

Our ref: OUT22/7739

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NSW Department of Planning and Environment
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14 July 2022

Subject: **McPhillamys Gold Project (SSD-9505) - second Amendment Report**

Dear Ms Mazaheri,

I refer to your request for advice sent on 9 June 2022 to the Department of Planning and Environment (DPE) Water about the above matter.

This project proposal is for the development of an open cut mine and water supply pipeline.

DPE Water has reviewed the second Amendment Report and requires additional information to quantify the maximum water take from the 4th order watercourse and its catchment downstream of the clean water diversion system. This information has not been provided in the Report and is needed to inform water entitlement requirements.

Our detailed advice on water take, surface water impacts, controlled activities on waterfront land, and water supply works is in Attachment A.

Please note that the licensing and approval function has now moved from NRAR to DPE Water. Should you have any further queries in relation to this submission please do not hesitate to contact DPE Water Assessments 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

Ph: 0429 894 056

Yours sincerely

A handwritten signature in blue ink, appearing to read "M Isaacs".

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

Attachment A

Detailed advice to DPE Planning & Assessment regarding the McPhillamys Gold Project (SSD-9505) - second Amendment Report

1.0 Water Take

1.1 Recommendation – Prior to Determination

The proponent should quantify the maximum water take from the 4th order watercourse and its catchment downstream of the clean water diversion system.

1.2 Explanation

Key amendments to the water licensing considerations proposed by the second amendment report include the following:

- The redesign of the Main Water Management Facility (MWMF) and Raw Water Management Facility (RWMF) on a 4th order watercourse as turkeys nest dams has removed a licence requirement for water take by these structures.
- The proposed clean water diversion system around the MWMF and RWMF has included 2 clean water dams totalling 4.6ML on minor streams. This capacity is within the proponents Maximum Harvestable Right.
- It is unclear if other infrastructure will capture water from the 4th order watercourse. The isolation of the MWMF and RWMF from catchment runoff has resulted in the need to confirm the water take from the remainder of the 4th order watercourse and its catchment that flows in a north west direction and is upstream of the TSF/MWMF/RWMF and downstream of the clean water diversion around the Waste Rock Emplacement. Therefore, there is still a large catchment area with infrastructure that may be taking water. This has not been included in the second amendment report.

2.0 Surface Water Impacts

2.1 Recommendation – Post approval

The watercourse monitoring and response strategy should include more detail for the design and monitoring of the final water diversion across the mine site. It should specify how the diversion will be designed to prevent erosion and instability in the channelised section and to provide for geomorphic processes to maintain channel integrity in the post mine life landscape.

2.2 Explanation

The following text in bold is the commitments made to watercourse monitoring by the proponent in the second amendment report. DPE Water requires further information to be included as requested below.

• **A watercourse monitoring and response strategy will be developed for the closure phase and will include:**

- **monitoring and remediation of the final water diversion, to maintain responsibility for watercourse structure and integrity until riparian vegetation is established;**
- **monitoring of streamflow, channel stability and water quality will continue for at least two years following completion of final water diversions;**

These measures apply to the mining footprint, industrial area, reject dumps and tailings facility. More detail is required for the design and monitoring of the diversion across the mine

site, as the proposed diversion design is an artificial straightened excavated drainage feature. It may be vulnerable to scour, incision or bank attack without protection. The commitment should specify how the diversion will be designed to prevent erosion and instability in the channelised section and to provide for geomorphic processes to maintain channel integrity in the post mine life landscape.

– provisions to extend monitoring period if objectives are not substantially met within the post closure monitoring period. Monitoring and maintenance periods will continue until vegetation is established and sediment transfer and channel geomorphic features are functioning.

This note to the watercourse monitoring and response strategy is acceptable once the design criteria for the diversion are agreed. Should objectives not be met within the post closure monitoring period then consultation with relevant agencies is recommended to ensure the remediation strategies are effective.

3.0 Controlled Activities on Waterfront Land

3.1 Recommendations – Post Approval

The proponent should ensure:

- the design and construction of the northern pipeline option is in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).
- works within waterfront land are in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).

3.2 Explanation

The proposed realignment of the northern pipeline includes an approximate 400m section where it runs parallel to and within close proximity to an unnamed 4th order watercourse. This alignment should be outside of waterfront land to be consistent with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).

Open trenching is proposed for the relocated pipeline crossing of Evans Plains Creek. This should be carried out in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).

The Guidelines can be found at: <https://water.dpie.nsw.gov.au/licensing-and-trade/approvals/controlled-activity-approvals/what/guidelines>.

4.0 Water Supply Works

4.1 Recommendation – Post Approval

The proponent should apply to DPE Water:

- for a water supply works approval for any new/additional groundwater supply works required to augment water supply not already referenced in the EIS or Amendment reports.
- for a water supply works approval for any on-going use of the borefield for water supply or other purpose(s) after the water supply pipeline is operational.

4.2 Explanation

Water Supply Works

Regis is in the process of finalising a registration of interest for an additional 300 unit shares in the Lachlan Fold Belt MDB Groundwater Source under the 2021 Controlled Allocation Order.

DPE Water's advice of the EIS 2019 recommended the borefield be included in the groundwater model for cumulative impact assessment. Subsequent to that advice, DPE Water's Amendment 1 advice informs that the borefield impacts were consolidated within the groundwater model which informs the groundwater impact assessment.

DPE Water has an interim policy regarding borefields associated with SSD applications. The interim policy states the following two positions:

1. Where the impacts of a borefield, bore or work used to supply water for consumptive purposes to an aquifer interference activity can be clearly separated from the impacts of the aquifer interference activity, the water supply works should be assessed under the same process as a water supply dealing. This principle applies even where both a water supply work/borefield and an aquifer interference activity, for example a mine, are contained in the same application.
2. Where the impacts of a borefield, bore or work used to supply water for consumptive purposes to an aquifer interference activity cannot be clearly separated from the impacts of the aquifer interference activity, these activities should be assessed together under NSW Aquifer Interference Policy.

As DPE Water's prior advice requested the impacts of the borefield be modelled and this was fulfilled, position 2 of the interim policy on SSD borefields applies. A further impact assessment via the groundwater trade process is not required. However, should any additional groundwater works not already referenced in the EIS or Amendment Reports be required to augment water supply, those works must obtain an approval from DPE Water and will be subject to an impact assessment carried out by DPE Water as per the groundwater trade process.

Ongoing use of the borefield

The borefield is presented as a temporary arrangement until the water supply pipeline becomes operational. It is inferred that the modelled groundwater impacts associated with use of the borefield extraction discontinue once the pipeline is operational. If there is to be continued use of the borefield after the water supply pipeline is operational, an updated cumulative impact assessment will be required. A condition of consent should prescribe that in the event continued use of the borefield is required post construction of the pipeline, the proponent is required to lodge an application with DPE Water and may be subject to the groundwater trade process assessment criteria.

End Attachment A
