

Macraes Phase 4

FRESHWATER

OVERVIEW | ECOLOGY | ECONOMICS | **FRESHWATER** | LANDSCAPES | AIR QUALITY | BLASTING & VIBRATION
| NOISE | TRAFFIC | CLOSURE

OceanaGold has an existing well-established water quality monitoring regime on and around the Macraes mine site. The Company has engaged independent experts to model the likely effects of MP4 on water quantity and quality for surrounding surface and ground water, and the aquatic ecology in the streams around the mine.

The proposed activities associated with MP4 would be managed to comply with existing instream water quality consents as a minimum. Water quality management activities would continue. These include:

- Ongoing monitoring to confirm surface and ground water model projections and to identify and track changes in downstream water quality, and ecosystem health.
- Incorporation of Trigger Action Response Plans (TARP) in site water management plans to adaptively manage changes in expected in-stream water quality.
- Ongoing refinement of waste rock stack construction methods to improve seepage water quality.
- Capture, diversion and controlled release of contaminated water to minimise environmental effect in nearby catchments.
- If required, construction of already authorised freshwater dams on Camp and Coal Creeks. These will provide a source of dilution water to manage levels of key contaminants such as sulphates and nitrates.
- Researching active and passive water treatment systems and trialling those with merit, so that suitable methods for the site have been tested and can be implemented for the post closure period, if required.

This is a summary of the information available in the Assessment of Environmental Effects (AEE).

A full copy of the AEE and supporting documents will be available on the OceanaGold Macraes website following lodgement to councils. www.oceanagoldmacraes.co.nz/mp4

