

Summary statement by Debbie Clarke, 31 August 2023

- 1 My name is Debbie Clarke. I have worked in a variety of roles at Macraes Mine since 1996, and I am currently a Senior Environmental Advisor. In this role I am responsible for a variety of site environmental related matters including monitoring, consent compliance, and reporting.
- 2 The Macraes mine has operated since 1989 and the Macraes goldfield is a world class mineral resource. The company holds more than 200 resource consents for the Macraes mine with the majority of these granted by the Otago Regional Council.
- 3 Mining is locationally constrained, which means that it needs to be located where the mineral deposits are found. Often the ore can be found alongside naturally occurring surface and groundwater. This means a necessary part of mineral development involves diversions and dewatering to provide access to minerals, and also to separate clean water from contact with ground disturbed by mining activities as much as possible to protect water quality.
- 4 Freshwater is essential for ore processing. OceanaGold has a permit to take water from the Taieri River at up to 200 litres per second, however due to infrastructure limitations the take is only around 85-90 litres per second. This water is pumped to OceanaGold's Lone Pine Reservoir where water is stored, to ensure there is a secure supply of freshwater, and then supplied to the processing plant and also used for staff and contractor showers and toilet facilities. Between 80 and 90% of the water used in the Processing Plant is recycled from the tailings water.
- 5 Water is also used at Macraes Mine as a dust suppressant, on haul roads, other earthworks area and on the tailings impoundments.
- 6 There are over 150 monitoring sites at Macraes Mine. Some are monitored for consent compliance, however there are additional sites which OceanaGold monitors for its own records. Monitoring is monthly at most sites with some additional parameters monitored quarterly.
- 7 Attached to my evidence is a report by aquatic ecologist Dr Greg Ryder. He is very familiar with the mine and has been undertaking monitoring for many years. Dr Ryder has been unable to find any evidence that Macraes mining activities in the headwaters of tributaries of the Shag/Waihemo, Taieri or Waikouaiti rivers are adversely affecting ecological values further downstream. He says that the mine's footprint is still relatively small compared to the sizes of these catchments, and the cumulative effects of the various land use activities in the catchments remain the dominant force affecting water quality, hydrology and downstream ecology.