

23 October 2023

Lachlan McWha
Environmental Compliance & Approvals Coordinator
Delta Coal

Re: Chain Valley Colliery Consolidation Project - Response to DPE's request for additional information

Dear Lachlan,

1 Introduction

This letter responds to a request by the Department of Planning and Environment (DPE) for additional information in relation to the Environmental Impact Statement (EIS) for the Chain Valley Colliery Consolidation Project (SSD-17017460), specifically matters associated with the Noise Impact Assessment report (NIA) prepared by EMM Consulting Pty Limited (EMM) in September 2022.

The DPE is requesting additional information on the following noise assessment matters:

- Number of residential premises associated with the Macquarie Shores Home Village (MSHV) (i.e. receiver locations R15 and 8)
- Approximate occurrence of predicted exceedances of Project Noise Trigger Levels (PNTLs) at the MSHV locations during the night period (i.e. how often the worst-case stability category F and 2 m/s wind speed is typically experienced).

EMM's response and additional information associated with the aforementioned matters are provided in the following sections.

2 EMM response

2.1 MSHV receivers

MSHV comprises approximately 241 privately-owned residential dwellings in the form of relocatable homes. Assessment location R15 is located to the north of MSHV and is representative of the nearest and/or most affected dwelling to Chain Valley Colliery (CVC). Assessment location 8 is located to the west of MSHV and is representative of the nearest and/or most affected dwelling to Mannering Colliery (MC).

2.2 Occurrence of predicted exceedances at MSHV

Predicted CVC and MC combined $L_{Aeq,15minute}$ and indicative noise contours presented in the NIA for night operations during worst-case stability category F temperature inversion with 2 m/s wind speed show that:

- all of the dwellings at MSHV will experience higher than 35 dB $L_{Aeq,15minute}$ (exceedance of PNTL)
- approximately 40% of the dwellings at MSHV will be within the 40 dB $L_{Aeq,15minute}$ contour (marginal exceedance)
- approximately 13% of the dwellings at MSHV will be above the predicted 40 dB $L_{Aeq,15minute}$ noise (moderate exceedance).

Potentially noise-enhancing meteorological conditions with reference to Fact Sheet D of the NSW EPA Noise Policy for Industry (NPfI) (2017) were considered for the NIA. The NIA states that stability category F temperature inversion with 2 m/s wind speed (source-to-receiver) was also adopted for modelling as worst-case for the most critical night period. An analysis to determine the significance of noise-enhancing conditions (NPfI option 1 to consider meteorological conditions) was not presented in the NIA. Noise-enhancing conditions were adopted for all assessment periods considering source-to-receiver wind vectors for all receivers and stability category F temperature inversion with 2 m/s wind speed for the night period (NPfI option 2 to consider meteorological condition).

In response to the DPE request for additional information an analysis of weather data measured by the Mannering Colliery automatic weather station (AWS) for the period 1 October 2020 to 1 October 2023 (three consecutive years) was completed.

The analysis identified that during the night period:

- stability category F and 2 m/s wind speed (in any direction) occurred 9% of the time
- stability category F and 2 m/s wind speed from the direction CVC to assessment location R15 ($345^\circ \pm 45^\circ$) occurred 2% of the time
- stability category F and 2 m/s wind speed from the direction MC to assessment location 8 ($280^\circ \pm 45^\circ$) occurred 2% of the time.

3 Conclusion

This letter provides additional information on noise matters associated with the CVC Consolidation Project as requested by the DPE. Please contact the undersigned if you require further information.

Yours sincerely



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Review: Katie Teyhan 23/10/2023