

Waihi North Project

WATER MANAGEMENT

OVERVIEW

If the Waihi North Project is approved, we will be required to comply with consent conditions for water management granted by the Waikato Regional Council. Under the conditions of those consents, OceanaGold Waihi expects a requirement to submit a Water Management Plan that sets out procedures for managing, monitoring, treating, and discharging water.

Our current water management systems are designed to capture and treat all water impacted by mining activity, with a priority to first divert clean water where practicable. While some water is reused as process water for operations, there is always more water discharged than taken on site.

WATER TREATMENT

The capacity of our existing Water Treatment Plant (WTP) will be upgraded if the Waihi North Project is approved. This upgrade is required to treat the increased volumes of groundwater from the Wharekirauponga Underground Mine and the associated expansion of the mine footprint.

The volume and quality of water that can be discharged from our WTP is limited to an allowable discharge which is related to the flow in the river. The quantity and quality of additional water associated with the Waihi North Project can be treated and discharged within the constraints of our existing resource consents.

No increased take from the Ohinemuri River for process use would be required for the Waihi North Project.

KEY EFFECTS

WHAREKIRAUPONGA UNDERGROUND MINE

We recognise the significance and sensitivity of the Wharekirauponga area and its ecology. In order to mine the Wharekirauponga ore body, we would need to complete standard dewatering works around the mine, as we currently do in our other underground operations. We have engaged leading experts to undertake hydrologic and hydrogeologic testing and analysis to understand what effects, if any, might occur from the proposed dewatering of the orebody.

OceanaGold Waihi is committed to ensuring that our proposed underground mining operations will not impact on shallow groundwater systems and surface water bodies in the Wharekirauponga catchment. To meet this commitment, OceanaGold Waihi will use industry-standard groundwater control and management measures. These are likely to include a combination of the following:

- Monitoring using qualitative and quantitative methods, including water sampling, pore pressure and mine inflows monitoring.
- The development of three dimensional modelling to assess potential impacts prior to mining and establish any necessary controls at the time of mining to ensure appropriate mitigation is applied.
- Probing to establish boreholes ahead of workings to detect water bearing structures.
- Where required, pre-development grouting of declines and drives.

OceanaGold Waihi will develop a Groundwater Management Plan. This plan will need to be approved by Waikato Regional Council and will be key to OceanaGold Waihi's continued commitment to responsible mining. Water entering the Wharekirauponga mine that is not recycled within the underground operation would be pumped to the existing OceanaGold Waihi WTP.

This water would then be treated to ensure we continue to meet strict water discharge conditions prior to release.

WHAREKIRAUPONGA UNDERGROUND ACCESS TUNNEL

OceanaGold Waihi expects to encounter some water inflows during the development of the Wharekirauponga Underground Access Tunnel, which consists of the Interconnecting Ore Transportation Tunnel between our Processing Plant and the Willows Road Portal, as well as





the Dual Decline Orebody Access Tunnel from the Willows Road Portal to the Wharekirauponga resource.

Water inflows not recycled within the mining operation will be pumped to the existing WTP. Dewatering will be confined to the lower water table as per our existing operations in Waihi. Due to this, no impacts to bores or the higher water table will occur.

GLADSTONE OPEN PIT

The Gladstone Pit will not be fully dewatered by the existing underground mines. Some dewatering would be required to lower groundwater and manage pit wall runoff from rainfall events. This water would be treated using the existing WTP. Small settling ponds, silt fences, and diversion drains would also be built around the pit in order to contain the discharge of sediment to watercourses.

Mining the Gladstone Pit will affect the shallow groundwater within the surface of Gladstone Hill and interrupt an intermittent seep on the hill's southern flank. The natural fluctuation of water levels in downstream wetlands will not be altered by the interruption of the seep.

TAILINGS STORAGE FACILITY 3 (TSF3) AND THE NORTHERN ROCK STACK (NRS)

TSF3 and the NRS will affect some watercourses, spring-fed seepages, and small low lying wet areas.

During the initial foundation works for TSF3 and the NRS, silt control will be implemented to avoid silt laden water discharging to waterways. Infrastructure to pump this water to the existing WTP will also be constructed.

Construction of TSF3 would involve building an uphill cleanwater diversion drain, and perimeter drains to capture stormwater runoff. For operations, fully lined silt collection ponds will be constructed in the lowest area of the TSF3 site. It is anticipated that runoff collected in the ponds will be pumped to the WTP.

MONITORING

Baseline studies of the water quality and aquatic biology of the Ohinemuri River and its tributaries commenced in 1981. Monitoring of waterways, particularly the Ohinemuri River and its tributaries are an important part of our operation.

Extensive water monitoring carried out on-site includes:

- WTP discharge monitoring.
- River water and aquatic biology.
- Runoff from pit walls.
- Mine dewatering.
- Collection pond water.
- Silt pond water.
- Individual drains around the waste rock embankments.

This data is integral to the daily management of our site. It can affect, for example, decisions made about water types to be treated through the WTP. While much of the monitoring is required by our consent conditions, regular monitoring is recognised as being good practice. It allows the formation of a database so that trends can be monitored, and any unusual results can be investigated.

A similar extensive programme of water quality monitoring will be proposed to operate throughout the term of the Waihi North Project, and beyond. If approved, this monitoring programme will be incorporated into a number of management and monitoring plans that would need to be approved by Waikato Regional Council.





MANAGEMENT MEASURES

OceanaGold Waihi will continue to implement site water management processes which have been effective over 30 years' of operation, including:

- Diverting natural water away from areas disturbed by mining activities wherever practicable.
- Directing all water from areas disturbed by mining activities to appropriate collection and treatment facilities prior to discharge off-site.
- Endeavouring to reduce the volumes of water requiring treatment.
- Disturbed areas being progressively rehabilitated at the earliest practicable time to minimise silt losses and improve runoff water quality.

Approval would be sought from Waikato Regional Council to direct discharge water once monitoring confirms that this is appropriate.

CONCLUSION

If the Waihi North Project is approved, we will be required to comply with consent conditions for water management granted by the Waikato Regional Council.

For over 30 years' of operation, OceanaGold Waihi has effectively managed water on site. In 2021, we safely discharged 3.5 million cubic metres of water, meeting our consent requirements with water quality being assessed by independent laboratories.

If the Waihi North Project is approved, management and monitoring plans will be prepared that cover all relevant water management consent requirements and other water-related matters pertaining to our operation.

The purpose of these plans will set out:

- Water management objectives.
- Descriptions of the water management system that will be applied across the site to meet the water management objectives.
- Priorities.
- Planned improvements where appropriate.
- Monitoring and reporting requirements.
- Contingency plans.

These documents would need to be approved by Waikato Regional Council and peer-reviewed regularly.

We recognise the significance and sensitivity of the Wharekairauponga area and its ecology and have engaged leading experts in the creation of our Water Management Plan.

Following further investigations, management and monitoring plans will be prepared that cover all relevant water management consent requirements and other water-related matters pertaining to our proposed operation.

INFORMATION ACCURATE AS AT JUNE 2022

IF YOU HAVE AN IDEA, CONCERN OR QUESTION, WE WANT TO HEAR FROM YOU.

You can contact us via our website; waihinoth.info or visit our Project Information Office; **86 Seddon Street, Waihi.**

Our Free Community Engagement Line **0800 924 444** is available 7 days.