BRITISH COLUMBIA

Reference: 355756

February 19, 2020

W.C. McIntosh
Assistant Administrator, Office of International and Tribal Affairs
United States Environmental Protection Agency

Gregory Sopkin
Regional Administrator (EPA Region 8)
United States Environmental Protection Agency

Chris Hladick
Regional Administrator (EPA Region 10)
United States Environmental Protection Agency

c/o Adele Lucero, Staff Assistant, EPA Region 8
Sent via email: Lucero.Adele@epa.gov

Dear W.C. McIntosh, Gregory Sopkin and Chris Hladick:

Thank you for your letter of February 4, 2020, addressed to the Honourable George Heyman, Minister of Environment and Climate Change Strategy and the Honourable Bruce Ralston, Minister of Energy, Mines and Petroleum Resources, regarding stakeholder input for the Teck Resources' (Teck) Implementation Plan Adjustment (IPA). I am pleased to respond on their behalf and appreciate the opportunity to provide some clarifications regarding the management of water quality impacts from mining, along with initiating discussion with you on improvements in engaging the United States Environmental Protection Agency (US EPA) on these matters.

Ministerial Order M113 was issued in 2013 to require Teck to develop and submit an Area Based Management Plan (ABMP) in accordance with the process and requirements laid out in the Order. The ABMP submitted by Teck was titled the *Elk Valley Water Quality Plan* and was subsequently approved by the Minister of Environment in November 2014. Teck is legally required to comply with the requirements of their *Environmental Management Act* (EMA) permit, which embodies many of the commitments Teck had made in the ABMP. Since the ABMP was approved in 2014, Teck has installed one active water treatment plant (Line Creek) and construction of a second plant at the southern portion of the Fording River Operations is proceeding on track for commissioning at the end of 2020.

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Ministry of Environment and Climate Change Strategy | Office of the Deputy Minister | Mailing Address: PO Box 9339 Stn Prov Govt Victoria BC V8W 9M1 | Telephone: 250 387-5429 Facsimile: 250 387-6003 Website: www.gov.bc.ca/er

Your letter raises concern about the content of the 2019 IPA. The purpose of the IPA is as follows:

- Teck's *Mines Act* permit requires submission of an IPA in order to communicate and report on Teck's evolving implementation plans to achieve the objectives set out in the Elk Valley ABMP.
- The 2019 IPA provides an update on implementation progress and plans for mitigation based on improvements to the Regional Water Quality Model (RWQM), as part of the adaptive management approach embraced in the ABMP and the various permits issued for environmental management in the Elk Valley. The IPA is a reporting tool to focus provincial discussions with Teck about the priorities and pace of implementation.
- The IPA does not authorize exceedances or replace the targets set out in the ABMP nor does it alter the legal requirements set out in the EMA permit.

British Columbia requires updates to the IPA and the RWQM every three years to account for changes to mine plans, advancements in the understanding of contaminant fate and technology developments for treatment and source control. The 2019 IPA acknowledges the delay in implementing water treatment that occurred as a result of Teck needing to resolve selenium speciation in the treatment plant effluent. Speciation issues are now resolved and a solution has been successfully implemented at the Line Creek treatment plant.

The 2019 IPA identifies where Teck's current plans to implement mitigation fall short of consistently achieving all short- and long-term targets for water quality as set out in the ABMP. Responses to the 2019 IPA from provincial agencies communicated the need for Teck to continue to refine and improve their mitigation plans so that water quality targets are achieved and to demonstrate this in the next iteration of the ABMP implementation plan.

Much has been learned about the treatment plant process and the effectiveness of tank-based treatment technology. A key component of the ABMP was research and development and saturated rock fills (SRFs) were specifically identified as a high priority for technology development. Research commenced in 2011 and recent field studies have been undertaken at the Elkview mine, with planned expansion for a large-scale trial in 2020. Trials to date have been successful in meeting water treatment goals and a permitting process is underway to expand the Elkview SRF, which is expected to result in water quality targets being met sooner than outlined in the 2019 IPA, and sooner than could otherwise be achieved using a tank-based treatment plant. Teck is pursuing SRFs for treatment at other locations, and site-specific assessment work is underway to determine design parameters.

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We understand that the US EPA has concerns regarding the development and application of new technology, and the Province welcomes an opportunity to further engage with the US EPA in understanding and addressing these concerns with Teck. I have asked Robyn Roome, Executive Project Director of the Elk Valley Water Quality Task Force, and Doug Hill, Acting Executive Director of Major Mines Permitting for South East Coal, to contact your staff and arrange a discussion.

Your letter references new information on impacts on the Kootenai River downstream of the Libby Dam. Following presentations given by the USGS at the Lake Koocanusa Monitoring and Research Working Group (LKMRWG) meetings on November 13-14, 2019 in Whitefish, Montana, we are aware of an assessment of selenium content in fish tissue and water quality undertaken downstream of the Libby Dam. It is our understanding the data indicates that while applicable selenium water quality criteria are currently met in the Kootenai River downstream of Libby Dam, there are elevated levels of selenium in a limited number of fish tissue samples from this area. We appreciate that data from this initial monitoring program has been made available.

Teck is working on a study to assess the sensitivity of redsided shiners and a previous similar US EPA study on mountain whitefish was shared with US EPA via the LKMRWG. We expect to continue to discuss monitoring and research through this working group and look forward to continued engagement with the US EPA and Montana Department of Environmental Quality.

Thank you again for sharing your concerns and for your continued collaboration on these important issues.

Sincerely,

Mark Zacharias
Deputy Minister
Ministry of Environment and Climate Change Strategy

cc: Honourable George Heyman, Minister of Environment and Climate Change Strategy
Honourable Bruce Ralston, Minister of Energy, Mines and Petroleum Resources
Dave Nikolejsin, Deputy Minister, Ministry of Energy, Mines and Petroleum Resources
Bobbi Plecas, Deputy Minister, Intergovernmental Relations Secretariat
Don Wright, Deputy Minister to the Premier, Office of the Premier and Cabinet Office
Kevin Jardine, Associate Deputy Minister, Environmental Assessment Office
Doug Hill, A/Executive Director, Major Mines Permitting for South East Coal, Ministry of Energy, Mines and Petroleum Resources
Robyn Roome, Executive Project Director, Elk Valley Water Quality Task Force, Ministry of Environment and Climate Change Strategy