

January 27, 2022

Regulatory Approvals Centre
Alberta Environment and Parks
Floor 5, S. Petroleum Plaza
9915 108 St.
Edmonton, AB, T5K 2G8
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Re: Mountain Ash Limited Partnership Water Act Application: DAPP0001717 & EMS No. 001-00481044

To Whom it May Concern,

Thank you for the opportunity to provide comments on the Mountain Ash Limited Partnership (MALP) Water Application. I am writing you this letter today, as a concerned citizen and as an advocate for public users of the Big Hill Springs Provincial Park.

Given the ongoing public opposition, environmental and social concerns, I strongly suggest that the current applications by Mountain Ash Limited Partnership (MALP) for a Registration under the Code of Practice for Pits, and for an approval under the *Water Act* for wetland disturbances be denied outright.

There is an abundance of natural resource potential and current aggregate operations already located in close proximity to this project. Current aggregate production in Rocky View hosts enough resources to support expansion in Calgary and surrounding area for the next 47 to 147 years. Aggregate operations have little economic value. A singular gravel mine have only added \$800,000 in annual gross revenue to the County of Rocky View. Meanwhile, the costs on society and the environment to exceeds any revenues received.

Undue Regulatory Process

Unfortunately, MALP application approved by Council on March 2, 2021 had many flaws, which we as the public were unable to question or defend given the online format of the special Council meeting. The PhD hydrologist, geologist and Professional Engineer that a group of neighbours hired, opposed this project and he was unable to defend his sound scientific research given the format - this is a cause for concern. Further opposition from Alberta Environment and Parks (AEP) and Indigenous communities were missed, and their concerns should be addressed in the provinces regulatory process, to protect the environmental and public concerns of this pit.¹

Rocky View County lacks an aggregate plan, despite it being a top issue in the recent October 18, 2021 election. The County attempted to develop a plan, but did not follow through on doing so. The majority of local citizens have continued to request that Council develops an aggregate plan before for any more gravel pits are approved so we can understand the cumulative impacts of these projects. Constituents in the County are scrambling to try to understand the health and environmental impacts of aggregate mines, with few resources and a growing capital cost. These consultations are burdensome and causing consultation fatigue for the general public. **Thus, during this Water Act approval we are counting on**

¹ See attachment: Alberta Parks February 17 2021

government, particularly officials at AEP, to protect our environment, for now and for generations to come.

Vast Public Opposition

On May 28, 2021, I started a petition on [change.org](https://www.change.org), an online petition platform that allows decision makers to consider public concerns and to encompass broad societal views throughout the consultations. The virtual nature of the website served as a way for the public to express their views while still adhering to COVID-19 restrictions. The public petitioned RVC to protect Big Hill Springs Provincial Park by ensuring no large-scale industrial development occurs within 5kms of the Park to protect the environment including the pristine water resources that resides within the Park. From May 28, 2021 through to January 27, 2022 (on the date of which I write with this letter), **this petition received 11,499 signatures.**² Many of those who signed left an additional comment, directly referencing their concerns of the MALP project. I would like to bring to your attention a handful of comments that I found impactful from citizens whose aims are to protect the Big Hill Springs, Big Hill Creek, local water co-ops and wells.³

I'm a resident that lives less than 2km from this proposed pit. I'm sad for Big Hill Springs Provincial Park and I'm seriously concerned about our water supply (community well) not to mention the peace /quiet and fresh air we currently enjoy on rural property. RVC did not adequately address concerns raised in the application. I hope AEP (who regulates our well cooperative and we report to regularly to ensure we have potable water) thinks enough of the rural water supply and Big Hill Springs Park that they deny this.
- Michelle Balmer, Cochrane

Big Hill Spring is a critical waterway for an uncountable number of flora and fauna. The creek flows into major town parks such as Cochrane Ranch, and the loss of water quality could be detrimental to many areas down stream. - Fisher Stephenson, Cochrane

This project threatens local aquifer, and is completely unwanted by the majority of citizens. And environmental review must take place in order to avoid contaminating ground water. – Catherine Anderson, Cochrane

Big Hill Springs and Big Hill Creek need to be protected from potential damage due to gravel operations being located too close by. We really need to treasure our freshwater and the life it supports and not allow industrial activities that threaten these natural resources. – Margaret O'Regan, Cochrane

This is a beautiful natural area and it will be forever impacted by putting a gravel pit here, the dust, the noise, the traffic on narrow roads. Not to mention wildlife impact, water, plant life impact. Big Hill Springs needs to be protected for us all. – Ali Morrison, Cochrane

It is WAY to close to my home. It puts my water coop at risk I am worried about noise, dust, light pollution all things that affect a provincial park. -Dale Palmer, Rocky View No. 44

This development will cause adverse impacts to the water chemistry downstream. Children play here, wildlife come here, this place must be protected for now and future generations. - Kelsey Morin, Cochrane

² See attachment: MALP DAPP0001717 & EMS No. 001-00481044_ opposition_petition_signatures

³ See attachment: Petition opposition comments_MALP Summit Project

I have attached the petition signatories, and additional comments for your review. **The overwhelming support of this petition and concerns about water protection is evidentiarily that the majority of citizens that live around and use the Park would like to see a buffer around the Park. It is my hope you take the broad public opinion into consideration when considering the Water application put forth by MALP.**

Traditional Water Usage

Indigenous peoples have a long history utilizing the Big Hill Springs Provincial Park, and surrounding area. The Big Hill Springs represents a once important usage for First Nations due to its quality, clarity, and abundance. The water from the Springs made this area a highly prized camping and hunting location for Indigenous peoples. Despite these well-known Traditional Land Uses, the Duty to Consult was ignored by the proponent and during the local Council's approval process.⁴ The Summit Pit project is part of the Traditional Territory of Treaty 7. Throughout 2021, the Stoney Nakoda First Nations (SNFN), Tsuut'ina First Nations and Piikani First Nations requested that RVC and MALP to consult with them and provide them more time to evaluate the project. Their input was not considered at any juncture of Council's decision-making process, as such we are relying on the province to ensure meaningful consultations takes place.⁵

Impacts to Water and Water Studies

The effects of mining from the Summit Pit as it relates to water have been explained to me in layman's terms using the example of a French Coffee Press. Removing top soils and overburden which act as a screen would impact the water in the same manner as pouring a cup of coffee from a French Press without pushing the screen down to filter the coffee. The top layers of the earth act as a screen, and by removing this sediment, the water quality diminishes. Meanwhile the recharge area will deplete as mining ensues in the region. These effects will have significant impacts to well users, a local water-coop, the Big Hill Springs and Creek, and lastly the Bow River which provides water to the city of Calgary.

The proposed MALP mine will be located about 800 metres from the Spring and the pure water resources are located downhill from the mine. This prospective mine would remove the vegetated organic soil, the subsoil, and up to 25 metres of gravel, leaving only one metre of gravel above the estimated and fluctuating level of groundwater and a very short lateral distance to the filter recharging surface water that re-emerges at the Spring. Currently, the fluctuation of the water table is not sufficiently known, risking over-excavation and leaving an even thinner layer of remaining gravel as a filter.

Myself, and other concerns citizens procured Dr. Jon Fennel (M.Sc., PhD., P. Geol. Hydrogeologist and Geochemist) to complete two studies on local water impacts if mining ensued this close to the Springs. In Dr. Fennel's first study⁶ he astutely points out that:

It is a well-known fact that when buried sediments are excavated and exposed to the atmosphere the local geochemical conditions change. The increased chance of mineral oxidation, combined with the unusual weathering and leaching reaction and ultimately the release of various constituents into the local groundwater.

⁴ For background the, Summit Pit project is part of the Traditional Territory of Treaty 7.

⁵ See attachment: Stoney Nations Opposition Letter and Piikani Letter to RVC.

⁶ See attachment: FBHSPJ_JF submission

These findings point to that **if the MALP mine goes forward there will be unreparable damages to the Big Hill Springs and Creek, as well as local well users and water co-ops.**

Local residents also procured Dr. Jon Fennel to complete a soil column flushing experiment designed to mimic infiltration of snowmelt and rainwater through the sand and gravel deposits beneath MALP's proposed Summit Pit area.⁷ In addition to turbidity, the chemical quality of the effluent water was also notably changed after flowing through the soil column. I support the studies completed by Dr. Jon Fennel, and I encourage you to consider his study and most recent experiment in your decision.

Lastly, I am gravely concerned about the well impacts on the three wells on the current property I reside on. I am located less than 500 metres from the MALP pit, and none of these wells have been examined by MALP to determine the impacts to our water resources. These wells not only sustain myself and my family, they also are used for agricultural purposes. I am troubled that MALP has not conducted these studies to understand the impacts their operations will have to local water quality, and I adamantly request that AEP represents myself and other residents that will negatively impacted if this project ensues.

At-Risk Aquatic Species

Fishers and Oceans Canada (DFO) has listed the Big Hill creek on the [aquatic species at risk map](#) as a means to protect bull trout. Moreover, in a fish habitat study conducted in 2016 by Trout Unlimited, there were 29 fish in 33 minutes of electrofishing, such as long nose dace, brook trout, brown trout, longnose/mountain/white sucker, mountain whitefish and rainbow trout. At the location of discharge, where the Springs meets the Creek there hosts fish habitats' haven. As found in the Trout Unlimited study, the MALP mine will add as much as 20-50% of flow that will disturb water temperatures, negatively impacting these fish homes. There are also additional impacts caused by the discharge of contaminants related into groundwater. Both the containments and unregulated temperatures will have catastrophic impacts on these fish.

Recommendations

I vehemently recommend that AEP deny the MALP application in totality for the following reasons:

- Vast public opposition to the MALP pit, with over 11,000 signatures on a petition that outright opposes the MALP application;
- MALP has not adequality consulted with their neighbours, nor the First Nations who requested consultation;
- Groundwater and the Big Hill Spring, will be put in jeopardy by mining. Big Hill Spring water quality and quantity will be irreversibly impaired;
- Creek turbidity will increase and more trace elements harmful to fish will be mobilized;
- Scientific experts including those at Alberta Park's recommend gravel excavations not be allowed within 1.6 kilometres of the Park boundary. For a further 800 metres from the Park boundary, a minimum of a 4 metre separation between excavations and groundwater would be required;
- MALP has not examined impacts to the 3 wells located on my property, and the impacts they will have on my health and agricultural operation;

⁷ See attachment: Soil Column Expirement_JFennel_June 23_2021_Rev1.pdf

- Aggregate operations have little economic value. A singular gravel mine have only added \$800,000 in annual gross revenue to the County of Rocky View. The costs on society and the environment to facilitate gravel extraction far exceeds any revenues received.

I appreciate your time in reviewing my letter and recommendations. If you require any further information about the contents found in this letter, do not hesitate to reach out to me directly.

Warm regards,

A handwritten signature in black ink, appearing to read 'A. Foss'.

Aynsley Foss

Land Owner
268238 Range Road 35
Rocky View County, Alberta
Located less than 500m from the proposed MALP pit