

On Behalf of SkeenaWild Conservation Trust (Terrace, BC),
Northern Confluence Initiative (Smithers, BC),
Salmon Beyond Borders (AK-BC)

Re: Eskay Creek Revitalization Project

To Whom It May Concern,

We value nature, fresh water and healthy ecosystems.

We are part of a network that is working to promote changes to British Columbia's mineral development laws and mining practices to ensure they are environmentally sound, do not pollute waters, respect community decisions, and account for the costs to clean up toxic mine waste sites.

We appreciate the opportunity to submit comments regarding the Eskay Creek Revitalization Project as groups who are from the northwest. We are concerned that this project will add to the cumulative effects of the region and impact transboundary waters. We have responded to a handful of the guiding questions for your consideration at this planning phase and *provided a detailed appendix to the main body of this letter containing further comments regarding the Scope of Assessment, Project Design Considerations, and Potential Impacts and Environmental Monitoring at the end of this document.*

What is your interest in the Eskay Creek Revitalization Project?

Those of us who submit these comments work to amplify the concerns of communities within British Columbia, as well as those downstream, who are impacted by and potentially impacted by mining activity within British Columbia and near British Columbia's transboundary watersheds. We reside in Northwest B.C. and Southeast Alaska and are interested in healthy watersheds, resilient ecosystems and responsible industrial development.

How do you think the Project could affect your community, either positively or adversely?

The Unuk River is rich with biodiversity, ranging from Alpine Tundra to the intact coastal temperate rainforest of Misty Fjords National Monument and the Tongass National Forest that covers much of the Alaskan portion of the watershed. Wolf, lynx, grizzly and black bears, fisher, mountain goat, moose, and black-tail deer call it home. More recently, Canada secured the smaller Border Lake Provincial Park on the Canadian side of the political border.

Considering that Brucejack mine is already operating in the Unuk River watershed, and the proposed Kerr-Sulphurets Mitchell (KSM) project has already received an EA certificate, we are concerned about the cumulative impacts to our communities, water quality, fish, and wildlife who depend upon the health of these watersheds.

Are there any positive or adverse effects on the natural environment or on health, social, cultural, or economic conditions that you think may occur as a result of the Project that are important to you or your community and that should be considered in an impact assessment?

Our greatest concerns regarding the Project are the cumulative impacts and the notion that the Project lacks Free, Prior and Informed Consent of all impacted Indigenous peoples - including the downstream Tribes in Alaska, whose traditional territories span these landscapes and cross the political border.

Our groups are interested in ensuring that safety is put first when it comes to mine waste tailings design. The current language of the IPD presupposes that this will be an open pit mine. We are concerned about the proposal to do open pit mining versus underground mining, and the lack of consideration of alternative waste management options that can reduce risks of leakages and failures. Eskay Creek should be required to provide options that are not just based on cost, but that put safety and reducing environmental harms first.

There will be a large amount of surface work to create two different open pits outlined in this application. If an open pit design is pursued, it will be critical to get agreement from all rights and stakeholders on the changes to streamflow and groundwater-surface water interactions in the watershed. Is selenium expected to be one of the elements of concern? If so, there is no existing example of successful large-scale treatment of this potential toxicant. In several places, Skeena Resources recognizes the importance of getting agreement from rights and stakeholders in moving forward with water management strategies (e.g., *Page 28: A water management plan will be developed at the Feasibility Study phase to consider Indigenous perspectives, regulatory requirements and long-term ML/ARD risks and mitigation options (e.g., water treatment, use of the TSF for water discharge, closure covers, etc.)*). There are significant technical challenges associated with the proposed design and water management is one of the areas where the project can fail and impact downstream waters significantly. The analysis of water use, storage, and diversion must be agreed upon by all rights holders and potentially impacted stakeholders.

Skeena Resources proposes to submit a draft EA in Q3 2022, but according to Table 7-1 this will mean there is only one year of baseline studies. That is not enough time to build a robust baseline for the status of the affected area and in addition gives no time for rights and stakeholders to comment on the adequacy of the data and analysis, which have not been shared in the IPD. Previous baseline studies listed in Table 7-1 are very dated and irrelevant to creating a current baseline. Baseline studies require, at a minimum, 3-5 years of high quality, consistently collected data. With regard to water quality, for example, data should be collected at least monthly to develop a robust understanding of baseline conditions.

The description of the physical environment starting on Page 63 demonstrates the lack of basic climate information that will be critical to accurately modeling and predicting water balances throughout the project. Without accurate projections of water balance, open pits may flood, water treatment facilities may become overwhelmed, and the proposed tailings dam may be overloaded by unexpectedly high-water levels, as has been seen for other projects in the region such as at the Premier Gold Mine near Stewart, BC.

During the heat dome in June/July 2021, there was a massive landslide in northwest B.C. not far from the Eskay Creek site. These kinds of climate impacts require proposed mines to plan and manage for

extreme weather events and impacts. There is insufficient information in this application regarding climate impacts that should be considered mandatory in an Environmental Assessment.

We are also concerned about further habitat fragmentation in this relatively healthy predator/prey habitat. We are concerned about both the cumulative effects and also the reduction in biodiversity and healthy habitat for many species at risk found in this region, including grizzlies, wolverines, western toads, Northern goshawks, and others.

As stated on page 26, the Highway 37 and 37A transportation route is also used by other projects in the area, including NewCrest's Red Chris Mine and Pretivm's Brucejack Mine. Seabridge's approved KSM Project plans to use this transportation route as well. There are environmental concerns with regards to road dust and stream/river crossings with regards to fish and salmon health due to sediment and fish passage.

Are there any other issues related to the assessment of this project that are important to you or your community that you would like to share?

Skeena Resources refers to existing Certificates from 1994 and 2000 that the company appears to want to extend. This region has already experienced over 1.5 degrees of climate warming on average and several climate impacts. These permits and Certificates that are over two decades old absolutely must be reassessed under current conditions and given that the project design has significantly changed.

As this project will have transboundary impacts, we fully support a coordinated EA process between the EAO, IACC, First Nations, U.S. EPA, and U.S. Tribes. While decision-making stays with the Federal and Provincial Governments, the EA / IA process must also be coordinated. Furthermore, while we are in full support of the Tahltan Central Government's involvement in this EA process, the IACC process must not be substituted.

How would you prefer to participate throughout the assessment process?

Due to Covid-19, online engagement is preferred.

Are you aware of any challenges facing you or your community that may prevent people from accessing public participation opportunities regarding the Project?

If meetings are only held in-person and in Canada, many of the downstream communities will not be able to participate.

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Again, we thank you for taking our comments and concerns into consideration. Please see our more specific comments below and do not hesitate to reach out with any questions.

Sincerely,

Greg Knox, SkeenaWild Conservation Trust - Terrace, B.C.

Nikki Skuce, Northern Confluence - Smithers, B.C.

Jill Weitz, Salmon Beyond Borders - Juneau, Alaska

Appendix – Technical Comments

Excerpts from the IPD are provided in italics, with our associated comments in bullets.

Scope of Assessment

“Future exploration, technical/bulk sample collection and additional land development at the mine site under existing permits and proposed amendments over the next two years will occur separately from the Revitalization Project as part of Reclamation/Closure planning, site maintenance and advanced exploration.” (pg. ii)

- It seems like there is some potential for project splitting here. It will be important to ensure that *all* future site activities are considered during the EA/IA as part of the proposed project, even if they are activities that technically would fall under one of the already existing permits. This ensures the public, stakeholders, and regulators can be fully aware of the scale of the project and its potential impacts.
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“...past assessments and reviews have approved the use of subaqueous disposal of PAG tails and waste rock in non-fish bearing lakes as the most suitable long term waste management and MLARD mitigation strategy. The Environmental Assessment Review for the underground Eskay Creek Mine in 2000 for the use of Tom MacKay Lake as a waste disposal facility, and subsequent Project Approval Certificate that was issued, did consider the concerns of First Nations, non-Canadian regulators and parties and potential for effects on fisheries resources and water quality of the Unuk River.” (pg.xviii)

- Past assessments/reviews supporting the proposed waste management strategy are a) scientifically and technologically outdated, b) politically outdated (i.e., they don’t stand up to today’s standards re: public and Indigenous engagement and general ESG considerations), and c) did not occur in the context of the potential massive cumulative effects to transboundary waters we are seeing today. Accordingly, these past assessments and reviews should be disregarded in the consideration of the presently proposed project.
- The proposed expansion to the TMSF is enormous and includes three man-made dams, which is a significant design change that creates new risks associated with the facility. The water retaining dams will allow the TMSF to more than double its footprint (from 85.6 to 203.6 ha – pg. 23) and more than triple its waste storage capacity (from current 8.1 Mm3 tailings capacity to proposed 31.8 Mm3 of combined waste rock and tailings – pg. 29-30). It seems like a dangerous oversight that the expanded facility will not need to undergo further review/amendment under the *Fisheries Act*. It is essential that a similar oversight doesn’t occur during the EA/IA process – the entire TMSF should be thoroughly and critically assessed, regardless of any previous outdated assessments and permits it has received. Also, the EA/IA should consider the TMSF as a whole, not just the expanded component.

“The percent increase in area of mining operations from the Eskay Creek Mine to the Project is approximately 418%.” (pg. 46)

- This is a huge expansion, basically an entirely new project. Again, this speaks to the need to disregard past permits and assessments related to the Project. It also speaks to the need for full consideration of options to reduce the project's footprint (further discussed below), especially given impending cumulative impacts to the region and the project's proximity to the Unuk, an important salmon-bearing river to both BC and Alaska.

"The Project is located within the headwaters of the Unuk River watershed, approximately 40 km in a straight line northeast from the BC – Alaska border on the Unuk River (Figure 1.1-1). The Project's assessment will include a robust analysis of potential effects within a regional study area and a local study area that encompasses the mine site. The assessment will consider potential effects on VCs where there is potential for downstream effects on VCs such as water quality, fisheries, and aquatic resources, and other VCs. Appropriate mitigation measures will be put in place to manage impacts and to limit the geographic extent of potential effects." (pg. 96)

- Previous assessments and monitoring efforts concluding that the Unuk River and its salmon populations are not impacted by mining activities in this area have not been based on thorough and scientifically robust research methods (further discussed below).
- To ensure proper assessment, the regional study area for the proposed project should include Alaska, and salmon populations of the Unuk that Alaskans rely on.
- To be truly robust, this assessment should be developed and executed with significant input from Alaskan tribes and communities, and their scientific representatives.

Project Design Considerations

Table 4.1-2 Project Component – Initial PFS Design Footprint (July 2021)

Project Component	Total Footprint (ha)	Footprint within Previously Disturbed Area of Former Mine Operation (ha)	New Footprint Beyond Historic Disturbance (ha)
Tom MacKay Storage Facility (TMSF)	203.59	85.64	117.96
Open pits (North/Main and South)	93.12	3.99	89.12
Overburden and topsoil stockpiles	8.08	0.53	7.55
Waste rock storage facility (WRSF) (outside and inside open pit later in mine life)	137.38	3.13	134.25
Haul roads and light vehicle roads	31.73	1.93	29.79
Primary Crusher, stockpile feed conveyor to the processing plant stockpile	1.47	0.03	1.44
Processing Area	8.57	0.01	8.56
Detonator magazine and explosives storage	0.41	0	0.41
Mine Infrastructure Facilities and other buildings	1.73	0.52	1.21
Core Storage	0.32	0	0.32
Landfill	1.68	0	1.68
Water treatment facilities including: new water treatment plant and use of existing mine water settling ponds and D7 discharge location for construction and early operation years	2.82	0.23	2.59
Total	490.9	96.01	394.88

(pg. 23)

- The increases in surface disturbance for the proposed project compared to the previous operation are significant. Greater surface disturbance correlates to greater environmental

impacts (i.e., via increased waste production, more contact water, greater habitat destruction/alteration).

- The public should see fully detailed and public-facing alternatives assessments for decreasing this surface disturbance. Practices that need consideration include underground mining as opposed to open-pit, and backfilling waste into underground stopes.

Table 4.7-1 Project Alternatives Assessment Based on PEA 2019

Component	Alternatives Considered	Preferred Option
Ore processing location	<ul style="list-style-type: none"> • Process ore on site • Ship ore offsite to processing facilities with spare capacity 	Processing ore on site is preferred given the grades and volume of material to be transported and lack of nearby processing capacity. On site processing is the only economically viable option.
Ore processing	<ul style="list-style-type: none"> • Different milling techniques • Different metal separation techniques • Different reagent selection 	Best available technologies will be used to maximize metal recovery. Preferred milling options to maximize metal recovery based on current test work include semi autogenous grinding (SAG), floatation, and concentrate dewatering. Optimization works will continue into the FS stage in 2022.
Mining method	<ul style="list-style-type: none"> • Open pit • Underground 	A mineral resource model was developed for both open pit and underground mining methods. The ore grades for the near surface ore body are lower grade than for the historical underground (1995-2008) operation. The 2019 PEA presents an open pit mining method.
Concentrate Transportation	<ul style="list-style-type: none"> • Rail • Shipping 	Preferred option is to truck the concentrate to the Port of Stewart for marine shipping and distribution to offshore smelters. There is no rail terminal close to the mine site, which makes rail transportation impractical.
Infrastructure (General)	<ul style="list-style-type: none"> • Reuse existing infrastructure • Build new infrastructure 	Preferred option is to reuse the existing infrastructure where practical to reduce the amount of additional disturbance and cost. New facilities will be built as needed to support the mine plan.
Power	<ul style="list-style-type: none"> • Connect to provincial grid • On-site diesel, hydroelectric, wind, solar or combination 	Preferred option is to connect to the existing power grid (green energy); main determination is where to connect to the grid; preference is for Volcano Creek hydro-electric facility.

Component	Alternatives Considered	Preferred Option
Tailings Management	<ul style="list-style-type: none"> Convention wet vs thickened vs paste vs filtered tailings for disposal Siting of tailings facility <ul style="list-style-type: none"> TMSF ASF Co-mingling of tailings in WRSF Disposal in existing mine infrastructure 	<p>The current preferred option for disposal is conventional wet. A best available technology (BAT) assessment is underway in 2021 to determine the final disposal method. Preferred disposal option is into the existing TMSF (has capacity) and expand the existing TMSF to reduce new disturbance; reviewing other options.</p>
	<ul style="list-style-type: none"> Dam construction method Dry or wet cover on TSF at closure 	<p>Preferred option of dam built of cement and earth/rock preferred vs cyclone NAG tailings. This is preferred as the embankment is a water retaining structure.</p> <p>Preferred option is wet cover, with test work ongoing for tailings. Address geochemical risk and acid drainage/leaching, managing a dry facility is more challenging in a wet climate.</p>
Waste Rock Management	<ul style="list-style-type: none"> Disposal methodology including PAG waste rock into TMSF or ASF or isolating PAG, or co-mingling waste with tailings or NAG Location of ore, waste rock, overburden, soil and snow stockpiles 	<p>Preferred option for waste was determined from PFS studies underway of alternatives and optimization studies on geochem. Sub-aqueous storage of historic PAG waste rock was previously used in ASF for past operations.</p> <p>Current location of proposed waste rock storage facility is being studied compared to other options; current location is feasible with respect to economics and natural valley to fill.</p> <p>Location of stockpiles will focus on minimizing handling of material, as well as haul distance and grades; as well as any potential biophysical, water quality or social effects.</p>
Waste Management (hazardous and solid)	<ul style="list-style-type: none"> Solid waste disposal of on site/off site landfill vs incineration Hazardous waste disposal on site vs off site Management of hydrocarbon contaminated materials through on-site bioremediation vs off-site disposal 	<p>Preferred option is on-site landfill and incineration for solid/putrescible; studies still underway.</p> <p>Preferred option for disposal of hazardous waste is at offsite approved facility.</p> <p>Both of the options for hydrocarbon contaminated materials are being reviewed.</p>
Water Management	<ul style="list-style-type: none"> Alternative groundwater well locations Alternative water treatment systems Alternative discharge locations 	<p>Preferred option for water management has not been determined as studies are underway to optimize treatment configurations. It is anticipated that standard water treatment methods will be used to meet water quality objectives although alternative approaches will be investigated (e.g. passive, closure covers).</p>
Logistics (transportation and accommodation)	<ul style="list-style-type: none"> Worker accommodations on-site vs off-site Worker transportation 	<p>Preferred option is provide accommodation for workers on site. There are no existing local accommodation options.</p> <p>Forrest Kerr accommodation will be used during construction to reduce the need for temporary accommodation facilities. Existing accommodations on the Eskay Creek Mine site will be used during construction and other advanced exploration activities but would be decommissioned during the mine life due to proximity to the blast radius of the Main Pit.</p> <p>Worker transportation subject to where workers may come from.</p>

(pg. 43-44)

- Mining method is a key consideration in project design that determines the scale of disturbance and potential impacts; therefore, the alternatives assessment regarding mining method should be done publicly (i.e., incorporated into public-facing documents) with ample opportunity for engagement, rather than buried in a PEA document.
- There should be a strong preference for thickened/paste tailings and waste backfilling options to reduce the need for additional capacity (and associated dam construction) at the TMSF
- Skeena should consider using non-degradation principles as goalposts when developing water quality objectives and required water treatment methods (further discussed below).

“A key principle informing the Project design is minimizing new disturbance by re-utilizing existing disturbed areas.” (pg. 36)

- Expanding on the previously established underground mining infrastructure would *much* better align with this principle than the proposed shift to open-pit mining methods

“The waste streams would be managed on site as follows:

- *NAG waste rock would be deposited in two locations: approximately 80-90% (161.26 Mt) to the external WRSF that would be located to the west of the Main Pit. The remaining 20-10% of NAG waste would be deposited in-pit.*
- *PAG waste rock (50.35 Mt) would be deposited in the Tom MacKay Tailings Storage Facility.*
- *PAG tailings (23.88 Mt) and NAG tailings (2.53 Mt) would be deposited sub-aqueously in the TMSF (refer to discussion in Section 4.1.2). The TMSF is already permitted for tailings disposal.” (pg. 41)*

- Why hasn't there been any discussion of depositing any of the waste in the underground stopes? This would reduce both surface disturbance and contaminated runoff generation.
 - Skeena should provide greater detail on why so little in-pit backfilling of waste rock is planned. Even better would be a detailed assessment of opportunities to increase in-pit disposal.
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“Contact water from the WRSF would be collected and treated prior to discharge if testing shows any onset of ML/ARD or potential exceedance of permit limits. If contact water quality from the WRSF or other sources is within permitted parameter limits, and confirmed by testing, this water would be discharged without treatment. Water from pit dewatering would be pumped to a water treatment plant and/or ponds for treatment prior to discharge to the existing mine water polishing ponds and ultimately discharge through permitted effluent discharge point D7 to Ketchum Creek, during the construction and early mine life phases, or combined with process water discharge to the TMSF. Process water would be discharged to the TMSF.” (pg. ix)

- A broad issue of public concern is that BC's mine permit limits are weak, meaning that mines can often discharge untreated contact water while staying 'within permitted parameter limits'. Additionally, there is evidence to suggest that BC's water quality guidelines are not always protective of sensitive species, such as salmon.
- It is particularly worrying that the project already has a discharge permit in place (ENV PE-10818) because the discharge limits and monitoring requirements contained within it are likely not stringent enough to prevent adverse environmental impacts (see further discussion re: monitoring below).
- Skeena Resources has the opportunity to be a good actor, and a leader in ESG practices by considering these issues from the outset in designing their water management systems. Opportunities include: a) designing this Project based on a non-degradation standard, such that discharge quality meets background receiving environment conditions, or b) considering science-based thresholds for chronic effects to aquatic life (taken from the scientific literature, not from BC's guidelines) in determining discharge quality and receiving environment water quality objectives, and identifying water treatment needed to meet those goals

“A water management plan will be developed at the Feasibility Study phase to consider Indigenous perspectives, regulatory requirements and long-term ML/ARD risks and mitigation options (e.g., water treatment, use of the TSF for water discharge, closure covers, etc.).” (pg. 28)

- Another major public concern is the tendency for mines to accumulate contaminated water throughout the mine life without taking real steps to implement water treatment solutions. This practice both results in increased risk of unanticipated releases of large quantities of polluted water, and increased financial liability associated with the project.
- To reduce these risks, the proposed project’s water management plan development should include consideration of real progressive reclamation, which would include operating water treatment plants throughout the mine life and treating/discharging water so that the water volumes being stored behind dams, and the need for post-closure water management are both reduced.

Potential Impacts and Environmental Monitoring

“No fish have been observed or captured during multiple past sampling periods in the upper tributaries of Ketchum and MacKay creeks (which drain into the Unuk River) in the vicinity of the Project, including the former Albino Lake, Little Tom MacKay Lake, Eskay Creek and Tom MacKay Creek adjacent to the mine site... There are obstacles to fish passage immediately upstream of the confluence of Tom MacKay Creek with Ketchum Creek. Salmon species (pink, chum, chinook, and sockeye), Dolly Varden, and cutthroat trout were observed in the Unuk River about 7–8 km downstream of the mine site but cannot ascend Ketchum and Tom MacKay creeks from the Unuk River to the mine site.” (pg. x)

- This description is not entirely clear as to whether there are fish present in Ketchum Creek in the specific stretch between the D7 discharge point and the confluence with Unuk River. Clearly, this needs to be extensively sampled and detailed.
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“The Eskay Creek Mine EEM monitoring program undertaken from 1997 to 2017 showed that concentrations of certain metals (e.g., antimony and lead) were elevated in Ketchum Creek relative to an upstream reference site during Mine operation (1995-2008), however, metal concentrations decreased following mine closure and are generally similar to or approaching baseline and reference site concentrations.” (pg. 105)

- This suggests there will be metal elevations in Ketchum Creek again during the proposed project’s construction/operations, with potential impacts to Unuk River which is immediately downstream.

“Within Ketchum Creek near the Eskay Creek Mine, water quality samples taken just upstream (site W9) and downstream (site W15) of the permitted Eskay Mine effluent discharge point at site D7, had exceedances of the freshwater WQG’s for aluminum, copper, iron, TSS, and zinc. Typically, exceedances

were in both upstream and downstream locations showing the treated effluent discharged at site D7 from the treatment ponds of underground mine water was not impacting water quality in the receiving environment of Ketchum Creek.” (pg. 69)

- It seems evasive to say there were exceedances both upstream and downstream of the discharge point without discussing the magnitude of each exceedance. Is it possible that Eskay Creek discharges have been *adding* further contamination to already naturally metal-elevated waters? The next project description should address this question more transparently.

“Water quality monitoring in the Unuk River (2000-2017) demonstrated that metal concentrations in the Unuk River tend to be higher both upstream (reference station) and downstream of the confluence with Ketchum Creek and water quality effects associated with Eskay Creek Mine were not detectable in the Unuk River.” (pg. 105-106)

- The proponent appears to be relying on past monitoring for Eskay Creek Mine to reassure the public and stakeholders that the proposed revitalization project will not affect the Unuk River.
- Firstly, the proposed project is a massive expansion which will create significantly greater surface disturbance and waste production, so it seems irrelevant to rely on past performance of the much smaller, underground Eskay Creek Mine.
- Secondly, if we are to rely on past monitoring efforts, they need to have been robust and statements made about them need to be transparent. In this case, again, there needs to be more transparent detailing of the actual metal concentrations seen at the reference and exposed Unuk River sites. Additionally, these past monitoring efforts have not been based on sufficient sampling replication to produce reliable conclusions regarding effects (see further discussion below).
- Lastly, these Unuk River monitoring sites are too far upstream to capture potential effects from unintentional releases of untreated seepage that will leave the proposed mine site (as depicted in the *Conceptual Water Balance*, pg. 33). Future submissions from the proponent should address *all* intentional and unintentional discharges from the proposed project in greater detail, and there should be more monitoring sites implemented downstream in Unuk River (including beyond the immediate Project area) to capture potential effects from the project.

“The Ketchum creek watershed makes up 4.5% of the Unuk River watershed in BC and 2.5% of the mean annual discharge, and the Project footprint represents an even smaller proportion of the Unuk River watershed.” (pg. 106)

- Simply basing our understanding of the scale of the project’s potential impacts on Unuk River’s dilution capacity is short-sighted. The fact is that BC’s permit limits and water quality guidelines are often not protective of sensitive species, like salmon, meaning that even a relatively small contribution by volume to Unuk River that contains the levels of contaminants typically permitted at BC mines could still cause chronic effects to aquatic life in Unuk River.

- The public should see potential impacts to the Unuk River, and its aquatic life, thoroughly assessed and mitigated as part of the project design and the EA/IA process. (See relevant discussions below re: monitoring efforts, and above re: using chronic effect thresholds from the scientific literature as discharge objectives).
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“Extensive data exists for characterization and monitoring of surface water quality during historical pre-mining baseline studies, operational mining (1995-2008) and post-mining periods... The frequency of monitoring has varied over time with intensive sampling during baseline data collection in 1991, followed by quarterly sampling to satisfy operating permit requirements, particularly since the end of mining in 2008. Baseline studies in 2020/21 will be compared to the historical pre-development baseline, mining, and post-mining water quality data to understand trends over the past 30 years.” (pg. 67)

- Quarterly sampling is simply not frequent enough to detect changes in the receiving environment in a timely and accurate manner. Water quality has high variability and requires much more frequent sampling to fully comprehend both short- and long-term trends.
- Data from the Eskay Creek Mine’s operational and care and maintenance years shouldn’t be relied on to assess a) whether impacts from the previous project have already occurred or b) the current baseline from which to compare potential future impacts of proposed project. There needs to be thorough (*minimum 3-5 years*) baseline sampling taken now, including consistent (*minimum monthly*) water quality sampling.

“In November 2017, the BWG approved a two-year joint water quality monitoring program to collect and share seasonal aquatic information in the Taku, Stikine, and Unuk watersheds, in order to characterize aquatic conditions. The joint WQ monitoring program by BC/AK was to characterize the overall health of the transboundary watersheds and monitor potential impacts from mining operations and other industrial development... As of May 2021, the BWG recommended that the WQ monitoring program not continue after finding good agreement between the BC/AK results and mining proponent monitoring programs, and that the collected data did not show measurable impact to Alaskan waters from historical mining activities in BC, particularly in the Unuk River with one operating mine (Brucejack Mine), the closed Eskay Creek Mine and the proposed KSM Project.” (pg. 50)

- This monitoring effort was not specifically designed to assess the impacts of the Eskay Creek Mine, nor of the proposed revitalization project, so it has little relevance to the current EA/IA assessment.
- Additionally, there have been concerns raised by parties involved in the joint monitoring effort that it was not effective and that its results (i.e., the claim that BC mining has not impacted transboundary rivers) cannot be relied on.

“Skeena Resources will continue environmental monitoring and mitigation works to minimize potential risks to adjacent watersheds and comply with existing permits and regulations, such that no anticipated impacts would occur to local watercourses or those extending outside of BC... This will continue to build on the track record of avoiding long-term impacts from the site.” (pg. 96)

“Environmental effects monitoring programs over the past 20 years have supported the conclusion of no significant adverse environmental effects... Consideration of the potential for transboundary effects will be part of the assessment process but Skeena’s perspective is that past monitoring has demonstrated little risk to downstream water quality or fisheries resources.” (pg. 104)

- Throughout the Initial Project Description, there is a heavy reliance on the ‘past 20 years’ of monitoring to demonstrate that the local receiving environment and the Unuk River haven’t been negatively impacted by activities in the project area so far, but these monitoring efforts are questionable. As mentioned above, quarterly sampling is insufficient to detect effects, and the permit limits/thresholds commonly used are not protective of sensitive species. Additionally, the proposed project is much larger and poses far greater risks to the receiving environment than the previously operating mine. Therefore, the public can’t rely on Skeena’s current ‘perspective’ that the downstream environment a) has not *already* been impacted and b) will not *be* impacted in the future by its activities.
- To properly assure the public that the proposed project will be adequately monitored, and that risk to downstream water quality and fisheries resources will be avoided, the proponent should develop a scientifically robust environmental effects monitoring program for both baseline and ongoing monitoring that includes sufficient temporal and spatial replication, appropriate site selection, and biologically relevant effects thresholds (taken from the scientific literature), and that includes a full assessment of transboundary effects.