



NSW GOVERNMENT
Department of Planning

ASSESSMENT REPORT

Ravensworth Underground Mine Section 96(1A) Modification

1 BACKGROUND

Xstrata Coal NSW Pty Ltd (Xstrata) operates the Ravensworth Underground Mine (RUM), (formerly known as Newpac No.1 Colliery, and prior to that Nardell Colliery), located near Ravensworth, approximately 17 kilometres northwest of Singleton (see Figures 1 & 2).

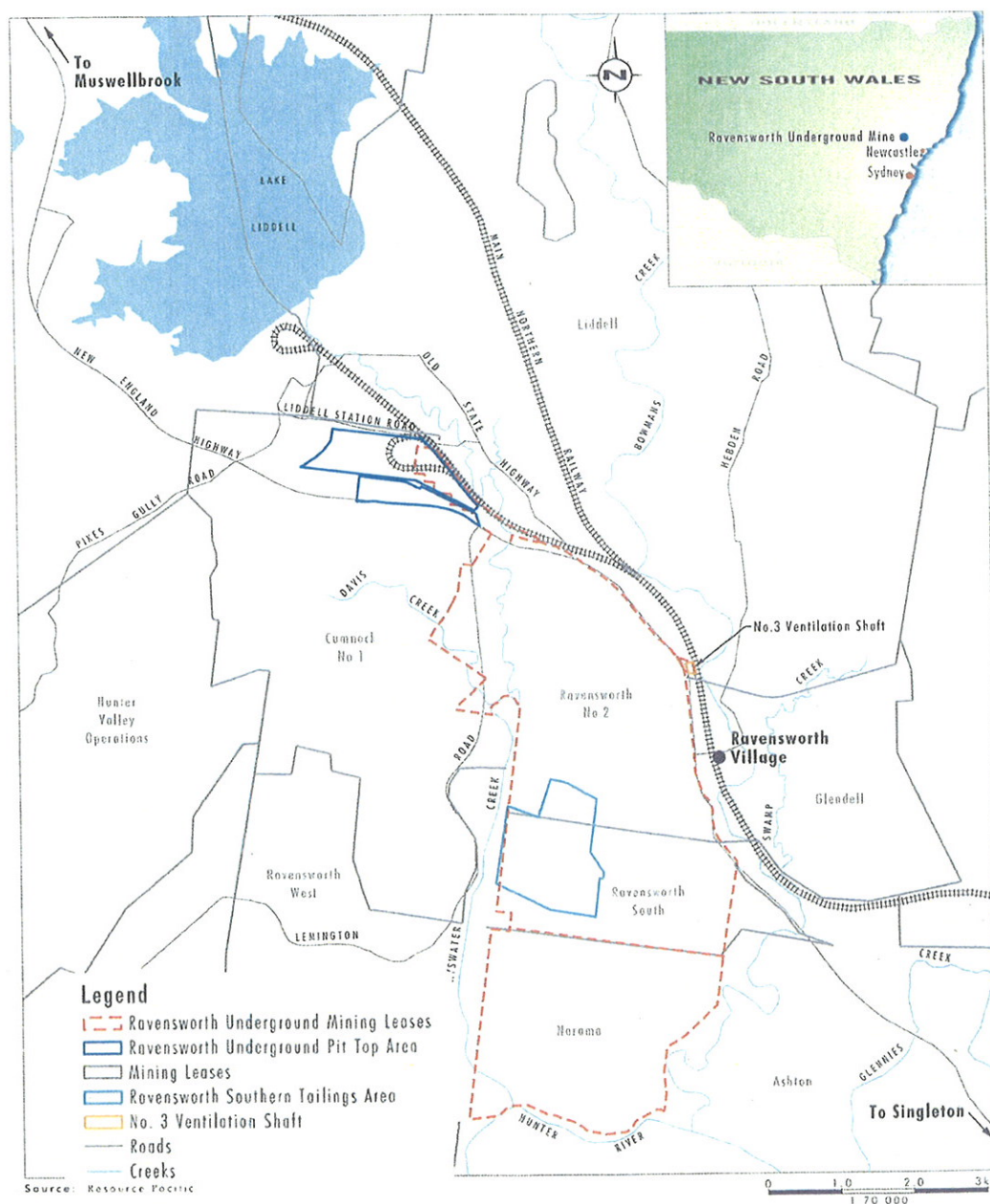


Figure 1: Location of the Ravensworth Underground Mine

RUM currently operates under two ministerial development consents, DA 104/96 and DA 161-7-2005. DA 104/96 was granted by the Minister for Planning on 20 November 1996 for the construction and operation of the Nardell Coal Mine, enabling extraction of up to 5 million tonnes per annum (Mtpa) of coal until 2017. DA 161-7-2005 was granted in October 2005 and allows the construction and operation of a coal stockpile facility within the RUM pit top area.

The area surrounding the mine is dominated by coal mining operations, particularly other Xstrata mines such as the Mt Owen Complex, Liddell Coal Mine, Cumnock No.1 Colliery (Cumnock) and Ravensworth Operations.

Following acquisition and assumption of management control of Newpac No 1 (now RUM) in early 2008, Xstrata undertook a review of existing operations and identified a number of opportunities to improve the current operation.

2 PROPOSED MODIFICATION AND PROJECT NEED

On 6 April 2009, Resource Pacific Pty Limited, a subsidiary of Xstrata, submitted an application to the Department to modify development consent DA 104/96 under Section 96(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Xstrata proposes to modify the development consent to allow:

- change of mining method within an approved longwall extraction area (Longwalls 1-3) to bord and pillar mining;
- alterations to the current water management system including the:
 - adaption of an existing pipeline between the nearby Cumnock Coal Mine and RUM to allow for the transfer of water between them;
 - establishment of a new pipeline to connect the water management systems for RUM and the nearby Narama Coal Mine (see Figure 3);
 - transfer of water to and from other Xstrata operations as part of the Greater Ravensworth Water Sharing System;
 - ongoing use of existing water management infrastructure; and
 - development of a new water management plan.
- ability to transfer tailings and coarse reject to surrounding Xstrata mining operations;
- integration of environmental monitoring with surrounding Xstrata mining operations;
- realignment of a vent fan evasee from upright to a lower angle;
- installation of lighting on the run-of-mine coal stockpile; and
- approval for continued use of existing infrastructure.

The key reasons for the proposed modifications are to allow for the changed mining methods, minor changes to mining infrastructure and operations, integration of environmental monitoring of RUM with Xstrata's surrounding mines and more effective environmental management of RUM's operations.

3 STATUTORY CONTEXT

Consent Authority

The Minister was the consent authority for the original development application, and is consequently the consent authority for this modification application. However, the Director Major Development Assessment may determine the application under the Minister's delegation of 4 March 2009, as the cost of the proposed modifications is less than \$5 million and there were less than 10 submissions on the proposal.

Section 96

Under section 96(1A) of the EP&A Act, a consent authority may modify a development consent if:

- a) *the proposed modification is of minimal environmental impact, and*
- b) *the development to which the consent as modified relates is substantially the same development for which consent was originally granted and before that consent as originally granted was modified (if at all).*

The Department has assessed the merits of the application and is satisfied that it would have minimal environmental impact (see Section 5 below).

The Department is also satisfied that the consent as modified would be "substantially the same" as the development approved in the original consent. The proposed modification would:

- involve minor changes to mining infrastructure and operations;
- involve relatively minor construction activities; and
- provide for more effective environmental management of RUM's operations.

Therefore the Department is satisfied that the modification application can reasonably be considered and determined under section 96(1A).

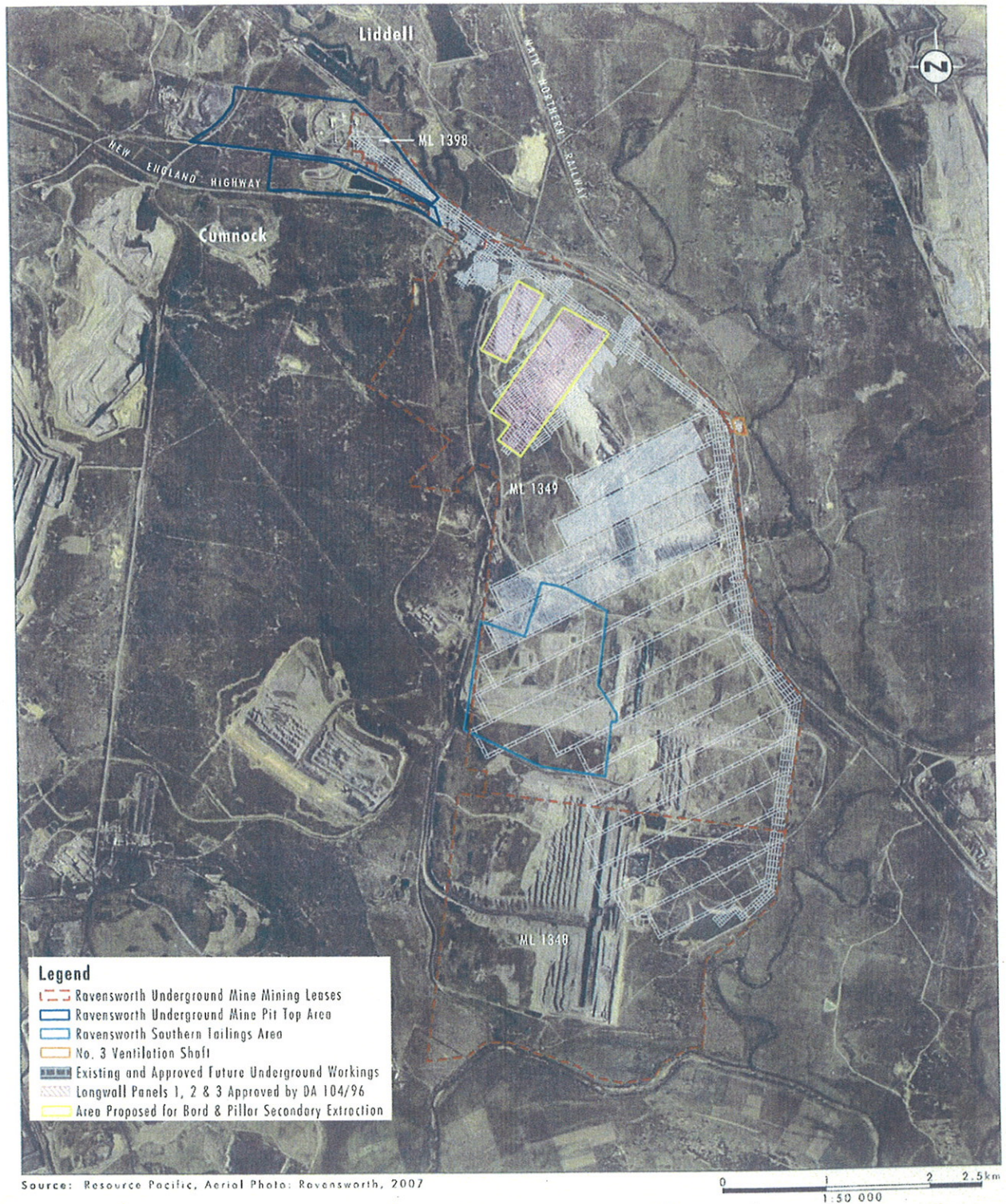


Figure 2: Location of the Proposed Modifications

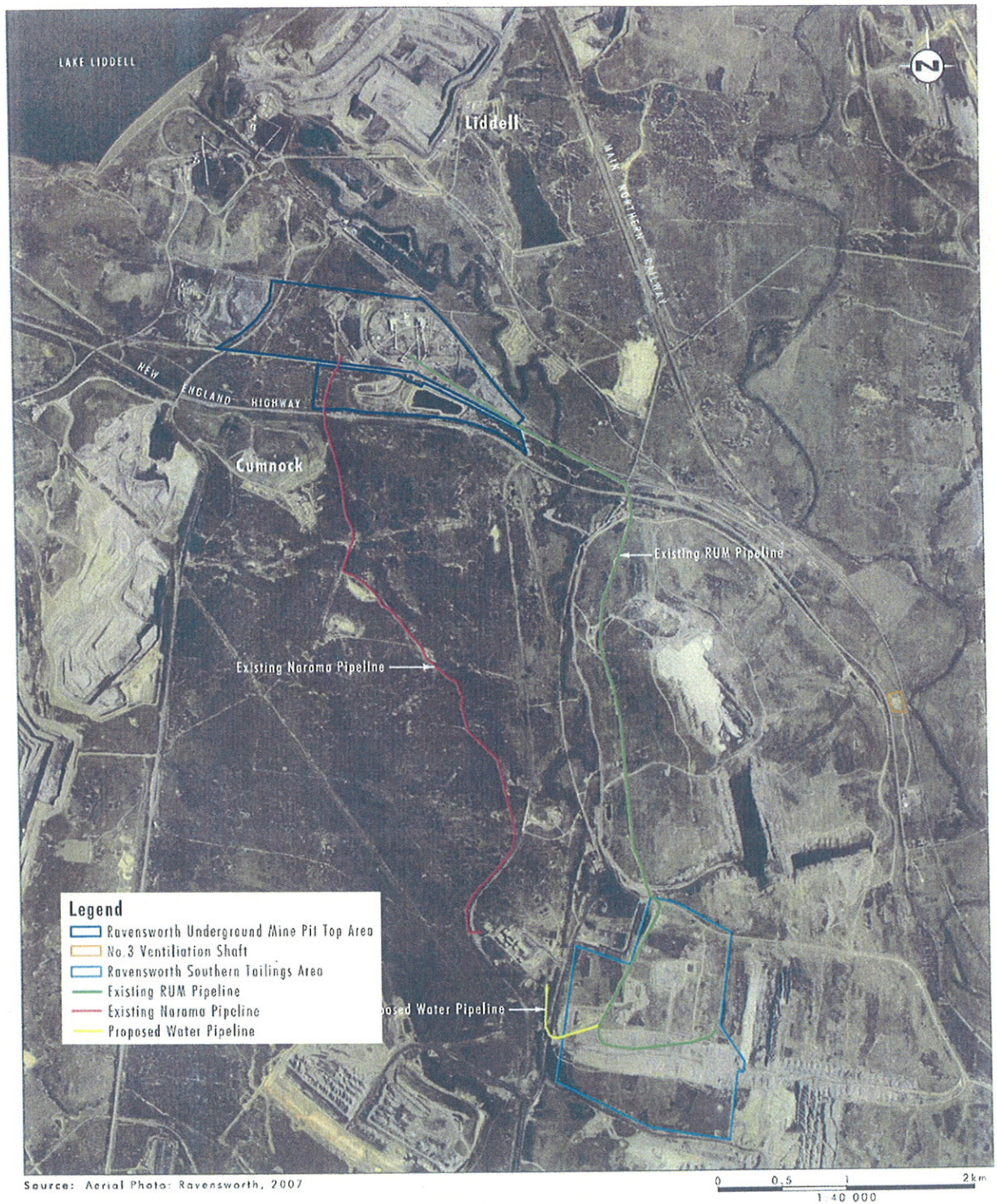


Figure 3: Location of the Proposed Water Pipeline

4 CONSULTATION

The Department is not required to notify or exhibit applications under Section 96(1A) of the EP&A Act, but nevertheless referred the application to the Department of Primary Industries (DPI), the Department of Water and Energy (DWE) and the Department of Environment and Climate Change (DECC).

DPI supported the proposed modification.

DWE did not object to the change in mining technique for the footprint of Longwalls 1-3 and supported the modification to the site water management plan. DWE recommended a condition requiring Xstrata to prepare a surface and groundwater response plan for the site, in consultation with DWE.

DECC requested further information on whether RUM's revised water management system is capable of preventing any future, uncontrolled saline water discharge.

Xstrata provided a response to the issues raised in the submissions. The Department has considered all issues raised, and Xstrata's response to these issues, in its assessment below.

5 ASSESSMENT

The Department's assessment of the key issues is shown in the table below:

<i>Issue</i>	<i>Potential Impacts & Consideration</i>	<i>Conclusion</i>
<i>Subsidence</i>	- Xstrata proposes to undertake bord and pillar secondary extraction mining in the Pikes Gully Seam in a part of the coal resource previously approved for longwall mining under DA 104/96 (within the approved boundaries for Longwalls 1-3) to ensure consistency with previous mining in this approved extraction area. - Xstrata conducted an assessment of the proposed change in mining method to determine the expected surface subsidence impacts, which found that the maximum subsidence impacts are likely to be less for the proposed bord and pillar mining than predicted for the originally approved longwall mining.	- The Department is satisfied that subsidence impacts from the proposal would be consistent with, or less than, those currently approved for the development. - The Department is also satisfied that the subsidence-related impacts can be adequately managed through the existing conditions of approval.
<i>Surface Water</i>	- Xstrata proposes to revise RUM's current water management system to integrate it with Xstrata's Greater Ravensworth Water Sharing System. Xstrata proposes to modify an existing pipeline and construct a new pipeline to enable connection of an existing RUM pipeline to the Narama water management system (see Figure 3). - The proposed modification to the existing pipeline involves the installation of flow meters to allow it to be used for water transfer, but would not involve surface disturbance of undisturbed areas. The proposed new pipeline would be 0.8 km long and located on previously disturbed land. - Xstrata has previously undertaken a number of upgrades to the water management system including equipment upgrades and a review of the operating system which incorporated a change to past storage practices, however, presently RUM does not have the ability to transfer water off-site. - DWE recommended a requirement for the mine to implement a surface and groundwater response plan in order to offset any unpredicted impacts to surface or groundwater resources. DECC raised concerns over the ability of RUM to prevent potential future uncontrolled saline water discharges. - In its response, Xstrata agreed to incorporate a surface and groundwater response plan in the revised Water Management Plan for the site. Xstrata noted that the proposal would enable water to be removed from the RUM water management system during and after significant rainfall events, enabling the appropriate storage capacity to be retained within the system and reduce the risk of uncontrolled saline water discharges occurring. - Xstrata also noted that the proposal would minimise the requirement for RUM to discharge mine water and import fresh water, by sharing water across nearby Xstrata mine sites, thereby minimising RUM's impact on surface water resources.	- The Department is satisfied the proposed modification to water management would enable more efficient use of this resource across Xstrata operations and that the proposal is unlikely to have any significant impacts on surface water resources. - Nevertheless, the Department has recommended a suite of contemporary water management conditions, which require Xstrata to implement a Site Water Management Plan in consultation with DECC, DWE and DPI, to enable the effective management and monitoring of RUM's integrated water management system.
<i>Visual</i>	- Xstrata proposes to realign the No. 3 ventilation shaft evasee from the current vertical discharge position to an angled discharge position (between 60 degrees and horizontal) in order to reduce the visual impact from the New England Highway. - Xstrata also proposes to install additional lighting on the run-of-mine stockpile to improve workplace safety in this area. - Xstrata's assessment found that the realignment of the ventilation shaft evasee would reduce the height of the	- The Department is satisfied that the re-alignment of the vent fan would help reduce the visual impact of the ventilation shaft and emissions from the vent from the New England Highway. - The Department is satisfied that the visual impact from the proposed additional lighting is

<i>Issue</i>	<i>Potential Impacts & Consideration</i>	<i>Conclusion</i>
	- ventilation shaft by up to 6 metres and would enable moisture laden air (which may form a fog in cold weather) to be discharged away from the highway, reducing visual impacts. - The assessment found that the proposed installation of additional lighting would be of minimal environmental impact and would be placed in areas which have been (or have approval to be) disturbed.	- unlikely to be significant. - Nevertheless, the Department has recommended a condition which requires external lighting from the proposal to comply with the relevant Australian Standard.
<i>Noise</i>	- The proposed realignment of the ventilation shaft evasee and new water pipeline would generate noise emissions as a result of construction activities. - Construction works for the proposed realignment of the ventilation shaft evasee and new water pipeline would be limited to 7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm on Saturdays. - Xstrata's assessment found that noise impacts as a result of the proposal would be minimal, given the temporary nature of construction activities, the distance to the nearest privately-owned residence (4.5 km from the ventilation shaft facility) and the scale of the proposals. - The realigned ventilation shaft facility would be required to comply with existing approved noise limits.	- The Department is satisfied that the overall noise level from construction activities associated with the proposal would not be significant. - The Department is satisfied that noise emissions can be managed in accordance with the existing conditions of consent for the mine.
<i>Air Quality</i>	- The proposed realignment of the ventilation shaft evasee and new water pipeline would generate dust emissions during construction activities. - Xstrata's assessment indicates that air quality impacts as a result of the proposal would be minimal, given the temporary nature of construction activities, the distance to the nearest privately-owned residence (4.5 km from the ventilation shaft facility) and the scale of the proposals.	- The Department is satisfied that air quality impacts as a result of the proposal would be minimal. - The Department is satisfied that dust emissions can be managed in accordance with the existing conditions of consent for the mine.
<i>Flora and Fauna</i>	Xstrata's assessment notes that the proposed construction works would be confined to areas that are disturbed (or have consent to be disturbed) and would have minimal effect on existing biodiversity values within the area.	The Department is satisfied that the proposal would have minimal impact upon biodiversity values in the area.
<i>Traffic</i>	- Xstrata proposes to transfer coarse reject to the nearby Cumnock Mine, also owned by Xstrata. - The transferred coarse reject would be integrated into the Cumnock tailings and reject emplacement strategy which is part of a separate modification application currently being assessed by the Department. - Coarse reject would be transferred to Cumnock by truck along Liddell Station Road and a private haul road which is the existing coal haulage route used by Cumnock to haul product coal to the Ravensworth Coal Terminal. - The proposal has the potential to impact on traffic using Liddell Station Road. - Xstrata's assessment notes that Cumnock is not currently using all of its approved haulage capacity of 4.5 Mtpa, and Xstrata has committed to ensuring that the combined total volume of material hauled between Cumnock and RUM would not lead to an exceedance of this existing approved haulage capacity.	- The Department is satisfied that the proposal would have minimal impact on traffic on Liddell Station Road, beyond those approved for the Cumnock Mine. - However, the Department has recommended a condition limiting the total volume of material hauled between the two operations to 4.5 Mtpa.
<i>Tailings Disposal</i>	- Xstrata proposes to transfer tailings (via pipeline) to the nearby Cumnock Mine, also owned by Xstrata. - The transferred tailings would be integrated into the Cumnock tailings and reject emplacement strategy which is part of a separate modification application currently being assessed by the Department. - DECC noted that the proposed change in location of disposal of RUM tailings to Cumnock was unlikely to increase environmental impacts. - Xstrata's assessment indicates that as the proposed tailings disposal would be in existing open cut mining areas, it would not result in additional surface disturbance and would not have a significant environmental impact.	- The Department is satisfied that the proposed emplacement of tailings in Cumnock's mined voids would have minimal impact. - The Department has recommended a condition to enable emplacement of RUM tailings in Cumnock's mined voids.
<i>Aboriginal Cultural Heritage</i>	The proposed realignment of the ventilation shaft and construction of the new water pipeline would be undertaken on previously disturbed land and would not require any additional surface disturbance.	The Department is satisfied that the proposed modification would not have additional impacts on items of Aboriginal

Issue	Potential Impacts & Consideration	Conclusion
	Xstrata's assessment indicates that items of Aboriginal cultural heritage would not be impacted as a result of the proposed works.	cultural heritage within the areas to be disturbed.
<i>Integrated Environmental Monitoring</i>	- Xstrata proposes to integrate RUM's environmental monitoring with surrounding Xstrata mining operations. - DECC encourages the integration and rationalisation of environmental monitoring. - Xstrata's assessment found that the integration of RUM's environmental monitoring with that of surrounding Xstrata operations would not result in any environmental impacts and would enable more efficient collection of environmental data to assist with ongoing environmental management of the mine.	- The Department is satisfied that the proposed integration of RUM's environmental monitoring with surrounding Xstrata operations would not result in any additional environmental impacts and would provide a more effective integrated approach to environmental management across Xstrata operations. - The Department has recommended conditions to enable the integration of RUM's environmental monitoring programs with surrounding Xstrata operations and requiring Xstrata to update the existing Environmental Monitoring Program for the site in consultation with DECC.

6 SECTION 79C

Section 96 of the EP&A Act requires a consent authority to give consideration to the matters listed in Section 79C when it determines a modification application.

The Department has assessed the proposal against these matters, and is satisfied that:

- the proposal is consistent with the provisions of the relevant planning instruments;
- the proposal would have minor environmental impacts;
- the site is suitable for the development; and
- the proposal is in the public interest.

7 RECOMMENDED CONDITIONS

The Department is satisfied that the existing conditions of consent for RUM are generally adequate to manage the development as modified by the application. The Department has recommended additional conditions to minimise and manage the risks associated with the proposed modification, including requiring Xstrata to:

- update RUM's water management plans in consultation with DWE, DECC and DPI; and
- ensure that all external lighting associated with the development complies with the relevant Australian Standard.

Xstrata does not object to the proposed conditions.

8 CONCLUSION

The Department has assessed the application, SEE, submissions on the proposal and Xstrata's response to these submissions in accordance with the relevant requirements of the EP&A Act. Based on this assessment the Department is satisfied that the modification can be carried out with minimal environmental impact and that the development as modified would be substantially the same as the originally approved development.

The Department considers that the proposed modification is appropriate to allow for more effective environmental management of Xstrata's operations at the Ravensworth Underground Mine, and its logical integration with Xstrata's operations in the surrounding area. On this basis, the Department is satisfied that the benefits of the proposal outweigh any residual costs, that it is in the public interest and that it should be approved, subject to conditions.

9 RECOMMENDATION

It is RECOMMENDED that the Director:

- consider the findings and recommendations of this report;
- determine that the proposed modification is of minimal environmental impact;
- determine that the development to which the consent, as modified, relates is substantially the same development for which consent was originally granted;
- approve the application under section 96(1A) of the EP&A Act; and
- sign the attached notice of modification (Tag A).

Howard Reed

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Mining

Kitto 31/7/09

David Kitto
Director
Major Development Assessment