Canadian Environmental Law Association
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May 29, 2026

VIA EMAIL AND REGISTRY

Great Bear Gold Project
Impact Assessment Agency of Canada
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Re: Great Bear Gold Project – Asubpeeschoseewagong Netum Anishinabek Comments on Great Bear Gold Project Impact Statement (Reference Number 85832)

Please be advised that we are co-counsel for Asubpeeschoseewagong Netum Anishinabek ("ANA" or "Grassy Narrows First Nation") in relation to the Great Bear Gold Project (Reference Number 85832).

Our client's preliminary comments and concerns about the Great Bear Gold Project Impact Statement are set out below. ANA will submit supplementary submissions at a later date and reserves the right to provide further comments as more information becomes available. ANA notes that this Impact Statement has been filed with the Impact Assessment Agency of Canada ("Agency") and the impact assessment process has continued despite ANA's repeated requests for a pause in the assessment to resolve long-standing and unresolved substantive, procedural, and consultation issues, including deficient assessment of baseline conditions, unreliable methods for predicting mercury impacts, and adverse effects on the health, well-being and constitutional rights of ANA.

The Impact Statement is incomplete, inadequate, and unpersuasive. It does not adequately address the mandatory factors in s.22 of the *Impact Assessment Act,* SC 2019, c 28, s 1 ("IAA"), nor does it contain all of the information, at a sufficient level of detail and validity, required by the Tailored Impact Statement Guidelines ("TISG"). The Impact Statement must provide sufficient and thorough information to allow for an assessment of adverse effects and any proposed mitigation efforts in accordance with s.22 of the IAA and the TISG.

The Agency should not proceed with an impact assessment and create an impact assessment report where the proponent's Impact Statement is so clearly deficient and without credible, accurate and reliable information.[1] Accordingly, pursuant to s. 26(2) of the IAA, the Agency should require further information and studies from Great Bear Resources Ltd. ("Great Bear") prior to proceeding with the impact assessment.[2]

[1] *Impact Assessment Act,* SC 2019, c 28, s 1 ("IAA"), s. 22(1)
[2] IAA, s. 26(2).

ANA's experts have identified that the Great Bear Gold Project will result in discharges of sulphate. The Impact Statement under-represents the project's contribution to sulphate levels. The additional sulphate load to the environment will stimulate downstream methylation and increase mercury in downstream fish. This will happen even at the levels of sulphate loading predicted by the Impact Statement, but which will likely be much higher than predicted.

ANA cannot tolerate any increase in mercury exposure and cannot tolerate any more impact on their Treaty rights. The Impact Statement does not validly consider cumulative impacts on ANA from this project in relation to other past, present and planned projects in the English River watershed.

ANA also submits that:

- The short timeframe of approximately eight weeks that was provided to review the Impact Statement is totally insufficient, does not adequately fulfill the Crown's duty to consult, and does not protect ANA's constitutionally protected rights. This timing problem was not resolved by the proponent's dubious decision to release selected parts of the Impact Statement prior to the submission of the overall finalized report to the Agency.

- While ANA will endeavour to submit further comments within the short additional two weeks provided by the Agency, ANA does so under duress and under protest. An additional two weeks to comment does not address ANA's concerns and does not meet constitutional requirements. Omitting those additional comments from important stages of the impact assessment process, such as the External Technical Review Panel report, is unacceptable. Further detail is provided in a submission made by ANA and filed under separate cover.

- ANA does <u>not</u> consent to the Great Bear Gold Project or the Impact Statement.

- The Impact Statement does not reflect, respect or integrate ANA laws, protocols, or land declaration.

- Once the Agency is provided with a detailed and valid Impact Statement, ANA also requests that the Agency include additional information outside of the Impact Statement in its impact assessment, and in particular the findings of the Expert Technical Review Panel and ANA's submissions and expert reports, in creating a report pursuant to section 26(1) of the IAA.[3]

- This submission should be read in conjunction with the previous comments, letters, expert reports and other communications sent from or on behalf of ANA to the Agency in relation to this project.

[3] IAA, ss. 26(1) and (2).

A. Background on ANA and Great Bear Gold Mine Project

The Great Bear Gold Mine Project will include underground workings, open pits, processing facilities and supporting infrastructure on the property. Ore extraction and processing will occur at up to 15,000 tonnes per day for approximately 26 years.[4] The project will create hundreds of millions of tonnes of mine waste and will cause contamination for decades to centuries after closure of the mine.[5]

The Project is located within the Chukuni River watershed above Pakwash Lake, which is part of the greater English River watershed. The Project is situated mainly in the Dixie Creek sub-watershed, with a large portion of the mine property located to the north of Dixie Creek.[6] ANA's traditional territory, Treaty #3 rights, in particular the right to fish, and the health of the waters in this area, and in downstream areas, are integral to their way of life and health. The Crown has real or constructive knowledge of ANA's Treaty 3 rights and interests.

The Great Bear Gold Project is located within the Interim Core Area of Interest for Mining that was delineated and disseminated by ANA several years ago. The Great Bear Gold Project is proposed in a watershed that is already one of the most severely contaminated in Canada and where Indigenous people including ANA members living downstream already have well documented toxic health impacts including disease, neurological degeneration, conditions impacting learning, suicidality, and premature death.[7] The project will cause, compound or contribute to further and significant adverse effects within this same mercury-impaired watershed, as outlined by ANA's experts below.

For decades, ANA has borne the brunt of the impacts of industry in the region, while the voice of ANA has long been ignored by Crown and industry decision makers. Part of the outcome of this mistreatment has been one of Canada's most infamous environmental poisoning sagas. As a consequence, the region, and the country, has a stain on its honour, its reputation and its credibility. The Crown has a heightened duty here to protect the people and to ensure that the existing harms are not prolonged or exacerbated.

B. Section 35 and Treaty Rights

The Agency must meaningfully consult with and obtain ANA's consent on the Great Bear Gold Project. The Agency is required to meaningfully consult, accommodate, and obtain ANA consent in a manner consistent with the Crown's duty to consult, the Honour of the Crown, the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP), and ANA's own laws, including the Asubpeeschoseewagong Anishinabek Aaki Declaration.

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[4] WSP, "Great Bear Gold Project, Impact Statement, Summary", p. 1 ("IS Summary")
[5] Dr. Kevin Morin, "Great Bear Gold Project – Review of the Impact Statement (IS)", dated May 27, 2026 ("Morin Report"), pp. 11, 13.
[6] IS Summary, p. 4
[7] Dr. Donna Mergler, Grassy Narrows General Mercury and Health Facts: Expert Report (6 November 2015), attached to Opinion of Dr. Katherine von Stackelberg, (12 February 2026) at pp. 18-19, 12, 30, 13, 15, 49, 17, 35, and 47.

The Crown's obligation pursuant to section 35 of the *Constitution Act*, *1982* to uphold existing Aboriginal and Treaty rights operates as a limit on federal legislative powers and as a constraint on statutory decision makers. Administrative decision makers are bound by the Constitution and must comply with it.[8]

As a matter of law, the Crown's duty to consult, accommodate and obtain consent is triggered when the Crown has knowledge, real or constructive, of the potential existence of an Aboriginal or Treaty right and contemplates conduct that might adversely affect it. The degree of consultation required depends on the strength of the Indigenous claim and the seriousness of the potential impact on the rights. Consent is required at the high end of the consultation spectrum when the strength of the Indigenous claim and/or the seriousness of the potential impact are high.[9] Consent is also required in circumstances where cumulative impacts have already exceeded a reasonable threshold.[10]

Canadian law, including the duty to consult pursuant to section 35, also must be interpreted in a manner consistent with UNDRIP. In particular, Measure 51 of Canada's UNDRIP Act Action Plan states that "the Impact Assessment Agency will implement the Impact Assessment Act (IAA) in a way that aligns with the objectives and spirit of the UN Declaration," which includes the requirement of free, prior and informed consent.

With respect to process, the UNDRIP standard of free, prior and informed consent "requires a process that places a heightened emphasis on the need for a deep level of consultation and negotiations geared toward a mutually accepted arrangement."[11]

Here, the Crown has knowledge, real or constructive, that mining-related activities, including effluent discharges to area waters within the Core Area have the potential to adversely impact ANA's Aboriginal, Treaty and inherent rights in a severe way. The strength of ANA's claimed rights is at the high end of the spectrum because its Treaty rights are established, requiring ANA consent. The Crown also has knowledge, real or constructive, that cumulative impacts on ANA have already exceeded a reasonable threshold. Nevertheless, ANA has repeatedly advised the Agency, to no avail, that the Crown's consultation efforts in relation to the Impact Assessment process have been inadequate and unacceptable. ANA does not consent to the process, the Project or the Impact Statement as prepared by Great Bear.

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[8] *Tsilhgot'in Nation v. British Columbia*, 2014 SCC 44 (CanLII), [2014] 2 SCR 257, para 142; *Beckman v. Little Salmon/Carmacks First Nation*, 2010 SCC 53 (CanLII), [2010] 3 SCR 103, para 45.
[9] *Haida Nation v. British Columbia (Minister of Forests),* 2004 SCC 73, at paras 35 and 44-45; *Rio Tinto Alcan Inc v. Carrier Sekani Tribal Council*, 2010 SCC 43 at para 31.
[10] *Yahey v. British Columbia*, 2021 BCSC 1287 at para 3.
[11] *Kebaowek First Nation v. Canadian Nuclear Laboratories*, 2025 FC 319 (CanLII), para. 130.

C. Impact Assessment Act

The preamble of the IAA commits the government to implement UNDRIP and to ensure respect for the rights of Indigenous peoples of Canada that are recognized and affirmed by section 35 of the *Constitution Act, 1982.*[12]

The purpose of the IAA is to prevent or mitigate significant adverse effects, and significant direct or incidental adverse effects, that may be caused by the project.[13] The impact assessment must anticipate, identify and assess the potential effects of the project.[14] An Impact Statement which does not accurately anticipate, identify or assess the effects of the project does meet the standards and requirements of the IAA.

The Agency is required to exercise authority under the IAA in a manner that fosters respect for the rights of Indigenous peoples, takes into account Indigenous knowledge, considers cumulative effects, applies the precautionary principle and promotes cooperation with Indigenous peoples of Canada.[15] None of these core principles of the IA process have been met in this Impact Statement or in the impact assessment process to date.

Pursuant to s. 2 of the IAA, an adverse effect within federal jurisdiction includes, with respect to the Indigenous peoples of Canada, "a non-negligible adverse impact – occurring in Canada and resulting from any change to the environment – on (i) physical and cultural heritage, (ii) the current use of lands and resources for traditional purposes, or (iii) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance" and "a non-negligible adverse change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada".[16]

Section 22(1) of the IAA requires consideration of the impact on any Indigenous group and any adverse effect of the project on the constitutional rights of Indigenous peoples.[17] It is also mandatory for the Agency to consider (1) Indigenous knowledge provided with respect to the designated project, (2) considerations related to Indigenous culture, (3) any assessment of the effects of the designated project that is conducted by or on behalf of an Indigenous governing body, and (4) any study or plan that is conducted or prepared by an Indigenous governing body that is in respect of a region related to the designated project.[18]

There is an already degraded baseline in the English River watershed which must be accounted for in this project assessment, but which is repeatedly ignored or downplayed by the proponent in

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[12] *Impact Assessment Act,* SC 2019, c 28, s 1 ("IAA"), preamble.
[13] IAA, s. 6(1)
[14] IAA, s. 6(1).
[15] IAA, s. 6(2).
[16] IAA, s. 2(e) and (f).
[17] IAA, s 22(1)(c)
[18] IAA, s.22(1)(g), (l), (q), and (r).

its Impact Statement. Section 22(1)(a) requires consideration of all changes to health, social or economic conditions and any cumulative effects that are likely to result from the project.[19]

Section 25 of the IAA requires the Agency to ensure that a report is prepared with respect to the impact assessment.[20] Because the Impact Statement is clearly inadequate on its face, it is crucial that the Agency seek further information from the proponent pursuant to s.26(2) and ensure that the Impact Statement is revised to meet the requirements of the TISG. In the circumstances, the Agency should also consider all additional relevant information including the Expert Technical Review Panel on Mercury Methylation and ANA's submissions and expert reports, pursuant to s.26(1) of the IAA.[21]

D. Impact Statement is Premature and Impact Assessment Should be Paused

ANA is strongly opposed to the Great Bear Gold Project and related activities. The Impact Statement is premature, incomplete and inadequate, and the impact assessment should be paused accordingly. Neither the concerns raised by the External Technical Review Panel nor the concerns raised by ANA and its experts have been addressed or resolved by the proponent in the Impact Statement.

i. External Technical Review Panel Concerns Have Not Been Addressed

The TISG state that the potential for project contributions to methylmercury production in downstream watersheds requires "a detailed and robust analysis" and that the proponent must submit a study plan with sufficient time to facilitate a review by experts and interested parties and "to **inform** the studies undertaken".[22] [emphasis added]

The IAA established an Expert Technical Review Panel on Mercury Methylation ("ETR"). The mandate of the ETR is to provide "independent project-specific advice" on the potential for methylmercury production to be caused by the project, the potential for any methylmercury produced to result in increased bioaccumulation in country foods, namely fish, and the potential for any methylmercury bioaccumulation in country foods or production in water to impact human health due to species or water consumption.[23] The ETR panel consists of Dr. Linda Campbell, Dr. Britt Hall, and Dr. Elsie Sunderland.

An expert technical review panel also serves the purposes of s.6(3)(b) of the IAA, which establishes that an impact assessment must adhere to the principles of scientific integrity, honesty, objectivity, thoroughness and accuracy.

In spite of ANA's requests and the TISG requirements to the contrary, the ETR panel received the Great Bear Mercury Study Plan only after the study was well underway. Although the ETR

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[19] IAA, s 22(1)(a)(ii).
[20] IAA, s. 25(b).
[21] IAA, ss. 25(b), 26(1) and (2).
[22] Tailored Impact Statement Guidelines – Great Bear Gold Project ("TISG"), pp. 27, 32.
[23] Impact Assessment Agency of Canada, "Terms of Reference for the Great Bear Gold External Technical Review".

panel identified serious deficiencies in the Great Bear Mercury Study Plan in December 2025, those deficiencies have not been addressed.

The ETR panel found that the Great Bear Mercury Study Plan "**does not provide a sufficiently rigorous or scientifically defensible approach to assess baseline mercury conditions or predict future impacts of the Project**".[24] [emphasis added]

The ETR panel examined both (1) limitations and uncertainties in baseline assessment methodology, and (2) methods for assessment of effects of future effluent discharges from mining activities. Despite requirements in the IAA that Great Bear anticipate, identify and assess the potential effects of the project, the ETR panel concluded that the proposed Mercury Study Plan methodology to assess baseline conditions and predicted impacts were not scientifically defensible:

> Major limitations significantly weaken the baseline assessment. Outlined shortcomings undermine the plan's ability to determine current methylmercury risks or support meaningful comparison with future monitoring data.
>
> In addition, the proposed methods for forecasting project-related effects lack transparency and fail to capture the ecological and chemical processes that drive methylmercury production and bioaccumulation. The modelling framework is not suited to represent site-specific mercury dynamics, important pathways such as wetland inundation are omitted, and key resources, including wild rice and sensitive wildlife, are not considered. To reliably evaluate environmental and human health risks, substantial revisions are required, including adoption of open-source modelling tools, improved data quality, expanded spatial coverage, and inclusion of ecologically and culturally relevant receptors. Without these changes, the study plan cannot adequately address the core questions of concern.[25]

Great Bear claims in the Impact Statement that key modifications have been made to the project, including implementation of a "comprehensive Mercury Study Plan".[26] However, the substantive deficiencies in the plan identified by both ANA experts and the ETR panel remain outstanding. Great Bear cannot rely on a Mercury Study Plan which is not scientifically defensible.

Based on the serious inadequacies identified by the ETR panel and ANA to date, the Mercury Study Plan should not have proceeded without the Agency requiring Great Bear to submit a final Mercury Study Plan that the ETR and ANA can confirm is scientifically valid with respect to the impacts of the project on mercury and methylmercury production.

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[24] Dr. Linda Campbell, Dr. Britt Hall, and Dr. Elsie Sunderland, "Review of Great Bear Project: Mercury Study Plan (Submitted by Expert Review Panel December 2025), ("ETR Panel Review"), pp. 3, 10.
[25] ETR Panel Review, pp. 10-11.
[26] Impact Statement, Section 12: Predicted Changes to Indigenous Peoples – ANA, p. 12-23.

ii. ANA's Experts Have Raised Serious Concerns Which Have Not Been Addressed

ANA's experts have conducted a preliminary review of the Impact Statement and found that their numerous technical and scientific concerns remain valid and unaddressed.[27]

Among other requirements, the TISG required the proponent to:

- **Provide the baseline data** for relevant physicochemical parameters, biological parameters and chemical constituents for surface water that can contribute to the methylation of mercury, from locations both upstream and downstream of the Project including anywhere that project effects may interact with pre-existing mercury contamination;[28]

- Efforts should be made to **ensure that existing methylmercury exposure in nearby human receptors are factored** into the Human Health Risk Assessment, particularly when assessing impacts on Grassy Narrows First Nation community members in the Human Health Risk Assessment;[29]

- Describe the methods for **ensuring that the rate of methylation of mercury downstream of the Project does not increase as a result of the Project**, taking into account physicochemical parameters, biological parameters, and chemical constituents of surface water that can contribute to the methylation of mercury; and[30]

- Identify mitigation to **avoid human health effects** caused by changes to the quality of country foods from potential changes in mercury methylation rates downstream of the project site;[31] [emphasis added]

As outlined below, none of these requirements of the TISG have been met. Baseline conditions have not been accurately identified. Adverse effects, including on the health of ANA people and the fish that they eat, caused by sulphate releases and increased methylation of mercury in area waters, have not been adequately assessed or addressed. Great Bear has not ensured that the rate of methylation of mercury downstream of the project does not increase and, to the contrary, as outlined by ANA experts below, sulphate concentrations which stimulate methylation will be increased as a result of the Great Bear project.

(a) Dr. Kevin Morin – Great Bear Gold Project – Review of the Impact Statement (IS), dated May 27, 2026

Dr. Kevin Morin is a hydrogeologist and mining expert. He has authored or co-authored 99 papers and presentations, five books and 80 online case studies. He serves as a peer reviewer for international journals on Metal Leaching and Acid Rock Drainage ("ML-ARD") and

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[27] Impact Statement, Section 3, pp. 3-36, 3-104, 3-107.
[28] TISG, p. 52.
[29] TISG, p. 90
[30] TISG, p. 59.
[31] TISG, p. 93

environmental contamination. He was a key contributor to the MEND 2009 program, a Canadian federal, provincial, territorial and industrial initiative aimed at preventing and controlling acidic drainage from mining.

Dr. Morin of the Minesite Drainage Assessment Group found that the Impact Statement contained "major irrefutable errors, major irreconcilable contradictions, and major conflicting misconceptions" and that there is sufficient information to conclude that contamination at Great Bear will be much more serious that stated in the Impact Statement.[32] Dr. Morin identifies serious underestimation of impacts related to both high-contaminant acid rock drainage (ARD) and water flows and water quality, such as seriously underestimated mercury and sulphate levels.[33]

Dr. Morin's expert report is attached hereto as **Appendix 'A'.**

With respect to the Impact Statement, Dr. Morin found the following:

- There are serious contradictions within the Impact Statement. There are too many authors for the Impact Statement. Data and assumptions were not consistently applied in the Impact Statement.[34]

- Appendix I-2 and Appendix H-2 of the Impact Statement include "tremendous discrepancies and errors."[35] Dixie Creek and other waterbodies will receive higher-than-estimated loadings of water contaminated by sulphate and metals from various mine wastes and ponds than the prediction in Appendix H-2.[36]

- The Impact Statement modelled groundwater from the surface to the base of the proposed mine. However, the results of this groundwater model are only provided for the upper 100 metres (or 7%). Limited information about the additional 93% of the groundwater model is provided in the Impact Statement.[37]

- The use of the "equivalent" porous medium, only modelling steady-state conditions, not including drawdown cones, and assuming that 2,500 near-vertical boreholes will be grouted are all serious errors.[38]

- Great Bear has improperly assumed steady-state conditions, which would only be reached after many decades, if at all.[39] This error has been pointed out in the past and has not been remedied.[40] Dr. Morin predicts substantial adverse biological effects:

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[32] Morin Report, p. 7.
[33] Morin Report, p. 7.
[34] Morin Report, p. 14.
[35] Morin Report, pp. 14-22
[36] Morin Report, p. 37.
[37] Morin Report, pp. 32-33, 35.
[38] Morin Report, pp. 24-25, 32.
[39] Morin Report, p. 35.
[40] Morin Report, p. 36.

> The elimination of most of Dixie Creek's cool and nutrient-rich baseflow during low flows and during warm seasons would likely result in substantial adverse biological impacts on aquatic and benthic life in the Great Bear reach of Dixie Creek. During winter months, the elimination of much of Dixie Creek's non-frozen baseflow would also likely result in substantial adverse biological impacts on aquatic and benthic life in the Great Bear reach of Dixie Creek. This adverse biological impact of reduced baseflow, along with many persisting errors in groundwater modelling, have still not been assessed, not corrected, and not mitigated in this Impact Statement by Great Bear which offers "no additional comment" on them.[41]

- Transient modelling is "desperately needed" to better estimate the impacts and effects of the project on the water balance and associated water quality.[42]

Despite past comments by Dr. Morin on the errors and omissions in the proponent's water-related work, Great Bear has simulated and estimated the impacts on water flows and associated water quality by "deeming sufficient" its models. Until the time that steady-state conditions are reached, if ever, the model and its predicted impacts are wrong and underestimate impacts like fugitive contaminated seepage reaching the environment.[43] Ultimately, the Great Bear groundwater model cannot reliably tell (1) whether water will flow into or out of Dixie Creek and other waterbodies, (2) the rate of any flow, and (3) how much flow supplementation would be needed to avoid aquatic-life impacts.[44]

The predictions of mining-impacted groundwater balance and the associated impacts of water balance on water quality at Great Bear are unreliable. Reasonable estimates remain unknown. The Impact Statement is "useless for reasonably estimating impacts and the corresponding optimal mitigation measures to minimize impacts".[45]

i. Dr. Morin's Review of Appendix 'T' – Mercury Bioaccumulation Study for Downstream English Review to Wabigoon System Waterbodies, March 2026

Despite previous reviews of the preceding Mercury Study Plan and update, which pointed out critical errors such that the proposed methods and models were found to be "incorrect, misleading, and/or unacceptably ambiguous", Appendix T of the Impact Statement implemented those errors.[46] The "predictions in Appendix T are **unrealistic, should not be relied on, and underestimate mercury concentrations and methylation** including during non-annual-average conditions."[47] [emphasis added]

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[41] Morin Report, p. 36.
[42] Morin Report, p. 37.
[43] Morin Report, p. 37.
[44] Morin Report, p. 32.
[45] Morin Report, p. 38.
[46] Morin Report, p. 39.
[47] Morin Report, p. 39.

The Mercury Study in Appendix T of the Impact Statement uses "geochemical and hydrogeological methods that underestimated the severity of mercury, methylation, and sulphate issues at the Great Bear Project and in the Chukuni River system.[48] Some methods contradict other portions of the Impact Statement and are not typical of most waterbodies. Ultimately, Dr. Morin found: "**Mercury concentrations and methylation can literally be orders of magnitude worse and higher than reported and predicted in Appendix T"**.[49] [emphasis added]

ii. How Many Toxic Spills are Acceptable?

The current 20-year return period for construction and the 100-year return period for operation and closure is not typical. The design basis will allow repeated toxic releases and spillages with substantial environmental impact, predicted by Dr. Morin to be 100% probable during the period of 100 years after the start of proposed mining and the likely centuries of water treatment.[50] These spillages are not considered in section 17 of the Impact Statement, despite the requirement in s. 22(1)(2)(i) of the IAA.[51]

iii. Water Quality and Metal Leaching and Acid Rock Drainage (ML-ARD)

Dr. Morin found that ML-ARD and water quality will very likely be substantially worse, by up to orders of magnitude, than estimated in the Impact Statement, which includes high-contaminant acid rock draining ("ARD") likely within years of starting operation.

- The Impact Statement does not follow the federal government's guidance in the ML-ARD Prediction Manual and fails to reliably evaluate and predict ML-ARD.[52]

- The water treatment plant is not sufficient. The water treatment plant considered by the Impact Statement cannot treat ML-ARD with higher contaminant levels. The Chukuni River would become contaminated far worse than indicated in the Impact Statement.[53]

- Several sections of the Impact Statement show high-concentration, toxic ARD will drain from Great Bear mine wastes before closure of the mine, likely within a few years and continue for decades to centuries after closure of the mine.[54]

- Great Bear's focus only on dissolved concentrations "grossly underestimates reasonable full-scale contamination at the Great Bear site".[55] Improper comparisons between dissolved concentrations and full-scale concentrations are repeated hundreds of places in text, tables and figures throughout the Impact Statement.[56]

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[48] Morin Report, p. 50.
[49] Morin Report, p. 50.
[50] Morin Report, p. 53.
[51] Morin Report, p. 53.
[52] Morin Report, p. 54.
[53] Morin Report, p. 54.
[54] Morin Report, p. 63.
[55] Morin Report, p. 63.
[56] Morin Report, p. 63.

- The Impact Statement does not identify and assess all likely and expected toxic contaminants.[57]

- The Impact Statement calculates erroneous reaction rates of contamination and then claims they are "very low" and "low". The rates observed are typical rates that can produce high and serious water contamination.[58]

- The Impact Statement must reliably scale up small-scale information, for instance from 1 kg samples to the full-scale of around 100,000,000,000 kg, and confirm the scaled up results with intermediate-scale tests. All full-scale predictions of dissolved contamination and ML-ARD in the Impact Statement are "grossly underestimated".[59]

iv. Water Treatment Plant and Chukuni River

There is little information about the water treatment system despite the Impact Statement relying on it to meet the requirements of the IAA.[60] Contaminated water is only partially treated and the Impact Statement still relies on dilution in the Chukuni River.[61] The Impact Statement underestimates the treated effluent impacts on the Chukuni River, because only some contaminants are included and substantially higher levels of contamination are expected compared to what the Impact Statement predicts.[62] The impacts will be "substantially higher" and there is no way to identify appropriate mitigation until valid estimates of contaminants are made.[63]

The Impact Statement itself highlights that more information is needed.[64] The proposed handling and disposal of hazardous water-treatment waste will contaminate the environment.

The proposed Membrane Filtration system cannot be built as designed.[65] The Impact Statement suggests membrane filtration would remove sulphate and other contaminants from waste water using a physical straining process that actually captures suspended solids, sediment, and bacteria. A membrane filtration process "would likely have little effect on Great Bear contamination and water quality estimated in Appendix K-2 and K-3.[66]

[57] Morin Report, p. 63.
[58] Morin Report, p. 68.
[59] Morin Report, p. 68.
[60] Morin Report, p. 69.
[61] Morin Report, p. 81.
[62] Morin Report, p. 81.
[63] Morin Report, p. 81.
[64] Morin Report, p. 81.
[65] Morin Report, p. 82.
[66] Morin Report, p. 73.

v. Failure to Meet Requirements of Tailored Impact Statement Guidelines

Dr. Morin concluded that the Impact Statement does not meet conditions in the TISG on water quality impacts by fugitive contaminated dust and air emissions.[67] As a result, the Impact Statement does not rigorously address impacts from fugitive discharges that will not be collected and treated by the water treatment system before they enter the environment. This further under-represents on site and downstream environmental impacts.

vi. Conclusion

Ultimately. Dr. Morin concludes:

> There is sufficient information to conclude that the construction, operation, and closure of the Great Bear site would cause far greater impacts than the Impact Statement estimates. In other words, the Great Bear Impact Statement **underestimates the numbers, extents, and severities of impacts that can be expected at the Great Bear Project. As a consequence, the proposed mitigations by Great Bear to minimize impacts on the local environment and the Chukuni River would likely fail**.[68] [emphasis added]

(b) Dr. Branfireun – Great Bear Project – Impact Statement dated May 29, 2026

Dr. Brian Branfireun is a biogeochemist. He has been a researcher and University Professor for over 25 years. He is considered an internationally recognized expert in the field of watershed biogeochemistry and the environmental cycling of mercury, and in particular, methylation. He has published many papers, including key review papers, on mercury methylation in the peer reviewed scientific literature. In 2024, he produced a report on the role that sulphate discharge from industrial effluent plays in the formation of methylmercury in the English-Wabigoon River system, the Riverbank Mercury Methylation Study.

Dr. Branfireun's Report is attached hereto as **Appendix 'B'.**

Dr. Branfireun focused on the issue of sulphate releases in the Impact Statement, the evaluation of mercury methylation in receiving ecosystems, and the potential exposure to biota.[69] Dr. Branfireun found that the proponent's conclusion that there would be little to no impact of the project on methylmercury in fish or consumers was based **on flawed conceptualization of the processes involved, flawed field methodologies, and oversimplified modelling, that combine to minimize project effects**.[70] [emphasis added]

He made the following observations about the Impact Statement:

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[67] Morin Report, pp. 83-87.
[68] Morin Report, p. 88.
[69] Dr. Branfireun – Great Bear Project – Impact Statement dated May 29, 2026 ("Branfireun Report"), p. 1.
[70] Branfireun Report, p. 1.

- Inappropriate and inaccurate background levels of sulphate are being used for comparison. Sulphate levels are "neither low, nor typical", despite repeated statements in the Impact Statement.[71]

- Even the proponent's estimates in the Impact Statement are that effluent sulphate concentrations will be 2-6 times higher than natural background concentrations, which contributes to degradation of an already human-impacted watercourse.[72]

- Sulphate concentrations at the outlet of Pakwash Lake predicted by the Impact Statement range from approximately 4.9 to 5.4 mg/L during the operations phase of the mine, which is a **42% increase in sulphate levels** above current conditions.[73]

- If the true natural background levels of sulphate in Pakwash Lake were the same as the Chukuni River, which are likely similar to the English River's 1.2 mg/L, then the percentage increase in overall sulphate concentration is an "alarming 133%".[74]

- There is ample evidence that natural background concentrations are substantially lower than those measured at "reference" upstream locations, reflect cumulative impacts of industrial activities, and the proponent's use of these 'baseline' data is a "licence to pollute an already degraded watercourse".[75]

- This increase in sulphate levels is not "minor in magnitude" as claimed in the Impact Statement and will lead to significant increases in methylation in the downstream environment and therefore increased accumulation of mercury in downstream fish. The British Columbia Water Quality Guideline for the Protection of Aquatic Life of 218 mg/L for sulphate cannot be relied on where it is irrelevant in the context of mercury methylation and "is not protective whatsoever against methylation and bioaccumulation of mercury". [76] The British Columbia Water Quality Guideline for the Protection of Aquatic Life is over 100 times greater than best available natural background measurements in the English River downstream of the project.[77]

- The modelling is oversimplified.[78] Appendix T relies on a grossly oversimplified conceptualization of where methylmercury is produced in the environment.[79] Important sites of methylation are completely ignored.[80]

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[71] Branfireun Report, p. 7.
[72] Branfireun Report, p. 1.
[73] Branfireun Report, p. 3,
[74] Branfireun Report, p. 8.
[75] Branfireun Report, p. 2.
[76] Branfireun Report, pp. 2-3.
[77] Branfireun Report, p. 2.
[78] Branfireun Report, p 3.
[79] Branfireun Report, p 3.
[80] Branfireun Report, p. 4.

Dr. Branfireun welcomed the acknowledgement in the Impact Statement that sulphate loading is linked to mercury methylation.[81] However, Dr. Branfireun ultimately concluded:

> Although this memo is not a comprehensive commentary on the entirety of the Impact Statement for the Great Bear Gold Project, the deficiencies in fundamentally core aspects of the analyses related to mercury methylation are readily visible through the thousands of pages, wall of data tables, and reams of boiler-plate statistical outputs. **The contention that the Great Bear Gold Project will not have a measurable impact on downstream mercury methylation, fish mercury levels or exposure to fish consumers is wholly unsupported by the Impact Statement** by virtue of modelling and measurement choices that can do nothing but minimize the impact of inevitable sulphate loading on mercury methylation by the proposed project. **Even at the level of sulphate loading predicted by the Impact Statement, mercury methylation downstream is expected to increase significantly**.[82] [emphasis added]

(c) Source Environmental Associates Inc. – Technical Memorandum: Review of the Great Bear Project Impact Statement – Preliminary Technical Review Comments, dated May 28, 2026.

Source Environmental Associates Inc. ("Source") was retained by ANA. Dr. Rina Freed is a Principal and Senior Environmental Engineer (Mining) with Source Environmental Associates Inc. ("Source"). Dr. Freed has over 20 years of experience in mining related to water management and mine closure. Martin Shin is a Project Engineer with Source and specializes in wastewater treatment and hydrometallurgical process development within the mining industry. The Source team also includes an environmental chemist and a biologist in training.

Source's expert report is attached hereto as **Appendix 'C'.**

i. Assessment of Water Quality

Source made the following observations about deficiencies in the Impact Statement related the assessment of water quality:

- The average water flow approach consistently underestimates exceedances of water quality parameters. For parameters with highly variable concentrations, including sulphate and mercury, median inputs are not sufficiently conservative for assessing environmental risk.[83]

- A variable water quality and flow model is needed.[84]

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[81] Branfireun Report, p.1.
[82] Branfireun Report, p. 9.
[83] Source – Technical Memorandum: Review of the Great Bear Project Impact Statement – Preliminary Technical Review Comments, dated May 28, 2026, p. 2. ("Source Report")
[84] Source Report, p. 2.

- The proponent should clarify whether upper-percentile water quality conditions were evaluated for key source terms. These sensitivity cases are needed to demonstrate that predicted water quality remains protective.[85]

- Along with Appendix I-2 and Appendix K-2, additional information is needed about the membrane filtration approach, including the need for a dedicated brine/reject solution management plan.[86] Without this plan, the long-term implications of storing and relocating concentrated reject solution remain uncertain. A better solution is to treat the brine so that it does not need to be managed long term as a contaminant source, which is a more common approach.[87]

- Nitrate is a common problem at open pit mines with blasting and cyanide gold mines. Appendix K-2 source terms and estimates appear lower than realistic. The Ammonium nitrate/ fuel oil loss factor used in the water quality model should be provided.[88] A dedicated operational plan to minimize nitrogen loading at source and manage nitrogen species before discharge is needed.[89] A dedicated Nitrogen Management Plan is also needed.[90]

- The cyanide standard is not appropriate as a water quality management target for the receiving environment.[91]

- The water quality model also appears to contain a large error caused by unrealistically low post-cyanide destruction laboratory testing. Actual data from comparable sites is much higher.[92] The proponent should develop a comprehensive Cyanide Management Plan that identifies protective operational targets and trigger/action levels for total cyanide and Weak Acid Dissociable ("WAD") cyanide following the cyanide destruction circuit.[93]

- The feasibility of cyanide treatment for effluent discharge to the receiving environment should be reassessed.[94]

- Exceedances of the Provincial Water Quality Guidelines for cyanide are predicted in year 6 of operations in Unnamed Watercourse 1, but the Impact Statement does not evaluate the effects of these exceedances on fish and aquatic life.[95]

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[85] Source Report, pp. 2-3.
[86] Source Report, p. 3.
[87] Source Report, p. 3.
[88] Source Report, p. 4.
[89] Source Report, p. 4.
[90] Source Report, p. 4.
[91] Source Report, pp. 4-5.
[92] Source Report, p. 5.
[93] Source Report, pp. 5-6.
[94] Source Report, p. 6.
[95] Source Report, p. 8.

- The dataset on baseline conditions may reflect conditions that were already influenced by Project-related disturbance.[96] Appendix K-1 should acknowledge that the monitoring data reflect site conditions following commencement of exploration activities. If water quality or hydrogeological data exist from before the initiation of exploration activities, that data should be reviewed.[97]

- New data monitoring stations, including closer to the Viggo Pit/ Viggo Management Facility ("VMF") are needed to "better capture the **majority of Project-related effects on surface water quality**" and provide early warning of potential seepage or contaminant migration from tailings stored with the Viggo Pit/ VMF into Dixie Creek.[98] [emphasis added]

- The number of samples taken at most groundwater monitoring stations is too few.[99] Source found that "at this time, it does not appear that baseline groundwater conditions have been sufficiently characterized to support the level of certainty implied in the effects assessment."[100]

- With respect to surface water, the Impact Statement should be revised to include graphs for all monitored parameters, consistent with industry standard practice. Detection limits should also be included to clearly identify which parameters were non-detects for a given sample.[101]

- Given the identified groundwater flow conduit, the unclear liner status of the Treatment Management Facility ("TMF") and seepage collection system, and its potential to facilitate contaminant migration from the TMF, additional monitoring and assessment are warranted.[102]

- Surface water quality should be monitored at Unnamed Watercourse 1 and Unnamed Watercourse 11 throughout the life of the mine following placement of the TMF. Additional groundwater monitoring wells should be installed within the downgradient glaciolacustrine sand deposit to better characterize groundwater flow and monitor potential seepage migration from the TMF.[103]

- It is unclear whether the TMF is a conventional slurry tailings facility or a dry-stack facility and alternatives should be considered.[104]

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[96] Source Report, pp. 6-7.
[97] Source Report, p. 7.
[98] Source Report, pp. 7-8.
[99] Source Report, p. 10.
[100] Source Report, p. 10.
[101] Source Report, pp. 10-11.
[102] Source Report, p. 9.
[103] Source Report, p. 9.
[104] Source Report, p. 9.

- Although the Impact Statement claims that best available technologies that are economically achievable are being considered for the Waste Treatment Plant and membrane filtration treatment approach, more information and data is needed.[105] The proponent should provide a parameter-specific monitoring and adaptive management framework for construction, operations, closure, and post-closure, including early-warning triggers, action levels, discharge restrictions, treatment adjustment requirements, contingency storage, and reporting requirements.[106]

- The proponent should provide construction-phase mine site water quality predictions and source terms for key construction activities and facilities, including the Viggo Pit/ VMF, disturbed areas, excavation areas, temporary stockpiles, construction water management ponds, advanced exploration-related facilities, and any areas where potentially deleterious materials may be exposed. It is difficult to assess whether the construction-phase receiver water quality predictions in Appendix K-3 are adequately supported.[107]

ii. Assessment of Water Quantity

Source also assessed and made the following observations about the Impact Statement's assessment of water quantity:

- The use of a steady-state 3D groundwater model in Appendix H-2 is not sufficient on its own to assess time-dependent effects, including seasonal baseflow reductions, low-flow impacts to small tributaries, initial dewatering rates, drought response, closure reflooding, and recovery of groundwater levels after mining.[108] Because the model does not simulate seasonal or transient conditions, the application may understate risks to groundwater-dependent surface water features, particularly small unnamed watercourses and low-flow periods.[109] Source calls for transient modelling.[110]

- Source raised concerns about modelling related to sealing boreholes.[111]

- The proponent should provide calibration or validation using multi-season and multi-year groundwater and surface-water data, or provide sensitivity analyses showing that predicted drawdown, baseflow reductions, seepage, and groundwater inflows remain protective under seasonal high- and low-flow conditions.[112]

- The seepage analysis does not identify seepage from the LP Central pit or underground workings.[113]

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[105] Source Report, p. 11.
[106] Source Report, p. 11.
[107] Source Report, p. 12.
[108] Source Report, p. 12.
[109] Source Report, pp. 12-13.
[110] Source Report, p. 13.
[111] Source Report, p. 13.
[112] Source Report, p. 14.
[113] Source Report, p. 14.

- The proponent should provide a detailed closure water-taking assessment that includes proposed withdrawal rates, timing, seasonal restrictions, low-flow protection thresholds, drought contingencies, effects on Chukuni River flow and aquatic habitat, and an alternative closure scenario where freshwater withdrawal is reduced or unavailable.[114]

- Reliance on only the median climate change scenario may not be sufficiently conservative.[115]

- Section 4.1 of the Receiver Water Quality Modelling Report (Appendix K-3) should include theoretical worst case scenarios, including the identified worst case scenario of a design discharge rate for peak conditions of 1,330 m^3/h. This discharge rate would represent approximately 20.5% of the Chukuni River 7Q20 low-flow condition. Uncertainty remains regarding whether the receiving environment would remain protected during low-flow conditions if high discharge rates were required.[116]

iii. Other Technical Comments, including Potential Malfunctions and Accidents

Source made the following additional observations about the Impact Statement:

- There is uncertainty about where waste rock generated after year 10 will be placed.[117]

- In considering malfunctions and accidents, a breach of the contingency mine water pond is not considered.[118]

- Secondary containment should be installed for all tailings and contact water pipelines upstream of any water bodies regardless of if they are near water crossings to mitigate potential failures. For pipelines, mitigation measures should prevent freezing.[119]

- The consequences assessed for the potential accidents and malfunction failure modes are non-conservative and do not represent a protective approach. The categorizations and definitions of consequences are not appropriate. The risks associated with the accidents and malfunctions assessed are underestimated.[120]

- Receiver Water Quality Modelling Report (Appendix K-3) states that once closure water quality objectives are achieved, the WTP and related infrastructure will be decommissioned and the site will passively discharge to the environment. This is a major closure assumption, and the Project should define the water quality objectives, decision

[114] Source Report, p. 14.
[115] Source Report, p. 15.
[116] Source Report, p. 15.
[117] Source Report, p. 16.
[118] Source Report, p. 16.
[119] Source Report, p. 17.
[120] Source Report, p. 18.

criteria, and monitoring duration that would determine when passive discharge is acceptable.[121]

(d) Source Environmental Associates Inc. – Technical Memorandum: Additional Technical Review Comments on Fisheries, Migratory Birds, and Human Health and Ecological Risk Assessment – Great Bear Project Impact Statement dated May 28, 2026.

i. Human Health and Ecological Risk Assessment and Mercury Bioaccumulation

Source provided a second expert report which provides a preliminary review of the Impact Statement as it relates to fisheries, migratory birds and the human health and ecological risk assessment. Source's additional expert report is attached hereto as **Appendix 'D'.**

Source made the following observations:

- There are no cumulative effects assessments for groundwater, surface water flows and levels, water quality, and fish and fish habitat, resulting in a large gap.[122]

- A cumulative effects assessment should evaluate whether Great Bear-related effluent discharge, closure water-taking, seepage, passive discharge, groundwater drawdown, baseflow reductions, and fish habitat effects could combine with other watershed influences during construction, operations, closure, and post-closure. Baseline water quality and hydrology do not replace an assessment of how additional Great Bear loadings and flow changes could cause cumulative effects.[123]

- The Human Health and Ecological Risk Assessment ("HHERA") should be revised to include a cumulative effects assessment.[124]

- There is potential for the project to have direct and indirect effects on both surface water and sediment quality, which has ramifications for both human and ecological health.[125]

- The Impact Statement identified that sample sizes were inadequate for establishing a baseline of wild game, vegetation, wild rice and berries.[126]

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[121] Source Report, p. 18.
[122] Source – Technical Memorandum: Additional Technical Review Comments on Fisheries, Migratory Birds, and Human Health and Ecological Risk Assessment – Great bear Project Impact Statement dated May 28, 2026, ("Source Report on Cumulative Effects"), p. 3.
[123] Source Report on Cumulative Effects, p. 3.
[124] Source Report on Cumulative Effects, pp. 3-4.
[125] Source Report on Cumulative Effects, p. 4.
[126] Source Report on Cumulative Effects, p. 4.

- Other species could have been chosen for analysis, including rabbit, beaver, waterfowl and moose.[127] In particular, a single sample of wild rice is not an accurate representation of the species given its cultural and ecological significance.[128]

i. Fisheries and Aquatics

With respect to fisheries and aquatics, Source made the following observations:

- No baseline data was collected prior to project exploration activities in 2017.[129]

- Sediment and benthic invertebrate sampling appear insufficient to characterize baseline conditions or to capture the natural spatial and temporal variability within these communities. Many sites were only sampled once or twice.[130] This approach introduces uncertainty and may limit the ability to detect or attribute future project-related effects.[131]

- Lower trophic data was not collected at Chukuni River and Dixie Creek.[132]

- Potentially acid generating ("PAG") stockpiles appear to be assessed in the same manner as non-PAG overburden stockpiles, without justification.[133] It is not possible to determine whether the predicted residual effects to fish and fish habitat have been fully characterized or whether the proposed offsetting measures are sufficient to achieve no net loss of fish habitat function.[134]

- Appendix L-2 does not appear to include a dedicated assessment of the VMF's potential indirect effects on fish and fish habitat, which is concerning because of the long-term environmental liabilities commonly associated with PAG tailings storage:[135]

> Without a clear assessment of the VMF and its associated PAG tailings, the magnitude, duration, and geographic extent of potential indirect effects to fish and fish habitat may have been underestimated, and the adequacy of the proposed offsetting measures cannot be fully evaluated.[136]

- East Pond is proposed as an offsetting measure but there is insufficient information that it will remain an effective offsetting habitat throughout operations and post-closure conditions. Source raises seepage and other concerns because of its close proximity to Mine Rock Stockpiles with PAG waste rock.[137]

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[127] Source Report on Cumulative Effects, p. 4.
[128] Source Report on Cumulative Effects, p. 5.
[129] Source Report on Cumulative Effects, p. 6.
[130] Source Report on Cumulative Effects, p. 6.
[131] Source Report on Cumulative Effects, p. 6.
[132] Source Report on Cumulative Effects, p. 6.
[133] Source Report on Cumulative Effects, pp. 6-7.
[134] Source Report on Cumulative Effects, p. 7.
[135] Source Report on Cumulative Effects, p. 7.
[136] Source Report on Cumulative Effects, p. 7.
[137] Source Report on Cumulative Effects, p. 8.

- A detailed fish salvage plan should be developed.[138]

- Great Bear identifies a 10% increase or reduction in stream flows as an indicator of potential Harmful Alteration, Disruption or Destruction of Fish Habitat ("HADD"). Dixie Creek is anticipated to exceed this threshold yet is not characterized as HADD in the assessment. The claim that resident fish populations may currently tolerate naturally variable or degraded conditions does not demonstrate that additional flow reductions associated with the project would avoid adverse effects.[139] The predicted flow reductions to Dixie Creek should be reconsidered as a potential HADD within Appendix L-2.[140]

- Appendix L-2 also does not adequately evaluate how project-related flow reductions may interaction with climate change, cumulative effects, future exploration or mine expansion activities and long-term closure and post-closure hydrological uncertainty.[141]

ii. Migratory Birds

Source made the following observations about migratory birds:

- The Impact Statement's approach to ranking residual effects (Levels 1-3) should be revised and all attributes or ecological/social characteristics considered a Level 3 should be considered as a residual effect.[142]

- There is no evidence that offsetting designs considered migratory birds.[143]

- While an increase in constructed habitats may provide compensation for those lost to project activities, it may take considerable time for them to serve as functional habitats for migratory birds. This could result in a net loss to migratory bird habitat due to the project, which has not been assessed.[144]

- Details on what percentage of waterfowl nesting, stopover and staging areas are affected by the project, and details on residual effects on habitat composition, are needed to adequately assess residual effects.[145]

- Future exploration disturbances are not accounted for in the assessment of potential impacts and residual effects on migratory birds.[146]

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[138] Source Report on Cumulative Effects, p. 9.
[139] Source Report on Cumulative Effects, p. 9.
[140] Source Report on Cumulative Effects, p.10.
[141] Source Report on Cumulative Effects, pp. 9-10.
[142] Source Report on Cumulative Effects, pp. 10-11.
[143] Source Report on Cumulative Effects, p. 11.
[144] Source Report on Cumulative Effects, p. 11.
[145] Source Report on Cumulative Effects, p. 11.
[146] Source Report on Cumulative Effects, p. 11.

E. ANA Cannot Tolerate Further Exposure to Mercury

ANA has filed a submission under separate cover again reiterating that it cannot reasonably tolerate further exposure to mercury.[147]

Dr. Katherine von Stackelberg is a senior research scientist at the Harvard Center for Risk Analysis and brings nearly 40 years of experience to the design and implementation of human health and ecological risk assessments. Her expert report dated May 28, 2026 is hereto attached as **Appendix 'E'.**

Dr. von Stackelberg found that her previous comments still stand and remain unaddressed.[148] The Impact Statement's predictions rely on a fundamentally flawed analysis and underlying assumptions While the Impact Statement is voluminous, it regularly repeats boilerplate language. The Impact Statement treats cumulative impacts in a "cavalier and incorrect manner".[149]

Dr. von Stackelberg finds that "*any* increase in methylmercury concentrations in fish will result in increased exposures and therefore **adverse impacts to an already impacted community**. The predicted increase in sulphate concentrations in effluent will result in increased methylation and therefore increases in fish tissue concentrations."[150] [emphasis added]

The Impact Statement "underpredicts methylmercury concentrations in fish and therefore impacts to human and ecological health".[151]

The magnitude of the health effects from methylmercury on the ANA community are set out in the November 2015 report of Dr. Donna Mergler and the November 2025 memorandum from the Grassy Narrows Land Protection Team, both attached to the February 12, 2026 memorandum prepared by Dr. von Stackelberg in relation to the advanced exploration phase of the Great Bear project. Dr. von Stackelberg found that "one-size fits all" approaches fail to protect ANA because of its unique circumstances.[152] ANA people have already exceeded their "lifetime tolerable exposure to mercury" and are experiencing intense impacts as a result.[153] Her conclusion was that "**no amount of further exposure or increased mercury levels in their environment or fish is safe for Grassy Narrows. Mercury levels must be reduced"**.[154]

Dr. Donna Mergler, a professor emeritus of Biological Sciences at Université du Québec à Montréal (UQAM) and with a doctorate in physiology, found in a 2015 expert report that:

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[147] Asubpeeschoseewagong Netum Anishinabek, "Grassy Narrows Preliminary Comments on Great Bear Gold Project Impact Statement" dated May 29, 2026, pp. 1, 7.
[148] Dr. Katherine von Stackelberg, "Brief Opinion on the Great Bear Gold Project Impact Statement" dated May 28, 2026 ("Von Stackelberg Report"), p. 1.
[149] Von Stackelberg Report, p. 1.
[150] Von Stackelberg Report, pp. 1-2.
[151] Von Stackelberg Report, p.2.
[152] Dr. Katherine von Stackelberg, "Memo: Preliminary Comments on Fish Consumption and Risk Assessment", November 28, 2025 ("Stackelberg Memo, November 2025"), pp 12-13.
[153] Stackelberg Memo, November 2025, p.13.
[154] Stackelberg Memo, November 2025, p.13.

- The most important source of mercury exposure in humans is from consumption of fish and fish-eating animals; mercury is accumulated and biomagnified through the food chain; the process is initiated through the action of bacteria that transform inorganic mercury, present in the water, to methylmercury; larger fish eat many small fish, incorporating all of their mercury; fowl and mammals that eat fish will likewise accumulate mercury in the same way; at the top of the food chain are humans;

- Data collected by Japanese doctors from methylmercury-exposed indigenous residents of ANA suggest that they have been poisoned by methylmercury;

- There is no doubt that at the levels of exposure experienced in ANA, the community has suffered and continues to suffer from mercury poisoning, individually and collectively;

- Most severe clinical impacts of fetal and adult exposure to methylmercury are the neurodegenerative diseases, with clinical effects in adults including gait, speech, sensory, and hearing disturbances, and clinical effects of in utero exposure including severe cerebral palsy-like symptoms, mental retardation, coordination and balance problems, muscle speech disorders, and uncontrolled muscular movements;

- Clinical manifestations of mercury poisoning constitute the tip of the iceberg with respect to mercury exposure, with many sub-clinical signs and symptoms of decreased well-being that impact a person's physical, mental, and social capacities also present;

- While nervous system is the primary target organ for methylmercury, studies indicate the cardiovascular system and metabolic pathways may also be impacted;

- Throughout pregnancy, the placenta concentrates methylmercury and blood mercury concentration in the umbilical cord, which nourishes the foetus, thus, at birth, the average cord mercury blood concentration will be almost double that of the mother, while for one in twenty that concentration can be over three and a half times more; and

- Studies have shown long latency effects of methylmercury exposure; adding further toxic exposure can add further harm to people whose systems that have already been affected; their systems will also be more sensitive than the general population.[155]

F. Great Bear Gold Project Should be Rejected

The Agency must ensure that it exercises its power to ensure that the impact assessment process is fair, predictable and efficient, and adheres to the principles of scientific integrity, honesty, objectivity, thoroughness and accuracy,[156] In *Tsleil-Waututh Nation v Canada (Attorney General),* 2018 FCA 153 (CanLII), the Federal Court of Appeal confirmed that where a review

[155] Dr. Donna Mergler, Grassy Narrows General Mercury and Health Facts: Expert Report (6 November 2015), attached to Opinion of Dr. Katherine von Stackelberg, (12 February 2026) at pp. 18-19, 12, 30, 13, 15, 49, 17, 35, and 47

[156] IAA, s. 6(3).

panel or Agency report on an environmental assessment is a pre-requisite to a final decision by the Governor in Council or a Minister, the report cannot be "materially flawed" or fall short of legislative standards.[157] The Agency should use its statutory powers to request further information from Great Bear pursuant to s.26(2) of the IAA, and ensure that the fundamental failings of this Impact Statement are fully addressed before the matter moves to the subsequent stages of the impact assessment process. An Impact Statement which accurately describes and assesses natural baseline conditions, properly identifies and evaluates the full range of direct and cumulative adverse effects, validly predicts impacts of the project on mercury methylation and mercury exposure, and proposes effective and enforceable measures to prevent and mitigate those effects is required under the IAA, but is wholly absent in this case.[158]

For the foregoing reasons, ANA submits that the Impact Statement does not meet the requirements of the IAA or the TISG. It does not reliably predict the impacts of this project, nor does it prevent or mitigate those effects, as explained by ANA's independent experts in their attached reports. Notably, key requirements of the TISG with respect to methylation and mercury impacts on human health are not completed in a scientifically valid way. This goes to the heart of the project's risks to ANA. Accordingly, ANA requests that the Agency require the proponent to fully address the deficiencies identified in the Impact Statement pursuant to s.26(2) of the IAA before proceeding with the impact assessment process.

Yours truly,

Richard Lindgren, Counsel

Joseph Castrilli, Counsel

Jacqueline Wilson, Counsel

[157] *Tsleil-Waututh Nation v. Canada (Attorney General),* 2018 FCA 153 (CanLII) at para 201. < 2018 FCA 153 (CanLII) | Tsleil-Waututh Nation v. Canada (Attorney General) | CanLII>
[158] IAA, ss. 25(b), 262)