



Coalpac

Proprietors of Invincible Colliery
and Cullen Valley Mine

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NSW Planning & Environment
GPO Box 39,
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15th July 2014

Dear Carl,

Response to NSW Office of Environment and Heritage (OEH) Review of Biodiversity Impacts for Coalpac Expansion Modifications

At the request of NSW Planning and Environment (DP&E) we offer the following response to the letter and attachment sent to DP&E by OEH on the 30th June 2014.

Coalpac notes that OEH is satisfied with the Biodiversity Offset Proposal.

1. Reservation Considerations

Coalpac notes that OEH's preferred mechanism for offset security is BioBanking. As stated in Section 4.2.14 of the Response To Submissions (RTS);

"The offsets required for the Modifications will be set aside for conservation in perpetuity using an appropriate mechanism, such as a Voluntary Conservation Agreement, BioBanking or a Planning Agreement. The mechanism to be employed will be agreed in consultation with DP&E."

Coalpac has consulted with Terry Bailey and Monica Collins of OEH on this matter. It was generally agreed that BioBanking was the most appropriate offset mechanism for the Gulf Mountain property. The timing for implementing BioBanking for the Gulf Mountain property and the most appropriate security mechanism for the additional properties remains to be finalised in consultation with OEH and DP&E.

2. Pagodas, Escarpments and Associated Features

Coalpac has consulted with Terry Bailey and Monica Collins of OEH on this matter and agrees with the OEH statement that protection of Escarpments relies on two aspects; buffers and protection from subsidence.

Buffers

Invincible Colliery: Section 4.2.5 of the RTS correctly states that;

"At Invincible Colliery, the open cut limit proposed does not approach within 200m of any Escarpment, however for conservatism a 50 mm/s PPV limit (at the rock structures in the Escarpment) will be adopted for the Modification."

The OEH reference to undefined “geodiversity features” introduces confusion to the issue. The use of the term “Escarpments” in the RTS was deliberate and was intended to describe significant landscape features, such as the Escarpment to the immediate east of the existing Invincible Colliery open cut.

The adoption of a lower PPV limit, on the recommendation of Terrock Consulting Engineers (recognised experts in the field), will provide protection to any smaller rock features that occur closer than the 200 m limit maintained for Escarpments. Historical blast records demonstrate that this PPV level is significantly below the damage threshold for the local rock structures.

Cullen Valley Mine: Section 4.2.5 of the RTS correctly states that;

“The open cut limit proposed for the Cullen Valley Mine Modification does encroach within 200m of the Escarpment in parts and thus the staged approach for increases in PPV proposed by Terrock Consulting Engineers (2013) will be adopted at the site. As recommended, a geotechnical expert will inspect the Escarpment prior to blasting within 200 m of it.”

The “geodiversity features” referenced by OEH appear to be bounded by small scale and, in the case of Cullen Valley particularly, very poorly defined landscape features.

The Director-General’s Environmental Assessment Report dated June 2013 for the Coalpac Consolidation Project (since withdrawn) accepted the proposed blasting management process and noted the following with regard to Coalpac’s proposed mining operations;

“In general, the Department is satisfied with these measures, and accepts that Coalpac could manage its mining operations in a manner that would not pose a significant risk to the structural stability of the major pagoda rock formations on the edges of the proposed open cut mining area.”

The best practice procedures and management processes proposed for the Modifications are taken directly from the CCP, albeit for a smaller scale project. These have been previously deemed appropriate by the NSW Department of Resources and Energy (DRE).

Protection from Subsidence

Coalpac recognises OEH’s concerns regarding potential surface subsidence impacts and has focused on developing a stringent management process. Coalpac has committed to comprehensive package of measures to the satisfaction of the appropriate regulator for this specialised area, DRE. As noted in Section 4.2.6 of the RTS;

“DRE have stated their support for the proposed highwall mining activities under the Modifications subject to the preparation of a Subsidence Management Plan, now known as the NSW Extraction Plan process (see Section 4.6). In accordance with NSW Government Policy, DRE will review the final design parameters and risk assessment prior to the commencement of mining as part of the highly regulated Extraction Plan process that will be followed by Coalpac for the highwall mining operations proposed for the Modifications.

Further monitoring of highwall mining design performance will also be carried out and the results used to ensure that the design input parameters and outcomes are aligned, and are consistent with the design and predicted performance.”

Further the Director-General's Environmental Assessment Report dated June 2013 for the Coalpac Consolidation Project (since withdrawn) dated June 2013 noted the following with regard to Coalpac's proposed highwall mining plans;

"The Department also accepts that highwall mining beneath pagodas could be designed in a manner that would not result in any measurable subsidence (see Figure 14), and hence no discernible impacts on the stability of the pagodas themselves."

The procedures and management processes proposed for the Modifications are taken directly from the CCP albeit for a smaller scale project.

The process was also subject to multiple peer reviews including a detailed review by Professor Hebblewhite of the University of NSW who is a recognised expert in the field of geomechanics and mine planning and design.

As noted in Section 2.1.3 of the Environmental Assessment;

"Highwall mining has been carried out in the Irondale Seam in the open cut mine during 2008 to good effect with no instability or surface subsidence occurring."

Based on the above Coalpac is confident that the proposed highwall mining activities under the Modifications adequately address the potential surface subsidence impacts and will not impact on the overlying flora and fauna.

3. Broad-headed Snake

OEH have raised a number of concerns regarding the approach taken in the treatment of the Broad-headed Snake (BHS) in the RTS.

The indicative known habitat for the BHS in NSW is approximately 2.5 million ha based on information on the OEH website, Broad-headed Snake Profile, see Figure 1. The total disturbance area for proposed for the Modifications is 151 ha which represents 0.00006% of the indicative known BHS habitat in NSW.

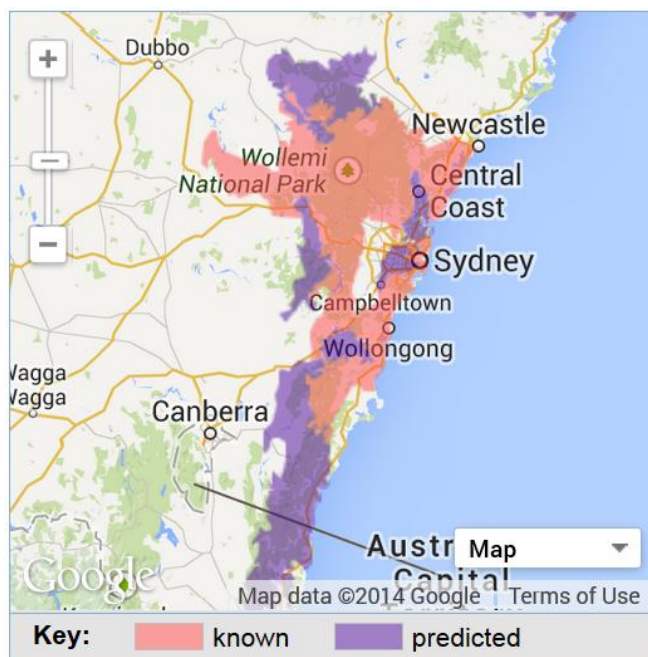


Figure 1 – Indicative Distribution of the Broad-headed Snake (Source OEH website, Broad-headed Snake Profile)

The OEH “Saving our Species” program for the BHS aims to conserve the BHS in the long-term. The project was developed by experts who identified the minimum number of necessary management sites and conservation actions required to conserve the species.

Three sites have been identified by OEH in NSW (ordered north to south), see Appendix 1. They are:

- Royal National Park in Sutherland Shire; Wollongong LGAs
- Woronora Plateau in Campbelltown; Shellharbour; Sutherland Shire; Wingecarribee; Wollondilly; Wollongong LGAs
- Morton National Park in Shoalhaven LGA

It is worth noting that the closest of the three sites selected lies some 150 km from Cullen Bullen.

The Royal National Park site has a total area of 8,578,90 ha and an estimated BHS population of 100 individuals. This equates to 0.01 individuals per hectare.

There is no estimated BHS population for the Woronora Plateau site.

The Morton National Park site has a total area of 74,797.80 ha and an estimated BHS population (based on these sites ha) of 1,500 individuals. This equates to 0.02 individuals per hectare.

It is assumed that these sites were selected by experts on the basis they had suitable habitat and were representative of normal population densities. Based on these density levels and assuming, for conservatism, that the whole of the area proposed to be disturbed under the Modifications is suitable BHS habitat, this equates to between 2 and 3 snakes being potentially impacted.

OEH appear to have directly related the proximity to what they term “geodiversity features” to impacts upon the potential habitat for the BHS.

The Escarpment to the east of Invincible Colliery is contiguous with a very large area of suitable habitat for the BHS, with much of it under various levels of conservation. Consequently this area was the primary focus of the avoidance strategy adopted by Coalpac. A buffer zone approach maximises the continuity of habitat and minimises the disturbance impacts upon potential habitat for the BHS and other flora and fauna species. For this reason it was considered that focusing on a buffer area, rather than any specific linear dimension, was more appropriate particularly given the complex geometry of the Escarpments.

There are a number of key points to consider with regard to the area to the immediate north of the proposed open cut at Invincible Colliery. These include;

- Highwall mining of the area will have no significant subsidence impacts
- The limited scale of the rock formations affected
- The area is the southern tip of a long, narrow landscape feature separated from the main area of Escarpments to the east at Invincible Colliery
- The area is not contiguous with larger area of potential BHS habitat to the east

The proposal to highwall mine beneath the southern extent of this area was based on the key points noted above.

Based on all of the above, Coalpac consider that the proposed activities under the Modifications will not have any significant impact upon the BHS.

A further justification for this position is the Federal Department of the Environment's referral decision under the EPBC Act that the activities proposed under the Modifications are not a controlled action in March 2014. This confirms their view that the proposed action is not likely to have a significant impact on the BHS.

4. Significance of the Vegetation on Permian Sediments

OEH have stated that much of the vegetation to be removed is on Permian sediments and are highly cleared and poorly reserved in the region.

As stated in Section 4.2.9 of the RTS;

"There are also extensive areas of Permian geology in the region and the proposed Modifications would only impact a very small proportion of the available Permian landscape with similar vegetation communities.

Like all other vegetation communities to be disturbed by the Modifications, they can also be validly offset and the areas to be cleared will be rehabilitated. This is demonstrated in the independent ELA Assessment (ELA, 2014) (see Section 4.2.2) which confirms that all of the impacted Permian vegetation can be offset by the biodiversity offsets proposed for the Modifications. These offsets include the Hillview-Billabong property, the "Additional" offset lands near the Cullen Valley Mine and the Gulf Mountain property. Coalpac will also continue to progressively rehabilitate the disturbed land using local native species and in the long term, many of the plant species that dominate the areas with Permian soils will be regenerated".

For the reasons stated above Coalpac consider that the proposed Modifications will have no significant impact upon vegetation on Permian sediments.

5. Flora Survey

OEH have noted their concerns regarding the adequacy of flora surveys undertaken for the Modifications.

Coalpac consulted directly with Terry Bailey and Monica Collins of OEH on this issue and took on board their concerns in commissioning EcoLogical to undertake an independent informal BioBanking assessment for the Modifications.

As stated in Section 4.2.9 of the RTS the EcoLogical field surveys confirmed and supported the findings of the previous field surveys undertaken by Cumberland Ecology, see below;

"Field surveys which informed the ecological impact assessment undertaken for the Modifications EA were undertaken over a period of five years and were conducted during different seasons to increase the level of detection of different flora species. In addition to the field surveys undertaken by Cumberland Ecology (CE), a second team of expert ecologists, EcoLogical Australia (ELA), was independently commissioned to conduct additional field assessment surveys of the proposed impact and offset areas for the Modifications (see Section 4.2.2). In total, 57 quadrats have now been completed within the ecological impact assessment Study Area for the Modifications, including 22 quadrats within the Modification Disturbance Boundary (see Figure 10). It is considered that the above demonstrates the comprehensiveness of the survey effort undertaken".

Coalpac remains confident that an appropriate and comprehensive survey effort has been undertaken. Further, OEH have confirmed that they are satisfied with the informal BioBanking Assessment and the subsequent Biodiversity Offset Package proposed for the Modifications.

6. Indirect Impacts and Edge Effects

OEH have noted their concerns regarding the effect of blasting and vibration upon biodiversity and details of the inclusion of a 15m buffer beyond the proposed open cut highwall crest within the Modifications Disturbance Boundary.

These points were addressed in Appendix C of the Modifications Environmental Assessment. The assessment of biodiversity impacts included subsidence, habitat degradation, competition for resources, noise (including blasting), light, dust, erosion, vehicle strikes, weeds, feral animals and overabundance.

The potential impacts of blasting upon adjacent Escarpments has been dealt with under point 2 above.

It is considered that the specific impact of blasting activities upon biodiversity has been adequately addressed given the low frequency of blasting events (maximum of 5 per week averaged over 12 months) relative to the broad impacts of mining activity assessed.

The inclusion of a buffer of at least 15 m was clearly referenced in Section 4.2.12 of the RTS and defined on Figure 9 as the gap between the proposed open cut highwall crest and the Modification Disturbance Boundary.

For conservatism, the 15 m buffer around the proposed open cut operations has been included within the Modification Disturbance area and has therefore been fully offset in the proposed Biodiversity Offset Package. This is despite the fact that much of this area will not be physically disturbed.

As such Coalpac consider that the buffer has been adequately defined and conservatively treated. The management of the buffer will be subject of the MOP and other relevant management plans.

7. Cumulative Impact

OEH have noted their concerns regarding assessment of cumulative impacts for the Modifications. A key point is that these are minor Modifications applying to continue activities at their currently approved levels and have been developed to achieve a better overall environmental outcome.

As stated in Section 4.2.13 of the RTS;

“At the time of this response, both the proposed Pine Dale Stage 2 Extension Project (Pine Dale Project) and proposed Neubeck Coal Project (Neubeck Project) had received Director-General’s Requirements from DP&I for their environmental assessments on 10 February 2012 and 6 November 2012, respectively. Environmental impact assessment documentation had not been released to the public for either proposal”.

The background levels used for noise and air quality assessments included previous activity from Coalpac’s mining activities as well as sources other than activities proposed under the Modifications. As such this is a very conservative assumption.

With regard to cumulative ecological impacts, the RTS confirms that the Modifications will impact on approximately 150 ha of native forest and woodland vegetation, which is approximately 1.9% of the area occupied by the Ben Bullen State Forest (7,812 ha). Based on the information currently available, the Pine Dale Stage 2 Extension Project would disturb approximately 210 ha of native forest and woodland, approximately 200 ha of which is within the Ben Bullen State Forest. If they were to occur concurrently, the two proposals would therefore result in the disturbance of approximately 4.5% of the Ben Bullen State Forest.

The Neubeck Coal Project would disturb an additional 200 ha of vegetation (of which approximately 85 ha is native forest and woodland communities) on land adjacent to the southern boundary of the Ben Bullen State Forest. The cumulative impacts of these developments is therefore not expected to have a significant cumulative impact on biodiversity or available habitat for threatened flora and fauna species in the Ben Bullen State Forest or the wider bioregion.

In the long term, the final landform for the Modifications will also result in a stable, free-draining final landform that would not compromise any future considerations for inclusion of the Ben Bullen State Forest as a conservation reserve.

We trust that the above addresses your concerns and are available to meet to discuss any of the above issues further as required.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'I. Follington', written in a cursive style.

Ian Follington
Chief Executive Officer

