OUT18/1134

Stephen O'Donoghue
Resource and Energy Assessments
NSW Department of Planning and Environment

stephen.o'donoghue@planning.nsw.gov.au

Dear Mr O'Donoghue

Bylong Coal Project (SSD 6367)
Comment on the response to PAC report

I refer to your email of 24 January 2018 to the Department of Industry in respect to the above matter. Comment has been sought from relevant branches of Crown Lands & Water and Department of Primary Industries.

Any further referrals to Department of Industry can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

The department has reviewed the response to PAC report and provides the following comments and recommendations for consideration in assessment of the proposal at **Attachment A**, in relation to water management, and **Attachment B** in relation to agricultural resources and rehabilitation.

Yours sincerely

Alison Collaros
A/Manager, Assessment Advice
12 February 2018

ATTACHMENT A

Bylong Coal Project (SSD 6367)
Comment on the response to PAC report – water management

Alluvial water take

DoI Water is satisfied that the maximum predicted loss of base flow in the Bylong River Water Source has been appropriately accounted for and can be licensed through existing entitlement. The proponent has also acknowledged that if water takes were to exceed their entitlements, contingency measures will need to be implemented including the purchasing of water allocations on the open water market, redundancy of the proponent's agricultural activities or the progressive reduction in the mining activities that consume water.

As previously outlined and committed to by the proponent, the Water Management Plan should outline monitoring and ongoing assessment of the impact of alluvial aquifer depressurisation on base flow in the Bylong River, including appropriate monitoring of the ecological impacts and impacts on basic landholder rights and licensed extraction. It is noted that the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009 makes provision for introduction of a cease to take by year 10 of the plan based on studies to determine appropriate groundwater levels and trigger points. Given that losses in base flow due to alluvial aquifer depressurisation cannot be switched off during low flow events, the impact of the reduced base flow during these low flows will need to be monitored and assessed. Any active extraction from the alluvial borefield would be subject to any cease to pump rules implemented within the Water Sharing Plan.

Compensatory water supply

The proponent has provided further information on the potential for the project to result in impacts on neighbouring private landholder bores and commitment to establish compensatory water supply agreements. Condition 27 of the Department of Planning and Environment's (DPE's) recommended conditions of consent requires that the proponent provide a compensatory water supply to the owner of any privately-owned land whose surface water and/or groundwater supply is adversely and directly impacted (other than a negligible impact) as a result of the development. DoI Water is satisfied that the proposed consent conditions, commitments by the proponent and further details to be outlined within the proposed Water Management Plan will ensure adequate compensatory measures for any impacts on private water users. The proponent has also stated that the Water Management Plan will outline a program to investigate potential alternative water supplies should these be required.

Permian water take

The proponent currently holds a licence for 411 units and DoI Water received a valid application for a water licence for 2,093 units submitted under the Water Act 1912 (Water Act) to extract groundwater from the Permian strata for the Project from the Sydney Basin – North Coast Groundwater Source (North Coast groundwater source) under the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016 (North Coast WSP).

Predicted maximum groundwater inflows are 4,099 ML in year 23 of the project. The application submitted for 2,093 units under the Water Act will be assessed and determined on its merits should the project proposal be approved by DPE. Should this application be approved, the proponent will need to obtain the remaining 1,596 shares from the water market to account for the predicted maximum take. If a licence for 2,093 shares is not issued upon project approval, the full 3,689 ML would need to be obtained from the market.

DoI Water notes that whilst the proponent has outlined that as at 1 July 2016, there were 3,453 ML/year of unassigned water allocation entitlements and that the water required for the project may therefore be available through a Controlled Allocation Order, the department's Strategy for the controlled allocation of groundwater (DoI Water, May 2017) outlines that the amount of water made available in any controlled allocation order is intended to keep total water requirements below 80 % of the appropriate extraction limit in any water source. Whilst water was made available in the North Coast Fractured and Porous Rock Groundwater Source in the 2017 Controlled Allocation Order, this did not include the Sydney Basin – North Coast Groundwater Source. Controlled Allocations for this water source may not be available in the future to account for the Permian water required for the project.

END ATTACHMENT A

ATTACHMENT B

Bylong Coal Project (SSD 6367)
Comment on the response to PAC report – Agricultural resources and rehabilitation

Final landform

A detailed erosion stability assessment , not just geotechnical studies, should be conducted to determine the erodibility of the OEA, particularly on any areas greater than 10 degrees. In relation to design of the final landform, DPI Agriculture does not endorse the use of the GeoFluv approach alone as empirical measurements from surrounding stable landforms in the area of interest is not an accurate measure compared to varying unconsolidated materials of the overburden. DPI recommends partnering the GeoFluv approach with sound erosion stability and landform assessment modelling such as SIBERIA or Water Erosion Prediction Project (WEPP).

BSAL rehabilitation

Table 2 of the Rehabilitation Management Plan identifies restoration of 423.1 ha of BSAL, while section 4.4.3.1 (and other parts of the Plan) identifies reinstatement of only 319.5 ha of BSAL. Given previous commitments it is assumed that the 423.1 ha is to be rehabilitated to BSAL like conditions, however this should be confirmed.

Water Holding Capacity measurements should be included as completion criteria in Table 16 Summary of BSAL and LSC Class 3 Completion Criteria, with measurements to be conducted pre and post rehabilitation.

Erosion assessment

Section 7.3.2.2 identifies that erosion data is to be collected from a 50m cross-section along the centre of each Landscape Function Analysis (LFA) transect conducted as part of the final landform monitoring procedure. It is recommended that aerial imagery is used to identify erosion as LFA transects alone often miss key erosion hazards.

Research trials

Research trials are proposed to be undertaken over the life of the mine. DPI Agriculture recommends that these trials start at the onset of approval of the mine to ensure any outcomes from the research can be incorporated into rehabilitation planning for the life of the mine.

Consultation

As noted DPI Agriculture are to consulted with for all aspects relating to the reinstatement of land to be used as agriculture purposes post mining.

END ATTACHMENT B

NSW Department of Industry Crown Lands and Water Division
Level 49 | 19 Martin Place | Sydney NSW 2000
Tel: 02 9934 0805 landuse.enquiries@dpi.nsw.gov.au ABN: 72 189 919 072