

Canadian Parks and Wilderness Society, British Columbia
Sierra Club BC | Nature Canada
Amnesty International Canada | MiningWatch Canada
Canadian Parks and Wilderness Society, Southern Alberta
BC Mining Law Reform Network | West Kootenay EcoSociety
First Nations Women Advocating for Responsible Mining
RAVEN (Respecting Aboriginal Values and Environmental Needs)
Rivers Without Borders Canada | SkeenaWild Conservation Trust
Northern Confluence Initiative | BC Nature | Fair Mining Collaborative

The Honourable Jonathan Wilkinson
Minister of Environment and Climate Change
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Gatineau QC K1A 0H3

cc:
Impact Assessment Agency of Canada
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Ottawa ON K1A 0H3

By email: ec.ministre-minister.ec@canada.ca
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July 17, 2020

Dear Minister Wilkinson,

We write to you today as organisations representing tens of thousands of Canadians to formally request that you designate Teck's Castle coal mine expansion project for review under the Impact Assessment Act. Furthermore, we request that this review be undertaken by a panel to fully assess the impact of this massive coal mine in the public sphere.

Our reasons for this request include:

1. We believe the project is over the 50% expansion threshold set in the Project List or, if it is not over the expansion threshold, a reasonable assessment would indicate it is near the 50% threshold.
2. The project would be located in an environmentally sensitive area, where cumulative effects from five existing coal mines have already had significant impacts on fish and the fish habitat directly downstream of the project and for hundreds of kilometres

further downstream. Impacts on terrestrial wildlife are also likely in an important wildlife connectivity corridor.

3. There are already three other coal mine proposals undergoing impact assessment in the same watershed, plus decades of mine expansion already approved at Teck mines, which creates the potential for significant additional cumulative impacts.
4. The project would have impacts downstream in the Kootenai River in Montana and Idaho and these impacts will not be assessed in a provincial environmental assessment.
5. Existing regulatory mechanisms have failed and are likely to continue to fail to protect fish and fish habitat.
6. The project will involve new, complex and unproven technologies to attempt to control pollution, and there has been no independent assessment of the effectiveness and reliability of these technologies.
7. The project will have significant greenhouse gas emissions, which will hinder Canada's ability to meet your climate commitments and the project is a coal mine, with major climate impacts from the use of the mined coal in steelmaking.
8. The project has potential impacts on the rights of Indigenous peoples and changes to the environment due to the project could affect Indigenous peoples.

The 50% expansion threshold

Teck submits that the project will involve an expansion of the "area of mining operations" of the Fording River coal mine by 36%. In their calculation, they claim that the existing "area of mining operations" includes areas that have been permitted for mining, but are not yet in use. They also claim reclaimed areas are part of the current area. We do not believe this follows the definition given for area of mining operations in the regulations. If these areas were excluded from the existing area of the Fording River mine, the expansion would be more than 50% of the area of the existing mine and thus designated under the Physical Activities Regulations of the Act.

Additionally, the map provided by Teck to IAAC of the Castle project differs significantly from the map provided by Teck to BC EAO. We understand that the area of mining operations may differ from the map provided to BC, but it is unclear which areas Teck is including in their map provided to BC that would not be included in the area of mining operations provided to IAAC and why. Teck's coal mines in the Elk Valley are largely made up of waste rock dumps and open pits, both of which should be part of the area of mining operations, and it is unclear what the proponent is proposing for the areas included in the BC map but not the IAAC map.

If the area of mining operations for Castle is in fact less than a 50% expansion, we believe it would be near that threshold and should be designated on the basis given below. Additionally, the Castle project will produce 10 million tonnes of coal annually at full production, making it the largest coal mine in Canada by that metric, and it will extract up to 350 million tonnes of

coal, more than has been extracted from the current Fording River mine. This is a major mine expansion, involving removal of a mountain and decades of coal mining and it should be designated on that basis.

The project is located in an environmentally sensitive area

The long-standing water pollution problem in the Elk Valley, including selenium and other pollutants that are leaching from billions of tonnes of waste rock, is well known. Selenium is found directly downstream of the Fording River mine at levels that have been over 100 times the BC Water Quality Guideline for the Protection of Aquatic Life, in a river where an isolated population of SARA-listed westslope cutthroat trout are found. This WCT population recently suffered a loss of 93% of adult fish in just two years, which is not surprising given the increasing levels of selenium, nitrate, sulphate, nickel and calcite pollution in the upper Fording River and its tributaries, not to mention the significant destruction of habitat from the existing coal mines.

The project is also located in a sensitive area of the Rocky Mountains, near the continental divide, in a key connectivity area for large species like grizzly bears. It is well known that the Crown of the Continent, as the area is known, is an important connectivity corridor for grizzly bears to travel between Canada's Rocky Mountain National Parks to the north and protected areas in the United States to the south. The Castle project, in combination with nearby existing mines, could cut off travel for grizzlies along the continental divide. The impacts on grizzly bears could extend over the divide into Alberta, south the US and to federal lands in National Parks to the north and south along the Rocky Mountains.

Whitebark pine, another SARA-listed endangered species, is found in the project area, and will be removed if the project proceeds.

Additional coal mining and mining proposals in the area

Three additional coal mines are already in the impact assessment process in the Elk Valley and all would add more water pollution to the Elk River, Lake Koocanusa and the Kootenai/Kootenay River in the US and Canada. Additionally, decades of future mining has already been approved at Teck's Elkview, Fording and Line Creek mines and further expansions are likely at Teck mines, which may not be federally reviewed.

Impacts in the United States

Further downstream, the pollution impact of all five of Teck's Elk Valley coal mines is felt in BC's Elk River and then in the border-spanning Lake Koochanusa, where the still water increases bio-accumulation in the many fish species found there. Downstream of Lake Koochanusa, the US Kootenai River also has elevated selenium levels, with recent research from USGS finding significant levels of the pollutant in fish muscle and ovaries, all the way along the length of the river back to the Canadian border. Of particular concern are the SARA-listed endangered white sturgeon, also listed under the Endangered Species Act in the US, a shared population found in the US Kootenai River and the Canadian Kootenay downstream. Not enough is known about the impacts of mine water pollution on this isolated population of a very long-lived species who are already struggling to survive.

Over the past few years, concerns about water pollution have been voiced by many in the US, including International Joint Commission Commissioners, the US EPA, the States of Montana and Idaho, US Tribes, and US citizens and organisations. BC's environmental assessments of all previous mine expansions and of current new mine proposals have not considered impacts south of the border—and we have no reason to believe BC's environmental assessment of Castle would be any different. For this reason alone, federal assessment of Castle is necessary.

Existing regulatory mechanisms have failed

The water pollution problem in the Elk Valley has been known for decades. BC first created a task force to look at the problem in 1998, but since then mining has accelerated and water pollution has increased. It is clear that BC is unable to effectively regulate.

The Elk Valley Water Quality Plan was intended to stabilize and reverse levels of selenium and other pollutants in the watershed, starting in 2014. Since that time, water pollution levels have risen, Teck has repeatedly violated pollution limits under the plan, and BC has taken no significant enforcement action. Now Teck has made it clear that they will continue to pollute above regulatory limits in the 2019 EVWQP Implementation Plan Adjustment, but BC has taken no action against the company in this regard and considers to issue mining permits.

The EVWQP relies entirely on water treatment facilities and allows Teck to continue dumping pollutant-leaching waste rock as usual for decades. As selenium and other pollutants will continue to flow for centuries or longer, water treatment is not an appropriate solution to the long-term problem. In fact, after mining ends, water treatment would have to continue at great cost in perpetuity at more than a dozen facilities to prevent a massive spike in pollution levels—and neither BC nor Teck has, or could have, any credible plan for centuries or longer of water treatment.

The EVWQP also fails to consider cumulative effects of multiple pollutants as it is based on studies of each pollutant's effects individually. With multiple pollutants and habitat destruction affecting the upper Fording River, cumulative effects must be assessed and BC simply hasn't done this and shows no signs of doing so, including in a provincial EA.

BC's Auditor General pointed out the major environmental issues with mine permitting in the Elk Valley in her 2016 Audit of Compliance and Enforcement of the Mining Sector and no significant changes have been made since that time.

Meanwhile, BC and Montana have joined together in a process to find a shared pollution limit in Lake Koocanusa. If BC and Montana set a shared water quality standard to protect fish, how will BC enforce it after they have shown they are unable or unwilling to enforce water pollution limits for Teck in the Elk Valley?

On the federal level, the Fisheries Act is intended to protect fish, but despite a damning report from an expert witness hired by ECCC in 2014, nothing has been done since that time, while pollution levels have continued to rise. Upcoming regulations under the Fisheries Act to regulate discharge from coal mining (the Coal Mining Effluent Regulations) would limit pollution from existing mines and new mines like Castle, but these limits are lower than Teck is achieving at existing water treatment facilities and in-river limits would soon be lower than those in Teck's plans in the 2019 EVWQP Implementation Plan Adjustment. A federal assessment is clearly needed to reconcile Teck's plans with the upcoming CMER regulations and the Fisheries Act.

On the terrestrial side, there is significant concern about connectivity in the area of the Rocky Mountains that includes the Elk Valley. Between the Flathead Valley and Elk Lakes Provincial Park, aside from some motor vehicle closure areas, there is no protection in BC for grizzly bear habitat or connectivity.

New and unproven technologies for water treatment

Teck has made it clear that their plans to mitigate water pollution in the Elk Valley rely primarily on the use of the Saturated Rock Fill technology. This technology is new and unproven. Teck has operated a pilot SRF facility since 2018, but little information has been made public about it and many, including the US EPA, have expressed the need for evaluation of the technology by third parties. We note that a recent permit amendment to expand the SRF pilot at Elkview asked for pollutant limits twice the limit indicated in the EVWQP permits for selenium and more than 2.5 times the limit indicated for nitrate, indicating that the SRF is not functioning as well as intended or as well as the proponent claims.

We also note Teck's track record with water treatment. First, their initial Active Water Treatment Facility failed in 2014 soon after opening, killing fish downstream. Then, after a few

years, the facility was found to be increasing, not decreasing, impacts on fish downstream by releasing highly bio-available forms of selenium and was shut down and only recently re-opened. We also note that a recent permit amendment asked for a selenium limit for the under construction Fording River South AWTF nearly twice the limit for the original AWTF. Teck's commitments to build water treatment facilities under the EVWQP are three years behind schedule and it is unclear when future planned treatment plants will be completed. Both the AWTF and SRF are unproven technology, from a company with a poor track record of overpromising on water treatment and being unwilling to allow independent verification of their claims about the technology in the public eye.

Regardless of the feasibility or reliability of Teck's water treatment technologies, the key issue is that these treatment technologies are not appropriate to the problem, which is expected to last for centuries or longer. We simply cannot rely on water treatment facilities, which have thus far cost hundreds of millions to build and tens of millions to operate annually, for the length of time for which the pollution will flow, as no company or indeed government can credibly commit to operating these facilities for centuries or longer. As soon as water treatment stops, the level of water pollution will immediately increase, putting fish in danger not just immediately downstream, but for hundreds of kilometres through the Fording, Elk and Kootenai/Kootenay Rivers, including Lake Kooconusa. A federal assessment is an absolute necessity to evaluate these long term impacts as the provincial assessment process has ignored this issue in repeated EAs for mine expansions in the Elk Valley.

Climate impacts

The project is a coal mine, with significant climate impacts from mining and major climate impacts from the use of the coal mined. Teck estimates the project will have carbon emissions of 0.67Mt annually and has not indicated any credible plan to reduce those emissions. Given Canada's commitments to reduce greenhouse gas emissions in the near future, we do not see how these significant emissions are compatible with our national commitments. Because many of these emissions are from fugitive methane, reductions may not be economically feasible. Any GHG reductions strategies Teck intends to employ need to be made public and have their feasibility assessed through a federal IA, in the context of Canada's commitments for carbon emissions reductions.

On a global scale, burning coal for steelmaking is a significant contributor to climate change. We cannot afford to continue current levels of coal-based steelmaking in the face of the need for a rapid reduction in global carbon emissions to avoid climate disaster. As non-coal steelmaking options already exist and are in use around the world, Canada should not be committing ourselves to decades of steelmaking coal exports.

First Nations' rights

We note the designation requests of the Ktunaxa Nation and the Confederated Salish and Kootenai Tribes and Kootenai Tribe of Idaho and stand in solidarity with the Ktunaxa/Kootenai people in Canada and the US whose rights and traditional territory may be impacted by the project.

In conclusion, we urge you to designate this coal mine project for federal assessment with a panel review. Decades of coal mining from the largest mine in Canada, with impacts that will last for centuries or longer, and which will pollute a river and lake we share with our southern neighbours, require careful assessment at the federal level.

Sincerely,

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