



# WILD SALMON, WILD BORDER



## ... FOR HOW LONG?

### THE TRANSBOUNDARY WATERSHEDS UNDER THREAT



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The transboundary watersheds of northwest British Columbia and southeast Alaska are vast, wild and alive. From glacial headwaters to coastal rainforest, the rugged and spectacular **Alsek-Tatshenshini, Chilkat, Taku, Whiting, Iskut-Stikine, Unuk and Nass** watersheds are largely intact and globally significant landscapes.

Spanning some 130,000 square kilometres (32 million acres), the transboundary region conserves intact freshwater habitats that sustain highly productive runs of all five species of wild Pacific salmon. Wildlife like Stone's sheep, caribou, moose, mountain goats, wolverines and grizzly bears thrive in the mountains and valleys. From Skagway, Alaska to Stewart, BC – a distance of about 500 kilometres (310 miles) – not a single road of any kind crosses this wild section of border between BC and Alaska.

In a time of climate change

and growing industrial threats, the transboundary watersheds collectively embrace some of the most intact, ecologically rich and diverse wild salmon habitat left on the planet.

Despite these rich conservation values, the transboundary watersheds are threatened on the BC side of the border by multiple large mine proposals that pose a risk to fish and wildlife habitat and water quality.

**The biggest single threat to rivers and salmon in the transboundary region is the Kerr-Sulphurets-Mitchell (KSM) mine**, a gigantic proposed open-pit mine north of Stewart, BC, just upstream from Alaska's Misty Fjords National Monument. The proposed mine site sprawls across the headwaters of the Unuk and Nass River watersheds, and would generate more than two billion tonnes of acidic tailings waste that would need to be treated for hundreds of years, and likely in perpetuity.<sup>1</sup>

In the Taku watershed, **the extremely controversial Tulsequah Chief mine would be located just upstream from the best salmon habitat in the transboundary region's number one salmon river.** In late 2013 Ecojustice filed a lawsuit in the Supreme Court of BC on behalf of the

Taku River Tlingit First Nation (TRTFN), challenging the Environmental Assessment Certificate granted by the BC government for the proposed mine.<sup>2</sup> In July 2014, the Court ruled that BC must reconsider the status of the Certificate – without which the mine cannot proceed – and consult with the TRTFN in its new determination, which it had previously failed to do.<sup>3</sup>

**BC Hydro's Northwest Transmission Line (NTL)** also increases development pressures in the region. Completed in summer 2014, the new electrical line cuts north through the Nass and into the Iskut-Stikine watershed, enabling multiple river diversion dams and large-scale mining projects such as KSM, Red Chris, Galore Creek, Schaft Creek, Arctos Anthracite and numerous other exploration projects. The NTL, paid for primarily by taxpayers and BC Hydro ratepayers, subsidizes these proposed mine projects.

**The pace and scale of this proposed industrial development is too much, too fast.** The transboundary watersheds deserve world-class stewardship. The BC and Canadian governments need to shelve plans for rapid industrialization



**Photo top:** Iskut River Valley (Carr Clifton), **above:** Mother bear with cubs (Paul Burwell).

until more comprehensive studies and more significant consultation with First Nations are conducted. Potential cumulative impacts must be considered, and there must be a meaningful international conversation about the future of these watersheds before additional development goes forward.

The region's salmon rivers deserve the highest form of protection, regardless of which side of the border they are on. Read on to find out more about this incredible wild area, current threats and the opportunity we have to engage in meaningful cross-border action to safeguard the future of these extraordinary international rivers.



# KSM MINE

## WILD SALMON AT RISK IN NASS AND UNUK RIVERS

Among glaciers in the high mountains of the Boundary Range, about 65 kilometres (40 miles) northwest of Stewart, BC, Seabridge Gold is proposing **one of the largest copper-gold-silver-molybdenum mines in the world.**

If built, the Kerr-Sulphurets-Mitchell (KSM) mine project would see three giant open pits carved into the mountains at the headwaters of Sulphurets Creek, a tributary of the Unuk River, just upstream from Misty Fjords National Monument in Alaska. One of those pits would be the deepest in the world.<sup>4</sup>

In this wet and rugged region, KSM would produce an average of 130,000 tonnes of ore per day for up to 52 years. Water at the mine site would require treatment for as long as needed, which

would be centuries if not in perpetuity.<sup>5</sup> Twin 23-kilometre (14-mile) tunnels would be drilled under glaciers to link the open pits to an ore concentrator plant and an eight-kilometre (five-mile) long tailings impoundment – a toxic waste dump – located between Treaty Creek and Teigen Creek. Both creeks contain fish habitat and drain into the Bell-Irving and Nass Rivers. Two tailings dams, both around the height of the Hoover Dam, would be built to contain the mine's toxic by-products.<sup>6</sup>

The Unuk and Nass River watersheds support some of the most intact and productive salmon habitat in all of BC and Alaska. KSM would create an estimated 2.3 billion tonnes of mine waste – **an environmental time bomb that would threaten salmon and salmon habitat for centuries.**



Photo top: Bald eagle (Michael Truex), above left: Unuk River waterfall (Wayne Weihing), above right: Site of proposed KSM mining project (Mike Fay).

**THE NASS RIVER** is the third largest salmon producer in BC and supports all five species of Pacific salmon, steelhead and other valuable sport fish. These stocks support constitutionally protected and treaty fisheries for BC First Nations, as well as important commercial fisheries. Communities downstream from the tailings area face enormous risks and economic uncertainties from the proposed KSM project.

**THE UNUK RIVER** supports an important eulachon run and one of the largest runs of Chinook salmon in the transboundary region. Unuk River salmon are highly valued by the Haida and Tlingit Nations of southeast Alaska, and by Alaskan commercial fishermen. Both groups have formally expressed their opposition to KSM to the US State Department.<sup>7</sup>

**"These projects could not be in a worse location.** Salmon is our traditional food. If anything happens to them, we would be in a world of hurt."

- Rob Sanderson Jr., 2nd Vice President of the Central Council of the Tlingit & Haida Indian Tribes<sup>8</sup>

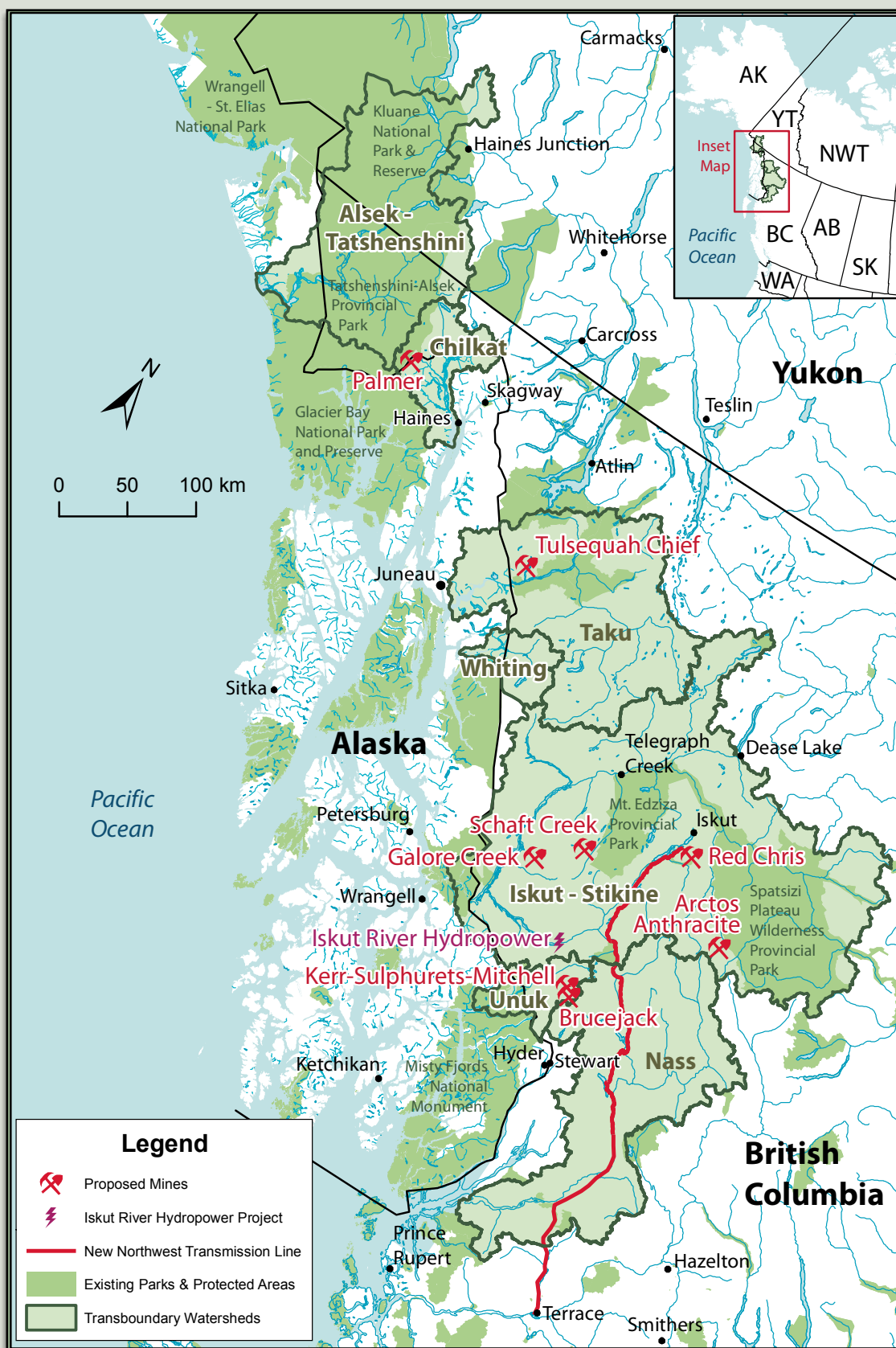
On both sides of the border, key concerns with the proposed KSM mine include:

- the potential long-term effects on the Nass River from the massive KSM tailings dump;
- the potential long-term effects on the Unuk River from the enormous open pits and waste rock dumps at the mine site;
- the current lack of certainty around effectively treating water contaminated with selenium at the mine site;
- the potential for harmful effects on salmon from the proposed KSM mine discharges;
- the need for adequate bonds to be posted by the company to ensure water treatment and monitoring will continue as long as needed after mine closure (stated as 250 years by Seabridge, but possibly in perpetuity);
- the potential for catastrophic failure of tailings dams, failure of water treatment and other possible problems.



Photo: Taku River watershed (Rivers Without Borders).

## TRANSBOUNDARY REGION



**Legend**

- Proposed Mines
- Iskut River Hydropower Project
- New Northwest Transmission Line
- Existing Parks & Protected Areas
- Transboundary Watersheds

# TAKU RIVER WATERSHED: NO PLACE FOR A MINE

**T**ulsequah Chief is a proposed underground gold and mixed metals mine located on the banks of the Tulsequah River, near its juncture with the Taku River in northwest BC, just upstream from the border with Alaska. **The proposed Tulsequah Chief mine, which was granted an Environmental Assessment Certificate by the BC government, could be devastating for wild salmon and salmon habitat.**

At 18,800 square kilometres (4.5 million acres), the Taku is the largest totally intact watershed on the Pacific coast of North America. It is the wild heart of the BC-Alaska transboundary region.

The Taku is the number one salmon producing river for southeast Alaska, and one of Canada's biggest salmon systems. Wolves, grizzly and black bears, wolverines and lynx live out their natural predator-prey cycles within the watershed, along with globally significant populations of moose, mountain goats, sheep and woodland caribou. The area's vast undisturbed ecosystems – with all their diverse native flora and fauna present and thriving – make the Taku watershed especially resilient

to the intensifying stresses presented by climate change.<sup>9</sup>

**The best salmon habitat in the Taku watershed is just downstream from the proposed Tulsequah Chief mine.** To access the site, mining company Chieftain Metals proposes constructing a 128-kilometre (80-mile) haul road to connect the Tulsequah Valley to the nearest existing road near Atlin, BC. The company estimates the mine would operate for only nine years, but the new road would inevitably bring new mineral exploration and development pressures to this sensitive location. The geologic setting of the proposed mine is ripe for generating acid, and acidic tailings would be stored in a tailings waste facility on an active floodplain beside the Tulsequah River.<sup>10</sup>

Small-scale historic mining at the site



Photo: Acid mine drainage from old Tulsequah Chief Mine (Chris Miller).

has drained acid mine pollution into the Tulsequah and Taku Rivers since the 1950s.<sup>11</sup> As mandated by its permit, Chieftain Metals began operating a water treatment plant in December 2011, but shut it down a few months later due to high operational costs and sludge production that outstripped the company's capacity to manage it.<sup>12</sup> Canadian federal and BC regulatory agencies have failed to enforce water quality permits, calling into question assurances that the Taku's outstanding values will be safeguarded if new mining goes ahead.

The Tulsequah Chief project still faces considerable financial, technical and political obstacles – including unresolved acid mine pollution, violations of agreements and at least one permit, a lack of construction funding and strong opposition in Alaska and from the Taku River Tlingit First Nation (TRTFN) in BC.<sup>13</sup>

The TRTFN has formally opposed the Tulsequah Chief project by consensus in a Joint Clan Forum. In late 2013 Ecojustice filed a lawsuit in the



Photos above: Keith Carlick of TRTFN pulling a Chinook (king) salmon out of the Taku River (Chris Miller), Fishing boat (Rivers Without Borders).

Supreme Court of British Columbia on behalf of the TRTFN, challenging the Environmental Assessment Certificate for the proposed mine. In July 2014, the Court ruled that BC must reconsider the status of the Certificate – without which the mine cannot proceed – and consult with the TRTFN in its new determination, which it had previously failed to do.<sup>14</sup>

**Acid mine drainage** occurs when sulphur-bearing ore is exposed to air and water. The resulting acidic water then leaches toxic heavy metals such as copper, zinc, cadmium and other minerals from the ore. If not captured and treated, such discharges are extremely toxic to fish and other aquatic life. An increase in copper of as little as 2 to 8 parts per billion above natural stream levels damages the ability of salmon to smell, which makes it harder to avoid predators, find mates and return to spawning grounds.<sup>15</sup>

## TAKU SALMON HABITAT AT STAKE

Every year, some two million salmon pass through waters in the area where the Taku meets the Tulsequah River. If the Tulsequah Chief mine is developed, it would create a high probability of acid and heavy metal pollution that would be toxic to fish. If not contained, this pollution would flow downstream with the inevitable runoff, leaks and spills associated with mine operation.

Add the remoteness of the site, plus extreme weather, avalanches and *jökulhlaup* events (floods resulting from “glacial outbursts”) in a seismically active region, and bigger problems are not unlikely. A tailings impoundment blowout, for example, could be catastrophic to Taku fisheries.



Photo: Braided salmon habitat on the Taku River (Rivers Without Borders).

To learn more about the transboundary region, go to Wild Border Watersheds at: [WildBorderWatersheds.org](http://WildBorderWatersheds.org)

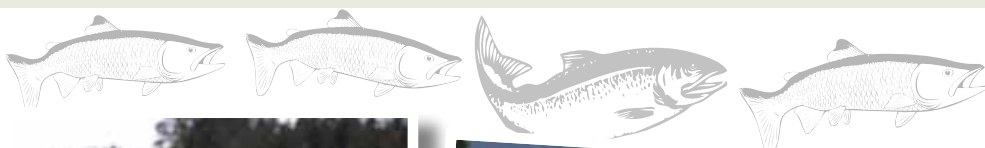


Photo: Spawning salmon (Michael Truex).



Photo: Moose (Rivers Without Borders).

“Our government passed a Joint Clan mandate rejecting Chieftain's proposed project ... because the citizens of our Nation will not approve any mining projects that are not both environmentally responsible and financially viable.”

- John D. Ward, Spokesperson for the Taku River Tlingit First Nation<sup>16</sup>

“Rivers like the Taku, Stikine, Unuk and Iskut may be one of the last climate change sanctuaries for salmon.”

- Dr. Jim Pojar, biologist and forest ecologist<sup>17</sup>

“We can do a whole lot better than Tulsequah Chief.”

- Nathan Cullen, MP for Skeena-Bulkley Valley<sup>18</sup>



# CHILDREN OF THE TAKU



Chantelle Hart, Children of the Taku

"Ever since I was a young child we've been talking about saving the Taku," says Chantelle Hart, a member of the Children of the Taku Society

(COTTS). "Saving the Taku is a commitment to future generations, to our culture, our heritage, our way of life. It's a legacy."

Children of the Taku is a volunteer non-profit society of citizens of the Taku River Tlingit First Nation (TRTFN). Members have joined together to restore and protect the culture and heritage of the TRTFN in their traditional territory.

"My grandparents lived off the land," says Hart. "A large part of what they did was to do a trek every year down river. They would walk in following the traditional trail, or go by boat, or sometimes fly in. A large part of the bread and butter for our culture was by the Taku River. Even now, many people go there every year to fish. Our people smoke and dry fish, and sometimes

send fresh fish as well to family and the community. For some elders it's the only way they can get fish."

The Taku is one of Canada's biggest salmon systems, with the best salmon habitat in the whole watershed located just downstream from where the Tulsequah River joins the main stem of the Taku before it enters Alaska. About two million salmon pass through the waters annually in the vicinity of this juncture. This is where the Tulsequah Chief mine is being proposed.

In 2004, the Supreme Court of Canada ordered the BC government to consult

with the TRTFN on decisions surrounding the proposed Tulsequah Chief Mine. At the time, Redcorp Ventures owned the project. The company went bankrupt in 2009 and Chieftain Metals picked up the property and environmental permits, renewing fears that the Taku's best salmon habitat would be irreparably damaged.

"When I heard about Chieftain coming in I cried," says Hart. "I wondered how are we going to save the Taku?"

"As one person, I can't really do anything. But we had a meeting and sat around a campfire with elders, youth, my parents, and the idea for Children of the Taku came from that. We created a society dedicated to land preservation, which is what we care about most."

**"If it's not Chieftain, it'll be someone else. There's always going to be another company who wants to go in there and extract resources. I'm greatly relieved that the strength of our entire First Nation is wholly united to step forward and say no to that mine, firmly and with authority."**

— Chantelle Hart, Children of the Taku

"We are determined to support TRTFN leadership in carrying out the November 18, 2012 Joint Clan Mandate to oppose the proposed Tulsequah

Chief mine," says Hart.

"Members of my family go every year to the river," says Hart. "It's a real spiritual thing, it allows us to connect to the land. As a First Nation, if we don't have the land to catch fish, to dry fish, then we don't have that to teach our children. **We're willing to do whatever it takes to protect our culture and the land.**"



Photos above: Elycia Carlick, member of the TRTFN on the Taku River (Chris Miller), Mountain goats (Monty Bassett), Unuk River rafting (Wayne Weihing).

# TAKE ACTION



## KEEP THE BORDER RIVERS WILD!

It's time to stand up for the spectacular wild border watersheds of BC and Alaska, and the outstanding salmon runs they sustain. The governments of Canada and British Columbia must work with the governments of the US, Alaska and First Nations to ensure that any mining and energy development in transboundary river headwaters does not diminish or imperil the ecologically rich and bountiful character of the transboundary watersheds.

Please write to BC's Premier and Canada's Prime Minister, and insist that before any further development is considered, both governments must:

- Fulfill constitutional obligations to consult and accommodate First Nations;
- Initiate a comprehensive review of potential cumulative impacts on the transboundary region;
- Initiate a formal international dialogue about the future of these watersheds, leading to ecosystem-based planning and decision making for the region.

Let's protect the transboundary region's wild salmon rivers while we still can. **Please write your letter today!**



Photo: Todagin and Kluea Lakes, Skeena mountains, site of the Red Chris Mine currently under construction (Carr Clifton).

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