

[REDACTED]

From: Brian Cole [REDACTED]
Sent: Monday, 17 February 2020 8:28 AM
To: [REDACTED]
Subject: FW: Vickery Water Modelling

Kane,

Please find below further clarification in response to the additional comments received regarding the Project surface water balance.

- Project site water demands are driven by air quality management (e.g. dust suppression) and Coal Handling and Preparation Plant supply.
- Annual site water demands were estimated for the Project based on review of water usage data from existing and proposed operations (including from Maules Creek) as well as benchmarked algorithms (e.g. for dust suppression requirements).
- The extrapolation of predicted water demand from the Boggabri Coal Mine to the Project site water demands is not considered to be relevant, including for the following reasons:
 - a. It is unclear what climate scenario the predicted Boggabri Coal Mine demands are based on.
 - b. The Project site water demand will vary each year due to climatic conditions.
 - c. The Project would not produce 10 Mtpa of ROM coal during each year of operation.
 - d. An increase in ROM coal production from 7 Mtpa to 10 Mtpa does not equate to an comparable increase in water requirements for dust suppression.
- The site water balance modelling is based on 124 years of daily rainfall records (from the nearby Boggabri [Retreat] Station) and as such considers the full range of climatic conditions that have been experienced over this period (including the historic federation and millennium droughts). Data from other surrounding climate stations was used for the purpose of model validation only.
- The site water balance modelling also considered changes in available water determinations (AWDs) for Lower Namoi River General Security category licenses due to changes in climatic conditions, consistent with DPI – Water reporting commencing in 1893. This included years of no (i.e. 0 ML) AWD allocation.
- While the site water balance indicated water supply and demand could be managed via a supply hierarchy of (1) on-site, (2) Namoi River and (3) groundwater bores, Whitehaven will ultimately be required to comply with Condition B38, Schedule 2 of the draft Development Consent (SSD 7480) which provides:

B38. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.

Please don't hesitate to contact me if you have any additional queries.

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