



Karen Hurley, M.Sc. PhD.  
Environmental Planner/EcoFutures Specialist  
<contact information removed>

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Dr. Bill Ross, Dr. George Kupfer, Dr. Ron Smyth  
c/o Livain Michaud, Panel Manager  
Canadian Environmental Assessment Agency  
160 Elgin Street, 22nd Floor  
Ottawa ON K1A 0H3  
Email: [NewProsperityReview@ceaa-acee.gc.ca](mailto:NewProsperityReview@ceaa-acee.gc.ca)

*via e-mail*

Dear Panel Chair and Panel Members:

Subject: Cumulative Effects, Watershed values, and Sustainability within EIS for  
“New” Prosperity Mine: written comments as preparation for presentation in  
Technical Hearing – Aquatic Environment

Thank you for the opportunity to participate in the Panel Hearing Process. And thank you to the Secwepemc First Nations for welcoming us to their traditional lands.

I will be addressing sections of the EIS and Responses to Information Requests on cumulative effects, watershed values and sustainability from an integrated, ecosystem, long-term perspective as part of the submission by the Friends of Nemaiah Valley. My background in environmental impact assessment (EIA) processes and theory, and water management, is based on many years as an environmental professional, MSc in watershed management, as well as teaching EIA and watershed planning at University of Victoria.

In general, Cumulative Effects, Watershed values, and Sustainability are so inadequately addressed in the EIS that most potential ecological and cultural impacts are not assessed in a meaningful way, therefore, there is a significant risk that the impacts are much greater than stated. “New” Prosperity Mine proposes the purposeful destruction of Little Fish Lake, many streams and the surrounding watershed and wetlands, known collectively as Nabas and prescribes a slow death to Fish Lake/Teztan Biny. Such purposeful destruction is not sustainable development. This is the wrong

place for a massive open pit mining operation. Teztan Biny and Nabas have been the beloved traditional lands of the Xenigwet'in and other Tsilhq'atin Nations throughout history, and should be left in their care for perpetuity.

**Cumulative Effects Assessment** is not adequately addressed due to editorial tricks in the documents that refer to other documents as supporting evidence but they do not, a consistent disregard of ecological values, and a lack of consideration of First Nations' Traditional Ecological Knowledge and cultural values. The Xenigwet'in and other Tsilhq'atin First Nations' have a long history in the area, and the Fish Lake watershed remains important to them for present day resource use, cultural values and spiritual connections. This is not acknowledged within the cumulative effects assessment. In addition, the long-term impacts of the proposed mine and are ignored. All of which result in a cumulative effects analysis that is inadequate and does not provide a realistic assessment of impacts from the proposed project/

In the EIS, Cumulative Effects Assessment methodology was based on a faulty interpretation of assessment criteria, which resulted in most cumulative impacts not being explored in the assessment. The EIS simply repeated a variation on the statement that "none of the reasonably foreseeable projects or activities are likely to interact cumulatively with the projects residual effects on X" without meaningful discussion or data to support the argument. Whereas the *Guide* directs consultants to "Provide a record or audit trail of all assumptions, data gaps, and confidence in data quality and analysis to justify conclusions". The EIS also claimed that there is "no potential for cumulative impact" or "would not have significant cumulative effect" because they brazenly claim no residual impact from "New" Prosperity Mine or simply deny impacts. This is the case even with the most obvious destruction of Little Fish Lake, many streams and hectares of wetlands. However, the document's most egregious claim of no cumulative effect is in the traditional use section (p. 1295).

The Panel for the "New" Prosperity Mine agreed that there were major sufficiency gaps in the cumulative effects section of the draft EIS and through "Federal Review Panel Information Request 1" requested "that Taseko complete additional cumulative effects assessments" where 1) there was a residual project effect identified and 2) the effects of other projects and activities act cumulatively. And as **part** of this assessment that Taseko should assess past forest harvesting activities.

The Panel asked Taseko to assess forestry as **part** of the assessment. Whereas in the Response to Information Request 1, Taseko Mines Limited looked **only** at forestry. In this Response, a mine site “RSA” (Regional Study Area) is referred to as the only geographic area or scale for their cumulative effects assessment, but no geographic or ecological description of the “RSA” is provided. It is not watershed based, or Grizzly Bear range, or salmon habitat – what the “RSA” is based upon is not declared. And yet in Response 1bp1-9 is this declared that: “There are no reasonably foreseeable future impacts from major projects such as mines, pipelines or energy projects expected to be developed in *proximity* to the mine” (emphasis mine) The “RSA” is large enough to demonstrate that a particular effect, such as destruction of wetlands, is only a small percentage of the RSA, but conveniently the “RSA” does not include any “existing or other planned industrial activities” in addition to forestry.

Taseko’s conclusion in the *Response* to the Panel, is “that while there is modest potential for additional effects due to forest harvesting, additional cumulative effects do not alter the original conclusion in the EIS that the project will not have significant adverse effects in respect of vegetation, wildlife, resource use and Aboriginal Interests” (Response 1b p1-10).

The draft EIS was also inadequate in how it did not evaluate the cumulative impacts of the proposed project within the context of other mining and other industrial projects, both existing and proposed, that could have a cumulative effect on the Taseko-Chilko-Chilcotin-Fraser River system and associated salmon populations. The “Project Inclusion List” Table 2.7.1.4-1 of the EIS listed many mining projects, both existing and proposed, with the implication that these projects would be part of the Cumulative Effects Assessment. This was not the case. In both the EIS and the *Response to Information requests #1, #1a, and 1b*: all other potential cumulative impacting industries are simply dismissed without explanation. For example: Response 1a p1-2 “The physical activity that the New Prosperity Mine overlaps with, in all cases, is forest harvesting: past, present and future” and Response 1b p. 1-10 “Taseko has previously identified that the only project or activity with potential for cumulative environmental effects is forest harvesting”. However, limited discussion is provided in the EIS or the Responses as to how future projects are included in the analysis, or not. For example, in the Cumulative Effects Assessment for Aquatic Ecology (EIS 785) there is a discussion of eight new projects but only one is west of the Fraser River “and therefore considered potentially able to interact cumulatively with the Project’s residual effects on aquatic ecology”. This

is faulty thinking because the Fraser River will be the eventual receiving stream for impacts from the proposed project. Therefore, these projects should have been included in the cumulative effects assessment. And then the one project remaining, Newton project, is dismissed as the “likelihood that it will develop into a mining project is unknown”.

In addition, the geographic area evaluated within the cumulative effects (RSA) does not appear to be consistent among the various cumulative effects documents or described in the text or on a map, and yet % of RSA numbers are noted in various tables in *Response to Information Request 1*, therefore, the implied accuracy of this table in the cumulative effects assessment is misleading. Further confusion around RSA area is in the EIS (p. 396) where multiple “regional study areas (RSAs)” are referred to, without explanation of boundaries. For example, the EIS includes an acknowledgement that there will be water quality impacts from the proposed project on the Taseko River, which flows into the Fraser River. There are many existing and proposed industrial operations, including mines, that are, or could, have a cumulative impact on the water quality of the Fraser River, and associated salmon populations. For example, Taseko Mines Limited’s Gibraltar Mine, presently discharges 100,000 m<sup>3</sup> from its Tailings Pond directly into the Fraser River and has an expansion in process where they want to double this direct discharge. And closer to the proposed mine site, if one looks at the map in the EIS (unnumbered) titled “Projects Selected for CEA Inclusion” there are many proposed and existing operations that could have a cumulative effect on the Taseko or Chilco River, in addition to the impacts from the proposed project. In the noise section of the EIS (p. 573) a regional study area (RSA) was arbitrarily defined by a rectangle of 17 by 19 km in size centered on the Project, without regard for the valley form that the proposed project would be in.

Consistently in the EIS and the *Responses to Supplemental Information*, cumulative or residual effects are simply waved away with little supporting evidence or deflect meaningful discussion, or recognition of residual or cumulative impacts, by referring to other documents. For example: Wetlands.

In *Response 1* it is stated that: “The Project’s contribution to cumulative effects is small, and having regard to potential cumulative effects with other physical activities including forest harvesting, there is no significant effect of the Project on the wetland ecosystems”; then in Response 1b it is stated that (p. 1-17): “For wetland ecosystems, the conclusion is that the environmental effects are not significant because although the

magnitude of the potential effects is high, the area is presently relatively undisturbed, and potential effects are long term in duration, they are reversible through implementation of the mitigation measures as detailed in the March 2009 EIS/Application and the Habitat Compensation Plan”; and then in Table 1B-3 it says that “The Project is expected to have high magnitude residual effects on wetland and riparian ecosystems: 15% of wetland... within the RSA are expected to be lost at post-closure, prior to the implementation of compensation measures”. However, the “EIS conceptual final reclamation plan **does not include any wetland reclamation**” (Draft Habitat Compensation Reference Document, October 28, 2010).

In addition it is unclear from document to document the total area of wetlands cumulatively effected by the proposed project. In the EIS (p. 1010) it is documented that proposed project will result in the permanent loss of 311 ha of wetland. Then in the *Response to Information Request 1* –Table 1-4 Wetland Ecosystem area in the Mine Site RSA the total area impacted is stated as 407 ha (with 72 ha of loss from forestry) and then 258 ha at post closure. And the *Response to Information Request 32* document instead claims that “Taseko will seek to achieve a no-net-loss of wetland habitat functions associated with federal regulatory jurisdiction (migratory birds and species at risk) compensating for (258 ha) of **permanent** loss”. Then in the Wetlands section the document includes the statement that “The mine site includes 8 wetland ecosystems belonging to 5 wetland classes that could **prospectively** be affected by the Project (Appendix D)”.

The document then describes how it will avoid wetlands in road and transmission design and surveys and “ **Compensate** for permanent residual loss to wetlands”. The document also describes a “reclamation of **potential** wetland habitat on the Tailings Storage TSF is expected to occur in approximately Year 45”... An area of shallow water (<30 cm) will likely extend approximately 30 m from the shore. This area will be allowed to re-vegetate naturally with emergent vegetation, enhanced as necessary with native species. Other shoreline enhancements for wildlife that will be implemented *when water quality allows* (emphasis mine)”. Is a shallow edge of a contaminated Tailings Storage TSF is equivalent to diverse, flourishing, healthy wetlands? Then in Table 5-1. Summary of Residual Effects and Compensation Measures for Wetland Loss it is stated that:

“**Compensating** habitat loss on the New Prosperity site would be ideal, but Taseko’s analysis indicates that there are not likely to be sufficient opportunities to completely compensate for residual effects this way. A mix of on-site and off-site strategies is therefore: On site: Implement

enhanced reclamation on site and Create new-additional wetland habitat on lands within the MDA [no details or locations provided] and Off site: Compensate wetland loss on **another Taseko property** or Restore, enhance or create wetlands **elsewhere within the region**".

This is not adequate compensation or mitigation. And yet it is claimed in *Response 1b* that based on mitigation and development of appropriate compensation that the cumulative and residual effects on wetlands and associated wildlife habitat is not significant.

A similar pattern of referring to various documents for discussion of mitigation and/or compensation, and then it is not there or is not supported by sound science is repeated for most ecosystem components within the many cumulative effects assessment section. This is true even for Grizzly bears and streams/fish habitat as will be discussed by others during the Hearing.

However, as in the EIS, the most egregious claim of no cumulative effect in the *Responses* is in the Traditional Use sections. In the *Response to Information Request 1* (p. 1-52) it is stated that "having regard to potential cumulative effects with other physical activities, including forest harvesting, there is no significant effect of the Project on current use for traditional purposes" and "on cultural heritage". This is justified on the basis of the Habitat Compensation Plan, which as discussed above, is inadequate, and on the Fish and Fish Habitat Plan, which is equally inadequate and equally dependent on poor quality habitat compensation distant from the effected ecosystem. To claim no cumulative effect on the Xenigwet'in and other Tsilhqo'tin First Nations requires an active ignoring of First Nations' Traditional Ecological Knowledge, culture, and rights in their traditional territories.

In addition, in *Response 1b* it is stated that "The conclusion is consistent with the 2012 assessment, in that having regard to potential cumulative effects with other physical activities, including forestry, there is no significant effect of the Project on current use for traditional purposes for the following reasons" and then more repetition of implementation of the inadequate compensation plans. But what is especially offensive in this section is the repetition (3 times) of the strange phrase that "the effects are not significant because the effects are local, occur once and are reversible". None of the effects are demonstrated to be reversible, the destruction of Little Fish Lake, the wetlands and many streams may occur only once but the ecosystem impact will be long-lasting and the impact on Fish Lake will that it will 10 years to be destroyed. And how is significance diminished because the effect is *local*? Is it because this is First Nations'

lands are somehow seen as less valuable within our system of decision making? The “local, occur once” phrase is borrowed from the *Recommendations of the Executive Director - Prosperity Gold-Copper Mine Project* of the BC EAO where the “justification statement” includes the loss of Little Fish Lake and Fish Lake as a “one-time permanent event with a significant adverse effect on fish and fish habitat at that location”. The ecological and cultural destruction is somehow justified because it is one-time and permanent and happens in one local area (non-urban First Nations lands. This disregard for First Nations peoples in the cumulative effects documents for this project, and in the previous BC document, reflects an unfortunate trend of environmental racism within resource development projects in Canada.

According to Dwight N. Hopkins (2009) “*Environmental racism* is racial discrimination in environmental policymaking. It is racial discrimination in the enforcement of regulations and laws. It is racial discrimination in the deliberate targeting of communities of color for toxic waste disposal and the siting of polluting industries. It is racial discrimination in the official sanctioning of the life-threatening presence of poisons and pollutants in communities of color”. That this proposed project being forced upon the Tshilqot’in peoples, communities and governments against their clearly stated objections is environmental racism. This is deliberate targeting of a polluting, destructive industry into the traditional territory of people of colour, within a governance system of regulations and policy that supports industry, all the while ignoring First Nations ecological knowledge, their stand against the project and their rights to their traditional lands is environmental racism. Especially in this area with consideration of the Williams case and upcoming Supreme Court hearing where the “question about environmental racism cannot be separated from issues of sovereignty and treaty right” (Westra, 1999). The cumulative effects documents reflect a lack of respect for the interconnectedness of the Xeni Gwet’in and other Tsilhot’in peoples with the land and waters of their traditional territories, and the ecological knowledge that comes from millennia of relationships with all beings and the Earth. We have an opportunity with this Hearing process to break the patterns of systemic environmental racism in Canada and insist that the Environmental Assessment process and documents accurately and truthfully assess the cumulative effects on First Nations peoples and communities, and their traditional lands.

The cumulative effects assessment documents for this proposed project fail to fully and accurately assess the cumulative and residual effects across all segments of the EIS.

**Watershed values** are completely ignored in the EIS document, in fact, the document deems the impacts as somehow less harmful because they are predominantly within the Tetzan Biny/Fish Lake watershed – as if the destruction of a pristine, flourishing watershed is acceptable because it is bounded, which it clearly is not. Again the document uses editorial tricks to, in one instance claim that impacts are ‘localized’ within the Fish Lake watershed, and therefore insignificant, and in another instance claim ‘mitigation’ in another sub-watershed to the Taseko River as valid. The document’s casual dismissal of the watershed level impacts resulting from the proposed destruction of Little Fish Lake, 403.5 ha of wetland, 47,000 m<sup>2</sup> of streams and 199,000 m<sup>2</sup> of riparian zones as well as the slow death of Fish Lake demonstrates a complete lack of understanding and respect for how watersheds function and flourish – as well as a lack of understanding and respect for the deep meaning that this watershed has to the Tsilhqot’in communities, especially the Xenigwet’in.

In addition, the impacts of the proposed project also extend out of the Fish Lake watershed and directly into the Taseko watershed through Wasp Lake, Big Onion Lake and Beece Creek, and perhaps even to Taseko Lake.

The EIS document claims that Fish Lake will be kept alive with a pumping system that will circulate water from one end of the lake to another, although exactly how this will be implemented is not clearly described in the EIS. And a July 18, 2013 letter from Taseko to the CEAA Panel attempts to assure the Panel that the water management system will work as they propose and that they will conduct “site investigations that are anticipated to be taken after the issuance of an EA certificate and prior to construction of water management and tailings containment structures” and that “Taseko has carried out extensive site investigations that have provided all of the data needed as a **proof** of concept of the water management systems in the current EIS to a sufficient detail to support the conclusion that the system, when built, will perform within the predicted parameters”. However they have not provided good science or data to support this water management system, as Dr. John Stockner and Darren Brandt’s have demonstrated in their submission to the panel. It not acceptable watershed science or planning to suggest destroying a watershed and then using a series of pumps and hoses to attempt replication of a natural, flourishing aquatic ecosystem. It is absolute hubris. And as BC Government July 19, 2013 letter to the Panel states, or understates: “In conclusion, there is a lot of uncertainty as to whether Fish Lake water quality can be maintained”..

Therefore, the approach to the watershed and replacement 'water management system' is another example of where the Proponent's information is so deficient and problematic that it does not responsibly assess the impacts of the proposed project. Canadians, in general, highly value our water and our aquatic ecosystems. To propose an intentional destruction of a pristine watershed, that flows into great salmon bearing system, for a short-term industrial activity is simply not acceptable practice. This is especially the case for the First Nations peoples, whose traditional lands include the Fish Lake watershed.

**Sustainability and future generations.** In section 1.2.3 of the EIS there is a discussion of sustainable development based on the assumption that "that the proposed Project will not have any significant adverse environmental effects". This assumption is being proven incorrect by many people during the Panel process. This section also states that "given the mine closure and post-closure plans which will ensure minimal impact remains after the mine life has ended". This is very inaccurate. The local community and the public will be left with a fake lake that will require constant pumping and chemical treatments, a massive TSF wall with questionable ability to hold the large volume of water and toxic materials within it, as well as the economically depleted remnants of a boom-and-bust community. It seems to be a great act of unkindness to future generations – not sustainable development – to trade off only twenty years of mining for a millennia of expensive and potentially dangerous maintenance of contaminated site, a destroyed watershed and polluting streams.

The Sustainable Development component of the EIS is inadequate and based on false assumptions.

I will leave the last word to the students in the Environmental Impact Assessment class I taught in 2010 who wrote a collective letter to the Panel with regards to Prosperity Mine. As the younger generation they will be continuing on paying the costs once the mining company has taken the profits and is gone. Their words remain valid for New Prosperity mine:

In terms of intergenerational justice, we are also concerned that the short term mining operation will result in an unfair situation where future generations, local citizens, and public taxpayers pay the cost of private wealth creation. The monitoring and maintenance of the tailings area will become the responsibility of the local citizens because the permitting process lacks consideration of long-term responsibility for mitigation and control on the part of the company who made the money in the mining operation. Monitoring, clean-up and maintenance of the tailings

containment will go on for hundreds, perhaps thousands, of years after the mining operation ceases. This will all be at the expense of future generations.

We are not willing to accept this burden of responsibility, nor are we willing to pay the long-term costs of corporate short-term economic gains. Instead of enjoying Fish Lake as a beautiful and serene spot, we will have to go there and make sure the dam is still holding the tailings back...

As environmental studies students, the implications of ignoring ecological and cultural well-being for solely economic gain are grave. First Nations' community and personal well-being is important to us. The lake, streams, water, fish, and other animals are all part of First Nations health. If the lake is affected, so too is their water source and medicinal plants/berries.

Thank you for your time.

Yours truly,

Karen Hurley, PhD

#### Non-CEAA References

Hopkins, Dwight. N. 2009. Holistic Health & Healing: Environmental Racism and Ecological Justice. *Currents in Theology and Mission*. 36(1): 5-19

Westra, Laura. 1999. Environmental Racism and the First Nations of Canada: Terrorism at Oka. *Journal of Social Philosophy*. 30 (1): 103–124.