



OUT21/9450

Rose-Anne Hawkeswood
Planning and Assessment Group
NSW Department of Planning, Industry and Environment

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Dear Ms Hawkeswood

**Bowden's Silver Project (SSD-5765)
Response to Submissions (RTS)**

I refer to your email of 13 July 2021 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

Bowdens Silver Pty Ltd proposes to mine epithermal silver, lead and zinc deposits hosted in the Rylstone Volcanics. The proposed open mine is located approximately 2.5 km northeast of Lue and 26 km southeast of Mudgee, NSW.

DPIE Water and NRAR have reviewed the RTS and still have remaining concerns regarding the water take and works on waterfront land. The groundwater model recommendations made during the Environmental Impact Statement (EIS) exhibition have been satisfactorily addressed.

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

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

Yours sincerely

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

Mitchell Isaacs
Chief Knowledge Officer
Department of Planning, Industry and Environment: Water
13 August 2021

Attachment A

Detailed advice to DPIE Planning & Assessment regarding the Bowden's Silver Project (SSD-5765) Response to Submissions (RTS)

The RTS provided by the proponent relates to the following DPIE Water/NRAR advice:

- DPIE Water response - Bowden's Silver Project (SSD 5765) – EIS (OUT20/6406)
- DPIE Water response - Bowden's Silver Project (SSD 5765) Response and Proposed Approach to DPIE-Water Peer Review (OUT20/13899)

1.0 Water Take

1.1 Explanation

Adequate information has been provided in the RTS to address NRAR's recommendations at the EIS stage in relation to revising the low runoff scenario, the status of a borefield, the conveyance of flows through the Southern Barrier and holding sufficient entitlement to account for water take in the Lawsons Creek Water Source during operations.

The revised low runoff scenario identified the requirement for a 9.8% increase in water supply from external sources from 361ML/annum to 400ML/annum. This highlights the significant role of external water supply for this project. The RTS indicated that discussions continue to finalise a commercial agreement to access a water supply from Ulan coal mine. As the agreement is yet to be finalised this remains a risk to the project.

As the proponent is yet to confirm completion of necessary processes with Land Registry Services (LRS) to obtain the water entitlements sought under the Controlled Allocation Order (CAO), access to this entitlement in the relevant water sources is yet to be confirmed. Once these processes are completed the proponent will hold sufficient entitlement to account for the peak predicted water take of the project.

The proponent needs to be aware that as the surface water take predictions for the Tailings Storage Facility were based on an 80th percentile wet year, there is the potential for wetter years to occur, and any water take above that predicted would need to be accounted for.

Insufficient information has been provided on the proposal to redirect catchment runoff into the void at mine closure to enable confirmation of potential water licensing requirements. The RTS has acknowledged the need to ensure the water take is consistent with licensing requirements which is supported. The ability to account for the surface water take where required will be critical in understanding the viability of the proposal to reduce the time for the pit lake to reach equilibrium, and to confirm any changes to predicted groundwater and surface water impacts after mine closure. Whilst it is understood this proposal would be further investigated near mine closure it is recommended further consideration be given now of how it fits within the water regulatory framework.

1.2 Recommendations

Prior to Determination

- Finalise agreements with external water supply providers to ensure adequate water supply can be made available when required. It is recommended this include consideration of options if the project approvals for these mines lapse during the life of this project.
- Provide further detail on the proposed sources and volumes of water to reduce the time for the pit lake to reach equilibrium after mine closure. The ability to obtain any water entitlements should be demonstrated.

Post Determination

- A Water Management Plan should be developed to address construction and operation stages of the project. Key elements will include a Sediment and Erosion Control Plan, Site Water Balance, Monitoring and Reporting and a Contingency Response Plan.
- The proponent should develop a water balance to measure actual water take from surface and groundwater sources, this should include accurate metering where possible. The water balance should be used in ongoing reviews of actual versus modelled water take and impact predictions. This will be a key component to confirm impact predictions, the adequacy of mitigating measures and compliance for water take.
- 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 obtain relevant authorisations to change the Water Access Licences proposed to account for water take by the project to nominate the project site prior to the water take occurring.
- The proponent should be aware of the rules of the relevant water sharing plans and how they may impact the project and ability to trade or take water.

2.0 Works on Waterfront Land

2.1 Explanation

Inadequate information has been provided to address the recommendation to provide a bridge design for the proposed crossing of Lawsons Creek. The proponent has justified the original culvert design based on comparing flood impacts with existing structures which is inadequate to meet the requirements of the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018). The predicted impacts to the hydraulic and hydrological characteristics due to the proposed culvert for the 1 in 10 yr and higher flood events are not supported by NRAR. Further to previous comments provided at the EIS stage, the modelling predictions indicate the proposed culvert will lead to reductions in peak velocities both upstream and downstream of the culvert for all modelled events. This represents a potential impact to the role of flood events in performing channel flushing, which is important to maintain ecological health.

2.2 Recommendations

Prior to Determination

- The proposed box culvert crossing of Lawsons Creek should be redesigned to a bridge structure. This is to ensure consistency with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018).

Post Determination

- The design, construction and management of works within waterfront land need to be in accordance with the "Guidelines for Controlled Activities on Waterfront Land (NRAR 2018)". Vegetated buffers to third order and higher watercourses are to be a minimum of 40m from the high bank.

3.0 Price Creek Channel

3.1 Recommendation – Post Determination

- NRAR notes the proponent proposes to consider measures to reinstate a channel within Price Creek to mitigate impacts on flow velocities due to the Waste Rock Emplacement. Any such measures would require comprehensive design and rehabilitation to meet natural stream design criteria and so achieve channel stability and long term ecological functioning.