



Mr Howard Reed
Manager Mining and Extractive Industries
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Colin Phillips

Dear Mr Reed

OE&H Submission on Proposal- Rocglen Coal Extension Project (10_0015)

The Office of Environment and Heritage (the Office) refers to the Project Application, Environmental Assessment (EA) and accompanying information provided for the proposed Rocglen Coal Extension Project (10_0015) received on 2 March 2011.

Please note that this submission does not include comments from the "Office of Water" who will be providing a separate submission to Department of Planning (DoP).

The Office has reviewed the information provided. **Attachment 1** provides detailed comments on the proposal. It is noted that a number of the issues raised in the former Department of Environment, Climate Change and Waters letter dated 11 August 2010 for the adequacy check stage of the proposal have not been substantively addressed, particularly in relation to biodiversity and final mine void design.

It is expected that the Office will be given an opportunity to review the draft Director General's Environmental Assessment Report for this proposal. If the amendments to the draft Statement of Commitments are not included to the satisfaction of the Office, we will be recommending that they are included as Conditions of Approval, if approval is recommended by the Department of Planning.

It is noted that the project will need a variation to the existing environment protection licence (EPL) under the Protection of the Environment and Operations (POEO) Act 1997 to operate the proposed mine extension. The proponent will need to make a separate application to the Office to vary this licence if development project approval is granted.

The Office would also appreciate receiving a copy of the submissions received by DoP (or a report summarising these submissions) in response to the exhibition of the Environmental Assessment. This is to assist the Office to review the draft Director General's Report and to recommend conditions of approval, if required.

In summary, from the information presented in the EA, the Office is of the opinion that the most significant environmental issues are:

- Biodiversity impacts; and,
- Final landform and mine void design (area and depth).

If you have any questions, or wish to discuss this matter further please contact Karl Turnbull in the Armidale office on 6773 7000.

Yours sincerely



ROBERT O'HERN
A/ Manager Armidale Region
Environment Protection and Regulation
Office of Environment and Heritage
Department of Premier and Cabinet

Encl: Attachment 1 – Key Issues Identified in the Office's Adequacy Review of Environmental Assessment for Rocglen Coal Extension Project (10_0015)

ATTACHMENT 1 – KEY ISSUES IDENTIFIED IN DECCW ADEQUACY REVIEW OF ENVIRONMENTAL ASSESSMENT FOR ROCGLN COAL EXTENSION PROJECT (10 0015)

A. SURFACE WATER IMPACT ASSESSMENT

Issue 1 – Surface Water Management Plan

The EA states that the Surface Water Management Plan (SWMP) will be developed in accordance with the *Blue Book (Volume 1 and Volume 2E)*. Whilst this is suitable for dirty water management structures, a different design criteria applies to contaminated water management structures.

Recommendation:

The SWMP must provide for all contaminated water structures which have the potential to contaminate groundwater to be constructed:

- to achieve permeability of 1×10^{-9} m/sec; and,
- have the capacity to contain a storm event with a frequency of a 1 in 100 year, 72 hour duration event (calculated using the Australian Standard- Australian Rainfall and Runoff Criteria).

B. BIODIVERSITY IMPACT ASSESSMENT

The EA requirements of the Office and the DoP require proponents to present justification of their preferred option based on four key thresholds – including *'whether or not the proposal, together with actions to avoid or mitigate impacts or compensate to prevent unavoidable impacts will maintain or improve biodiversity values'*. We also note that the DoP Director-General's requirements for the EA include the provision of *'an offset strategy to ensure the project maintains or improves the biodiversity values of the region in the medium to long term (in accordance with NSW and Commonwealth policies)'*.

Our review of the draft Environmental Assessment (EA) has concluded that the document is suitable for public exhibition, however there are some outstanding issues to be addressed:

- a) **Avoid** - The EA does not contain adequate evidence of a commitment to avoidance measures.
- b) **Mitigate** - No specific comments at this time.
- c) **Offset** - The approach to the offset calculations is generally satisfactory, however the current Biodiversity Offset Strategy has not yet been demonstrated to meet the minimum standard of the DECCW Interim Offset Policy.

Further details and recommendations are provided below. If subsequent information relating to the project indicates that areas within the Office's responsibility require further investigation, we may provide future input.

Issue 2 – Assessment of Impacts

The assessment of impacts on biodiversity is partially based on outdated information.

Background:

Conclusions regarding the likely impacts of the proposal on threatened species have been partially based on the extent of habitat available within the Vickery State Forest. However based on information presented at the recent mining offsets meeting with DoP (23 March 2011) we now understand that the proponent has an interest in extending their mining operations into the Vickery State Forest. This factor is not acknowledged within the EA.

Recommendation:

That DoP take this issue into consideration in their assessment of the EA.

Issue 3 – Avoidance

The EA does not adequately commit to the avoidance of native vegetation.

Background:

Priority should always be placed on avoidance of impacts in the first instance. The Office previously recommended that the proponent:

- re-assess the potential for infrastructure and operational activities to be located such that a greater area of existing native vegetation is avoided, and
- commit to upfront avoidance of defined areas of remnant vegetation on the site.

The EA notes that while not all vegetation within the subject site is likely to be cleared, the Biodiversity Offset Strategy (BOS) has been prepared on the assumption that all of the current biodiversity offset area within the subject site will be removed. The BOS states that *'This approach has been adopted, regardless of whether the clearing/disturbance occurs, in order to allow more flexibility, if required, to site associated infrastructure and undertake site management in peripheral areas (for example vehicle access and manoeuvring, surface water management and stockpiles). This approach will also provide flexibility if future geological exploration and economic modelling determine recoverable coal reserves within these peripheral areas...'*

This approach appears to be becoming increasingly common for such developments, whereby there is no clear commitment made to the avoidance of a specific amount of native vegetation, with the total area and level of disturbance likely within native vegetation left undefined. Thus there is no clear requirement or incentive for the proponent to keep impacts to the minimum extent necessary. Mitigation measures will only be applied 'where possible'.

Regardless of the removal of the previous offset 'status' of this area to allow future 'flexibility', it remains important for the proponent to commit upfront to avoiding impacts on native vegetation resulting from the currently proposed development as far as possible.

Recommendation:

That the proponent be required to:

- Clearly identify (on a single map) and justify all areas within which the 'site associated infrastructure' and operational activities are to be located, considering all options for minimising the affected area, and
- Clearly identify the remaining area of native vegetation on the site and commit to exclusion of this remnant from the impacts of the current project proposal.

Issue 4 – Offset Proposal

The approach taken in calculating the offset required is generally satisfactory, however the proposal has not provided a 'maintain or improve' outcome, nor fully justified the ability of the proposed offset to meet the 'like for like or better' principle.

Background:

Firstly, the Office wishes to clarify that the total offset to be provided by the Whitehaven Regional Biobank site for the combined Rocglen proposals now includes 4859 credits as well as an additional 60ha from the original approved offset proposal. The EA indicates that the 4859 credits to be retired are for the purpose of offsetting the impact of the mine extension, and the replacement of those parts of the original offset area to be impacted by that extension. The original offset was 111.3ha in total, including 60ha at the Regional Biobank site. It is important to be clear that this 60ha component is additional to the currently proposed 4859 credits to be retired from the regional offset and must still

be provided by the proponent in accordance with the previous approval. This requirement is confused slightly by the use of the title 'Impacts Life of Mine Project' in table 10 of the Biodiversity Offset Strategy (BOS) for the mine expansion.

The comments provided here by the Office relate only to the BOS (November 2010) as proposed in the current EA.

The EA claims that the BOS provides a 'maintain or improve' outcome. It is not appropriate for the EA to claim this result. This outcome could only be achieved if all red-flagged vegetation types were to be protected.

Whilst the BOS has not fully complied with BioBanking Assessment Methodology (BBAM), the Office has assessed the BOS against its Interim Offset Policy. This assessment indicates that the proposal:

- o *Does not meet Tier 1 'Improve or Maintain'*

The 'improve or maintain' standard cannot be met because 'red-flag' assets are to be cleared outside of the rules allowed by the BBAM and the type of offsetting secured is inconsistent with the requirements of the BBAM credit calculator (matching of vegetation types based on 'like for like or better' principles – discussed further below).

- o *Does not meet Tier 2 'No Net Loss'*

The type of offsetting secured is inconsistent with the requirements of the BBAM credit calculator (matching of vegetation types based on 'like for like or better' principles – discussed further below).

- o *Does not yet meet Tier 3 'Mitigated Net Loss'*

Under the Interim Offset Policy the Tier 3 variation criteria are to be applied on a case by case basis only where certain circumstances (relating to the availability of suitable offsets and associated costs) apply.

The type of offsetting proposed in the Rocglen BOS is inconsistent with the requirements of the BBAM credit calculator and has not been yet been fully justified. There is currently insufficient information provided within the EA on which to assess the appropriateness of applying the variation criteria.

Whilst the full credit requirement is proposed to be retired from the Whitehaven Regional Biobank Site, not all of the required credits for individual vegetation communities have been matched according to the BBAM credit calculator. As previously noted by the Office, if exact 'like for like' in the surrounding area is not achievable, the proponent must demonstrate that an adequate offset will be obtained which meets the 'better' conservation outcome requirement and a trade from a lesser conservation value vegetation type to an equal or higher conservation value type (particularly within the same Keith formation) may be acceptable.

The Office has previously agreed that in the specific case of the Rocglen Mine, the clearing of a small patch of Brigalow within the mine site could be offset by protection of another EEC if the proponent was unable to find a match for this vegetation type. The Office is satisfied with the proposal to offset this community with Box-Gum EEC.

However in the case of the remaining four communities no specific justification for deviating from the BBAM credit calculator requirements has been provided.

In particular, impacts on '*Pilliga Box – Poplar Box – White Cypress Pine*', an overcleared vegetation type, are proposed to be offset with '*Semi-evergreen Vine Thicket*' and '*White Box – White Cypress Pine*' biometric communities. The '*White Box – White Cypress Pine*' vegetation type is not an overcleared vegetation type within the Namoi Catchment Management Area and is of lower conservation status in comparison to '*Pilliga Box – Poplar Box – White Cypress Pine*'.

Recommendation:

That DoP:

- a) Require the proponent to remove claims of meeting the 'improve or maintain' standard from the EA.
- b) Request the proponent to provide adequate information to justify their proposed 'matching' of vegetation types.

Encourage the proponent to improve the ability of the offset to meet the 'like for like or better' principle as far as possible.

C. OTHER ISSUES**Issue 5 – Mining Void: Unachievable and uneconomic**

It is proposed that the final void be backfilled to an elevation above 250m AHD, with an exception of about 38ha in the southern end of the pit where the surface levels will be in the range of 225- 250 AHD. This will allow formation of surface water in the southern end of the pit which will increase in salinity over time.

The EA indicates that *"consideration was also given to additional backfilling to reduce the depth of the void and bring it above the modelled long term groundwater recovery level. However, this was determined unachievable and uneconomic given the volume and cost of backfill that would be required"*.

Recommendation:

Further justification on what and why these factors are considered unachievable and uneconomic should be provided.

Issue 6 – Mining Void: Mine spoil management

The EA indicates that a final fill level of 275m AHD is required to prevent surface water from occurring, which would also be above the pre development groundwater level. It is noted that *"Such a high final ground level.... is understood to be impractical from a mine spoil management perspective"*.

Recommendation:

Further justification on what these impracticalities for mine spoil management are should be provided.

Issue 7 – Mining Void: Emplacement Areas

It is noted the proposed expanded Northern Emplacement Area and the approved Western Emplacement Area are both proposed to have a maximum design height of approximately 50m above pre mining landform. No consideration has been provided within the EA to place some of this material within the southern end of the pit.

Recommendation:

Further justification on why this option has not been considered within the EA should be provided.

Issue 8 – Mining Void: Groundwater sink

The final void design does not meet mining best practice as it will become a permanent and ongoing liability to the State of NSW. The void will act as a permanent groundwater sink, resulting in groundwater losses to evaporation and water within the void becoming saline over time.

The Office expects that the final void footprint is minimised and that the depth of the void is at least above the final groundwater recovery level such that a permanent groundwater sink is not developed.

The final void and landform should also consider opportunities for integration of boundary development across adjacent mining operations and to potentially utilise final void space across the mines.

Recommendation:

Modify final landform, mine planning and final void design to minimise void area and depth. Ideally the mine should be designed to meet world best practice and avoid any final mining void.

