Department of Planning and Environment

OUT21/18486

Tegan Cole
Planning and Assessment Group
NSW Department of Planning and Environment

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Dear Ms Cole

Warkworth Mine (Mod 2) - Lemington Underground (SSD 6464) &
Hunter Valley Operations South Mod 7 (MP06_0261-Mod-7)
Response to Submissions (RTS)

I refer to your email of 20 December 2021 to the Department of Planning and Environment (DPE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

This modification proposal is to enable the transfer and temporary storage of water into the existing Lemington Underground Mine void, and extraction and use of this water at Mount Thorley Warkworth and Hunter Valley Operations.

DPE Water and NRAR have reviewed the RTS and have remaining concerns regarding Water Take and Licensing. Further detail can be found in **Attachment A.**

Any further referrals to DPE Water and NRAR can be sent by email to water.assessments@dpie.nsw.gov.au. or to the following coordinating officer within DPE Water:

Alistair Drew – Project Officer
E: alistair.drew@dpie.nsw.gov.au

Yours sincerely

Mitchell Isaacs
Chief Knowledge Officer
Department of Planning and Environment: Water
4 February 2022

Attachment A

Detailed advice to DPE Planning & Assessment regarding the Warkworth Mine (Mod 2) - Lemington Underground (SSD 6464) & Hunter Valley Operations South Mod 7 (MP06_0261-Mod-7)

1.0 Water Take and Licensing

1.1 Recommendations

The proponent should:

Prior to Determination

- Quantify the maximum groundwater inflow into the Lemington Underground Void during the period water is to be stored and removed, and the ongoing maximum groundwater inflow after this is completed. The ability to acquire sufficient entitlement to account for the maximum predicted water take will need to be demonstrated.
- Provide details for each water access licence (WAL), particularly in the HVO South Pits, as to which WAL is used to account for what component of water take and the associated infrastructure or activity where the water take occurs.

Post Approval

- Review existing WALs held by the proponent to identify where inactive links occur between WALs and approvals and ensure links are rectified to enable the WALs to account for water take where required.
- The proponent must ensure sufficient water entitlement is held in WALs to account for all take and must not exceed the extraction limit each water access licence held. This includes groundwater seeping into the void as well as other mine operation that uses groundwater.
- Any water pumped from the surface water sources is accounted for by appropriate WALs linked to water supply work approvals, if not covered in the SSD approval. These works must be metered. If covered in the SSD approval, another miscellaneous work for the surface water must be created and the water access licences must be linked to it by way of a dealing.

1.2 Explanation

Groundwater take is measured based on inflows into the void. There is currently water seepage into the void as noted on page 9 (pdf 10) of Appendix B Site Water Balance which states the Lemington Underground Mine void is currently holding 6,800ML of water at a water level of around -22mAHD. The water that is seeping in should be licenced.

The project proposes to put additional water into the mine void which may cause recharging of the aquifer until equilibrium is reached. When the stored water is extracted, water from the surrounding rock aquifer will flow back into the void. Water that recharges the aquifer is deemed to be part of the groundwater source and its subsequent removal needs to be accounted for and licensed. This process will continue to occur and require licencing each time water is removed from the void.

Modelling is required to quantify this groundwater take and the proponent will need to demonstrate they have the ability to obtain sufficient entitlement to account for this water. This is a requirement of the NSW Aquifer Interference Policy. Additional assessment is required to predict the maximum groundwater inflows and this analysis will need to describe the potential change to the adjacent groundwater system caused by storing water in the void and the subsequent change when water is removed.

Significant entitlement exists in the groundwater source relevant to this project with approximately 67,000 units held in existing WALs. A strong potential therefore exists to trade with existing licence holders should additional entitlement be required.

It is understood there will be meters installed to measure water being added to the void for storage and volume removed for use. This is supported and the data will be valuable in informing water balance assessments for the void and may assist in reviewing model predictions of water take.

Clarification is requested as to which WALs currently held by the proponent are used to account for which component of existing and proposed groundwater and surface water take. This is due to a large number of WALs being associated with the project and uncertainty in the intention to account for water take.

On review of existing approvals and licences held for these projects NRAR identified that a number of inactive links were present between Water Access Licences and water supply work approvals. This included WAL18558, WAL18158, WAL18127 and WAL23889. Should these WALs need to account for water take due to these projects the proponent needs to ensure they nominate the appropriate work. This is completed via a dealing application to WaterNSW.

End Attachment A