence, 02/05/2011	Invoice for mitigation works
50	FRM_2219 Permit to Disturb Land or Clear Land of Vegetation	Land Disturbance Form
51	PRO_0383 Safety and Environment Procedure Land Management, 14/12/2007	Land Management Procedure
52	Integra Mine - Open Cut and Underground Projects Post Approval Matters - Letter from Delegate of D-G DP&I, 11/4/2011	Letter Approval Matters 11/4/2011
53	RE: Integra Mine Complex - Project Approval 08_0101 and 08_0102, Letter re Approval of Management Plans from Environmental Superintendent Integra to Director-General DP&I, 2/8/2011	Letter Approval Matters 2/8/2011
54	Integra Mine - Open Cut and Underground Projects Post Approval Matters - Letter from Delegate of D-G DP&I, 4/8/2011	Letter Approval Matters 4/8/2011

No.	Document Title	Citation (as referred to in Audit Report)
55	RE: Integra Coal Community Consultative Committee (CCC) – Notice of Meeting, Letter from Environmental Superintendent Integra to CCC members, 14/4/2011	Letter CCC Notice of Meeting
56	Re: Integra Open Cut Project MP 08_0102 and Underground Project MP 08 0101, Letter providing mine dust fact sheet, from Sustainability Manager Integra to affected residents, Nov 2010	Letter dust fact sheet
57	Re: Integra Underground Project (MP 08_0101) and Integra Open Cut Project (MP 08_0102), Letter re 2010 Project Approval and Land Acquisition, from Sustainability Manager Integra to B&R Cherry, 17/12/2010	Letter Land Acquisition
58	Glennies Creek Open Cut Coal Project (06_0073) Request for Independent Review, Letter Director Mining & Industry DP&I to Environment Manager Integra, 22/10/2010	Letter Ind Review Craven
59	Glennies Creek Open Cut Coal and Underground Project (08_0101 and 08_0102) Request for Independent Reviews, Letter Director Mining & Industry DP&I to Environment Superintendent Integra, 15/4/2011	Letter Ind Review Garland
60	RE: Community Consultative Committee for Integra Coal Complex, Letters from Environment & Community Advisor to Singleton Shire Council and existing committee members, 12/1/2011	Letter New CCC
61	Independent Review - Craven Residence, Letter Director Mining & Industry DP&I to Environment Superintendent Integra, 14/4/2011	Letter Result Ind Review Craven
62	Re: Surrender of Consents and Approvals - Letter from Environmental Superintendent Integra to Director-General DP&I, 29/6/2011	Letter surrender of Consents and Approvals
63	Amended Letter to Ashton Coal re: Sharing Monitoring Data (Date sent unknown)	Letter to Ashton Coal
64	Letter to Glendell - Mt Owen re: Sharing Monitoring Data (Date sent unknown)	Letter to Mt Owen
65	RE: Integra Underground Coal Project - Alternative ROM Coal Haulage, Letters from Environmental Superintendent Integra and ERM to DP&I, 17/6/2011	Letters Coal Haulage
66	Letters to residents affected by visual impact of Northern Open Cut, 15/6/2009	Letters Visual Amentity
67	Integra Open Cut Monthly Environmental Reports, monthly from April 2010 (viewed on Integra Website)	Monthly Environmental Reports
68	Integra Underground and Open Cut Environmental Monitoring Reports, Available from http://integra.valeaustralia.com.au/latestenvironmentalmonitoringresultsoc.html	Monthly Environmental Reports
69	National Greenhouse and Energy Reporting Scheme Data viewed via the NGERs website	NGERS Data
70	EMP_2013 - Stage 1 Non-Aboriginal Heritage Management Plan West Extension Environmental & Water Management Works, 26/7/2011	Non-Aboriginal Heritage MP Stage 1
71	Heritage Branch comments on Integra Coal Stage 1 Non-Aboriginal Heritage Management Plan - Letter from Delegate of Heritage Council to Tim Adams, Umwelt, 23/6/2011	Non-Aboriginal Heritage MP Stage 1 Heritage Council Comments
72	EMP_6001 - Stage 2 Non-Aboriginal Heritage Management Plan 18/8/2011	Non-Aboriginal Heritage MP Stage 2
73	Integra Coal Operations Pty Ltd, North Open Cut Water Management Plan, prepared by GeoTerra Pty Ltd, 5/3/2009	North Open Cut Water MP
74	Re: Structural Engineering Building Investigation. Re-inspection Report - Letter from Integra to Craven residence, 10/01/2011	Notification of inspection results
75	Letters of offer - acquisition of property	Offers Property acquisition
76	Terrock Engineering - Predictive model for estimation of the k-factor for blast design, Developed in 2007	Predictive model for blast design

No.	Document Title	Citation (as referred to in Audit Report)
77	Integra Mine complex Modification 1 Environmental Assessment, prepared by EMGA MitchellMcLennan	Project Assessment MOD 1
78	Purchase order for \$9,080 to supply and erect offset fencing.	Purchase Order to erect offset fencing
79	Australian Demolition Industries, Quotation for Demolition of Houses at Integra Coal Western Pit Extension	Quote House Demolition
80	Fw: Air Conditioning Quote at 44 Leatherbridge St - Emailed quote for mitigation works, 31/05/2011	Quotes for mitigation works
81	Rehabilitation Management Plan, 7/6/2011	Rehabilitation MP
82	Re: Integra Coal Operations Pty Ltd - Rehabilitation Management Plan - Letter from Integra Emt Dept to OEHL, 14/7/2011	Rehabilitation MP Submission for OEHL Review
83	Re: Project MPO080101 + MPO080102 - Letter From De-Jong residence requesting dust mitigation works, 14/03/2011	Request for Mitigation Works
84	Integra North Open Cut Structural Property Survey Proforma for Lot 384. (Date not recorded)	Request for Survey
85	Letters requesting acquisition of property	Requests for acquisition
86	Summary of Resident Dust Mitigation Works (For air quality only) Spreadsheet	Resident Dust Mitigation Register
87	Invoice for the purchase of Stemming for blasting (Sighted) - 2010	Stemming Invoice for 2010
88	Re: Integra Coal Operations Air Quality & Greenhouse Gas Management Plans - Letter from Integra Emt Dept to DP&I, 30/3/2011	Submission Letter Air & GG MPs
89	Re: Stage 2 Non-Aboriginal Heritage Management Plan - Letter from Integra Emt Dept to DP&I, 29/8/2011	Submission Letter Non-Aboriginal Heritage MP Stage 2
90	Re: Integra Coal Operations Management Plan - Letter from Integra Emt Dept to DP&I, 30/3/2011	Submission Letter Waste MP
91	Re: Integral Coal Complex Water Management Plan - Letter from Environmental Superintendent Integra to Director-General DP&I, 31/8/2011	Submission Letter Water MP
92	Integra Underground Subsidence Monitoring Programme Longwalls 10 - 12, July 2010	Subsidence Monitoring Program
93	Glennies Creek Longwall Panels 10 to 17, Application for Subsidence Management Approval, ERM, January 2007	Subsidence MP 2007
94	Subsidence Status Management Reports	Subsidence Status Reports
95	POL_2014 - Supplier Quality Assurance Policy, 02/11/2010	Supplier QA Procedure
96	Thiess collection records	Thiess collection records
97	Threatened Species Management Plan Glenneys Creek	Threatened Species MP
98	INTEGRA COAL NORTH OPEN CUT THREATENED SPECIES MONITORING REPORT 2011, 10 May 2011, Forest Fauna Surveys Pty Ltd	Threatened Species MR
99	Topsoil Stockpiles Location, Size and Volume, July 2010	Topsoil Stockpiles
100	Train Movement Records 2011 (Integra website, accessed 10/1/2012)	Train Movement Records 2011
101	HMP_0160 Transport Rules Hazard Management Plan - 9/12/2011	Transport Rules HMP
102	Visual Amenity Study by David Beaver, Landscape Architect and Heritage Consultant), 1/6/2009	Visual Amenity Study
103	EMP_2010 Waste Management Plan	Waste MP
104	EMP_0001 - Water Management Plan, 1/9/2011	Water MP
105	Weed Management Plan, ENSR Australia Pty Ltd (HLA ENSR), 20 February 2008, Document No.: N3041301_RPTFNL_20Mar08	Weed MP

No.	Document Title	Citation <i>(as referred to in Audit Report)</i>
106	Ashton Shared Monitoring Data, email from Environment & Community Relations Manager Ashton Coal Operations Pty Ltd to Environmental superintendent Integra - 27/3/2012	Email Ashton data sharing



Appendix 2

Persons Interviewed

Name	Position
Andrew Betts	General Manager
Kieran Plasto	Sustainability Manager
Alaine Trevor	Acting Environmental Superintendent
Sam Taylor	Environment and Community Advisor
Dan Byrne	Environment and Community Advisor
Kate Brickhill	Environment and Community Advisor
Catherine Suggate	Environmental Graduate
Christopher Ellis	Contractor and former Environmental Superintendent
Rebecca Partridge	Contractor
Robin Bragg	Consultant - Carbon Based Environmental
Col Davies	Consultant - Carbon Based Environmental

Management Plans Required by Approval

No.	Plan	Approval Clause	Date Required	Draft Submitted to DP&I	DP&I Comments Received	Approved	Date Approved
1	Noise Management Plan	3.10	31/03/2011		6/10/2011	NO	
2	Blast Management Plan	3.19	31/03/2011	8/04/2011	6/10/2011	NO	
3	Air Quality Management Plan	3.26	31/03/2011	30/03/2011	6/10/2011	NO	
4	Greenhouse Gas Management Plan	3.26	31/03/2011	30/03/2011	6/10/2011	NO	
5	Water Management Plan	3.40	30/06/2011	31/08/2011	6/10/2011	NO	
6	Biodiversity Management Plan	3.44	31/12/2011	Not Completed			
7	Aboriginal Heritage Management Plan	3.47	31/03/2011	30/11/2010		YES	23/12/2010
8	Non-Aboriginal Heritage Management Plan Stage 1	3.47	31/03/2011	27/07/2011		YES	4/08/2011
9	Non-Aboriginal Heritage Management Plan Stage 2	3.47	31/03/2011	18/08/2011		NO	
10	Waste Management Plan	3.54	31/03/2011	30/03/2011	6/10/2011	NO	
11	Rehabilitation Management Plan	3.56	30/06/2011	14/07/2011	6/10/2011	NO	
12	Environmental Management Strategy	5.1	31/03/2011	6/05/2011		NO	



Appendix 4

Audit Team Members

Graham Brown

Audit Role

- Lead Auditor
- Mine Operations and Water Management Specialist
- Quality Assurance

Relevant Experience

Graham Brown is the Principal of Graham A Brown & Associates. He holds a Master of Science degree in Geology. He is registered by RABQSA International in Australia as a Lead Environmental Auditor; as a Principal Environmental Auditor by the Institute of Environmental Management and Assessment (IEMA) in the UK; as a Certified Professional Environmental Auditor (CPEA) by the Board of Environmental, Health and Safety Auditor Certifications (BEAC) in the USA; as a Greenhouse and Energy Auditor – Technical under the Australian National Greenhouse and Energy Reporting Scheme; and as a Lead Auditor under the International Cyanide Management Code. He has over 40 years experience in the mining and resource industries, along with other industry sectors, including over 30 years as an environmental consultant, during which time he has carried out over 500 environmental assignments. Graham Brown is the author of a series of environmental guidebooks including *The Environmental Audit Guidebook* and the *Environmental Management Systems Guidebook*, environmental audit protocols and other publications. He is also one of Australia's leading trainers of environmental auditors and regularly conducts accredited public and in-house training workshops.

Ken Page

Audit Role

- Legal and Regulatory Compliance Specialist

Relevant Experience

Ken Page is a Senior Consultant with Graham A Brown & Associates and is a specialist in environmental compliance issues. He has developed legislative compliance databases and protocols, including the multi-client *eComP* legislative compliance system, and has participated in a number of environmental compliance audits. He is an economist who worked for over 20 years as a senior policy advisor to the Commonwealth and ACT governments. He has wide experience in evaluating the economic and social impact of projects and programs in areas including the environment, transport, industry and natural resources. He also has extensive experience in management consulting in the government and private sectors, including environmental and compliance management systems and Corporate Social Responsibility programs. He has extensive experience in auditing and program reviews internationally in a broad range of categories including financial, natural resources, environmental and social.



Rod Ingersoll

Audit Role

- Waste Management and Land Management Specialist

Relevant Experience

Rod Ingersoll holds a Bachelor of Applied Science in Environmental Resource Management (Honours) and has been certified by RABQSA as an Environmental Lead Auditor. Rod has over 10 years experience in environmental management, working in the areas of climate change science, sustainability, environmental health, waste management and land management, environmental management systems, environmental auditing, project management, stakeholder liaison, training development and delivery as well as community economic development projects in Australia and Papua New Guinea.

Rod has extensive experience in conducting audits including environmental audits to ISO 14001 standards. This experience includes gap analyses, comprehensive and compliance audits in a wide range of businesses, mining and government entities. He has particular expertise in the areas of waste management, biodiversity and land management based on experience in local government in the Hunter region and international economic development projects.

Taariq Bousaleh

Audit Role

- Environmental Monitoring Systems Specialist

Relevant Experience

Taariq Bousaleh holds a Master of Environmental and Business Management, Diploma of Education (Secondary Science) and a Bachelor of Science with a major in Chemistry has been certified by RABQSA as an Environmental Lead Auditor.

As an Environmental Coordinator at the Australian Nuclear Science and Technology Organisation (ANSTO), Taariq worked on revision and implementation of changes to the ISO 14001 certified Environmental Management System, covering the National Medical Cyclotron and the Lucas Heights new OPAL (Open Pool Australian Light-water) nuclear reactor and regularly undertook internal environmental audits of ANSTO facilities. Taariq has also successfully managed a team of environmental consultants responsible for working closely with over 135 primary and secondary schools across NSW involving environmental auditing, consulting, project management and providing environmental training materials for the Community Water Grants and National Solar Schools Programs.

At Graham A Brown & Associates, Taariq has been involved in environmental auditing, EMS development and the implementation of management system software for clients.



Katie Weekes

Audit Role

- Specialist Advisor, Noise

Relevant Experience

Katie Weekes holds a Master of Environmental Management and Bachelor of environmental science. She is an Environmental Scientist – Acoustics with Global Acoustics Pty Ltd, providing a variety of services including assessment of noise and vibration, building acoustic and environmental noise assessments, preparation of environmental and noise impact statements, vibration and blast monitoring, occupational health and safety and traffic noise assessments. Katie is responsible for project managing all Global Acoustics quarterly noise monitoring projects and regularly undertakes environmental noise and blast monitoring and reporting for a number of coal mines in the Hunter Valley.

Katie has over 14 years experience in acoustic and environmental monitoring with Global Acoustics and ERM Australia, working with extractive industries, construction, waste management, infrastructure and smaller commercial and industrial developments. Katie has experience in management of multi-disciplinary teams, liaising with community groups, environmental groups and all levels of government.

Dr Mark Burns

Audit Role

- Specialist Advisor, Mine Site Rehabilitation

Relevant Experience

Dr Mark Burns holds a Bachelor of Science in Forestry with first class honours, a Master of Resource Science, and a Ph.D in Plant science. He is a director and the principal of Global Soil Systems, a consultancy providing specialist advice on disturbed land rehabilitation and revegetation. Over the past 30 years Mark has had extensive experience in mine rehabilitation, environmental consulting, forestry, landscaping, nursery management and plant propagation, forestry research and preparation of environmental assessments.

Mark has managed multi-consultant multi-discipline project teams for the preparation of resource based environmental impact assessments and a wide range of other environmental studies. He is a former District Forester for the then Forestry Commission of NSW based in Muswellbrook and has been involved in the design and implementation of numerous broad-acre disturbed/mined land rehabilitation projects in NSW, Queensland and elsewhere. His specialist interest is in the reforestation of hostile sites with native species using direct tree seeding.