



Office of
Environment
& Heritage

DOC16/404445-5
SSD 5156

Ms Melanie Hollis
Planning Officer, Resource Assessments
Department of Planning and Environment
melanie.hollis@planning.nsw.gov.au

Dear Ms Hollis

Supplementary Submission: Amended Rocky Hill Coal Project Environmental Impact Statement

I refer to the letter from the Office of Environment and Heritage (OEH) dated 22 September 2016, providing advice on the exhibited Amended Rocky Hill Coal Project Environmental Impact Statement.

In regard to OEH's previous submission, I wish to clarify that the role of OEH is not to provide support for proposals; OEH has an advisory role only for major projects. In referring to 'support' for the proposal in the previous submission, I am supporting the proposal's suitability for further assessment by the Department of Planning and Environment, once the proponent has appropriately addressed the minor comments and recommendations outlined in the advice.

If you require any further clarification regarding this matter please contact me on 4927 3152.

Yours sincerely



26 OCT 2016

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations



Office of Environment & Heritage

DOC16/404445-3
SSD 5156

Ms Melanie Hollis
Planning Officer, Resource Assessments
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Dear Ms Hollis

RE: REVIEW OF THE AMENDED ROCKY HILL COAL PROJECT ENVIRONMENTAL IMPACT STATEMENT (SSD 5156)

I refer to your email dated 12 August 2016, seeking comments on the exhibited Amended Rocky Hill Coal Project Environmental Impact Statement (EIS) located approximately five kilometres south-east of Gloucester in the MidCoast local government area.

OEH has undertaken a review of the EIS titled *Amended Rocky Hill Coal Project Environmental Impact Statement – Development Application No. SSD 5156*, prepared for Gloucester Resources Ltd by RW Corkery & Co Pty Limited. OEH understands that this development is an amended project to which we have previously provided comment via submissions dated 28 October 2013 (EIS review) and 13 May 2014 (response to submissions review).

In general, OEH understands that the previous rail loop and associated coal processing facilities have now been removed from the projects development footprint and that the proponent intends to link up to Yan Coal's Stratford Mining Complex transport facilities via a proposed haul road, which will connect the two developments. The Yan Coal (Stratford Mining Complex) component of this proposal is treated in a separate application to which OEH will provide separate comment.

Given that the amendment is a reduction in the overall development footprint and the impact to matters of OEH concern have remained relatively unchanged, I am of the opinion that the previous advice and comments are still relevant, unless otherwise identified in **Attachment A**. OEH acknowledges that many of our previous concerns have been adequately dealt with during the previous 'Response to Submissions' phase.

OEH has reviewed the EIS (and its appendices) for the proposed development in relation to threatened biodiversity, Aboriginal cultural heritage, and flooding / floodplain matters and acknowledges that these matters have generally been adequately addressed. OEH supports the proposal, providing the minor comments and recommendations outlined in **Attachment A** are addressed.

If you require any further information regarding this matter please contact Steve Lewer, Regional Biodiversity Conservation Officer, on 4927 3158.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R Bath', with a long horizontal flourish extending to the right.

22 SEP 2016

RICHARD BATH

Senior Team Leader Planning, Hunter Central Coast Region

Regional Operations

Enclosure: Attachment A

ATTACHMENT A: OEH REVIEW OF THE AMENDED ROCKY HILL COAL PROJECT ENVIRONMENTAL IMPACT STATEMENT (SSD 5156) GLOUCESTER

THREATENED BIODIVERSITY

OEH has reviewed the report titled *Amended Rocky Hill Coal Project: Part 7 Terrestrial Biodiversity Assessment* (authored by Biosis Pty. Ltd.) and provides the following comments. In general, OEH is of the opinion that the proposal's impact has not significantly altered from the previous EIS, and as such our previous comments in submissions dated 28 October 2013 (EIS review) and 13 May 2014 (response to submissions review) effectively capture our views. OEH acknowledges that many of our previous concerns have been adequately dealt with during the previous 'Response to Submissions' phase.

OEH is of the opinion that the current EIS adequately addresses threatened species / biodiversity matters, and that it satisfactorily addresses our comments from previous correspondence, unless stated below. OEH also notes that MidCoast Council have provided the agency with feedback about biodiversity issues (as requested by the Department), to which some comment is also provided.

OEH offers the following summary of our previous comments and/or additional remarks.

Targeted surveys – Threatened flora (*Asperula asthenes*)

In general, OEH is of the opinion that adequate targeted surveying has been undertaken for the majority of the potential /likely threatened flora, and for a number of species surveys have been undertaken at multiple times to cover various growth stages (e.g. flowering and fruiting). In previous correspondence OEH (along with MidCoast Council) has indicated that there was concern about inadequate sampling timeframes for *Asperula asthenes* (a threatened cryptic forb). Whilst OEH concluded that this species was technically surveyed outside its preferred flowering / fruiting phenology, the lack of any *Asperula* and/or *Galium* (a related taxon) being detected on the subject site supported the EIS conclusion that the development would unlikely impact on this species. OEH confirmed it was highly unlikely that the species would be detected on the subject site and that the proposal would impact on it. Therefore further surveying was not required.

Threatened species assessment

Use of BioBanking Methodology for development site and biodiversity offset area

OEH has reviewed the proposal (including the new haul road) with respect to impacts on biodiversity and threatened species, and is of the opinion the EIS has generally provided an adequate assessment of the likely impacts, plus provided suitable mitigation and/or offset measures to compensate these impacts. The proponent has utilised the BioBanking Assessment Methodology (BBAM) to (i) assess the impacts of the proposal, and (ii) to inform the makeup of the biodiversity offset package, namely with respect to the quantum of the offset and the type of vegetation /habit to be conserved. OEH supports this approach and it is consistent with previous assessments of Major Projects.

Previously, OEH advised the Department that the proponent had applied the BBAM credit calculator correctly and supported the justifications / assumptions given in the EIS to its application. Given that the current EIS utilises a newer version of the credit calculator (OEH 2014), OEH has rechecked the veracity of the assumptions and the data that has been inputted into it (including the selection of Plant Community Types). OEH is of the opinion that it has inputted correctly and in accordance with the BBAM (OEH 2014).

In summary, OEH notes that the development area requires the retirement of 1681 biodiversity ('ecosystem') credits under BBAM in comparison to the 2114 'ecosystem' credits generated on the proposed biodiversity offset site. As such the offset site adequately compensates the development footprint, including all three Plant Community Type (PCT) that were impacted upon, namely: (i) Spotted Gum – Broad-leaved Mahogany – Red Ironbark open forest [HU804], (ii) River Oak – White Cedar Grassy Riparian Grassy Riparian Forest of the Dungog Area and Liverpool Ranges [HU928], and (iii)

Shatterwood – Giant Stinging Tree – Yellow Tulipwood dry rainforest of the NSW North Coast Bioregion and northern Sydney Basin Bioregion [HU613].

OEH notes that MidCoast Council (as per their correspondence to OEH) have indicated they have concerns with the offset package, with respect to landscape location and geology (i.e. the offset is located volcanics cf. Permian sediments / alluvials with the impact area). However, OEH notes that the proponent, via BBAM, has shown that the offset area has comparable PCT (vegetation) matches to that of the impact area, and as such is suitable offset area with respect to OEH requirements.

Conservation in perpetuity of offset lands and management plan

Previously, OEH recommended that the proponent either consider the use of a BioBanking Agreement or Conservation Agreement (under the *National Parks and Wildlife Act 1974*) to secure and manage the Biodiversity Offset Area. OEH notes that the EIS indicates that a BioBanking Agreement under the *Threatened Species Conservation Act 1995* will be sought to ensure long-term management and conservation of the offset area. OEH supports the use of this mechanism and recommends to the Department that this be a condition of consent. OEH preference is that the mechanism be in place prior to any disturbance of the site.

Specific species matters – Squirrel Glider and Grey-crowned Babbler

Like the MidCoast Council comments, OEH have previously noted concerns regarding the potential impacts to (i) the population of Squirrel Gliders along the northern section of McKinleys Lane (which may be adversely affected by indirect impacts), and (ii) the Grey-crowned Babbler population on site and within the proposed biodiversity offset area. OEH were concerned that these impacts may represent a significant impact on these species at a local level, which could lead to local extinction. Furthermore, given that specific fauna surveying / trapping undertaken for the EIS does not appear to have been conducted in the proposed biodiversity offset area, it is unknown whether or not these species will be specifically offset. OEH acknowledges from a BBAM perspective both species are adequately offset via 'ecosystem' credits with respect to the offset area containing appropriate habitat (i.e. suitable PCTs). However, OEH understands that no physical records have been recorded in the offset area. Given the particular tenuous nature of these population's, additional surveying in the offset area may provide a greater understanding of the overall population dynamics of these species at a local level.

OEH acknowledged that one of the conclusions of the original EIS was ongoing monitoring of the populations of the two affected species, however, this would not provide an indication of the current population status nor whether the proposal will lead to its overall decline, particularly if it is isolated from other populations. As such, OEH recommended that this should be done prior to any approvals so that there is a complete understanding of the proposal's impact on both the local Squirrel Glider and Grey-crowned Babbler populations, and what mitigation measures should be implemented to ensure the longevity of these population, including preservation or improving linkages with the proposed biodiversity offset area. Section 7 of the Terrestrial Biodiversity Assessment report details management plans for both species, which include (i) establishment of a monitoring program to determine population size / dynamics and assess overall impact on both the impact and offset areas, and (ii) implementation / investigation of appropriate mitigation measures to ameliorate the impacts, including glider poles and revegetation (i.e. improve linkages to conserved habitat within the offset area). It was previously agreed with the proponent that if approval was given to the project, additional surveying would be undertaken prior to any construction and/or disturbance to determine (quantify) the size, status and overall location of the Squirrel Glider and Grey-crowned Babbler population. OEH has previously indicated that it supports this approach, but also recommends that this monitoring should not just be restricted to the impact area but include the biodiversity offset area, specifically with respect to investigating linkage improvements. As such, OEH recommends to the Department that a specific condition ensuring adequate surveying / monitoring is undertaken to quantify the Squirrel Glider and Grey-crowned Babbler populations within the subject area and that appropriate mitigation measures be undertaken to ensure the long-term longevity of these species in the area.

Endangered ecological community comparisons:

OEH previously requested justification of how 'Community 4: Giant Stinging Tree / Fig Rainforest Gullies' (under the PCT classification – 'Shatterwood – Giant Stinging Tree – Yellow Tulipwood dry rainforest of the NSW North Coast Bioregion and northern Sydney Basin Bioregion') best fitted 'Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions' vulnerable ecological community (VEC) and not the 'Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions' endangered ecological community (EEC). OEH acknowledges that the submissions report has identified additional information that supports this community (Community 4) inclusion under Lower Hunter Valley Dry Rainforest VEC, though noting a close affinity to Lowland Rainforest EEC. The EIS has omitted reference to the latter.

MidCoast Council are also of the opinion that 'Community 3: Riparian Forest – River Oak / Cabbage Gum / Broad-leaved Apple Riparian Forest (under the PCT classification – 'River Oak – White Cedar Grassy Riparian Forest of the Dungog Area and Liverpool Ranges') should be considered as 'River-flat eucalypt forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions' EEC, based on landscape position (i.e. floodplain), habitat assessment and floristic composition. OEH concurs with this view (based on the NSW Scientific Committee Determination), but is of the opinion that in general this community is degraded and that it has been adequately captured within the biodiversity offset area.

References

OEH (2014) *BioBanking Assessment Methodology*. Office of Environment and Heritage, detailed at: www.environment.nsw.gov.au/biobanking/bbreview.htm.

ABORIGINAL CULTURAL HERITAGE

OEH has reviewed the *Amended Rocky Hill Coal Project, Part 11, Aboriginal Cultural Heritage Assessment, Development Application No. SSD 5156, Prepared by Archaeological Surveyors & Reports Pty Ltd, June 2016*. The report identifies that there are six (6) AHIMS registered Aboriginal sites recorded within the Mine Area and power line corridors, and that the proposed open cut coal mine will impact directly on all six (6) sites during its development and operation. The report recommends that all six (6) sites be salvaged by the registered Aboriginal parties and then managed under a Care Agreement. The Aboriginal objects will then be utilised for educational purposes. OEH supports this management recommendation.

OEH further notes that the amended report states that the site types or their contents are neither rare or unique, and that their salvage will have a negligible impact on the archaeological record of the region. OEH concurs with both the management recommendations and the reports assessment of significance. OEH has no additional concerns with respect to Aboriginal cultural heritage and the Amended Rocky Hill Project proceeding.

OEH has also reviewed the *Addendum to – The archaeological Investigation for sites of Indigenous Cultural Significance, Rocky Hill Coal Project, Gloucester, NSW. Proposed 132kV Power Line Re-alignment & Installation of an 11kV Power Line, prospered by John Appleton, Archaeological Survey and Reports Pty Ltd, August 2012, prepared for RW Corkery & Co Pty Limited, on behalf of Gloucester Resources Limited*.

The report found that there are no known constraints on archaeological grounds to the proposed works proceeding. There were no items, sites or places of Aboriginal origin were observed during the survey of the development footprint. OEH concurs with the report's recommendations and has no further concerns with respect to Aboriginal cultural heritage and the proposed works proceeding.

FLOODING AND FLOODPLAIN MANAGEMENT

The proposal involves minor changes to the existing coal operations and construction of a private haul road to link Rocky Hill Coal with Strafford coal to allow for sharing of infrastructure.

Comprehensive flood analysis has been carried out for the proposed amendments to the mine including changes to the western and northern amenity barriers which act as flood levees for mine pit protections. Flooding analysis also includes analysis of impact of the proposed crossing over Waukivory Creek for the proposed haul road.

The methodology employed in the flood analysis by WRM Water and Environment is well calibrated and uses appropriate sensitivity analysis. Findings have been compared to earlier reports prepared for Gloucester Shire Council by Patterson Consulting and BMT. Estimated flood flows are generally higher than earlier reports completed for this area however the mine commissioned study includes analysis of smaller waterways and does not use areal reduction factors.

This is considered appropriate for an analysis of this type and the study is deemed appropriate for assessment and management purposes.

The WRM study indicates the following flood impacts:

- increase in depth and velocity in Oaky Creek including 375 metres (m) of affected creek line on privately owned land. The impact appears to be contained within the creek alignment with the primary impact likely to be increased erosion and sediment transport
- minor increase in flood level (0.01 to 0.05 m) on private property adjacent to the Amenity barrier outside of mine owned land. These appear to be roughly consistent with the impacts on the previous approval
- increases in flood level at the northern end of the proposed private haul road in the vicinity of the Waukivory Creek crossing. These increases include magnitudes of 0.5 to 1 m increase in level and up to 2 m/s increase in velocity. The increases in this area were not present on the previously approved scheme. There is also lack of clarity in the documents with mapping of boundaries appearing inconsistent with statements regarding ownership of the affected land
- six minor waterway crossings are proposed for the private haul road. It is stated that these will be sized to ensure transfer of water through the road however no calculations or analysis is provided.

Prior to issuing of consent conditions confirmation of land ownership in the vicinity of the Waukivory Creek crossing is required. If this land is privately owned land demonstration of negotiation and compensation of affected owners would be required. The impact indicated by the WRM study is considered significant and OEH cannot endorse activities with significant impact on private land holders.

The following consent conditions are recommended.

- 1) Detailed design of the proposed haul road will require catchment analysis to ensure waterway crossings are sized to ensure flows are not obstructed by road embankments. Appropriate headwall and energy dissipation structures are to be incorporated in the design together with analysis of blockage. Negotiation with affected land holders will be required if the road construction will affect flooding or erosion of private property.
- 2) Monitoring programs will be required to include monitoring for erosion within Oaky Creek and to the northern and western amenity barriers. Monitoring programs for Oaky Creek will require access to private property and this will require negotiation with affected landholders. Programs should include trigger points for action and rectification of erosion and sediment management.
- 3) Detailed design of the Waukivory Creek crossing should include update of the flood analysis to ensure final design configuration is modelled. Bank protection works will be required to be incorporated in the design to accommodate the increase in velocity in this area. Impact on

private property is to be minimised and appropriate negotiation and compensation should be carried out as part of the detailed design phase.

OEH – SEPTEMBER 2016

