



# Mount Polley Mining Corporation

an Imperial Metals company

Box 12 Likely, BC V0L 1N0 T 250.790.2215 F 250.790.2613

## July 2016 Update

Mount Polley Mining Corporation (MPMC) in cooperation with Minnow Environmental Inc (Minnow) are conducting an on-going aquatic environment survey through the spring, summer and fall of 2016. The spring survey included fish studies in Polley Lake and its inlets, and fish habitat characterization and occupancy studies in lower Edney Creek.

The study in Polley Lake concentrated on fish population sizes of rainbow trout and existing spawning habitats. The crew from Minnow implemented a mark-recapture approach using a Visible Implant Elastomer (VIE) (Figure 1), and a hydroacoustic tag that were inserted (Figure 2) to identify the rainbow trout as they move throughout the lake. The VIE is a silicon based material that is injected as a coloured liquid in clear or semi-transparent tissue (such as behind the eye) and cures into a pliable, non-toxic solid. The hydroacoustic tag is a small coded transmitter that is surgically implanted into the belly of the fish. The pulse of the each transmitter is unique and is detected by scattered submerged acoustic telemetry receivers via series of pings.



Figure 1. Rainbow trout with an orange coloured VIE tag behind its right eye

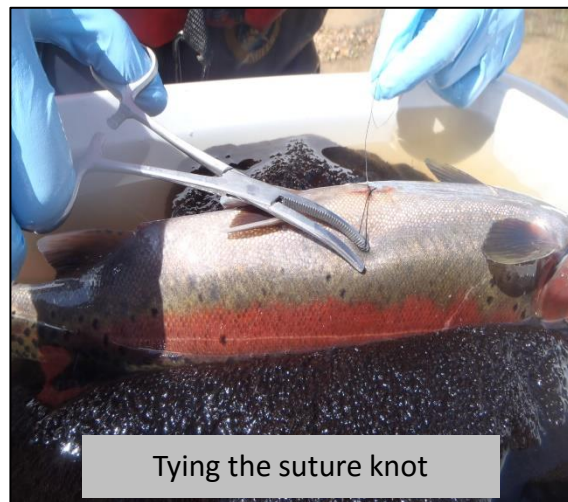
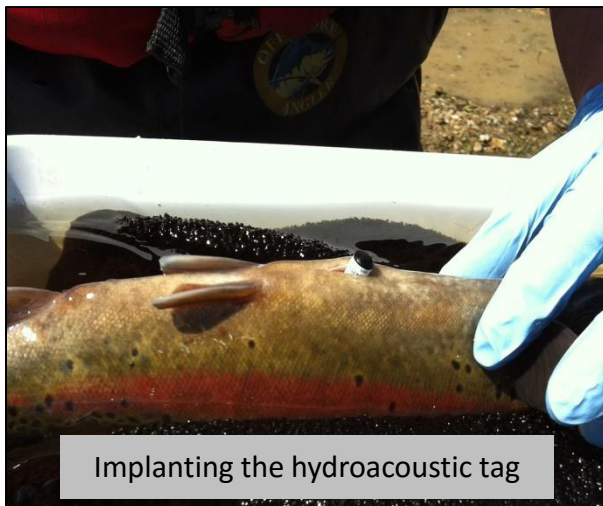


Figure 2. Field surgery on a rainbow trout at Polley Lake

Three receivers were placed at strategic locations in Polley Lake near the mouths of Frypan Creek, Hazeltine Creek and Bootjack Creek. The transmitter tags were surgically implanted into sexually mature rainbow trout (10 females and 10 males) to track the movements of these individual fish looking to spawn and identify any flexibility in their spawning behaviour. Concurrently, multiple hoop-nets were set in the south side and north side of the lake. The rainbow trout caught on the south side were marked behind one of their eyes with a VIE and the fish caught on the north end were marked behind the opposite eye. The Minnow crew will be then able to identify which end of the lake the fish was tagged when it was caught and track its potential spawning movements throughout the study.

In Edney Creek, spring hydrological profiles and riparian assessments were reviewed for fish productivity. This included documenting flow conditions, spawning habitat, bank conditions, water quality and any potential constraints for fish (with summer and fall habitat assessment continuing in August and September respectively). Fish usage is being continuously monitored; in spring and early summer, bi-weekly minnow traps were set in the creek above and below the Ditch Road Bridge over Edney Creek for a 24 to 48 hour period. They were then retrieved and any of the fish caught were identified and released as described in the graph below (Figure 3). Fish collections will also be conducted in conjunction with the habitat assessments in August and September.

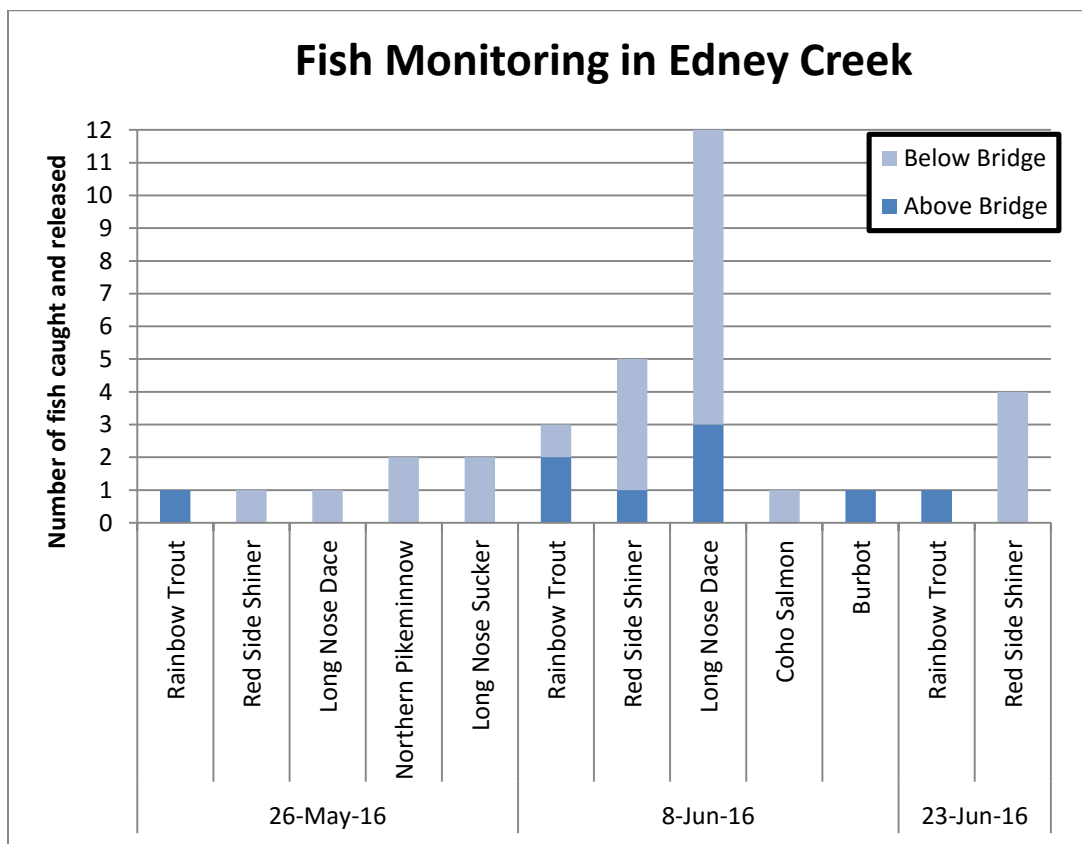


Figure 3. Species and number of fish caught in Edney Creek during the spring monitoring project.

The Post-Event Environmental Impact Assessment Report was released on June 21, 2016. To view , see [https://www.imperialmetals.com/assets/docs/mt-polley/2016-06-03\\_1411734-124-R-Rev0-10000.pdf](https://www.imperialmetals.com/assets/docs/mt-polley/2016-06-03_1411734-124-R-Rev0-10000.pdf)