

## B.C.'s Environmental Assessment Act Update

In July 2017, the Minister of Environment and Climate Change Strategy (ENV) was directed to revitalize the Environmental Assessment (EA) process “to ensure the legal right of First Nations are respected, and the public’s expectation of a strong transparent process is met.”

Changes to B.C.'s EA process are focused on:

- Enhancing public confidence by ensuring impacted Indigenous Nations, local communities and governments and the broader public can meaningfully participate in all stages of environmental assessment through a process that is robust, transparent, timely and predictable;
- Advancing reconciliation with Indigenous Nations; and
- Protecting the environment while offering clear pathways to sustainable project approvals by providing certainty of process and clarity of regulatory considerations including opportunities for early indications of the likelihood of success.

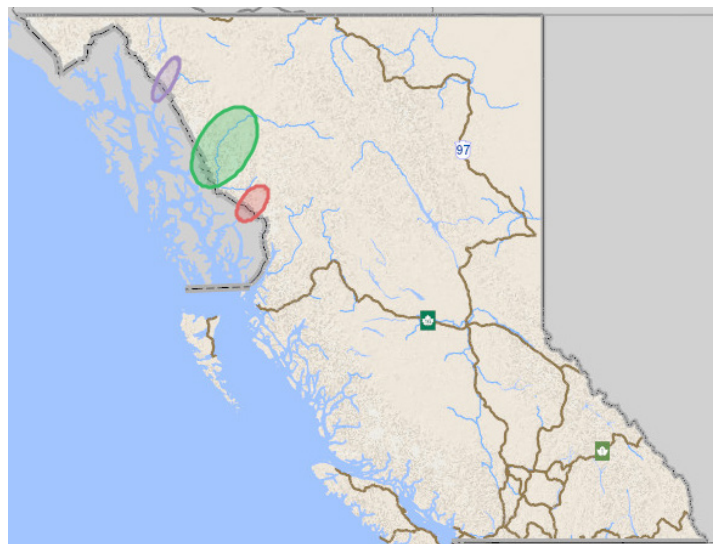
Following an extensive engagement process, a new *Environmental Assessment Act* was passed in fall 2018. In 2019, the Environmental Assessment Office has been further engaging on the development of policies and regulations to support implementation of the new Act. It is anticipated that the new EA process will be implemented in fall 2019.

For more information about the new *Environmental Assessment Act* please visit the following website: [www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments/environmental-assessment-revitalization](http://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments/environmental-assessment-revitalization)

## Building Relationships and Transboundary River Monitoring (B.C. Update)

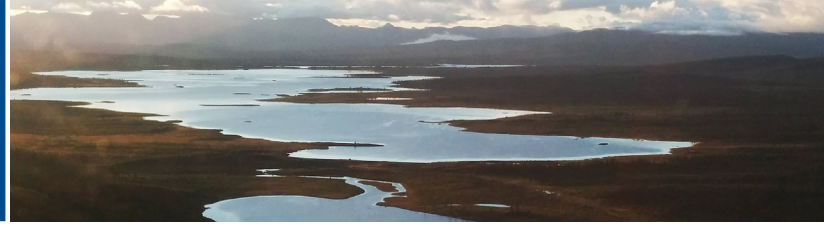
Staff from B.C. and Alaska provincial/state agencies developed the Joint Water Quality Monitoring Program for Transboundary Waters. As part of this program, B.C. ENV biologists have been monitoring in the Taku, Stikine and Unuk watersheds in cooperation with the Taku River Tlingit First Nation (TRTFN) and the Tahltan Central Government (TCG) since 2017. The Taku and the Stikine watersheds are located within the traditional territories of the Tlingit and Tahltan Indigenous peoples and the Unuk watershed is located within the traditional territories of the Tlingit, Tahltan, Tsetsaut Skii Km Lax Ha and Haida Indigenous peoples.

ENV staff are working with State of Alaska colleagues to report out on results of the monitoring completed by both jurisdictions, as part of the two-year coordinated aquatic environmental monitoring program.



B.C. monitoring site locations. Red circle denotes the Unuk River, Green Circle denotes the Stikine River and purple represents the Taku River.

# TRANSBOUNDARY WATERS 2019



*Lisa Torunski (ENV) and Kindra Maricle (FLNRORD) with Brianna Tashoots, Tahltan Wildlife Guardian*

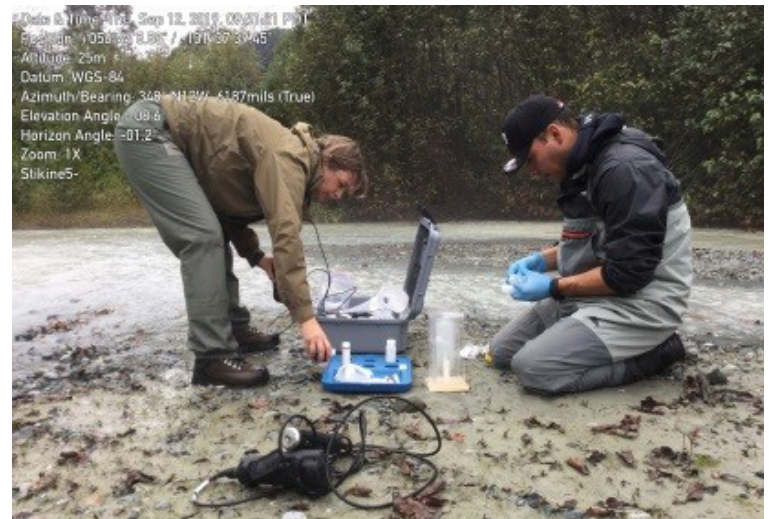
The focus of the monitoring program is to characterize the overall health of the watersheds and monitor for impacts from mining operations and other industrial development by examining water quality, sediment quality, benthic invertebrate tissue chemistry, and fish tissue chemistry.

The project team would like to acknowledge and thank the staff and managers within ENV, B.C. Forest, Lands and Natural Resource Operations and Rural Development (FLNRORD) and external partners from the TRTFN and the TCG, for their assistance as the equipment, staff and logistical support received were invaluable to the program's success.

First Nation Wildlife Guardians rendered their assistance and were trained to facilitate quarterly water quality sampling at remote locations of northwestern B.C. To support the involvement and information requests of FLNRORD Fisheries staff, the goal of the fish sampling component was expanded to include the collection of DNA samples and/or otoliths from any Dolly Varden captured.

These collaborative field trips were excellent opportunities to build cooperative working relationships and the contacts and conversations resulted in a greater awareness of the mandates of each organization. The partnership provided participants with a deeper understanding and appreciation for the distinctions and similarities between the various approaches being employed to monitor, protect and preserve various facets of the natural environment.

We look forward to future opportunities for collaboration as we continue to foster these relationships.

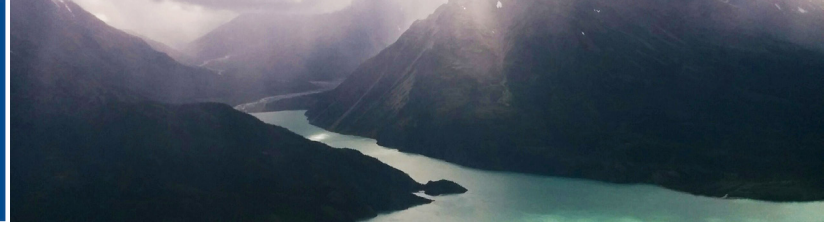


*Lisa Torunski (ENV) and Tahltan Wildlife Guardian, Clements Brace*



*Jackie Caldwell (TRTFN), Lisa Torunski (ENV), Kindra Maricle (FLNRORD) on the Taku River*





## Water Sampling in the B.C.-AK Transboundary Watersheds (AK Update)

Another successful year of water quality sampling is wrapping-up in the transboundary watersheds between AK and B.C. In spite of wildfires, extreme drought in southeast AK, and August snow storms in B.C. both agencies have completed their respective sampling efforts. This summer's field work compliments additional work outlined in the Joint Water Quality Monitoring Program for Transboundary waters - a two-year coordinated aquatic environmental monitoring program.

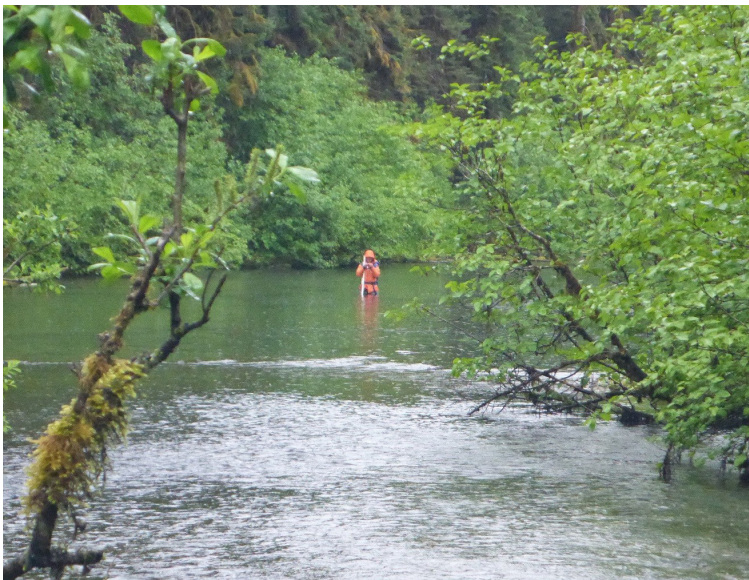
The Alaska Department of Environmental Conservation (ADEC) has led three surveys in Southeast Alaska since 2017. Lakes were surveyed in 2017, rivers in 2018, and this summer a survey of streams was completed. Data collected in all surveys include: water chemistry, sediment chemistry, biological indicators (fish and macroinvertebrates) and physical habitat measurements. Throughout all three surveys ADEC and B.C. have



discussed parameters and methodologies to ensure sample results are comparable. Additionally, all three ADEC surveys are part of the U.S. Environmental Protection Agency's National Aquatic Resources Surveys (NARS). NARS provides funding, training, and sample consistency across the United States.

In both the lakes and rivers survey preliminary results indicated natural elevated mineralization due to underlying geology. Although there were limited exceedances of water and sediment quality criteria (most exceedances were metals), no discernable patterns were observed. Samples from the streams surveyed this summer are currently being analyzed. Once all the data have been verified, a final report will be completed by fall 2020, which will compare results from B.C. and AK.

Numerous local, state, federal and Tribal organizations contributed to make these surveys possible. For more information please visit: <http://dec.alaska.gov/water/water-quality/monitoring/surveys/>.







## Transboundary Mine Updates

### ***Johnny Mountain Mine Reclamation***

Located in the Boundary Range of the Coast Mountains which drains along the Iskut River. The Johnny Mountain Mine was a remote, fly-in mine that produced ore back in the 1980's and 1990's. Until late 2005, the property had been operated and managed by more than a dozen companies resulting in a lack of remediation and reclamation for the area. Infrastructure that was left behind included a 350 tonnes per day mill building/processing plant, three underground portals with associated waste rock portal pads, five vent raises, fuel tank farm, 1,600m airstrip, 11.5ha tailings impoundment area, landfill, roads and miscellaneous debris dumps.

SnipGold (wholly acquired by Seabridge Gold Inc in 2016), with the support of the Tahltan Nation, committed to reclaiming the historic legacy and outstanding liabilities over a multi-year timeline following the approved Closure and Reclamation Plan. Since June 2016, approximately \$6 million has been spent on environmental site activities.

A dam safety review was undertaken concluding that the tailings dam was in good condition, and the implementation of regional monitoring programs identified that the former mine is not impacting sensitive downstream fish habitat. To gain an understanding of the groundwater, surface water and soil conditions at Johnny Mountain, a detailed investigation and sampling program was implemented.

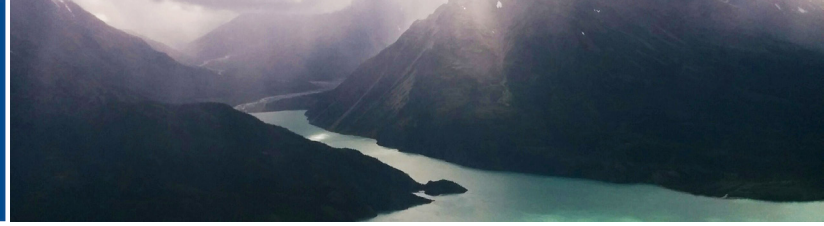
Reclamation activities have been ongoing at the site and include removing spilled ore concentrate, covering existing mine openings, dismantling the abandoned

fuel tank farm, upgrading the existing landfill, removing hazardous materials to appropriate waste disposal facility and disposing of non-hazardous materials within existing landfill and capping with mineral soils. Treatment of hydrocarbon contaminated soils occurred and revegetation efforts have been undertaken across disturbed areas of the site. Ongoing remediation and reclamation work is planned for the site with the end objective of the Closure Plan being to return disturbed lands and new anthropogenic landforms to their original land use.



*Before and after photos of the Johnny Mt. site*





## ***Kerr-Sulphurets-Mitchell (KSM) Mine***

KSM Mining Unlimited Liability Corporation, subsidiary of Seabridge Gold Inc., is the holder of the KSM Property. The project is a proposed gold, copper, silver and molybdenum mine, located 65 kms northwest of Stewart, B.C. The project received federal and provincial environmental approvals in 2014 which recognized KSM will not result in significant adverse effects. With an estimated 5-year construction and a 52-year mine life, the company expects to employ 1,522 people during construction and provide 1,407 direct jobs during mine operations. KSM is currently focused on obtaining additional operational permits and finding a partner to move the project into production.

## ***Tulsequah Chief Mine***

The Tulsequah Chief Mine is a historical copper/lead/zinc mine located about 100kms southwest of Atlin. The mine operated from 1951 to 1957, and since its closure has been the cause of historical acid rock drainage into the Tulsequah River, a tributary of the Taku River. The mine was acquired by Chieftain Metals in 2010 with the agreement that the company would address the acid rock drainage as part of re-development of the mine. Chieftain Metals subsequently went into court-ordered receivership in September 2016. The B.C. government continues to monitor the ongoing receivership proceedings and explore all possible options for holding all past and present owners of the Tulsequah Chief Mine accountable.

A report was submitted in February 2018, as required by the Chief Inspector of Mines, however it was determined that the report did not contain details regarding costing, timelines or the treatment of sludge on site. Chieftain Metals failed to submit this outstanding information

by the October 2018 deadline; resulting in the Chief Inspector of Mines issuing a final letter documenting the outstanding Orders issued as well as continued non-compliance. The Chief Inspector of Mines indicated that the mine was considered a closed mine as per the definitions under the *Mines Act*.

The Government of B.C. subsequently issued a Request for Proposals (RFP) for the development of a Remediation and Reclamation Plan for the mine in November 2018. The RFP specified that the final report must include: a site hazard assessment; a risk analysis; clear identification of various remediation methodologies for each mine component; and a detailed estimation of costs to implement the remediation activities.



In January 2019, representatives from the Government of B.C. participated in a collaborative RFP review process with representatives from the TRTFN. All parties arrived at a consensus recommendation and SNC-Lavalin was awarded the contract. Throughout 2019, contractors have undertaken data gap analysis and site visits to gather soil and water samples, conduct an inventory of existing hazards on site, undertaken a more thorough





review of existing mine portals and underground workings and contamination pathways. An initial site review has occurred throughout the historic mine area, including the Big Bull mine site, and importantly this work will inform the remediation and reclamation plan going forward.

A fall 2019 workshop to align remedial options with site data, and address risks and opportunities is planned amongst the contractors, the Government of B.C., TRTFN and the Alaskan Department of Environmental Conservation. The final remediation and reclamation plan is anticipated by the end of 2019, which will inform next steps, timelines and costing.



## **Red Chris Mine**

The Red Chris Mine is an open pit copper-gold mine located 80 km south of Dease Lake and 18 km southeast of the village of Iskut, B.C. The project received its environmental assessment certificate in August 2005 and regular production began in June 2015. The mine is currently projected to operate until 2043.

In August 2019, Newcrest Mining Ltd. (Newcrest) acquired a 70 percent joint venture interest in the Red

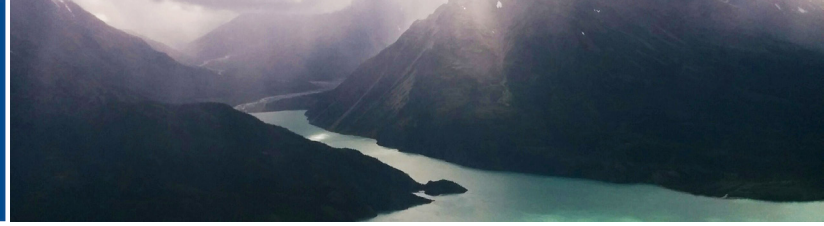
Chris Mine, and Imperial Metals Corporation retains the remaining 30 percent interest. As a part of the transfer, the *Mines Act* permit has been amended to update the deliverable dates for most of the required plans to allow Newcrest time to make revisions to these plans. The Mine Development Committee process is expected to commence in the winter, in order to provide guidance in the development of the revised plans.

## **Brucejack**

Brucejack Mine is wholly owned by Pretivm and is a high-grade gold underground mine located approximately 65km north of Stewart, B.C. and is accessed from Highway 37. Brucejack Mine received its Environmental Assessment Certificate, *Canadian Environmental Assessment Act* approval and a *Mines Act* Permit in 2015. Construction commenced in 2016, with construction of the mine site, a 57km transmission line that connects to Stewart, and a haul road that traverses the Sulphurets Glacier. The mine entered into operations in 2017, with the first production of gold-silver bars in June 2017. A ramp-up in production in 2019 will result in a 14-year life of mine. Ongoing exploration has continued through 2019, targeting deep holes under the Valley of Kings deposit and other underground deposit areas.

## **Galore Creek**

Galore Creek is a proposed gold project located 150km north of Stewart, B.C. In July 2018, Novagold Resources Inc. sold its 50 percent interest in the project to Newmont Mining Corporation, and the remaining 50 percent interest remains with Teck Resources Ltd. In 2019, the proponents announced a plan to update the project's feasibility study over the next 3-4 years to improve overall project understanding and economics.



## Upcoming Events

**The Alaska Miners Association 2019 Convention and Trade Show** took place between November 3–9, 2019 at the Dena'ina Center in Anchorage, Alaska. More information is available at [www.alaskaminers.org/convention-information](http://www.alaskaminers.org/convention-information).

The Alaska Miners Association (AMA), a non-profit corporation headquartered in Anchorage with branches throughout Alaska, is celebrating their 80th year of advocating for and promoting responsible mineral development in the state of Alaska. Their annual Convention and Trade Show is the largest mining event in the state; offering technical sessions, educational short courses, and networking events throughout the week. The Alaska Department of Natural Resources hosted a booth on the vendor floor

**The 40th annual Alaska Resources Conference** took place between November 20–21, 2019 at the Dena'ina Center in Anchorage, Alaska. More information is available at [www.akrdc.org/conference](http://www.akrdc.org/conference).

The Resource Development Council for Alaska, Inc. (RDC) is an Alaskan, non-profit, membership-funded organization comprised of individuals and companies from Alaska's oil and gas, mining, timber, tourism, and fisheries industries. RDC's purpose is to link these diverse industries together to encourage a strong, diversified private sector and grow Alaska through responsible resource development.

**Association for Mineral Exploration (AME) Round-up 2020** is scheduled January 20–23, 2020 at the Vancouver Convention Centre East in Vancouver, B.C. More information is available at [roundup.amebc.ca/](http://roundup.amebc.ca/)

AME is the lead association for the mineral exploration and development industry based in B.C. Established in 1912, AME represents, advocates, protects and promotes the interests of thousands of members who are engaged in mineral exploration and development in B.C. and throughout the world. AME encourages a safe, economically strong and environmentally responsible industry by providing clear initiatives, policies, events and tools to support its membership.

**The bi-annual Alaska-B.C. Bilateral Working Group (BWG) meeting** is scheduled for January 22 2020, and was scheduled to align with AME's Round-up Conference.

The BWG is comprised of Alaskan Commissioners from the Departments of Environmental Conservation, Natural Resources, and Fish and Game, and British Columbian senior officials from the Ministries of Environment and Climate Change Strategy, and Energy, Mines and Petroleum Resources. The BWG meets on a bi-annual basis to oversee the work of their respective staff, as well as provide direction for the subsequent months. The secretariat function rotates between the State and the Province, and currently rests with the latter. The meeting notes are made publicly available and can be found [here](#), along with other B.C.-AK Transboundary related materials.



**The Pacific NorthWest Economic Region (PNWER) Annual Summit** is scheduled July 19–23, 2020 in Big Sky, Montana.

The PNWER Annual Summit is the leading forum where people in the policy world and the business world come together to figure out solutions to regional challenges. Over 500 regional legislators, business leaders, and key decision makers will come together to explore shared challenges in the region, discuss best practices, strengthen regional relationships, and develop action plans for addressing these challenges in the future.

PNWER is recognized as the model for regional and bi-national cooperation, providing a platform for collaboration among public, private, academic, and non-profit stakeholders to work together as a region in pursuit of common goals.