

To whom it may concern

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This proposal has to do with Williston Lake Hydro Electric Reservoir and the Rocky Mountain Trench. I estimate there are billions of cubic meters of construction grade sand within the Rocky Mountain Trench (Mackenzie – Tsay Keh Dene).

In 2015 Just North of Mackenzie, we did some testing on the lower end of Mugaha Creek. We unearthed an eight foot (2.5m) thick layer of sand under about 20 feet (6m) of glacial till and river outflow. In 2018 I saw the various beaches of sand all along both sides of Williston Lake Hydro Electric Reservoir.

I also learned about several problems with the lake such as

- Medical conditions (silicosis) from dust storms on Williston Lake Blowing into Tsay Keh Dene.
- Toxic Mercury levels in the water of the lake
- Excessive erosion of the reservoir

I propose a three phase project.

Phase one – In Progress

Create fair market conditions with current regulations for world companies to conduct sand mining operations on both sides of the lake export for to the Pacific Rim market.

We (Mackenzie) have all necessary infrastructure (Road, Rail, Lake) in place to support such operations. However it is intended that Phase one operations will cover the costs of any remaining infrastructure required.

Phase two

As fair market conditions develop, modify the regulations to accommodate what will be necessary to conduct environmental cleanup of Williston Lake.

This can be accomplished with bucket dredge operations quarantined with filtration nets. The mined material is transported via barge to the nearest rail depot. Material will be transferred and transported similar to procedures for grain.

The objective is to

- Strip the lake bottom of mercury contaminated material and properly dispose of.
- Mine the sand for export
- Use the tailings (cobble stones) to re contour the lake bottom

This will result in

- Stabilizing Williston Lake as a hydro electric reservoir,
- Eliminating an air borne health hazard,
- Eliminating toxic mercury from the water

Phase three

- Build a specialized plant to separate mercury out of the lake water
- Develop a maintenance plan of continuous sand mining operations on the lake.

Aggregate (Sand) Market

From Global News Environmental story June 23/2018

Between 47 and 59 billion tonnes of sand and gravel (also known as aggregates) are mined every year, UNEP said. It's used in concrete and asphalt for roads, buildings, parking lots, runways, apartment blocks, skyscrapers, shopping malls and many other structures.

China and India, which are leading a global construction boom, and are some of the most voracious consumers of sand due to rapid economic growth. Each country supports a population of 1.3 billion people.

"From 2011 to 2013, China used more cement than the United States used in the entire 20th century," Beiser told the New York Times.

"The sand from the desert does not work as the grains are too round from wind erosion, so it does not stick together and offer strength," said researcher and founder of sandstories.org, Kiran Pereira.

Read More <https://globalnews.ca/news/4274233/world-running-out-of-sand-black-market/>

Conclusion

Preliminary Research suggests that exploration of the Rocky Mountain Trench for large sources of construction grade sand is so far non-existent. I would suggest that BC Hydro may have results from their own study of the Trench.

I am currently obtaining samples for study. Sand is one of the few resources that Mackenzie has in abundance. The market conditions and timing may be an opportunity to diversify the economy of Mackenzie.

Thank you

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