

WATER RESOURCES HANDOUT

BACKGROUND

An optimisation study was recently completed resulting in the identification of design opportunities to increase the efficiency of mining and processing operations, as well as increase the recycling of water on-site (with the addition of a water treatment plant). These changes would consequently reduce the estimated make-up water demand requirements for the Project.

Further, the optimisation study identified the opportunity to increase water supply security for the Project by diversifying the approved water supply sources to include licensed extraction from the Lachlan River when the opportunities arise.

WATER MANAGEMENT ASSESSMENT

A Water Management Assessment for the Modification was undertaken by Golder Associates to assess potential surface and groundwater impacts associated with the Modification.

Recycling and Reuse of Water On-site

The addition of a water treatment plant to the processing facility would allow for recycling of process water on-site. This is expected to reduce the make-up water **demand by approximately 50%**.

Increasing Water Supply Security

A pump station would be constructed near the Lachlan River to extract surface water station for transfer to the mine site. For the purposes of assessment, Clean TeQ is seeking approval for up to approximately 350 ML/year surface water extraction from the Lachlan River.

As all extraction from the Lachlan River would be conducted in accordance with the licensed entitlements and the rules in the water sharing plan, impacts to the Lachlan River water resource are not anticipated to be of any significance, as licensed water extractions are regulated by upstream releases from Wyangala Dam.

Other Considerations

The Modification would not increase the extent of the approved surface development area and approved site water management concepts would remain unchanged. Therefore, no significant change to the approved Project impacts on surface water resources in the vicinity of the mine site are expected.

Tailings Storage Facility Seepage Analysis

Updated seepage modelling has been used to evaluate the potential impacts of the proposed changes to the tailings storage facility on groundwater resources. No changes are however proposed to the approved tailings storage facility seepage design criteria.

The potential impact to groundwater quality would be very low. Based on the updated tailings storage facility seepage modelling, beyond 400 m from the mine site boundary, the potential impact to groundwater quality would be negligible.

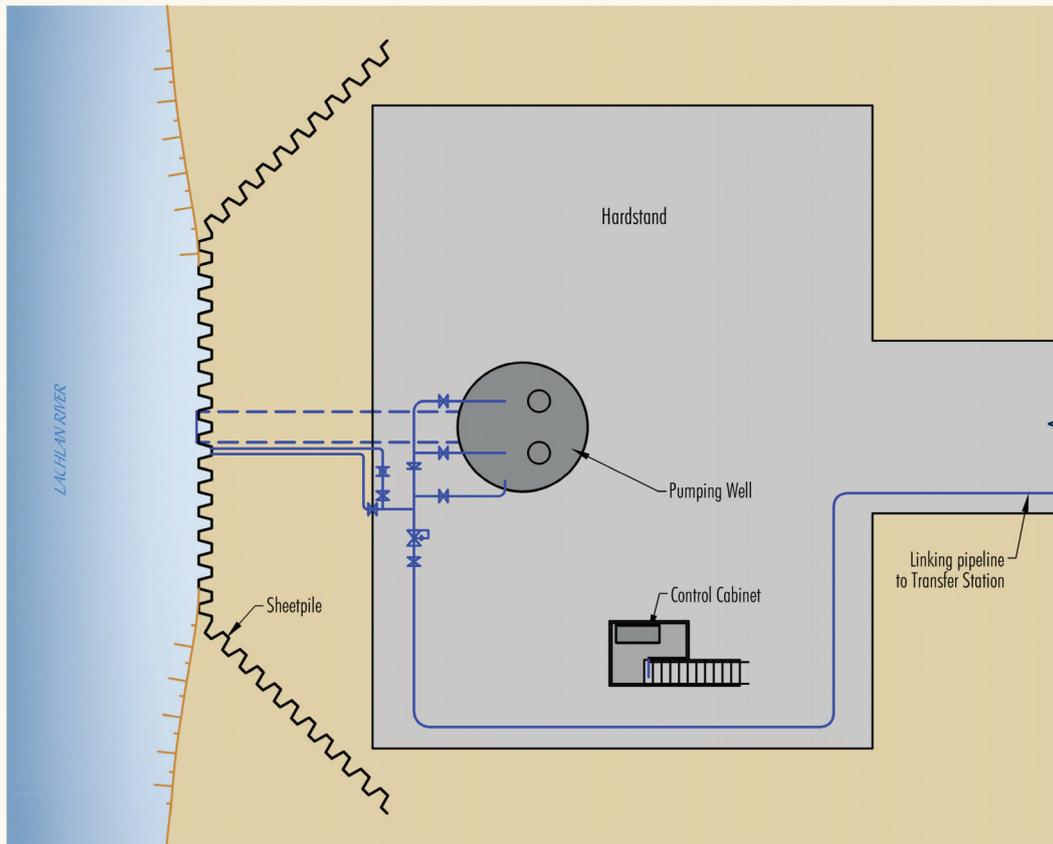
The nearest registered groundwater user with recorded information is located approximately 7 km from the site, therefore no groundwater quality impacts on groundwater users are predicted due to seepage.

Groundwater Borefields and Licensing

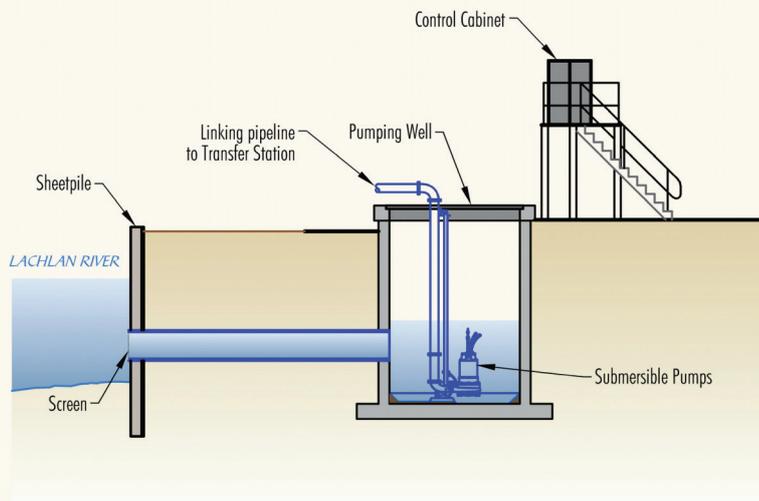
There are no changes proposed to the approved extraction from the groundwater borefields, therefore the approved groundwater impacts remain unchanged. Clean TeQ currently holds a WAL (3,154 shares) in the Upper Lachlan Alluvial Groundwater Source.

WATER MANAGEMENT PLAN

The Water Management Plan (including the three sub-plans: Water Balance; Surface Water Management Plan; and Groundwater Management Plan) would be developed in consultation with the DPI-Water and the EPA for the modified Project.



PLAN



ELEVATION

Not to Scale

Source: Clean TeQ (2017)