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November 3, 2020

The Honourable Jonathan Wilkinson MP
Minister of Environment and Climate Change
200 Sacré-Coeur Boulevard
Gatineau QC K1A 0H3

cc: Fraser Ross, Project Manager for the Castle Project, IAAC

Dear Minister Wilkinson,

Re: IAAC Castle Project Initial Project Description Comment Period

Thank you, again, for your decision to designate the Castle Project for an impact assessment.

We write to you today to urge you to appoint a review panel for the impact assessment in order to ensure an open process, driven by independent scientific evidence, that will allay concerns from the public, First Nations in Canada and the U.S. and U.S. government entities about the assessment process.

Given the significant public concern about the direct and cumulative impacts from the Castle Project, a review panel would provide a transparent and independent process to address past problems and restore public confidence about Canada's ability to manage impacts within the Elk Valley.

The impact assessment for the Castle Project should be referred to a review panel for the following reasons:

- there is significant public concern about the potential adverse impacts from the Castle Project and inadequate attempts to address the impacts of existing projects;
- greater public participation provided by an independent review panel will help to restore public confidence in the efforts to mitigate project impacts;
- a review panel could facilitate coordination with the provincial Environmental Assessment Office as well as Indigenous Nations;
- there are significant international concerns regarding transboundary impacts and international participation in the assessment process; and

- a review panel would provide opportunity for independent expert analysis from those qualified to assess conflicting evidence and strategies, ensuring the direct and cumulative impacts from the Castle Project are adequately addressed.
- We also have additional concerns about potential impacts of the Project that have not been adequately captured in IAAC's "What We've Heard" summary. These include the road and rail transportation impacts of the project on wildlife, and ensuring the effectiveness and legitimacy of the impact assessment process is not compromised by COVID restrictions. We offer suggestions for addressing these issues below.

1. An independent review panel should be appointed for the assessment

Section 36(1) of the *Impact Assessment Act* allows the Minister to refer an impact assessment to a review panel if he or she believes referral is in the public interest. Under section 36(2), the factors you are to consider before making a determination on whether a review panel is in the public interest are as follows:

(a) the extent to which the effects within federal jurisdiction or the direct or incidental effects that the carrying out of the designated project may cause are adverse;

(b) public concerns related to those effects;

(c) opportunities for cooperation with any jurisdiction that has powers, duties or functions in relation to an assessment of the environmental effects of the designated project or any part of it; and

(d) any adverse impact that the designated project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the Constitution Act, 1982.

Each of these factors are applicable for the Castle Project, as discussed further below. Given the adverse direct and cumulative impacts from the project, the significant public concern within the area and abroad, and the opportunity to restore public confidence and cooperate with other jurisdictions, this assessment should be referred to a review panel.

a. Adverse impacts to areas of federal jurisdiction

As described in our previous designation request and subsequent correspondence, the Castle Project will have significant impacts on areas of federal jurisdiction which have not yet been adequately addressed through other legislative and regulatory mechanisms, as you noted in your determination that the project should be designated for impact assessment.

In order to keep these submissions brief, we will not again go over these potential significant impacts in detail. In summary, these impacts include:

- impacts to fish, fish habitat, and other aquatic species;
- impacts to terrestrial species at risk;

- impacts to migratory birds;
- impacts to federal lands;
- international and interprovincial impacts;
- cumulative impacts within the Elk Valley; and
- greenhouse gas emissions that may impact Canada's ability to meet its commitments in respect of climate change.

A review panel will provide the best opportunity to assess each of these impacts in harmony with both provincial environmental assessment and any potential Indigenous assessment of adverse effects.

b. Public concern about the project

There are significant public concerns about the impacts of the proposed Castle project.

Over a thousand people commented on the project in the initial comment period with B.C. EAO and the initial federal engagement, including many conservation groups and fish and wildlife associations, many of whom specifically called for a review panel. Despite the online format, more than three hundred people participated in the initial open houses in the B.C. assessment process.¹ Concerns have been raised by those in the fly fishing tourism industry downstream and hunting guides in the area.

Searches of news articles on the subject of water pollution and Teck's coal mines bring up thousands of results, including articles and letters in media in Canada and the US, with strong local coverage in B.C. and Montana.²

Beyond just the Castle Project, public concerns about cumulative water pollution from coal mines within the Elk Valley have been growing for many years, going back as far as B.C.'s Elk Valley Selenium Task Force established in 1998. Major media coverage of the issues dates back more than a decade.

In Montana, formal comments from fishing and conservation organizations, media coverage and letters to the editor indicate a significant and growing level of concern.³ Obviously, there is a low level of understanding of Canadian federal Impact Assessment process south of the border. There is also a growing distrust of Canada on this issue with the conflicting messages from Montana state government and Tribes compared to messages from Teck and the Province of B.C.

¹ Summary of Engagement: Castle Project, B.C. EAO, 31 Jul. 2020, online: https://projects.eao.gov.bc.ca/api/public/document/5f24ade7b2706c00212fd751/download/Castle%20Summary%20of%20Engagement_July%2031%202020.pdf

² For example, "Teck coal selenium" brings up roughly 2,470 results in Google News.

³ Frequently in the Flathead Beacon, the local paper nearest to Lake Kootenai, but also on Montana Public Radio, other local papers in Montana and Idaho, etc.

c. Need to restore public confidence

The mounting environmental damage from existing mines in the Elk Valley has undermined the confidence of Canadians in the regulatory structure for these mines. Despite the mines being subject to the full array of Canadian and B.C. laws, provincial environmental assessments, conditions in specific permits and other approvals, and task forces and other efforts to address the problems, the situation has only deteriorated. A review panel could allow examination of why past efforts have failed, so as to prevent further environmental damage from the Castle Project.

We also note significant public concern about the coordination of the federal and provincial assessments, and the perceived potential for the two processes to be redundant or to reach contradictory conclusions. Recent examples of this concern include comments from Sparwood Mayor and former local MP David Wilks⁴ and former local MP and provincial MLA candidate Wayne Stetski⁵.

A joint review panel with B.C. would help to address these concerns by allowing for an open, transparent cooperative process between the two assessments. Conversely, a joint review without a review panel is more likely to contribute to the perception that two separate processes are taking place and to feed concerns that the provincial and federal processes could come to different conclusions.

Federal and provincial assessments did in fact reach opposite conclusions in the case of the proposed Prosperity Mine in B.C. a decade ago. B.C. has also approved three major mine expansions in the Elk Valley in the last decade after provincial assessments. For one of these projects, an expansion of the Line Creek mine, concerns about extraordinary permitting approved by cabinet were highlighted by the B.C. Auditor General.⁶

In our previous letter of June 23, we detailed significant concerns about the upcoming provincial assessment process because of the history of these past assessments, particularly the lack of assessment of international impacts. A joint review panel would allow for a transparent process that will ensure both jurisdictions review the same geographic scope of potential impacts, minimizing the potential for conflicting conclusions.

Fundamentally, a review panel will provide additional opportunities for public participation in this important process. This will not only improve the assessment itself, by ensuring all voices are

⁴“Two environmental assessments for Castle Project sends bad mixed messages: Sparwood mayor Wilks”, 12 Sep. 2020, online: <https://www.thefreepress.ca/news/two-environmental-assessments-for-castle-project-sends-bad-mixed-messages-sparwood-mayor-wilks/>

⁵ “At a glance: Kootenay East candidates go head-to-head in Elk Valley forum”, 16 Oct. 2020, online: <https://www.thefreepress.ca/news/at-a-glance-kootenay-east-candidates-go-head-to-head-in-elk-valley-forum/>

⁶ BC Auditor General, “An Audit of Compliance and Enforcement in the Mining Sector” (May 2016), online: <https://www.bcauditor.com/sites/default/files/publications/reports/OAGBC%20Mining%20Report%20FINAL.pdf>

heard on the subject of potential impacts, but it will also build public confidence in the assessment. Public confidence that the assessment was conducted in an objective and transparent manner will be key as any final decision is likely to be controversial.

d. International concerns

We wrote in our previous letter about the ongoing B.C.-Montana process to set a shared water quality standard for selenium in Lake Kooconusa. Since that time, a detailed, peer-reviewed biological model from the U.S.G.S.⁷ and the recommendations of experts involved in the process have narrowed down the safe limit for selenium in Lake Kooconusa to protect fish and First Nations' former health in cases of significant fish consumption. On this basis, Montana is moving through a regulatory process to adopt a 0.8µg/L limit for Lake Kooconusa. While B.C.'s recent election delayed the process in B.C., we understand the Province remains committed to adopting a shared water quality standard. This limit is lower than had been previously anticipated and much lower than B.C.'s current Order Station limit for Kooconusa of 2.0µg/L.

Monthly peak selenium concentrations have already reached as high as 3µg/L, leaving no room for any additional selenium loading into Lake Kooconusa without significant reductions of already existing and currently permitted future pollution sources.

This challenging situation needs a review panel to evaluate, as openly and transparently as possible, the potential long term impacts of the Castle Project on Lake Kooconusa.

We also note that a key factor in the discussion around the Lake Kooconusa limit in B.C. has been the potential for adverse health effects for Ktunaxa people consuming fish from Lake Kooconusa at preferred consumption rates. It appears selenium above 0.8µg/L could result in an unhealthy level of selenium consumption in the case of daily fish consumption from the reservoir, impacting the Ktunaxa's rights under Section 35.

We want to emphasize as well that impacts from selenium pollution are already likely downstream of Lake Kooconusa. Fish tissue samples from the Kootenai Tribe of Idaho, Idaho Fish & Game and the U.S.G.S. make clear that chronic selenium exposure in the Kootenai River downstream of Kooconusa is leading to elevated selenium levels, exceeding E.P.A. limits. More egg/ovary sampling will be undertaken in future years.

Finally, rising selenium levels downstream in Canada in Kootenay Lake merit further study to consider the potential for cumulative impacts from the Project.

These international impacts are potentially significantly adverse and of major concern to U.S. entities, including the E.P.A., the U.S.G.S, the Fish & Wildlife Service, Montana and Idaho Departments of Environmental Quality and other state government, federal Senators from Montana and Idaho, the Confederated Salish & Kootenai Tribes and the Kootenai Tribes of Idaho, conservation groups, fishing guides and the general public. The assessment needs a

⁷ "Understanding and Documenting the Scientific Basis of Selenium Ecological Protection in Support of Site-Specific Guidelines Development for Lake Kooconusa, Montana, U.S.A., and British Columbia, Canada", 2020, online: <https://pubs.er.usgs.gov/publication/ofr20201098>

process that allows all of these organizations and individuals to participate fully, with confidence that the assessment will be fair, open and driven by reliable scientific evidence. There is considerable concern and frustration that past provincial assessments of Teck coal mines in the Elk Valley have not met this standard and concern that current assessments, e.g. for the Michel Coal Project, are not properly considering impacts in the U.S. or U.S. input. In this context, a review panel assessment is the best way forward to ensure our neighbours can confidently participate in an objective, transparent process.

There is a wealth of data and modelling now available for selenium in fish tissue, water, periphyton, invertebrates, etc. from Lake Koochanusa and the U.S. Kootenai River. A review panel can incorporate all of this information and seek further information from U.S. scientists as needed to ensure U.S. impacts are fully considered.

Cooperation with Indigenous jurisdictions in impact assessments is a relatively new subject, with no regulations yet in place to guide this process. Section 31(1) of the *Impact Assessment Act* explicitly allows for the Minister to approve the substitution of an Indigenous-led process for the impact assessment, as does B.C.'s *Environmental Assessment Act*, SBC 2018, c 51.

Given the strong interest in this Project from the Ktunaxa Nation and the two U.S. Tribes, we believe a joint review panel provides the best opportunity for Canada to allow some form of Indigenous-led assessment in coordination with provincial and federal processes.

e. Inconsistent standards and studies on water pollutants

There continues to be inconsistent data on selenium pollution coming out of the Elk Valley. An independent review panel could evaluate this conflicting evidence in a fair and transparent process.

Inconsistent results between studies undertaken by Teck and their consultants compared to the work done by E.C.C.C. are a significant point of contention. To date, provincial assessments have relied largely on studies from Teck, which suggest west slope cutthroat trout in the upper Fording River and downstream are more tolerant of selenium than the work of others. In particular, the 2012-2014 study by E.C.C.C. and analysis by selenium toxicology expert Prof. Denis Lemly⁸ comes to very different conclusions about the risk to west slope cutthroat trout from selenium levels found in the upper Fording River than the conclusions in Teck's studies, which form the basis of the Elk Valley Water Quality plan. Lemly and E.C.C.C.'s conclusions suggest significantly more harm to fish than those from Teck's studies. Similarly, the analysis of Fording and Elk River westslope cutthroat trout data in the U.S. E.P.A. Aquatic Life Ambient Water Quality Criterion for Selenium - Freshwater concludes that safe selenium concentrations

⁸ Dr. Dennis Lemly, "Review of Environment Canada's Teck Coal Environmental Assessment and Evaluation of Selenium Toxicity Tests on Westslope Cutthroat Trout in the Elk and Fording Rivers in Southeast British Columbia" (25 September 2014), online: https://www.teck.com/media/2014-Water-review_environment_canada-T3.2.3.2.1.pdf

in the Fording and Elk Rivers are significantly lower than safe concentrations according to Teck's studies.⁹

A review panel would be able to transparently evaluate these competing claims, with testimony and further study from experts as required. This would help to build confidence for the conclusions of the assessment and ensure the best available scientific evidence is analysed in the process. With the recent news of the collapse of the upper Fording River westslope trout population, this analysis is likely to be pivotal in the assessment process.

Similarly, current and proposed regulation from B.C. and Canada is inconsistent. While B.C. relies on the Elk Valley Water Quality Plan to set permit limits for selenium and other water pollutants, the limits under the soon to be adopted federal *Coal Mining Effluent Regulations* to the *Fisheries Act* are significantly different. Meanwhile, a significantly lowered selenium pollution limit for Lake Kootenai will require major changes to upstream pollution limits. Teck's plans in the 2019 Implementation Plan Update and otherwise publicly stated focus entirely on attempting to meet provincial limits.

A joint review panel should openly evaluate Teck's plans to meet provincial, federal and international water pollution limits. Without a joint review panel, there is a risk that provincial and federal assessments could come to different conclusions based on very different regulations.

f. Independent expert study is needed to assess new technologies, impacts on wildlife and emissions from the Project

Not only do safe limits for selenium need expert analysis, but so also do the risks of nitrates, nickel, calcite, sulphate and other water pollutants. Teck's proposals to treat contaminated water rely on Saturated Rock Fills, a new and unproven technology that also needs outside expert analysis of its effectiveness, reliability and longevity. More fundamentally, the expected time period for selenium leaching from mine waste rock piles, which is currently not well characterized, but expected to last for centuries, needs to be analyzed and compared to Teck's mitigation proposals by independent experts. It is essential that the assessment be informed by a solid scientific understanding of how long the selenium pollution leaching problem will continue for and this question requires expert analysis.

All of these issues would be well served by a review panel to ensure open and transparent analysis with the help of independent experts, which has been sorely lacking in the Elk Valley to date.

The potential impacts on wildlife would also benefit from independent expert analysis in the context of a review panel. In particular, cumulative effects on wildlife populations, especially for wide-ranging species like grizzly bear and wolverine, need careful consideration. With multiple existing and proposed coal mines in the area and nearby in Alberta, plus significant logging and road traffic in the Elk Valley, analysis of broader wildlife connectivity will be crucial to ensure impacts to these populations on the continental scale are avoided. The importance of the wildlife

⁹ https://www.epa.gov/sites/production/files/2016-07/documents/aquatic_life_awqc_for_selenium_freshwater_2016.pdf at 89-91

connectivity corridor along the Rocky Mountains from Waterton-Glacier International Peace Park to the Canadian Rocky Mountain Parks complex requires an in-depth scientific process, best overseen by a review panel.

Thirdly, there are no direct measurements of methane emissions from Elk Valley coal mines available, despite those emissions being a significant part of the Project's overall emissions. Independent research is required to quantify the potential methane emissions from the project, including initial and annual emissions.

2. Additional issues to be considered in the impact assessment

Along with the need for a review panel, we believe there are several concerns about the Project that have not been adequately captured in the Agency's "What We've Heard" report and should be included in the final Summary of Issues.

a. Transportation impacts from the Castle Project

In the "What We've Heard" report there was no mention of the significant adverse impacts that may result from transportation of coal from the Project.

The Project has the potential to have substantial impacts, especially on wildlife, due to road and rail traffic. Shipping approximately 10 million tonnes annually of coal by rail will require multiple trains per day in each direction. Tracking collar data for grizzly bears indicates that the SARA-listed species suffers significant mortality on the rails, roughly equal to highway mortality.¹⁰ Combined, rail and road traffic are the cause of significant mortality for grizzly bear, killing approximately 7% of the total population annually in the Elk Valley¹¹, and for many other wildlife species. A recent study of radio-collared cow elk in the Elk Valley found that 38% of mortalities were due to road and rail collisions, far more than those due to hunting or predation.¹²

There is no doubt that the Project would also cause significant traffic on Highways 3 and 43, as well as the Fording River Road. Due in large part to road and rail mortality, the Elk Valley is a population sink for the broader grizzly bear population with significant mortality that requires constant migration into the area to maintain population levels.¹³

Additionally, the impacts of rail traffic on wildlife between the Elk Valley and Vancouver or Prince Rupert are likely significant. Unfortunately, data from the rail operators is not comprehensive and evidence from radio-collared animals suggests that data from C.P. is very significantly underreported. As Elk Valley coal comprises approximately 8% of total rail freight

¹⁰ Personal communication with Dr. Clayton Lamb, Liber Ero Fellow, University of British Columbia-Okanagan of the South Rockies Grizzly Bear Project

¹¹ "Forbidden fruit: human settlement and abundant fruit create an ecological trap for an apex omnivore", *Journal of Animal Ecology* 2017, 86, 55–65, online: <https://besjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/1365-2656.12589> at 61.

¹² Kim G. Poole and Clayton T. Lamb, "Migration, movements and survival in a partially migratory elk population in southeast British Columbia" March 2020.

¹³ *Ibid* at 60-61.

tonnage in Canada¹⁴, this potential impact of the project requires an independent analysis of existing data to quantify cumulative impacts of the project on wildlife across the province.

A recent rail accident along the internationally-recognized Columbia River wetlands¹⁵ showed the potential for impacts to waterways from coal spills as so much of the railway route from the Elk Valley to the coast is along rivers. There have been a number of similar incidents in recent years that have raised water quality concerns, including near Ashcroft in 2017¹⁶ and in Burnaby in 2014¹⁷. All of these incidents have only involved a few railcars, but the potential for larger spills into waterways cannot be ignored.

b. Assessment process in the COVID context

The “What We’ve Heard” report also does not adequately address how public engagement can adequately and safely proceed during the COVID-19 pandemic. Depending on the timing of public engagement and the continued coronavirus pandemic, it may be necessary to proceed with public engagement for the assessment with social distancing requirements in place.

Based on our experience with the B.C. EAO open house sessions for the Castle assessment earlier this year, we believe online engagement sessions need to be designed carefully to allow the public the chance to speak and to engage not just with the company or with the Agency, but also with all those present.

Unfortunately, those sessions were essentially just presentations from the EAO on process and presentations from Teck about the project, with little opportunity for the public to engage beyond typing questions of which many were not addressed. Fundamentally, this process gave Teck a platform to present their own, clearly biased, view of the project while giving no opportunity for other voices to be heard and no opportunity for others to present conflicting evidence to claims from the company that were not based in fact. The result felt more like a public relations exercise to promote the project, rather than an opportunity for public engagement.

If online public engagement sessions are required, we hope IAAC is able to design a process that gives all an opportunity to speak and does not prioritize Teck’s perspective above others. We believe that public sessions are very important in the assessment process as they allow the public to hear from others and not just from the Agency and Teck and do not believe written comments are a sufficient substitute. Even if social distancing does not preclude in-person meetings, we believe at least some online meeting options are valuable to ensure those from the U.S. are able to participate.

¹⁴ “Total freight volume transported by rail, 2010 to 2017”, StatsCan, online: <https://www150.statcan.gc.ca/n1/daily-quotidien/190408/cg-b002-eng.htm>

¹⁵ “Train Derailment, Edgewater BC”, online: <https://www2.gov.bc.ca/gov/content/environment/air-land-water/spills-environmental-emergencies/spill-incidents/train-derailment-edgewater-bc>

¹⁶ “Thompson River coal spill prompts health warning”, 13 Jan. 2017, online: <https://www.cbc.ca/news/canada/british-columbia/coal-spill-thompson-river-1.3935858>

¹⁷ “Coal spill feared to be a risk to aquatic life in Burnaby’s Silver Creek”, 19 Jan. 2014, online: <https://vancouversun.com/News/Metro/coal-spill-feared-a-risk-to-aquatic-life-in-burnabys-silver-creek>

Conclusion

We urge the Minister to appoint a review panel as soon as possible and to task the review panel with advising the Agency on the scoping of the assessment and with consulting the public, First Nations and U.S. entities on how to best engage those parties in the assessment process.

With significant interest from multiple levels of U.S. government and First Nations on both sides of the border, an early appointment of a review panel will give the panel time to consult and consider how to best proceed to ensure full participation of the many interested entities.

Additionally, we ask that the summary of issues prepared by the Agency include consideration of the adverse impacts from transportation, and also how public engagement requirements will be met safely and adequately during the COVID-19 pandemic.

Sincerely,

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