

INTEGRA MINE COMPLEX

Overland Conveyor, Biodiversity Offsets Security and Noise-related Modifications (MP 08_0101 MOD 2 & MP 08_0102 MOD 2)

1 BACKGROUND

Integra Coal Operations Pty Ltd (Integra), a subsidiary of Vale Australia, operates the Integra Mine Complex, approximately 10 kilometres northwest of Singleton in the Hunter Valley (see Figure 1).

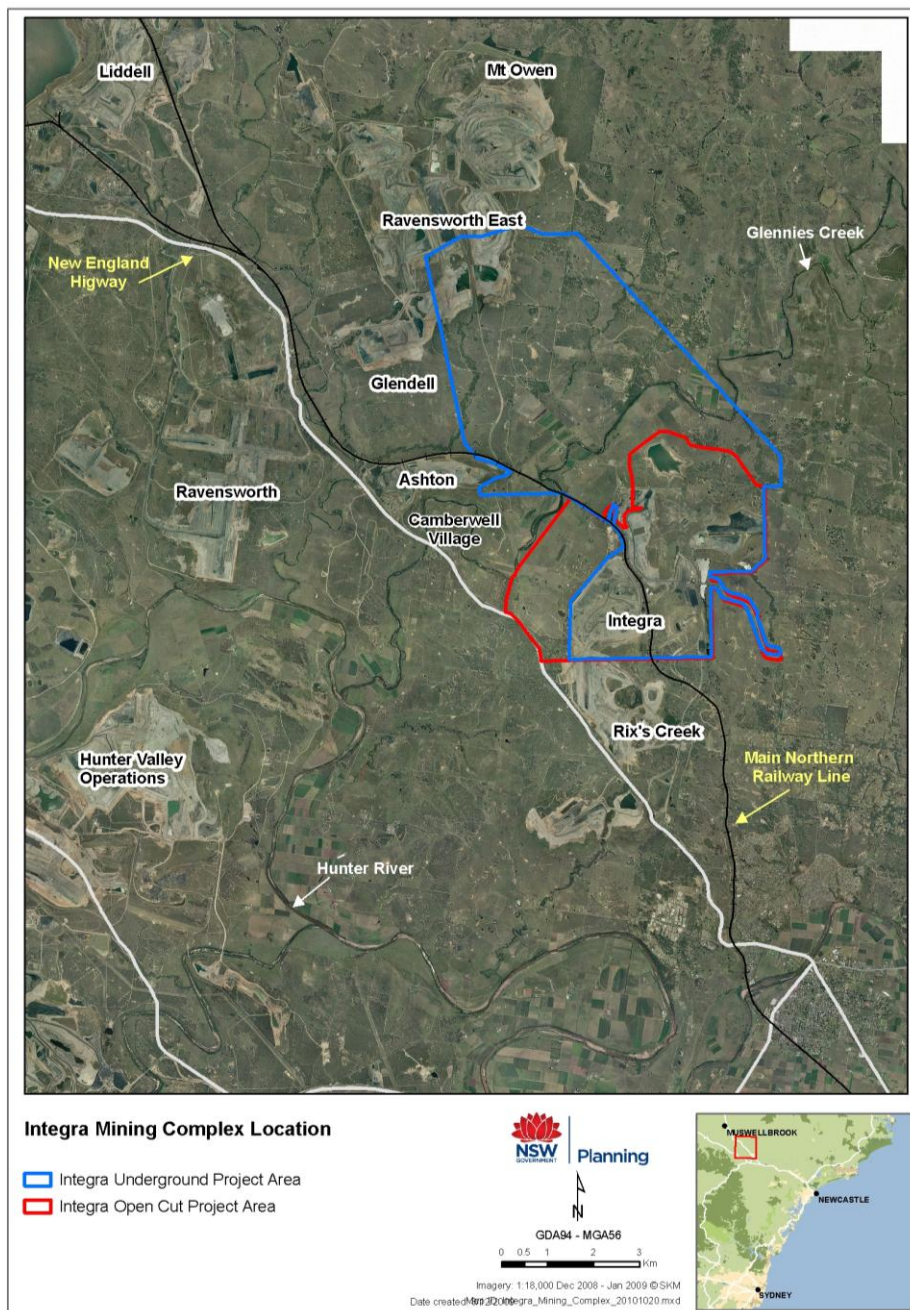


Figure 1: Location of the Integra Mine Complex

The Complex comprises 3 separate mining areas (see Figures 2 and 3), including the former:

- Camberwell open cut mine;
- Glennies Creek open cut mine (now known as the North Open Cut); and
- Glennies Creek underground mine.

The Complex is now regulated by a single consolidated Ministerial project approval granted on 26 November 2010. The single project approval governs both the Integra Underground Coal Project (MP 08_0101) and the Integra Open Cut Project (MP 08_0102).

The project approval consolidated and replaced numerous development consents and project approvals regulating underground and open cut mining operations since 1990, including previous approvals for the Camberwell mine (DA 86/2889), Glennies Creek underground mine (MP 06_0057) and the Glennies Creek open cut project (MP 06_0073).

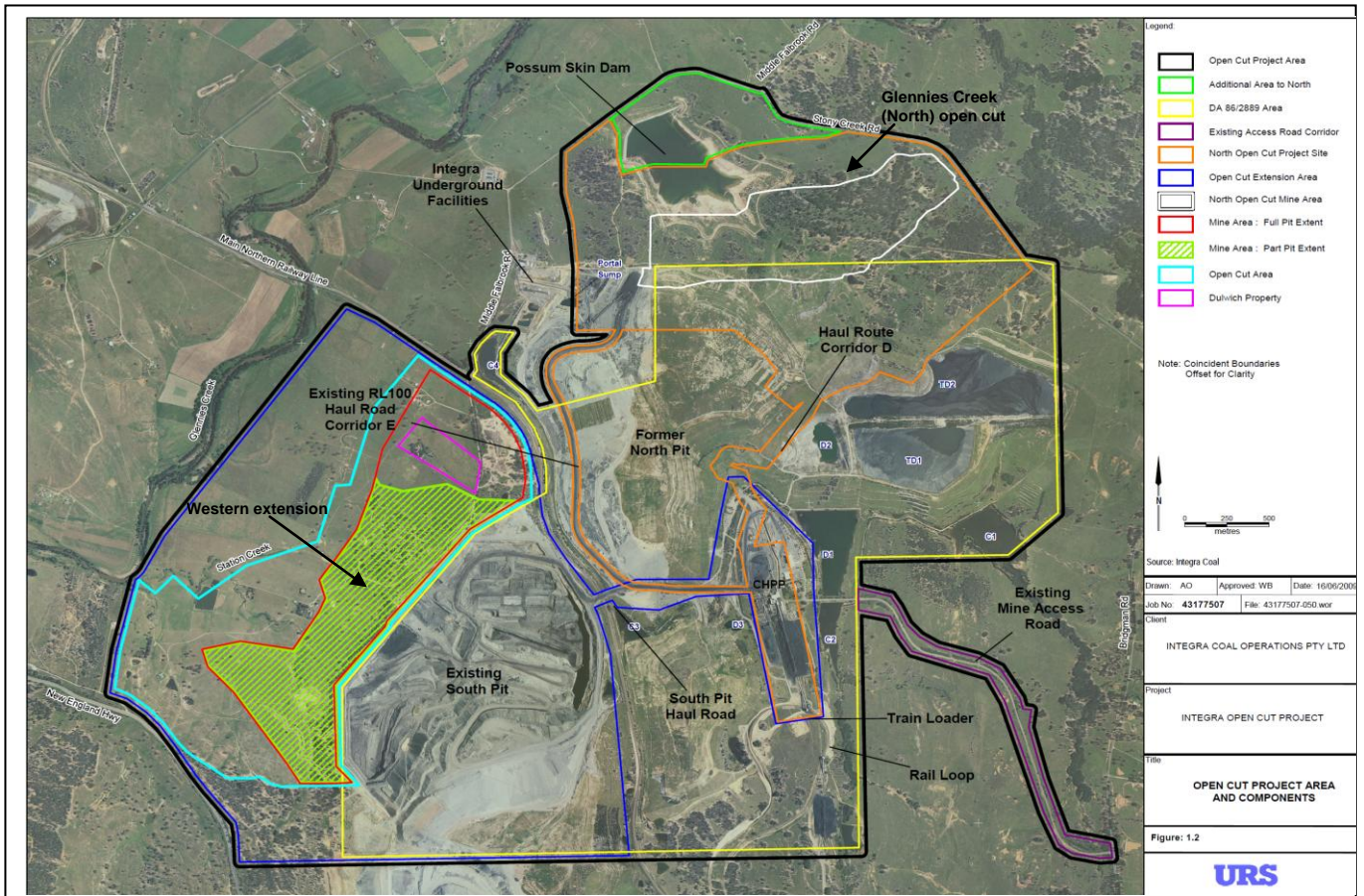


Figure 2: Open Cut Mining Operations

Under the consolidated approval, Integra is allowed to extract up to 10.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal from its combined open cut and underground operations. Extracted coal is transported via internal haul roads to the Camberwell Coal Handling and Preparation Plant (CHPP) for processing, and then railed to the Port of Newcastle via the Main Northern Railway.

The project approval has been modified twice since the original approval in 2010. These modifications (MOD 1 approved on 18 March 2012, and MOD 3 approved on 5 October 2012) allowed an:

- extension to an overburden emplacement, and associated infrastructure relocation;
- extension of time for installation of an overland conveyor, to the end of March 2013; and
- extension of time to secure the biodiversity offset areas for the complex, to the end of March 2013.

The current modification application (ie MOD 2) relates to the overland conveyor and the biodiversity offsetting measures, and also involves minor changes to the noise-related conditions in the approval (see Section 2). Additional background information on the overland conveyor and biodiversity offsetting measures is provided below, to provide the context for the proposed modification.

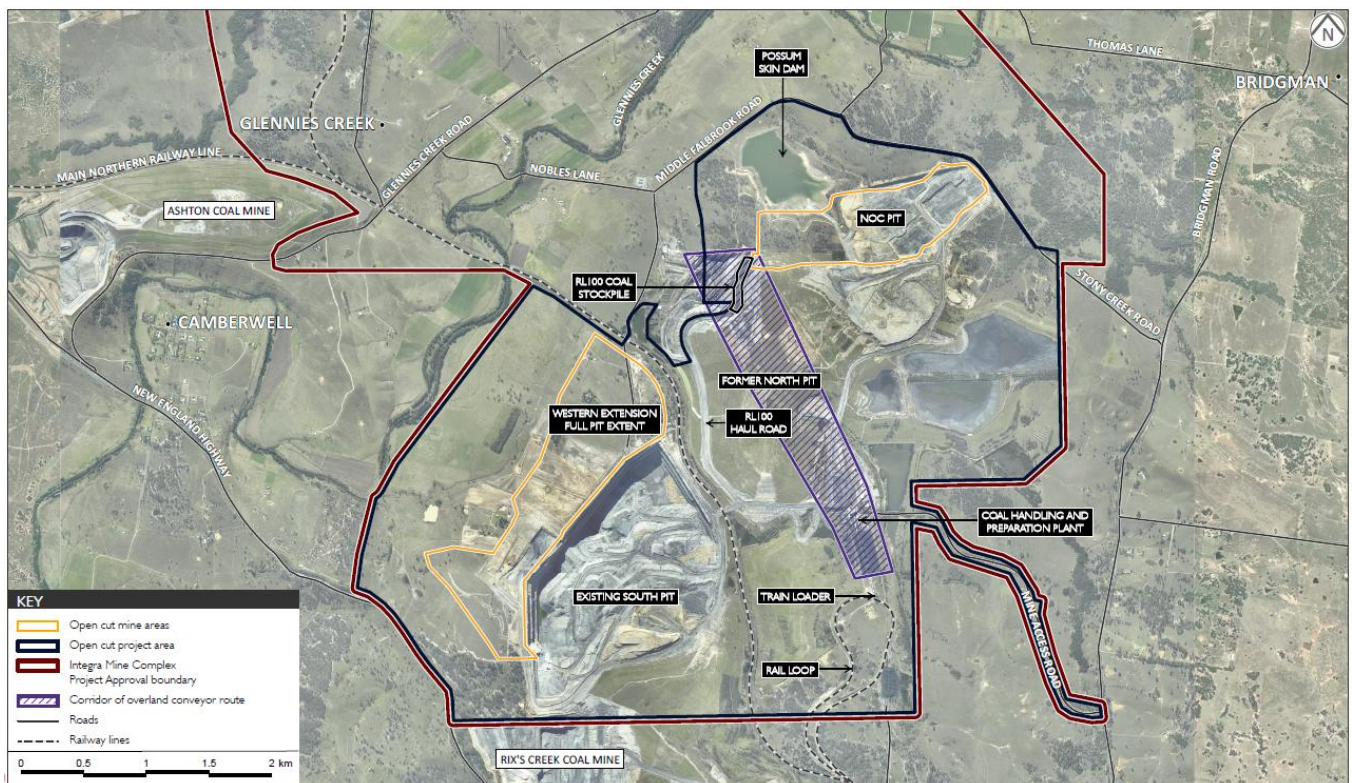


Figure 4: Overland Conveyor Route

Notwithstanding, the company committed to examining all options to build the conveyor and initiated investigations of possible lower cost options, which it proposed to undertake by the end of December 2011. As part of these investigations Integra also sought to identify its preferred option for long-term delivery of coal from Glennies Creek underground to the Camberwell CHPP.

In December 2011, Integra reported that these feasibility investigations had been completed which had confirmed that the overland conveyor was not an economically feasible alternative, and that its preferred option was to continue to transport coal by internal haul road (known as the 'RL100 haul road') to the Camberwell CHPP. Integra subsequently sought and gained approval (MOD 1 to MP 08_0101 and MP 08_0102) for a 9 month extension in the timeframe for conveyor installation (to the end of September 2012), to allow it to complete the required environmental assessment to support a subsequent modification application to remove the requirement for the conveyor.

In late September 2012, Integra lodged the subject modification application (ie MOD 2) and Environmental Assessment to support the removal of the conveyor condition (Condition 48).

However, given the late submission of the MOD 2 application and the September 2012 deadline, Integra subsequently lodged a separate 'interim' modification (ie MOD 3) seeking to extend the conveyor timeframe by a further 6 months whilst MOD 2 is being assessed. As outlined above, MOD 3 was approved on 5 October 2012, extending the conveyor timeframe until the end of March 2013.

Long Term Security of Biodiversity Offsets

The current condition 43 of schedule 3 of the consolidated project approval requires:

43. *By the end of September 2012, 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.*

The biodiversity offsetting requirements for the Integra mine complex were first set out in the 2008 approval for the Glennies Creek open cut project (MP 06_0073). These requirements were subsumed and expanded in the 2010 consolidated project approval. The offset areas are shown on Figure 5, and include the:

- Northern Offset Area;
- Southern Offset Area;
- Western Offset Area;

- Supplementary Offset Area;
- Bridgman Offset Area; and
- Martins Creek Offset Area, which was added to the offset strategy in June 2012 in accordance with the revised offset strategy requirements in condition 42 of schedule 3 of the consolidated approval.

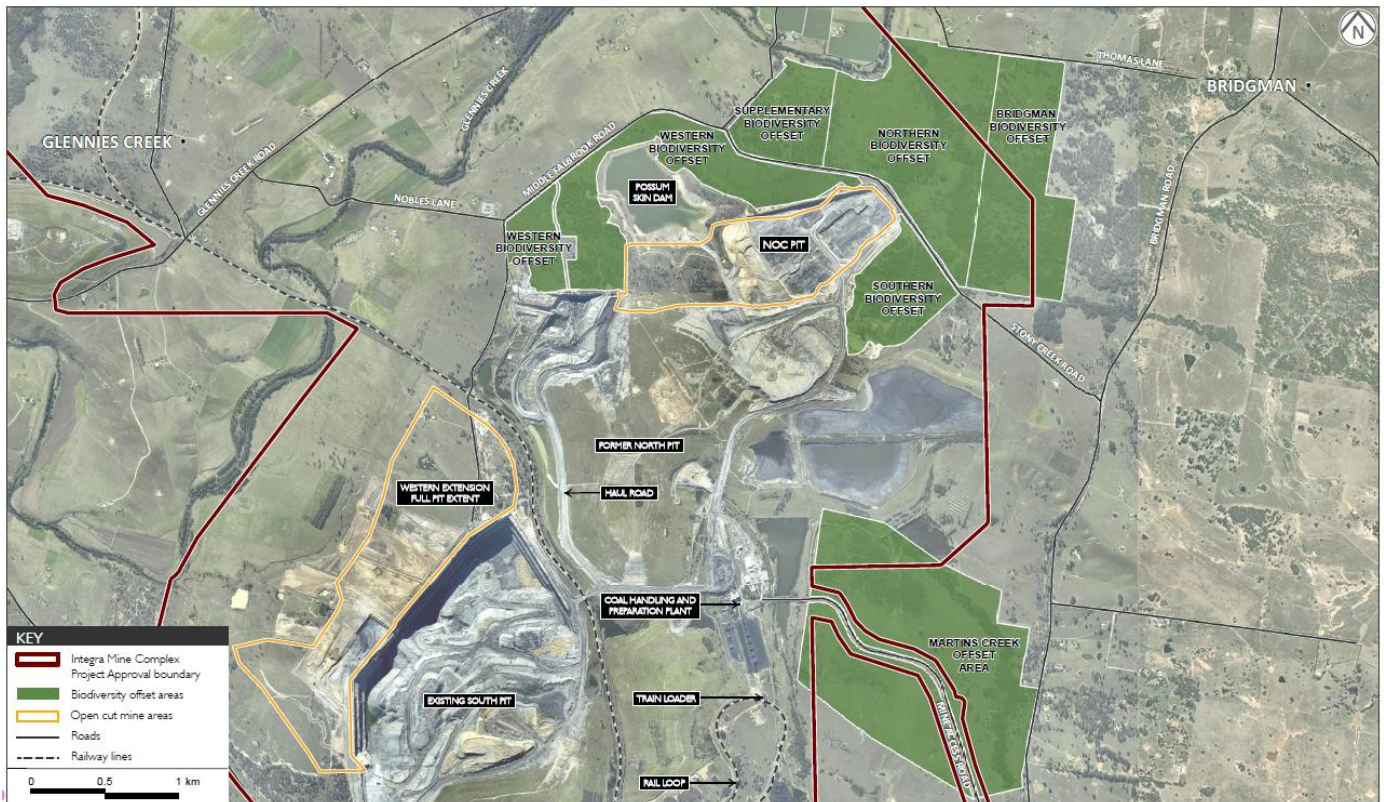


Figure 5: Existing Biodiversity Offset Areas

Subsequent investigations into the biodiversity offset areas by Integra have shown that some of the areas are underlain by substantial coal reserves. To address this land use conflict, Integra has sought to postpone the provision of long term security for the existing offsets to allow it to carry out further investigations to determine whether the areas remain appropriate as a biodiversity offset, or whether an alternate strategy is more appropriate.

In this regard, condition 43 originally required Integra to provide for the long term security of offset areas by the end of December 2011. In December 2011 Integra sought (via MOD 1 to MP 08_0101 and MP 08_0102) and subsequently gained approval for a 9 month extension to provide time to complete these investigations (ie to the end of September 2012).

Integra has now completed this additional work, confirming that the offset areas overlie a significant coal resource comprising some 43 million tonnes of thermal and coking coal with a value of some \$6.2 billion. Consequently, as part of the subject MOD 2 application, Integra is seeking to amend condition 43 to extend the timeframe for provision of long term security for the offset strategy by another 2 years (to the end of September 2014). This would allow time for Integra to identify a revised offset strategy for the mine complex.

As outlined above, MOD 3 was approved on 5 October 2012, extending the timeframe for the provision of long term security for the offset areas until the end of March 2013.

2 PROPOSED MODIFICATION

Integra has submitted an application to the Department, seeking to modify the Minister's consolidated approval for the Integra underground and open cut projects (MP 08_0101 and MP 08_0102 respectively) under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Integra is seeking to:

- delete the requirement to install the overland conveyor;
- extend the timeframe for provision of long term security of the offset areas until September 2014;

- extend the hours of operation for the North Open Cut (NOC) by an additional one hour in the morning on Sundays and public holidays (ie 7am start rather than 8am start);
- extend rights to additional noise mitigation measures to one additional privately-owned residence (to correct an omission in the original approval for the mine complex); and
- lower the noise criteria for one privately-owned residence.

The proposed modifications are outlined in Integra's supporting Environmental Assessment, attached in **Appendix F**.

3 STATUTORY CONTEXT

Legislative Framework and Approval Authority

The Integra underground and open cut projects were originally approved under Part 3A of the EP&A Act. Although Part 3A was repealed on 1 October 2011, the projects remain 'transitional Part 3A projects' under Schedule 6A of the EP&A Act and the proposed modification is required to be assessed under the former Section 75W of the Act.

Under Section 75W, the Minister for Planning and Infrastructure is the approval authority for the modification application. However, the Deputy Director-General, Development Assessment and Systems Performance, may determine the application (to modify both project approvals) under the Minister's delegation of 14 September 2011, as:

- less than 25 public submissions have been received that are in the nature of an objection;
- Integra has not made any reportable political donations; and
- Singleton Council has not objected to the proposal.

Modification

The proposed modification involves changes to certain ancillary or minor components of the Integra mine complex, and does not involve any significant changes to the broad nature of the complex (such as project or mining area, broad mining methodology and production rates). Consequently, the Department is satisfied that it can be properly characterised as a modification to the original consolidated project approval and can therefore be assessed and determined under Section 75W of the EP&A Act.

Exhibition and Notification

Under Section 75W of the EP&A Act the Department is not required to notify or exhibit the modification application. However, after accepting the Environmental Assessment (EA) for the application the Department:

- made the EA publicly available from 3 October 2012 until 22 October 2012:
 - on the Department's website,
 - at the Department's Information Centre and Singleton Shire Council, and
 - at the offices of the Nature Conservation Council;
- notified relevant State government authorities and Singleton Council by letter; and
- advertised the exhibition in the Singleton Argus and Hunter Valley News newspapers.

During the assessment process the Department also made a number of documents available for viewing or download on its website. These documents included the:

- modification application;
- Director-General's environmental assessment requirements;
- EA; and
- Integra's response to the issues raised in submissions.

4 CONSULTATION

The Department received 9 submissions on the proposal, including:

- 4 from public authorities (DPI, EPA and OEH);
- 1 from a special interest group (CFMEU); and
- 4 from the general public.

A full copy of the submissions is attached in **Appendix E**. A summary of the issues raised is provided below.

Public Authorities

The **Department of Primary Industries**, including the NSW Office of Water (NOW) and Agriculture NSW, does not object to the proposal. NOW commented that it had no issues with the proposal but noted that any future proposal to disturb or mine the biodiversity offset areas (which is not proposed

in this application) would need to closely consider potential impacts to surface water, groundwater and riparian areas including Glennies Creek. Agriculture NSW also commented that it had no direct issues, but noted that indirect impacts to agricultural land (eg through noise or dust impacts) should be appropriately considered. It also noted that the site is located in proximity to Biophysical Strategic Agricultural Lands (BSAL) identified in the *Upper Hunter Strategic Regional Land Use Plan*.

The **Environment Protection Authority** (EPA) supports the proposal provided there are no changes to the noise limits in the existing approval. It provided comments in relation to:

- *Air quality* – noting that:
 - 2 privately-owned residences are predicted to exceed applicable criteria, both of which already have acquisition rights;
 - the mine is subject to its ‘Dust Stop’ Pollution Reduction Program (PRP), which applies to all NSW mines; and
 - the proposal does not necessitate any additional dust related conditions; and
- *Noise* – noting that:
 - some of the criteria in the noise assessment appear to be different to the approval limits;
 - although it appears that a small number of properties would be worse off with continued truck haulage (as opposed to the conveyor), it appears the modelling does not include the mitigation achieved by the proposed 3 metre noise bund along the haul road which would reduce these impacts; and
 - regarding the proposed 7am start on Sundays (and public holidays), the modelling indicates that the predicted noise levels would comply with the noise limits in the approval, but nevertheless the onus is on the proponent to achieve the noise limits in the approval.

The **Office of Environment and Heritage** (OEH) noted that it does not support any extension of time in securing the agreed biodiversity offset package for the mine complex or the mining of the offset areas (which is not proposed in this application).

OEH commented that if the mining of the offset areas was proposed in due course, then alternative offsets would be required to the existing offsets, and should be determined under OEH’s existing policy framework (eg OEH’s *Principles for the use of Biodiversity Offsets in NSW* and the *NSW OEH Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A, State Significant Development and State Significant Infrastructure Projects*). OEH indicated that it did not support Integra’s proposal to use the forthcoming Upper Hunter Strategic Assessment to replace the existing offsets, as the process is designed to apply to new projects rather than modifications to previously approved projects.

Special Interest Groups and General Public

The **United Mineworkers Federation of Australia** (a division of the Construction, Forestry, Mining and Energy Union, **CFMEU**) supports the proposal, noting that it is anticipated to have negligible environmental impacts.

The 4 submissions from the general public were all received from landowners in either the rural area surrounding the mine, or in Camberwell Village. All of the submissions object to the proposal, with submitters in general critical about the perceived back-down on installation of the overland conveyor and the provision of security for the biodiversity offset area. The main grounds for objection included:

- *Noise* – including:
 - noise associated with the continuation of truck haulage of coal (as opposed to the overland conveyor);
 - noise impacts associated with the proposed extension to operating hours;
 - noise associated with existing mining equipment, including dozer tracks, rocks hitting trucks, haul trucks, reversing alarms and vehicle horns;
 - inadequacy of existing noise monitoring (particularly for cumulative noise);
- *Air quality* – including:
 - dust associated with the continuation of truck haulage of coal (as opposed to the overland conveyor);
 - dust impacts associated with the proposed extension to operating hours;

- dust impacts associated with the existing mining operations (including dust emissions at night time and emissions from exposed surfaces on weekends when the mine is not operating);
- *Biodiversity offsets* – including:
 - that a further extension for providing security for the offsets is inappropriate, as is providing alternative offsets elsewhere;
 - that allowing mining in the offsets would bring the mine closer to residences, with resultant impacts;
- *Blasting and vibration* – associated with the existing approved operations; and
- *Visual impacts* – associated with the existing approved operations.

5 ASSESSMENT

5.1 Overland Conveyor

The Department recognises that the overland conveyor was originally required to be installed by December 2004, and that this timeframe has been extended on 4 separate occasions since this time (firstly to 31 December 2010, secondly to 31 December 2011, thirdly to 30 September 2012 and finally to March 2013). However, the Department also accepts that Integra has had valid reasons to delay the installation of the conveyor, firstly to avoid interactions with ongoing mining activities in the conveyor corridor, and secondly to properly identify the costs and feasibility of various options regarding the conveyor. Further, the company has been transparent in identifying the feasibility issues associated with the conveyor transport option.

In this regard, as outlined in Section 1 Integra has flagged that the conveyor option may not be a feasible alternative since at least 2009. This included a feasibility analysis undertaken by Worley Parsons for Integra in 2008/2009 which examined 15 different options for installation of the conveyor system. The preferred option arising from that analysis (based on lowest geotechnical risk, lowest operating costs, lowest impact on underground operations, etc.) was estimated at costing some \$95 million to implement (in 2009 dollars). Financial modelling concluded that this option was not economically justifiable for the underground operations, so Integra subsequently commissioned a second feasibility study to identify economically justifiable options for the conveyor.

The revised options based on this study ranged from a capital cost of \$50 million for the 'basic conveyor (bare bones) option', to up to \$90 million for the 'refined overland conveyor option'. Integra subsequently initiated further cost reduction analysis, which failed to reduce the capital cost of the basic conveyor option below \$40 million. Whilst the basic option had the lowest capital cost, it also had the highest operational and maintenance risks/costs, and also involved a degree of continued truck haulage which reduced the environmental benefits in terms of noise and dust impacts.

Based on this analysis, Integra concluded that the overland conveyor option is not an economically justifiable alternative, and that its preferred option was to continue to transport coal by internal haul road to the Camberwell CHPP.

Integra has now completed the detailed noise, dust and other environmental impact assessment to evaluate and justify the continued internal transfer of coal by haul road. Consideration of this assessment is outlined below.

Noise

The EA includes a noise impact assessment undertaken by EMGA, which compares the noise impacts from continued coal transport by haul road against the overland conveyor option. This assessment was supplemented by additional information requested by the Department during the assessment process regarding the residual worst case noise impacts at each sensitive receiver location following implementation of the 3 metre noise bund along the RL100 haul road (which Integra has now constructed) (see **Appendix C**). As noted in the EPA's submission the original noise assessment did not include consideration of this noise bund, noting only that it would achieve a 'measurable' noise reduction.

A summary of the worst case noise impacts at each noise assessment group (NAG), comparing the overland conveyor option against continued haulage on the RL100 haul road (including the noise bund), is presented in the following table. It is noted that the comparison shows noise emissions from the conveyor and truck haulage only, and does not include noise from the other mining operations on the site.

Table 1: Comparison of Noise Impacts – Overland Conveyor vs Haul Road

NAG	Location	L _{eq} Criteria, dB(A)	Predicted noise levels, L _{eq(15-min)} , dB(A)		Difference, dB(A)
			Conveyor only	Truck haul only	
1	80	36	36	36	0
3	87	39	35	36	1
4	96	37	30	29	-1
5	111	47	32	34	2
6	132	38	25	25	0
7	110	39	34	36	2
8	142	35	23	20	-4
9	4	39	32	32	0
10	13	37	37	35	-2
11	16	42	38	34	-4
12	62	40	34	34	0
A	35	35	34	30	-4
C	64	35	35	33	-4
D	48	36	33	30	-3
F	76	40	38	39	1

Note 1 : a negative value in the difference column identifies the haul option generates lower emissions than the conveyor option.

With the noise bund in place, the assessment indicates that the continuation of truck haulage as compared to the conveyor option would result in:

- a decrease of between 1 to 4 dB at 7 of the 15 noise assessment groups;
- no change at 4 of the noise assessment groups; and
- a minor increase of between 1 to 2 dB at the other 4 assessment groups (all located to the west and south of the mine complex).

The noise assessment groups where noise levels are marginally higher for the continued truck haulage are all located to the west and south of the mine complex (ie in the rural area to the east and south of Camberwell Village). Whilst the continued truck haulage would be marginally noisier than the conveyor option at these receivers, the total noise emissions from the mine complex would be no greater than the noise limits in the existing approval, which are based on the worst case predictions. It is also noted that noise increases of between 1 to 2 decibels are generally not perceptible to the human ear.

Based on this noise assessment the Department and the EPA are satisfied that the continuation of truck haulage of coal would not result in any significant increase to noise emissions from the mine complex and that, with the installation of the noise bund along the RL 100 haul road, noise levels would actually decrease for a considerable number of receivers.

Consequently, the Department is satisfied that the deletion of the requirement to construct the overland conveyor is justifiable from a noise perspective. As recommended by the EPA, the Department believes that Integra should be required to comply with the existing noise limits in the approval.

As noted below in Section 5.4, the Department has also recommended conditions requiring Integra to acquire an additional 2 properties to the west of the mine (ie Properties 111 and 112), for noise-related reasons.

Air Quality

The EA includes an air quality assessment undertaken by PAE Holmes, which compares the dust impacts associated with the mine complex with and without the continued haulage of coal via the RL100 haul road. This was supplemented by additional information requested by the Department during the assessment process, including contour plots comparing predicted worst case air quality emissions for the conveyor option and the continued truck haulage (see **Appendix C**).

The assessment indicates that the continued haulage of coal would result in an increase in dust emissions from the mine of less than 6% throughout the life of the project (or less than 4% using the contemporary EPA-preferred emissions factor). Based on this increase, the air quality modelling found that 2 privately-owned residences and 1 mine-owned residence would experience exceedances of the relevant air quality criteria. A summary of these exceedances is presented in the following table.

Table 2: Summary of Air Quality Impacts¹ (Exceedances Only) – Continued Truck Haulage, $\mu\text{g}/\text{m}^3$

Modelling Year	Receiver ID	PM ₁₀ 24-hour average (project only)		PM ₁₀ Annual average (cumulative)	
		Approved Project (inc. conveyor)	Proposed Modification (inc. continued truck haulage)	Approved Project (inc. conveyor)	Proposed Modification (inc. continued truck haulage)
3	108 ²	50	55	-	-
4	47 ³	50	53	-	-
	108 ²	-	-	30	31
6	110 ³	47	51	-	-
Criterion		50		30	

Notes:

1 The results shown are (conservatively) based on the current emission factor

2 Mine-owned residence

3 Privately-owned residence, already subject to acquisition rights

Of the affected privately-owned residences, Property 110 is located in the rural area to the west of the mine complex, while Property 47 is located in the rural area to the north of the mine. Both of these properties are already within the acquisition (or significantly-affected) zone for the mine complex, due to noise and subsidence impacts respectively. Under the existing approval, Property 110 is also entitled to additional air quality mitigation measures at the residence upon request (eg first flush roof water system, air filters, and/or air conditioning). Neither of these landowners made an objection to the proposed modification.

It is noted that Property 110, along with the neighbouring privately-owned properties 111 and 112, also have acquisition rights under the recently approved Ashton South East Open Cut project.

The air quality assessment also includes consideration of cumulative impacts (including 24-hour PM₁₀) associated with the proposal together with other dust sources in the locality, including neighbouring mines. The assessment indicates that the continuation of truck haulage would increase 24-hour PM₁₀ levels in Camberwell Village by a negligible 1-2 $\mu\text{g}/\text{m}^3$, with dust levels remaining below the applicable 50 $\mu\text{g}/\text{m}^3$ air quality goal at all receivers in the Village.

With regard to impacts on wider landholdings (ie not just at the residence), the Department's contemporary policy provides that landholdings are considered to be significantly impacted where more than 25% of the landholding exceeds the applicable air quality (acquisition) limits. The supplementary contour plots prepared by Integra indicate that there would be little difference between the conveyor option and continued truck haulage in terms of impacts on privately-owned landholdings, and that no additional privately-owned landholdings would be significantly affected as a result of the continued truck haulage (see **Appendix C**).

The Department and the EPA are satisfied that the proposed continuation of coal haulage via the RL100 haul road would not result in a significant increase in dust emissions from the mining complex, and similarly that the overland conveyor option would not have provided significant dust-related benefits to off-site receivers, given the predicted ongoing compliance with air quality criteria at all off-site receivers with the exception of 2 properties that are already affected by the mine.

Nevertheless, the Department believes that Integra should be required to implement all reasonable and feasible measures to minimise and manage dust emissions associated with the mine complex. In this regard, the existing approval already requires Integra to implement a number of best practice measures including implementation of a real-time monitoring and management system, which uses predictive meteorological forecasting and real-time air quality monitoring data to guide the day-to-day planning of mining operations to minimise dust impacts.

The Department has also recommended conditions:

- noting that Properties 47 and 110 are also entitled to acquisition for air quality impacts (in addition to noise/subsidence impacts);
- extending rights to additional air quality mitigation measures to Property 47; and

- requiring Integra to keep tenants of affected mine-owned properties updated about air quality issues, and allowing these tenants to break leases promptly and without penalty.

Other Impacts

The Department is satisfied that the continuation of internal truck coal haulage over the overland conveyor option would not result in any other significant adverse impacts. With regard to greenhouse gas emissions, it is acknowledged that Integra's EA indicates that the continued truck haulage would actually produce less greenhouse gas emissions than the overland conveyor option, albeit by a small amount (ie a saving of 202 tonnes per annum CO₂ equivalent).

Conclusion

The Department is satisfied that the conveyor option would not result in significant environmental benefits over the continued internal haulage of coal via the RL100 haul road. Consequently, the Department is satisfied that the condition requiring the overland conveyor can be deleted.

However, the Department has recommended conditions that would require Integra to:

- comply with the existing noise and air quality criteria in the current project approval;
- implement current best practice noise and air quality mitigation and management measures; and
- implement additional air quality mitigation measures at Property 47, upon request.

The Department has also recommended conditions clarifying that Properties 47 and 110 are entitled to acquisition for air quality impacts (in addition to noise/subsidence impacts).

5.2 Long Term Security of Biodiversity Offsets

Most of the public submissions, as well as the submission from OEH, were very critical of any proposal to mine within, or to set aside, the existing biodiversity offset areas.

The Department shares these criticisms. However it also recognises that Integra is not proposing in the current application to undertake any mining operations or other disturbance in the existing offset areas, and that it would continue to manage the offsets for conservation purposes until it can secure approval to replace these offsets with alternative offsets.

In this regard, Integra is only seeking in the current application to extend the timeframe for provision of long term security of the biodiversity offset areas until September 2014.

The Department accepts that it has now been identified that the existing offset areas are underlain by a significant coal resource, and that this presents a considerable land use conflict. Given this land use conflict it is reasonable and in the public interest to delay the provision of long term security of the offset areas to enable Integra to fully assess the coal resource, its development potential, and possible alternative offsetting arrangements.

The Department notes that while it accepts a delay in providing this long term security (which is usually implemented via a voluntary conservation agreement), the existing approval contains a number of conditions which provide for effective conservation security and management for the existing offset areas in the interim period whilst these investigations are being carried out. These include requirements on Integra to:

- implement the existing offset strategy as described in the approval and the original EAs for the mine complex;
- manage the offsets for conservation purposes in accordance with an approved Biodiversity Management Plan; and
- lodge a substantial conservation bond for the implementation of the offset strategy.

The Department is satisfied that these measures effectively provide for the conservation security for the offsets for the time being. Consequently, the Department has recommended conditions extending the requirement for provision of long term security for the offset areas to September 2014.

Whilst the consideration of any alternative biodiversity offset strategy for the mine complex is outside the scope of the subject modification and would be subject to a separate application and merit assessment, the Department notes that any alternative offsetting arrangements would need to be substantial, and provide for a biodiversity outcome that would fully compensate for the impacts of the mine complex as well as any additional clearing within the existing offset areas.

5.3 Hours of Operation

The existing approval limits hours of operation for mining operations in the North Open Cut (NOC) to day and evening periods, which translates to operating hours of:

- 7am to 10pm Monday to Saturday; and
- 8am to 10pm Sundays and public holidays.

The South Open Cut (SOC) and the underground operations are approved to operate 24 hours a day, 7 days a week.

Integra is proposing to extend the hours of operation for the NOC by an additional one hour in the morning on Sundays and public holidays (ie 7am start rather than 8am start), to better align with its staff shift rosters (which commence at 7am seven days a week).

The EA includes an assessment of the background noise levels during the 6am to 7am time period at representative receivers, which found that there is little difference (ie between 0-1dB) in noise levels at this time on Sundays as compared to Monday-Saturdays. The assessment also found that background noise levels in the locality start to rise from about 6am, demonstrating some influence from local traffic noise (and masking associated noise from an earlier start to mining operations).

Consequently, Integra considers that the proposed additional one hour of operations on Sunday (and public holiday) mornings would not have any significant noise impact and that application of a 'shoulder period' noise limit, as provided in the *NSW Industrial Noise Policy*, is reasonable. The shoulder period noise limit is proposed to be based on the mid-point between the noise limits for the day and night periods.

As identified in the EPA's submission, the noise assessment does not include predicted noise levels for the proposed change in hours of operation. Notwithstanding, the EPA noted that the predicted noise levels assessed for the proposed continuation of trucking indicated that the mine complex would not exceed the existing noise limits in the approval.

Given this compliance, the Department does not object to the proposed additional hour of operation in principle, noting that most other mines in the Hunter Valley operate on a 24 hour 7 day basis. However, most of these other mines are required to comply with the night time criteria during the subject hour on Sundays and public holidays. Consequently, the Department believes that Integra should be required to undertake operations during this time so as to comply with the stricter night time noise limits, rather than the higher day or proposed shoulder criteria. This would ensure that respite is maintained for surrounding receivers on Sunday (and public holiday) mornings, and that noise levels would be maintained at levels consistent with the existing approved levels.

5.4 Other Noise-related Modifications

As identified in Section 2 above, Integra is also proposing to:

- extend rights to additional noise mitigation measures to one additional privately-owned residence (Property 363), to correct an omission in the original approval for the mine complex; and
- lower the noise criteria for one privately-owned residence (Property 112).

Property 363 was incorrectly identified as 'vacant land' in the original EA for the consolidated project. Since the project approval, Integra has become aware that the property does indeed have a residence on it, and that the residence falls within the 'management zone' (or moderately-affected area) for noise impacts from the mine complex. With regard to air quality, Integra's analysis indicates that the mine would comply with the relevant air quality criteria at this residence.

The existing approval provides that residences within the noise management zone are entitled to additional noise mitigation, at the landowner's request. These additional mitigation measures could include double glazing, insulation and/or air conditioning. Integra proposes to add the residence to the list of residences subject to such mitigation measures.

The Department agrees and has recommended conditions extending rights to additional noise mitigation to Property 363. The existing conditions require Integra to (and Integra has further committed to) notify the owners of Property 363 of their rights to additional mitigation.

The proposal to lower the noise criteria at one privately-owned residence (ie Property 112) follows an independent review at this property undertaken at the request of the landowner and the Department.

This independent review found that the originally-assessed background noise level (or Rating Background Level, or RBL) – which is used to set the intrusive noise criteria for the mine (ie RBL plus 5 dB) – included some influence from existing noise from the mine complex. The *NSW Industrial Noise Policy* provides that the RBL is to be assessed in the absence of noise from the existing mine, to provide an indication of background noise without the existing noise source.

The review determined that the night time RBL at Property 112 should be 35dB(A), some 2dB(A) lower than the 37dB(A) adopted in the original noise assessment. Consequently, the applicable night time noise criterion at this property should be 40dB(A), and the applicable night time noise acquisition criterion should be >45dB(A), using the methods adopted in the original assessment and the project approval.

The noise modelling in the original noise assessment predicted that the worst case noise levels at the residence on Property 112 would be up to 45dB(A) during the mine life, or equal to (but not exceeding) the acquisition criterion. Integra suggests that this places the residence within the 'management zone' for the mine (which it already is under the existing approval), but not within the 'acquisition zone' which would apply at noise levels greater than 45dB(A).

However, the Department notes that this analysis does not consider the Department's longstanding '25% rule' policy, which determines that landholdings subject to significant noise impacts (ie more than 5dB(A) exceedance) over more than 25% of the landholding should be subject to acquisition upon request. The Department notes that Property 112 is likely to be significantly affected over more than 25% of the landholding given the predicted noise levels at the residence and the location of the residence well within the property. Therefore, the Department has recommended conditions requiring Integra to acquire this property at the landowner's request. This affectation would also likely be the case for the neighbouring Property 111, which is located closer to the mine. Accordingly, the Department has recommended conditions requiring Integra to acquire this property as well, at the landowners request. Other privately-owned properties in this immediate area (including Properties 110, 106 and 87) already have acquisition rights under the existing approval.

6 RECOMMENDED CONDITIONS

The Department has drafted recommended conditions for the modification, with the key conditions including:

- deletion of the overland conveyor requirement, whilst retaining the existing noise and air quality criteria;
- extending acquisition rights to 2 additional properties (Properties 111 and 112);
- extending rights to additional noise and/or dust mitigation measures to 2 additional properties (Properties 47 and 363);
- updating noise and air quality operating conditions to reflect contemporary best practice standards;
- extending hours of operation on Sundays and public holidays by one hour, but restricting Integra to complying with existing night time noise criteria during this time; and
- extending the requirement for providing long term security for the biodiversity offset areas until September 2014, whilst retaining existing conditions providing ongoing conservation security in the interim.

The recommended instrument of modification is attached as **Appendix A**, and an updated consolidated project approval is attached as **Appendix B**.

7 CONCLUSION

The Department has assessed the modification application and supporting information on the proposal in accordance with the relevant requirements of the EP&A Act, including the objects of the Act and the principles of ecologically sustainable development.

This assessment has found that the proposed deletion of the requirement to build the overland conveyor would not result in any significant increase in noise or dust emissions from the Integra mine complex, or result in any other significant environmental impacts. Consequently, the Department is satisfied that the requirement to install the conveyor can be deleted, but has

recommended conditions requiring Integra to comply with the noise and dust limits in the existing approval, and to implement best practice noise and dust management.

Similarly, the Department is satisfied that the proposed additional one hour of operations on Sunday and public holiday mornings would not result in any significant impacts, but has recommended conditions restricting Integra to the more stringent night-time noise criteria during this time to ensure that adequate respite is maintained for surrounding receivers.

The Department also acknowledges Integra's proposed reduction in background noise rating levels (and hence noise criteria) for one residence, but given this reduction the Department believes that Integra should be required to acquire this property (and a neighbouring property) at the landowners request.

With regard to the extension of time for providing long term security for the biodiversity offset areas, the Department is satisfied that the identification of a substantial coal resource below part of the offsets is a valid reason to delay the provision of long term security, in order to allow adequate time to investigate and address this land use conflict. The Department notes that the subject proposal does not involve any disturbance of the existing offsets, and is satisfied that the existing approval adequately provides for effective conservation security and management for the existing offset areas in the interim period whilst these investigations are being carried out.

8 RECOMMENDATION

It is recommended that the Deputy Director-General, Development Assessment and Systems Performance, as delegate of the Minister:

- **considers** the findings and recommendations of this report;
- **determines** that the modification is within the scope of section 75W of the EP&A Act;
- **approves** the modification application under section 75W, subject to conditions; and
- **signs** the attached notice of modification (**Appendix A**).

DKitto 14/1/13

David Kitto
Director
Mining and Industry Projects



15.1.13

Chris Wilson
Executive Director
Major Projects Assessment

Richard Pearson
Deputy Director-General
Development Assessment and Systems Performance