



Our Ref: 3451/BC/DH/AS/29092014

17 October 2014

Secretary  
Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2011

Attention: David Kitto

Dear David

**Re: Section 75W Modification to Project Approval 09\_0178 – Baal Bone Coal Project**

Baal Bone Colliery is operated by Wallerawang Collieries Pty Limited, a majority-owned subsidiary of Glencore. Glencore is seeking a modification of Project Approval 09\_0178 for the Baal Bone Coal Project under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to extend the time allowed for extraction of the remaining remnant coal by five years to enable areas of coal currently approved for mining to be extracted. The location of Baal Bone Colliery is shown on **Figure 1.1**.

Glencore is also seeking to adjust the interval for the completion of the independent environmental audit required by Schedule 5, Condition 7 of the Project Approval to every three years, consistent with the current model conditions for underground coal mines in NSW.

Baal Bone Colliery has a long history of coal mining. The surface infrastructure is located on the site of the former Ben Bullen open cut mine which commenced production in the 1940s. Underground mining operations have been undertaken at the mine since 1983. Baal Bone Colliery currently operates under a project approval (PA09\_0178) granted in 2011 under Part 3A of the EP&A Act (the Project Approval). The Project Approval provided for the mining of Longwalls 29 to 31 and remnant areas of coal adjacent to first workings associated with earlier approved mining (Remnant Areas). Under the Project Approval, Baal Bone Colliery can continue mining until 31 December 2014 with mine closure and rehabilitation permitted to continue after that time.

When the Project Approval was granted in 2011, it was anticipated that Longwalls 29-31 and the remnant coal areas could be mined within the 3 year time frame covered by the Project Approval. The mining of Longwalls 29 to 31 has been completed, however, due to the decline in the market price for coal, mining of the Remnant Areas has not yet occurred and Baal Bone Colliery is currently on 'care and maintenance'. The Remnant Areas are shown on **Figure 1.2**.

Glencore is seeking an amendment to the Project Approval to extend the time allowed for extraction of the remaining remnant coal for an additional five years until 31 December 2019 to allow the Remnant Areas to be mined. Mining methods would remain the same as that currently approved, namely, through use of continuous miner using board and pillar/partial extraction mining methods.

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Glencore is also seeking an amendment to Schedule 5, Condition 7 of PA09\_0178 to require the independent environmental audit of the project to be undertaken every three years instead of every two years. A three year interval for the independent environmental audit is consistent with the current model conditions for underground coal mines in NSW and has become a standard audit interval in coal mining project approvals.

This letter has been prepared to detail the proposed modification and the environmental impact assessment undertaken by Umwelt (Australia) Pty Limited (Umwelt) for the proposed modification.

## **1.0 Background**

Baal Bone Colliery is an underground coal mine located on the Castlereagh Highway approximately 5 kilometres north east of Cullen Bullen and 25 kilometres north west of Lithgow. Baal Bone Colliery is located within the Lithgow Local Government Area (LGA). The location of Baal Bone Colliery is shown on **Figure 1.1**. The Project Area is bordered to the north and east by the Capertee and Wolgan Valleys respectively with the Invincible Colliery located to the south and private property to the west. A number of other mines are located within the region, including Airly, Angus Place, Pinedale, Lamberts Gully and Springvale Collieries.

The Project Approval (PA09\_0178), granted in 2011, provided for the continuation of operations at Baal Bone Colliery. The approval authorised:

- continuation of underground mining within the Underground Mining Area, including Longwalls 29 to 31;
- continued operation of associated surface infrastructure and product coal production of 2 million tonnes per annum;
- continued transport of prepared saleable coal to markets in accordance with current approvals; and
- mining of other isolated remnant areas of coal within existing workings.

Baal Bone Colliery has approval to operate 24 hours a day, 7 days a week, with the exception of road transportation of coal which can only be undertaken between 7 am and 7 pm, Mondays to Saturdays with no allowance for coal transport on Sundays or public holidays.

## **2.0 Proposed Approval Path**

Glencore seeks a modification of the Project Approval under Section 75W of the EP&A Act. Although Part 3A has been repealed, Clause 3(1) of Schedule 6A of the *Environmental Planning and Assessment Regulation 2000* provides transitional arrangements for the continued use of Section 75W to modify project approvals granted under Part 3A. Based on the nature of the proposed modification, this is considered to be a minor modification of PA09\_0178.

A meeting was held with the Department of Planning and Environment (DP&E) on 12 September 2014 to introduce the proposed modification and discuss the proposed approval pathway. At the meeting, DP&E indicated that the use of the Section 75W approval pathway was appropriate for the proposed modification.

## **3.0 Proposed Modification**

Glencore proposes to modify the Project Approval to:

- allow for the continuation of mining and all associated activities for an additional five years; and
- undertake the independent environmental audit every three years instead of every two years.

Further details regarding the modifications to the Project Approval are outlined below.

### 3.1 Continuation of Mining

The modification being sought is an amendment to Condition 5 in Schedule 2 as follows:

#### LIMITS ON APPROVAL

5. The Proponent may undertake mining operations on the site until 31 December ~~2014~~ 2019.

*Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Director-General and I&I NSW. Consequently this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.*

This application does not seek any other modifications to the approved mining operations however it is noted that the modification application may present an opportunity to update the Subsidence Management Plan condition (condition 3 in Schedule 3) to align with the current Extraction Plan approval process.

The extension to the date in Condition 2 of Schedule 3 will allow for the remaining Remnant Areas to be mined, providing the recovery of valuable coal resources. The Remnant Areas to be mined are located adjacent to previously mined Longwalls 1 to 28 and are shown on **Figure 1.2**. Mining of the areas shown on **Figure 1.2** was approved under the Project Approval and no change to these approved areas is sought. In addition to the mining of the Remnant Areas, Glencore is seeking to continue all other associated operations including operation of the surface infrastructure area and the processing and transportation of coal from the site.

The extension to the date in Condition 2 of Schedule 3 does not provide for any change to the area approved for mining in the Project Approval.

Secondary extraction of the Remnant Areas will be undertaken via partial extraction using a continuous miner as detailed in the 2010 EA.

The 2010 EA states in Section 4.8:

*Completion of underground mining – including mining of Longwalls 29 to 31 and Remnant Areas. It is estimated that mining of Longwalls 29 to 31 would be complete by the end of 2011, and mining of the Remnant Areas would subsequently be undertaken over a period of approximately 24 to 36 months*

...

*These timeframes have been adopted as planning estimates only and operations may continue beyond these timeframes, but provide an indication based on anticipated life of the Colliery and current predicted mine closure activities.*

It is noted that mining of Longwalls 29 to 31 is complete. A further review of the likely time to complete the extraction of the Remnant Areas by Baal Bone Colliery has confirmed that the mining of this coal is likely to take up to 36 months, depending on extraction rates, workforce shift arrangements and market constraints. However as the mine is currently being maintained in a 'care and maintenance' status, there will be additional re-commissioning and establishment tasks required to bring the mine and its associated infrastructure up to an operable condition. Subsequently a period of five years has been requested as an extension to the deadline for extraction of the Remnant Coal to allow for such implementation tasks and to provide some schedule float contingency.

### 3.2 Independent Environmental Audit

The second aspect of the modification being sought is an amendment to Condition 7 in Schedule 5 as follows:

#### INDEPENDENT ENVIRONMENTAL AUDIT

7. By 31 December 2011, and every 2 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must....

Independent audits of the site have been conducted in 2011 and 2013 in accordance with the requirements of this condition.

Subsequent to the grant of the PA09\_0178 in 2011, the standard interval of independent audits in development consents for coal mining projects in NSW has been extended from 2 years to 3 years. This modification would align PA09\_0178 with the current model conditions for underground coal mines in NSW.

#### **4.0 Environmental Impact Assessment**

Glencore has engaged Umwelt to prepare an environmental assessment for the proposed extension to the date in Condition 2 of Schedule 3 for Baal Bone Colliery. The results of the environmental assessment are provided below.

##### **4.1 Subsidence**

The 2010 EA included a subsidence assessment undertaken by SCT which specifically examined the potential impacts of mining the Remnant Areas. The 2010 EA determined that in order to manage potential subsidence impacts on four identified sensitive surface features, including three cliff formations and Ben Bullen Creek, the likely areas of affectation would need to be protected from subsidence impacts by restricting second workings to areas away from these features identified using an angle of draw of 26.5 degrees. The angle of draw was considered to give a high level of protection against surface subsidence impacts to these features. These protection zones are shown on **Figure 1.2**. The subsidence impact assessment did not identify any significant impacts as a result of subsidence, provided the subsidence protection zones were implemented.

The proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to the approved mining method for the remnant coal areas and as such the predicted subsidence impacts will remain unchanged. All subsidence rehabilitation will be carried out as detailed in the 2010 EA. All operations will be undertaken in accordance with Schedule 3, Conditions 1 to 3 of PA09\_0178.

##### **4.2 Noise**

A noise impact assessment was undertaken by Atkins Acoustics and Associates as part of the 2010 EA. The noise impact assessment included noise associated with the mining of the Remnant Areas. The noise impact assessment concluded that operations at Baal Bone Colliery may exceed noise assessment goals at up to three residences in different meteorological conditions. The noise impact assessment determined that the sleep disturbance criteria would not be exceeded under any conditions.

The noise impact assessment detailed that Baal Bone Colliery was operational prior to the establishment of the three residential receptors and although the noise levels exceed contemporary criteria, these noise levels are generally considered acceptable given that Baal Bone is an existing operation which pre-dates the residential receptors. Baal Bone has a history of minimal noise complaints.

The proposed modification of the date in Condition 2 of Schedule 3 will not result in any changes to the noise impact assessment outcomes however the noise impacts predicted in the assessment would occur for a period of approximately 36 months over a five year period after operations at the mine would otherwise have ceased.. Glencore will continue to undertake all operations in accordance with the conditions of PA09\_0178 including implementation of the existing Noise Management Plan.

##### **4.3 Traffic and Transport**

Baal Bone Colliery currently has approval to transport coal by road and rail. The Project Approval provides for up to 900,000 tonnes of coal to be transported by road per year with the remainder of the product coal to be transported by rail (approximately 1.5Mtpa). The transportation of coal by road is limited to 7 am to 7 pm Monday to Saturday.

The proposed extension to the date in Condition 2 of Schedule 3 would not result in any changes to the approved limits on coal transportation or methods of transport. Glencore may use either option depending on future contracts for supply of coal.

The proposed extension to date in Condition 2 of Schedule 3 will not generate any additional traffic movements beyond that assessed by the 2010 EA. It is expected that the traffic movements would be less than previous levels due to the limited nature of the Remnant Areas to be mined. The proposed modification will extend the period in which traffic associated with Baal Bone Colliery operations will remain on roads in the local network. There are no other proposed developments of which we are aware in the region that would result in cumulative traffic impacts being significantly different to those assessed in the 2010 EA.

Glencore will continue to operate in accordance with Schedule 3, Conditions 8, 27 and 28 of PA09\_0178 which include the limits on road transportation of coal and the monitoring of coal transportation. Glencore will continue to implement the existing road haulage management plan.

#### **4.4 Aboriginal Heritage**

An extensive Aboriginal heritage impact assessment was undertaken by OzArk as part of the 2010 EA. The assessment identified an Aboriginal heritage site within the Remnant Areas as well as a number of other sites throughout the Project Area. The potential impact of the Project on known and unknown Aboriginal sites within the Project Area was considered to be low as subsidence is unlikely to significantly impact sites such as open sites. However, Section 19.5 of the 2010 EA recommended a number of management measures relevant to the Remnant Areas. These measures included:

- prior to the mining of the Remnant Areas, undertake a further heritage survey for the identified Remnant Areas;
- prior to the mining of the Remnant Areas, undertake an inspection of the previously recorded site (Site ID 45-1-0240), which is located within the identified Remnant Areas, to assess its present condition and implement management measures if required; and
- implement the current Aboriginal Heritage Management Plan for the rock shelter BBC-RS1 (Site ID 45-1-2665) in the vicinity of Longwalls 29 to 31. This Plan would be updated with indigenous sites requiring management, if identified during heritage surveys of the Remnant Areas.

Glencore has not undertaken a further heritage survey of the Remnant Areas as the site has been on care and maintenance. Prior to the commencement of mining activities, Glencore will undertake further heritage survey and assessment of Site ID45-1-0240 as detailed in the 2010 EA. Glencore has prepared an Aboriginal Cultural Heritage Management Plan and will continue to operate in accordance with this plan.

#### **4.5 Socio Economic**

The continued operation of Baal Bone Colliery would generate positive social and economic benefits for Lithgow and the Central West Region by providing income, employment and positive flow-on effects. Whilst the proposed extension to the operating life of the mine is limited, it does provide an opportunity to realise remaining social and economic benefits of Baal Bone Colliery. The ability to mine these areas and obtain the economic benefits associated with the extraction of coal in the Remnant Areas would effectively be lost if the extension being sought is not approved.

The potential impacts associated with mine closure will remain unchanged from that assessed by the 2010 EA. Glencore will continue to work with employees and communities within the region in relation to the future closure of Baal Bone Colliery as detailed in the 2010 EA.

#### **4.6 Other Environmental Aspects**

A number of other environmental aspects were assessed as part of the 2010 EA. A summary of the outcomes of the assessments and the potential impact of the proposed extension to the date in Condition 2 of Schedule 3 is provided below in **Table 1**.

**Table 1 – Summary of Environmental Aspects and Relevant Impact Assessment**

Environmental Aspect	Impact Assessment
Ecology	<p>An ecological impact assessment was undertaken by Gingra Ecological Surveys and Biodiversity Monitoring Services as part of the 2010 EA and included an assessment of the potential impacts resulting from the mining of the Remnant Areas and the continuation of the Surface Infrastructure Area.</p> <p>The ecological impact assessment identified that specific subsidence protection zones would be established within the Remnant Areas to limit impacts to sensitive surface features. With the implementation of the subsidence protection zones, the ecological assessment determined that the Project would not result in any significant impacts on flora and fauna. These assessment findings remain relevant to the proposed modified development.</p> <p>Glencore will continue to operate in accordance with the existing Biodiversity and Land Management Plan and the relevant conditions of PA09_0178 to minimise any potential impacts of the proposed extension to the date in Condition 2 of Schedule 3 on flora and fauna.</p>
Surface Water	<p>The 2010 EA included a detailed surface water impact assessment. The proposed extension to the date in Condition 2 of Schedule 3 is not expected to result in any changes to the surface water impacts determined by the 2010 EA. The continuation of the mining operations will not result in any changes to the surface water management and mitigation measures detailed in the 2010 EA.</p> <p>Glencore will continue to operate Baal Bone Colliery in accordance with the conditions of PA09_0178 including the implementation of the existing water management plan.</p>
Groundwater	<p>The 2010 EA included a detailed groundwater impact assessment prepared by Connell Wagner. The groundwater impact assessment determined that previous mining operations have largely depressurised the coal measures aquifers. The incremental and cumulative impacts of mining, including the Remnant Areas on the groundwater regime within the project area were considered minimal. The proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to the groundwater impacts predicted in the 2010 EA.</p> <p>Glencore has prepared a Water Management Plan which includes a Surface and Groundwater Response Plan in accordance with the conditions PA09_0178. The Water Management Plan is yet to be approved by DP&amp;E.</p>
Tailings and Reject Management	<p>The proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to the existing tailings and reject management processes assessed by the 2010 EA.</p>
Mine Closure and Rehabilitation	<p>The 2010 EA included a detailed mine closure and rehabilitation assessment which was developed in coordination with the socio economic impact assessment for the Project. Detailed mine closure planning and site rehabilitation works are well progressed at Baal Bone Colliery, with around 137 ha of rehabilitation having been completed to a high standard.</p> <p>The proposed extension to the date in Condition 2 of Schedule 3 will postpone the final closure of Baal Bone Colliery, however, progressive rehabilitation works will continue at the site over this five year period. The proposed modification will not result in any changes to the approved mine closure plan design for Baal Bone Colliery.</p> <p>Glencore will continue to undertake all mine closure and rehabilitation activities in accordance with the conditions of PA09_0178 and the existing Rehabilitation Management Plan.</p>

Environmental Aspect	Impact Assessment
Air Quality	<p>A detailed air quality impact assessment was undertaken as part of the 2010 EA. The air quality impact assessment predicted the Project would not result in any exceedances of the relevant air quality criteria, with dust deposition rates and odour concentrations predicted to be low to very low.</p> <p>The proposed extension to the date in Condition 2 of Schedule 3 will not involve any operations which were not included in the air quality model prepared in 2010. Potential impacts to air quality are not expected to be significant provided the implementation of previously successful mitigation and design measures on site is continued. There are no proposed changes to other activities being undertaken in the area that would result in cumulative impacts exceeding relevant predictions and the cumulative impact assessment contained in the 2010 EA remains relevant to the proposed operation.</p> <p>Glencore will continue to operate in accordance with Schedule 3, conditions 10 to 13 of PA09_0178.</p>
Greenhouse Gas	<p>A greenhouse gas assessment was undertaken as part of the 2010 EA. The proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to the predicted greenhouse gas emissions. The activities to be undertaken are consistent with those assessed in 2010.</p> <p>Glencore will continue to implement the existing Energy Savings Action Plan for Baal Bone Colliery.</p>
Land Resources and Land Use	<p>The proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to the mining operations assessed by the 2010 EA. There will be no change to the potential impacts on soils and geology assessed by the 2010 EA. Glencore will continue to implement the mitigation measures and management practices detailed in the 2010 EA and the relevant conditions of the PA09_0178.</p> <p>The proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to potential impacts on land use assessed by the 2010 EA.</p>

## 5.0 Project Justification

The coal in the Remnant Areas will be effectively sterilised if mining operations at Baal Bone cease at the end of 2014 and the mine site is rehabilitated and closed. Mining of the resources in the Remnant Areas is unlikely to be economical at any stage in the future if the mine is closed and rehabilitated as recovering this resource in the future would require the mine to reopen. There would also be environmental impacts associated with the reopening of a mining operation once it has closed and been rehabilitated.

Should the price of coal improve to a level where extraction of the remaining resource is economically viable in the next five years, the proposed modification will enable the resources to be extracted in an environmentally acceptable and economically efficient manner consistent with current approvals. Without the proposed modification, these coal resources will almost certainly be sterilised and the economic benefits flowing to the State and the region as a result of the extraction of this coal would be forgone.

The modification to the independent audit interval will ensure consistency with the current model conditions for underground coal mines in NSW.

## 6.0 Conclusion

As detailed above, the proposed extension to the date in Condition 2 of Schedule 3 will not result in any changes to the potential environmental impacts identified and assessed by the 2010 EA. Glencore will continue to implement all mitigation and management measures detailed in the EA and operate in accordance with the 2010 Statement of Commitments and the conditions of PA09\_0178.

Your earliest consideration of this matter would be greatly appreciated. If you would like any further information, please don't hesitate to contact either David Holmes on (02) 4950 5322, or Elizabeth Fishpool from Glencore on 02 6350 6920.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'J. Merrell', with a stylized flourish at the end.

John Merrell  
Manager Environment and Community/ Associate

#### References

AECOM Australia (2010) *Environmental Impact Assessment - Baal Bone Colliery*

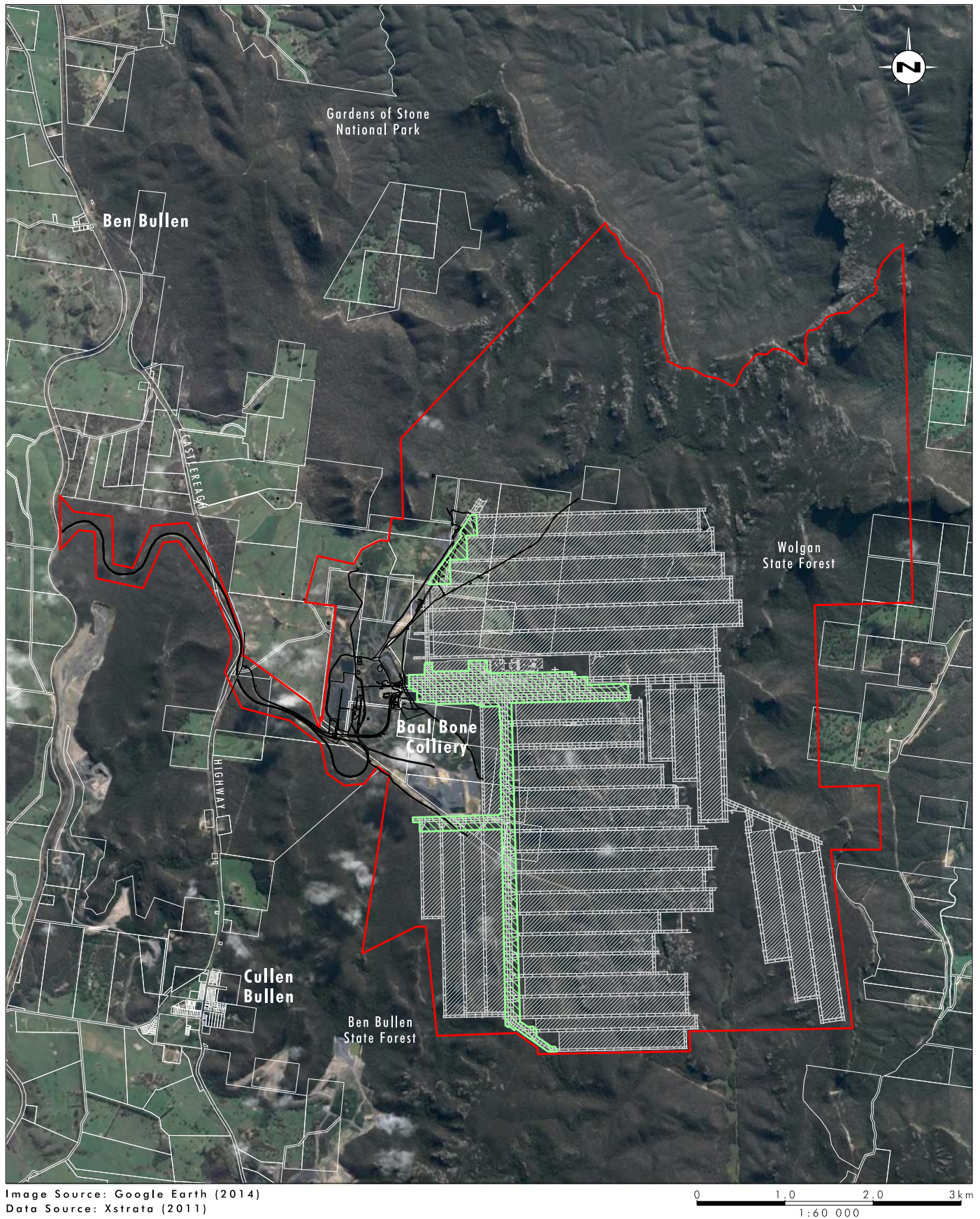
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FIGURE 1.1  
Locality Plan





#### Legend

- Colliery Holdings Boundary
- Existing Surface Infrastructure
- ▨ Existing Underground Longwall
- ▨ Remnant Area

FIGURE 1.2

Baal Bone Colliery Operations