



Mount Polley Mining Corporation

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As rehabilitation work continues, Mount Polley Mining Corporation (MPMC) is committed to minimizing the impact of construction along upper Hazeltine Creek. During this past spring, the Polley Lake Flats area (Polley Lake outlet) surrounding the creek became prime spawning habitat for amphibians. In accordance with the *Wildlife Act*, MPMC has contracted Golder Associates Ltd. (Golder) to obtain the necessary permit and lead the salvage of particular species.

The permit, issued by the Ministry of Forests, Lands and Natural Resource Operations (FLNRO), authorizes the live capture, temporary possession, transport and release to nearby appropriate habitat of the Wood Frog (*Lithobates sylvaticus*), Western Toad (*Anaxyrus boreas*), Pacific Tree Frog (*Pseudacris regilla*), Columbia Spotted Frog (*Rana luteiventris*) and Long-toed Salamander (*Ambystoma macrodactylum*). All individuals from the permitted species list in the salvage area are properly documented before they are relocated and proper hygiene protocols are followed by field staff to minimize any risk of transmitting disease between sites and animals.

Golder identified, catalogued and isolated (by sediment fencing) the ponds containing tadpoles. Nets were used to capture swimming tadpoles and other specified amphibians that were spotted in the Polley Lake Flats. The relocation took place at a similar habitat (not affected by the breach event) southwest of the Polley Flats area (Figure 4). The Western Toad was the dominant species encountered; the life-stages varied, however the majority were in the tadpole phase (Figure 1). Some Long-toed Salamanders and Columbia Spotted Frogs in different life stages were also relocated (Figure 2). No Wood Frogs nor Pacific Tree Frogs were identified in the area.

Western Toad

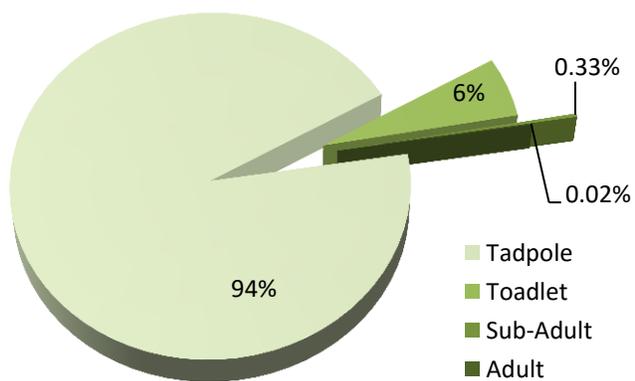


Figure 1. Percentage of Western Toads at various life stages that were relocated.

Species Relocated

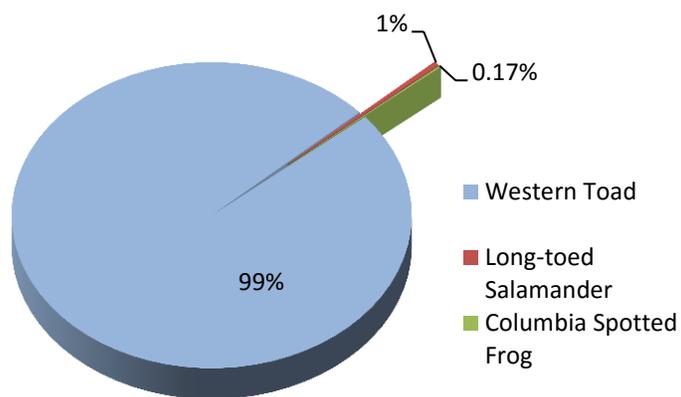


Figure 2. Percentage of Western Toad, Long-toed Salamander and Columbia Spotted Frog relocated from Polley Lake flats to a similar habitat.

The salvage was the combined effort between Golder biologists, MPMC Environmental Department staff and First Nations assistants. Tadpole netting in June lasted for thirteen days and totaled approximately 150 hours. Groups of two to five amphibian salvage workers were on hand daily, depending on availability. On average, 3,400 amphibians were caught per day like the one in Figure 3. Each pond had a designated bucket: once the amphibians were captured, they were placed in the specified buckets, covered and kept in a cool place until it was time to relocate them. Adults and tadpoles were kept separate.

To calculate the amount of tadpoles, Golder implemented a grid system. Before releasing the amphibians into their new habitat, each bucket was poured into a container with a marked grid containing a known amount of squares. An average of tadpoles was taken by counting how many roughly occupied the squares. In addition to the total number, species, life stage and overall health (eg. abnormalities, mortalities) were also noted.

As of the end of July, some ponds still contain emerging toadlets. Daily monitoring and relocating of these amphibians is still ongoing.

The upper Hazeltine Creek remediation project is focusing on adding fish habitat and spawning features to allow future use of the creek by Polley Lake fish. Work underway includes rebuilding and recontouring to create additional meanders and installation of features such as spawning gravels, riffles, pools, and woody covering. The approximate completion of this project is expected to be mid-September 2016.



Figure 3. A salvaged Columbia Spotted Frog tadpole



Figure 4. Amplexus Western Toad pair in new habitat (foreground); Western Toad tadpoles swimming (background)

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