

OUT20/14674

Jack Turner Planning & Assessment NSW Department of Planning, Industry and Environment

jack.turner@planning.nsw.gov.au

Dear Mr Turner

#### Hera Gold Mine- Ore and Waste Transportation (MP10\_0191) Modification 6 Report

I refer to your email of 25 November 2020 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

In summary, DPIE Water and NRAR recommend that the proponent:

- Confirms that they have adequate and secure water supply for the project with regard to the proposed extended life of mine.
- consider including proposed additional bores as part of this modification application and complete the necessary impact assessments of the groundwater extraction
- include assessment of potential impacts to the nearby groundwater users including the Nymagee town water supply bore
- demonstrate that the proposed activities specifically the placement of tailings material in the completed stopes - will not negatively impact groundwater.
- Ensure the existing Groundwater Monitoring Programme and the Water Management Plan monitor for impacts from underground placement of tailings material.

Please note our more detailed advice is in Attachment A.

Any further referrals to DPIE Water and NRAR can be sent by email to: landuse.enquiries@dpie.nsw.gov.au.

Yours sincerely

E Kogos

Liz Rogers Manager, Assessments Water – Knowledge Office 15 January 2021

# Attachment A: Advice to DPIE - Planning & Assessment regarding the Hera Gold Mine – Ore and Waste Transportation (MP10-0191) Modification 6 Report

# 1. Availability and approval of water supply

- Insufficient information has been provided to confirm the water requirements and water availability to construct the proposed infrastructure and its ongoing operation, including the water demands for the paste fill plant and dust suppression.
- The proposal refers to the use of two existing bores on the proposed land extension area as production bores and the potential for additional bores with the intention to seek the necessary approvals separate to this modification application. It is assumed the proponent is planning on obtaining separate authorisations under the *Water Management Act 2000* to achieve this.
- DPIE Water/NRAR recommends the proponent include these bores as part of this modification application and complete the necessary impact assessments of the groundwater extraction. This will ensure all relevant impacts of the project are addressed under the SSD consent and it will enable exclusion of approval and advertising requirements under the *Water Management Act 2000*. The proponent will still need to ensure the project has a relevant Water Access Licence linked to it to authorise water take from the bores.
- DPIE Water considers that the security of water supply to Hera Mine is also contingent on Nymagee Resources ability for continuation of supply noting:
  - Hera Mine's reliance on water sourced from Nymagee Mine,
  - o Both operations operate with a single WAL with a linked share
  - o The proximity of both operations to the Nymagee town water supply bore

#### Pre-approval recommendations

- Confirmation be provided of the water demands and water availability for construction and operation of the proposed modification activities. Where additional water or water entitlement is required, the ability to access the necessary volumes and water entitlement needs to be demonstrated.
- Include all proposed bores to be used for the project in this modification application and complete relevant impact assessment and confirm access to sufficient water entitlement to meet the rules of the relevant Water Sharing Plan, the Access Licence Dealings Principles Order (2004) and DPIE Water's Factsheet – Assessing Groundwater Applications.
- In consultation with Water NSW, the proponent should confirm the location and any available construction details of the Nymagee town water supply bore.

## 2. Impacts to Groundwater

#### Aquifer Interference Policy

• The proponent has considered the minimal impact considerations as per the NSW Aquifer Interference Policy (AIP). Potential impacts have not been sufficiently detailed with regard to the Nymagee town water supply or underground placement of tailing material, and there are minor inconsistencies regarding the use of proper water source nomenclature.

#### Mitigation

• DPIE Water accepts that placement of material with similar composition to previously approved material – including that which has acid-forming potential - is unlikely to cause additional impacts compared to previously approved activities. DPIE Water notes,

however, additional contaminants likely present in the tailings material warrant additional oversight.

- DPIE Water considers that the level of detail provided regarding underground placement of tailings material is not commensurate with the risk to other groundwater users. The depth of tailing material placement will not, in and of itself, mitigate the risk of contaminant transport, and additional information is required demonstrate negligible risk to nearby groundwater users. Consideration should be given to ongoing and post-mining operations given future potential groundwater level recovery and re-saturation of previously dewatered tailings material.
- Notably, the Nymagee Town Water supply bore identified in the Groundwater management plan for Nymagee Mine - was not included for impact assessment in the Mod 6 Assessment Report, or the Hera Mine Water Management Plan. DPIE Water notes that details of the Nymagee town water supply are not readily available on the respective NSW Government databases.
- DPIE Water notes that the proposed depth of surface extraction is located well (50m+) above the observed water table and accepts that additional groundwater take and/or impacts on nearby groundwater users from proposed surface extraction activities are therefore unlikely.

#### Make Good

• DPIE Water notes previous concerns raised during preparation of the groundwater management plan regarding Nymagee Resources' ability to make good in the case of mining operations affecting nearby groundwater users and recommended that the mine identifies possible options for compensatory water supply in the event of the breach of nominated triggers, and commit to negotiating make good outcomes with affected water users (WAMS 7642).

#### Monitoring

• The approved Water Management Plan in conjunction with the Mod 6 surface and groundwater-related mitigation measures is adequate to monitor potential groundwater impacts from proposed modification activities - with the exception of placement of tailing materials.

## Pre-approval recommendations

- Impacts to the Nymagee town water supply bore should be assessed and the proponent identify possible options for compensatory water supply in the event of the breach of nominated triggers, and commit to negotiating make good outcomes with affected water users.
- In consultation with the EPA, the proponent should demonstrate, using appropriate methods, that the placement of tailing material in the stopes - in pastefill or unconsolidated form - will cause no or negligible risk to nearby groundwater users including the Nymagee Town water supply.

## Post approval recommendations

- The Hera Mine Water Management Plan should be updated to include identification and assessment of potential impacts to the Nymagee town water supply bore.
- In consultation with DPIE Water and the EPA, additional monitoring bores should be installed, to monitor for potential contaminant transport. These monitoring bores should be incorporated into the existing groundwater monitoring program including assessment criteria and TARPs
- The proponent should reference the relevant water sharing plan, water source and management zone as follows:
  - Water Sharing
    Plan
    Water Sharing Plan for the NSW
    Murray Darling Basin Fractured Rock

- Water Source
- Management Zone

Groundwater Sources 2020 Lachlan Fold Belt MDB Groundwater Source Lachlan Fold Belt MDB (Other) Management Zone

## 3. Impacts to watercourses

• The proposed water pipeline will cross minor watercourses on its current alignment. Works within waterfront land will need to be in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).

#### Post approval recommendations

• Works within waterfront land must be carried out to meet the requirements of the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).

# 4. General matters

#### Post approval recommendations

- The Water Management Plan be updated to reflect the additional disturbance areas, water management infrastructure and transfer requirements and relevant mitigating measures due to the modification project.
- The ability to accurately meter and monitor water take from surface and groundwater sources needs to be implemented with ongoing review of actual versus modelled predictions where relevant.
- The proponent must report on water take at the site each year (direct and indirect) in the Annual Review. This is to include water take where a water access licence is required and where an exemption applies. Where a water access licence is required, the water take needs to be reviewed against existing water access licences.
- The proponent must ensure sufficient water entitlement is held in a water access licence/s to account for the maximum predicted take for each water source prior to take occurring.
- The proponent must ensure that relevant nomination of work dealing applications for water access licences proposed to account for water take by the project have been completed prior to the water take occurring.
- The proponent must comply with the rules of the relevant water sharing plans.

# **END Attachment A**