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Planning and Assessment Division
Department of Planning, Industry and Environment
Returned via Planning Portal

Attention: Tegan Cole

17 January 2022

Dear Ms Cole

**Planning Referral – Advice Request
Hunter Valley Operations South Coal Mine - Lemington Underground Water Storage**

I refer to your request for advice received on 20 December 2021 regarding the Submissions Report for Development Modification MP06_0261-Mod-7 (**MOD 7**) for Hunter Valley Operations (**HVO**) South for storage and sharing of water in the Lemington underground mine void.

On 4 November 2021 the EPA submitted public exhibition comments for MOD 7 which included recommendations for further groundwater chemical analysis and reporting.

The EPA has reviewed the responses provided by HVO in section 4.3 '*NSW Environment Protection Authority*' of the Submissions Report prepared by HVO and provides the following comments and recommendations:

Water Quality Monitoring and Management

In the Submissions Report, HVO state:

'An additional water sampling site (LUG_S001) was established as part of the preparation of the Groundwater Assessment (Appendix A of the Modification Report). LUG_S001 was located in the northern part of the workings, away from the existing LUG Bore, to verify that water quality chemistry is consistent across the workings. Australasian Groundwater and Environmental Consultants Pty Ltd (AGE) (2021) concluded that the major ion chemistry in the LUG Bore and LUG_S001 are very similar which suggests that the LUG Bore data is likely to be representative of the water chemistry elsewhere in the workings.'

The EPA understand that HVO agree to undertake further water quality sampling with the recommended additional metal analytes from the existing LUG Bore and LUG_S001 as well as from the new transfer sites upon completion of the bores (where they are not dry).

The EPA recommend that the additional water quality sampling be conducted at the existing LUG Bore and LUG_S001 as well as at the recommended additional monitoring points outlined in

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Section 6.7 of the 'Groundwater Assessment' report for MOD 7 prepared by AGE Consultants (Ref: G1468J) including:

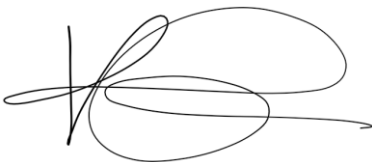
- a. at two further locations within the workings to monitor operational groundwater levels and water quality; and
- b. into the Hunter River alluvium and into one or more underlying coal seams close to the northeast corner of the workings and to the west of the Hunter River since there is currently no monitoring in this area.

The EPA recommend that HVO undertake this additional water quality sampling in accordance with the monitoring and assessment program framework outlined in Chapter 7: *Monitoring and assessment* of the Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (2000); and include but need not be limited to:

- a. refinement of water quality guidelines where appropriate including defining reference values where applicable;
- b. comparative analysis of water quality sample results to representative and/or predictive water quality modelling provided in MOD 7; and
- c. proposed management action.

If you have any questions about this matter, please contact Hannah Schuchmann on 0419 905 137 or email info@epa.com.au (cc: Hannah.schuchmann@epa.nsw.gov.au).

Yours sincerely

A handwritten signature in black ink, appearing to be 'KAG', with a large loop and a horizontal stroke extending to the right.

KAREN GALLAGHER
A/Unit Head Regulatory Operations Metro North
Environment Protection Authority