

NSW Department of Climate Change, Energy, the Environment and Water

Our ref: OUT25/16431

Jack Turner
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NSW Department of Planning, Housing and Infrastructure

Email: Jack.Turner@planning.nsw.gov.au

18/12/2025

Subject: HVO North and South Open Cut Coal Continuation Project (SSD-11826681) (Muswellbrook Shire, Singleton Shire) – Response to Submissions (RTS)

Dear Jack Turner,

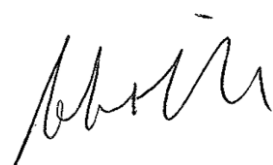
I refer to your request for advice sent on 24 November 2025 to the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) Water Group about the above matter.

NSW DCCEEW Water Group has reviewed the EIS and has a post approval recommendation regarding groundwater monitoring and updates to the Water Management Plan.

Please see Attachment A for details.

Should you have any further queries in relation to this submission please do not hesitate to contact the Water Assessments team at water.assessments@dcceew.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read "Rob Brownbill".

Rob Brownbill,
Manager, Water Assessments, Knowledge Division
NSW Department of Climate Change, Energy, the Environment and Water

Attachment A

Detailed advice to DPHI Planning & Assessment regarding the HVO North and South Open Cut Coal Continuation Project (SSD-11826681) (Muswellbrook Shire, Singleton Shire) – Response to Submissions (RTS)

1.0 Groundwater monitoring and updates to the Water Management Plan

1.1 Recommendation – post approval

The Department of Planning, Housing and Infrastructure (DPHI) should request the proponent to update make the following improvements to their Water Management Plan:

- Measured groundwater levels should be depicted in representations such as figure 4.2, and groundwater level predictions should capture the variability evident in the past modelling of alluvial heads.
- GDE impact assessments should consider the risks to existing, and especially more juvenile vegetation, during prolonged drier periods.
- Use cumulative rainfall deviation curves to depict rainfall patterns instead of a histogram.

Explanation

Groundwater level reporting and predictions

Measured groundwater levels in the alluvium at the Carrington Billabong have not been depicted in Figure 4.2 to validate the modelled historic heads.

The historic groundwater-level range of more than three metres, evident in the modelled historic heads shown in Figure 4.2, has not been captured in the model forecasting. The greatest potential for groundwater-related GDE stress is during prolonged or successive periods of drier than average conditions yet Figures 4.1 and 4.2 present predicted future groundwater heads that are unrealistically almost constant.

The predicted maximum post-mining drawdown at the Carrington Billabong is stated to be 2 m which approximates the initial saturated thickness of the alluvium as shown in Figure 4.2. The alluvium could therefore be at risk of becoming completely dry if the true initial saturated thickness is locally smaller or there is any error in the predicted drawdown.

Non-clarity of groundwater availability for GDE

The depth range in which the existing and especially more juvenile vegetation depends on groundwater during drier climatic periods has not been identified for comparison to model predictions.

The depicted (Figure 4.2) future groundwater elevations in the Carrington Billabong alluvium of approximately 58.6-58.8 mAHD are more than 11 m below ground level (cf. 69.8 mAHD at bore CFW55R and 70.0 mAHD at bore CGW54A; Appendix A Table B 1 of EIS Appendix K). The stated maximum post-mining drawdown of 2 m is nearly 13 m below ground. These

proposed drawdowns have not been related to the critical groundwater depths for root uptake so that their acceptability can be assessed.

The availability of river water to recharge drawn-down groundwater and thus supply GDEs is uncertain because the riverbed's elevation has not been depicted in Figure 4.2 as a reference for comparing the measured river levels.

Rainfall impact interpretation

A cumulative rainfall deviation curve overlain with river heights and groundwater levels would aid in interpreting the relative causal effects of either direct rainfall infiltration or river heights on groundwater recharge and groundwater levels.

End Attachment A