This Update is a regular advertising feature provided by OceanaGold Waihi Operation

16 March, 2017

THE BIG WET

When we get significant rain events like those we have had over the last week which cause slips and flooding throughout the region, we often get asked how the mine site copes with such large volumes of water. This Update features information we published last year in response to the same question.

The mine site is designed and constructed to cope with significant rain events.

Tailings Impoundment

The tailings impoundments operate with a freeboard of just over three metres, this is the distance between the water level and the crest of the impoundment. If required, the water from TSF1 can be pumped to the Water Treatment Plant. Water from TSF2 is allowed to be discharged into the river.

Collection PONDS

The collection ponds are designed to contain any stormwater runoff. The ponds are large, and have the capacity to contain the volume of run-off generated from within their catchments during a ten year return period, 72-hour duration storm taking into account a combination of both storage volume and pumping rate.

The collection ponds are allowed to overflow beyond the 'ten-year storm' event, but in doing so they must meet water quality standards within the Ruahorehore Stream.

The quality of the collection pond water has significantly improved since the commencement of construction in the late 1980s. There are two reasons for this. Firstly, we add limestone to the waste rock which improves the quality of the stormwater runoff. Secondly, much of the impoundment embankment has now been planted in pasture.

As a result, the site has gained approval from Waikato Regional Council to discharge water from three of its collection ponds to the Ruahorehore Stream without treatment, subject to conditions. Probes are installed within the ponds to measure the pH and turbidity of the water, as well as temperature, electrical conductivity and pumped flow rates. Provided that the water is 'in spec' it can be discharged. If the water is 'out of spec' it is sent to the Water Treatment Plant.

Silt PONDS

Silt ponds collect runoff from operational areas that may carry suspended solids such as clays or soils which cause turbid or cloudy water. They are similar to the ponds that you see at other construction sites and subdivisions around New Zealand. Under normal conditions suspended solids settle in the ponds by gravity, the water is discharged to the river if it meets the consent criteria, and the silt is removed from the pond over summer.

In events greater than a 'two-year storm' the silt ponds will overflow, however the ponds must not allow more than a 10% increase in suspended solids compared with what is already flowing down the river from upstream. In addition, discharges from the site must not cause an adverse effect on the river, as determined by a comprehensive water and biological monitoring programme.

RIVER MONITORING PROGRAMME

The site is designed and managed to ensure that any discharges either alone or in combination do not cause adverse effects on the Ohinemuri River. Monitoring of the Ohinemuri River and Ruahorehore Stream is carried out regularly and includes water and sediment quality monitoring and biological monitoring.

PROCESS PLANT

Significant flooding of the Ohinemuri River can sometimes mean that the main access to site via Baxter Road is flooded and the alternative entrance from Barry Road must be used. There are no other effects at the plant.

WHO checks our performance

Regulatory authorities Waikato Regional Council and Hauraki District Council monitor site operations to ensure that the environmental conditions set out in the various consents and licences are being met. In addition, Peer Review Panels and consultants engaged by the regulatory authorities provide a further independent check.

The OceanaGold Waihi Operation community engagement line is attended 24 hours a day, seven days a week. Contact the Company Liaison Officer, Donna Fisher.

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