

August 30, 2016

Tyler McDonald, B.Sc., EP
Sr. Environmental and Regulatory Advisor
Tervita Corporation
500, 140 10th Avenue S.E.,
CALGARY, AB T2G 0R1

Dear Mr. McDonald:

Re: Landfill Leachate Re-use Proposal – Tervita Saskatchewan Landfills

The Saskatchewan Ministry of Environment (the ministry), Environmental Assessment and Stewardship Branch (EASB), has received your Application for Ministerial Determination and has completed a screening of Tervita Corporation's (Tervita, the proponent) proposal entitled "Landfill Leachate Re-use Proposal Tervita Saskatchewan Landfills" (the project). The proposed project is described in the following documents, termed "the Application":

- Landfill Leachate Re-use Proposal Tervita Saskatchewan Landfills; and
- Additional information submitted on July 11, 2016.

Based on the information presented in the Application, it is our determination that the project does not meet the criteria of section 2(d) of *The Environmental Assessment Act* (the Act) and, therefore, is **not** a "development" that is required to undergo an Environmental Impact Assessment (EIA). This determination is provided under the authority of section 7.3 the Act and grants the proponent authorization to proceed with the subsequent regulatory approvals for this project.

The project is deemed **not** to be a development as per the attached Reasons for Determination. In addition to advising of our determination, this letter also includes the following terms and conditions.

The decision to not require an EIA pursuant to the Act is contingent on compliance with the following terms and conditions:

1. The project must be undertaken and environmental protection measures implemented in the manner described in the Application, except where alterations are required for compliance with other regulatory requirements.
2. This office must be advised if Tervita plans to alter the project significantly from that described in the Application.
3. This office must be advised if work is not commenced within two years of the date of this letter. The Application's environmental acceptability would be re-examined in light of the circumstances of the day.

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4. Tervita must comply with all other federal, provincial and municipal regulatory requirements including those from the ministry.

Please also be advised that:

1. This letter is NOT an approval to proceed with construction activities, it is simply provided by the EASB to inform you that Tervita may proceed to obtain other permits and approvals that may be required. Additional approvals from the ministry and other agencies may be required.
2. As noted above, the EASB has made a determination that the proposed undertaking is not a development. The purpose of providing a determination is to provide some certainty that the ministry will not initiate any action to require an EIA pursuant to the Act.
3. The province recognizes its constitutional obligation to consult with potentially affected First Nations and Métis communities when making decisions that may adversely impact the exercise of Treaty and Aboriginal rights. If the project may have an impact on Treaty or Aboriginal rights, decisions by other government agencies during permitting may trigger the Crown's duty to consult.

Should you have any questions regarding the content of this letter, please feel free to contact Alvin Yuen, Senior Environmental Assessment Administrator at (306) 787-5971.

Sincerely,

Original Signed By

Erika Ritchie
Commissioner
Acting for and on behalf of the Minister of Environment
Phone: (306) 787-5419 FAX: (306) 787-2947

Enclosure: Reasons for Determination

cc: Sharla Hordenchuk, Environmental Assessment and Stewardship Branch, Ministry of Environment
Brady Pollock, Environmental Assessment and Stewardship Branch, Ministry of Environment
Wes Kotyk, Environmental Protection Branch, Ministry of Environment
Kevin McCullum, Technical Resources Branch, Ministry of Environment
Bram Nelissen, Resource Conservation, Ministry of Economy
EA Records

Reasons for Determination

Date: August 30, 2016

EAB File #: 2016-007

Transaction #: 10021974

Project Title: Landfill Leachate Re-use Proposal – Tervita Saskatchewan Landfills

Proponent: Tervita Corporation

Proposal: Tervita proposes to provide landfill leachate effluent as a hydraulic fracturing water source for oil and gas producers. The re-use of landfill leachate as a hydraulic fracturing water source would reduce the use of low salinity surface and ground water currently being used for fracturing purposes. Currently, Tervita manages leachate by either: recirculating through the landfill cell until the cell is closed and capped; disposal in a cavern or well; applying as a dust suppressant; or transporting to an appropriately licensed and approved facility for disposal. Re-use of this leachate by the oil and gas industry would add an additional option for how leachate is currently handled.

The information provided in the project proposal has led to the determination that the described project does not trigger the criteria of section 2(d) of *The Environmental Assessment Act* (the Act) and therefore is not considered a “development” and will not require an environmental impact assessment (EIA).

The above determination is based on an evaluation of the project against the criteria of section 2(d) of the Act as described below:

a) have an effect on any unique, rare or endangered feature of the environment;

- No effects on unique, rare or endangered features of the environment are anticipated. The Project involves the transportation of landfill leachate effluent from existing landfill storage facilities to other approved oil and gas producers. No changes to local surface water flow, drainage patterns or the drainage area is anticipated.

This criterion is not met.

b) substantially utilize any provincial resource and in so doing pre-empt the use, or potential use, of that resource for any other purpose;

- The Project does not pre-empt the use, or potential use, for other purposes any provincial resources(s). The use of the leachate effluent as a hydraulic fracturing water

source for oil and gas producers will reduce the use of surface water and groundwater currently being removed from the water cycle.

This criterion is not met.

c) cause the emission of any pollutants or create by-products, residual or waste products which require handling and disposal in a manner that is not regulated by any other Act or regulation;

- The leachate effluent is high in total dissolved solids, mainly attributable to sodium, chloride and sulphate ions. Some metal and hydrocarbon concentrations are slightly above the Saskatchewan Petroleum Industry/Government Environment Committee or Saskatchewan Environmental Quality Guidelines, however these guidelines do not apply to the proposed use in well stimulation by hydrofracturing or injection into formations with high total dissolved solids.
- The storage of leachate effluent and treatment at the industrial landfill facility is regulated by the Ministry of Environment, Environmental Protection Branch. The disposal of oil and gas waste along with non-oil and gas waste into subsurface formations is regulated by the Ministry of the Economy.
- Storage and containment of fluids at well sites will need to meet requirements of *Guideline GL 2000-01: Saskatchewan Hydraulic Fracturing Fluids and Propping Agents Containment and Disposal Guideline* administered by the Ministry of the Economy.
- No pollutants or waste not already regulated under *The Environmental Management and Protection Act, 2010* will be generated as a result of this Project.

This criterion is not met.

d) cause widespread public concern because of potential environmental changes;

- No local or widespread public concern regarding environmental change has been identified with this Project.

This criterion is not met.

e) involve a new technology that is concerned with resource utilization and that may induce significant environmental change;

- The Project does not involve new technology.

This criterion is not met.

f) have a significant impact on the environment or necessitate a further development which is likely to have a significant impact on the environment.

- The Project footprint occurs in the area that has been previously disturbed and approved. The reuse of leachate effluent for oil and gas industry will minimize the use of surface water and groundwater currently being removed from the water cycle.
- No additional works which will significantly impact the environment are expected to result from this Project. Provided the Project is carried out as proposed and mitigation measures are implemented as described, this Project is not likely to have a significant impact on the environment.

The criterion is not met.

Conclusion: Based on the above considerations, the Ministry of Environment Environmental Assessment and Stewardship Branch's review of the proposal concludes that the Project is not a "development" that is required to undergo an EIA and require a Ministerial Approval as identified in Section 8 of the Act. The Project is subject to all other regulatory requirements, the protection measures in the proposal, and the stipulations in the attached letter.