



1 April 2019

Steve O'Donoghue  
Director – Resource Assessments  
Department of Planning and Environment

By email: [steve.odonoghue@planning.nsw.gov.au](mailto:steve.odonoghue@planning.nsw.gov.au)

Dear Mr O'Donoghue

### **Hume Coal Project**

The Independent Planning Commission (**Commission**) is seeking additional information from NSW Government agencies regarding the Hume Coal Project. It would be appreciated if the Department of Planning and Environment (**Department**) can refer the following questions to the appropriate agencies for a formal response within 21 days of this letter, including, but not limited to the Resource Regulator and Department of Industry - Water:

#### **Mine Design and Safety – (Resource Regulator):**

1. Comment on the proposed Hume Coal mining method and its safety.
2. Is the proposed mining method classified as second workings? What implication does this have for Hume Coal?
3. Hume Coal plan to store coal rejects underground. Are there any locations in the NSW coal industry where this has been carried out? And if so have any problems been encountered and successfully managed?
4. Hume Coal plan to install a number of bulkheads to contain material and water. We understand this has been done elsewhere in the NSW coal industry. Could you advise whether this has been successful and if the scenario was comparable to what is proposed?
5. Advise whether have there been any examples where the structural integrity of the bulkheads has been compromised.
6. In its Preliminary Assessment, the Department has indicated that *“the combination of an untested mining method and an unconventional method of storing large quantities of water underground is likely to result in serious operational safety risks”*. This in turn leads the Department to comment that *“additional mine water will be transferred to the surface with the need to transfer into watercourses”*. In regard to these aspects, comment on the potential impact of information provided in Part 3 – Mining Design (specifically sections 3.2.1, 3.4 and 3.9) in the Hume Coal document received by Commission on 6 March 2019 which is available on the Commissions website.
7. With reference to the Hume Coal proposal, to what extent would the inability of the applicant to conduct geological exploration on land not owned by the applicant and within the mining area prevent an acceptable mine plan being developed and implemented?



**Groundwater (Department of Industry - Water):**

8. Has the class of the groundwater model been resolved? We note there has been at least one meeting between modellers.
9. Are there concerns on how the interburden layer was modelled in the upgraded Merrick (2018) model?
10. The transfer of water from the primary water dam to underground voids was not included in the modelling due to lack of mining details. Middlemis (2018) says this makes the model conservative. Please provide advice on this statement?
11. The Department of Industry – Water (**DOIW**), November 2018 submission indicated that there were inconsistencies between the geological and groundwater model. The Department's independent reviewer (Middlemis, 2018) has indicated that the 3D semi regional model of Merrick (2018) is fit for purpose. Does the DOIW recommendation to use 90<sup>th</sup> percentile predictions allay some of the concerns regarding lack of geological detail? Would the use of the 67<sup>th</sup> percentile predictions of impacts, also be acceptable?
12. What is the DOIW position on hydraulic conductivity decreasing with depth, as modelled? Some groundwater specialists believe this interpretation is wrong.
13. What is the DOIW position on the approach taken to decide on the drain conductance values used in the modelling?
14. The updated model is said by Middlemis (2018) to be a best practice model as it is simultaneously calibrated to four data sets and contains a detailed uncertainty analysis. What is DOIWs position on this?
15. What does the error statistic SRMS of 10.7% tell you about the model accuracy?
16. Do you have concerns with the make good strategy for affected bore owners?
  - a. can the affected high-volume irrigation bore owners can obtain an equivalent water supply from the strata below the Hawkesbury sandstone?
  - b. What yields, and water quality are likely from the deeper formations? and
  - c. Should the direct supply of water should be included in the make good options?

If you have any questions, please contact David Koppers – Team Leader on 9383 2100.

Regards

Prof. Chris Fell  
**Panel Chair**