

CREC

Campbell River Environmental Committee

CREC, PO Box 20092 STN. A, Campbell River, B.C., V9W 7Z5

January 10, 2018

Dear Mayor and Council,

For your information, I am sharing the Ministry of Environment's (MOE's) November 27, 2017 response letter to a CREC October 13, 2017 letter of concern and requests as well as the MOE's September 28, 2017 Upland Excavating Ltd.'s (Upland's) Compliance Inspection Report. During the September 11, 2017 MOE compliance Upland site visit, **the inspector found medical waste, including needles and gloves, deposited at Upland's site. Medical waste is not permitted in Upland's existing permit nor in the applied-for Operational Certificate (OC).** Even though the report provides a picture of this waste it is described as "possible medical waste" with "compliance to be determined." In addition to what can be seen, it is not known how much may have been buried or where exactly it is at Upland's site.

The definitions I researched name sharps (needles) and gloves as bio-medical waste.

https://en.wikipedia.org/wiki/Biomedical_waste

A MOE Biomedical Waste in British Columbia, May 1989 Report names needles called sharps as Biomedical waste. (attached)

Bio-medical waste is identified as hazardous waste in the MOE Hazardous Waste Legislation. (attached)

<https://www2.gov.bc.ca/gov/content/environment/waste-management/hazardous-waste/legislation-regulations>

Leachable toxic waste is also identified as hazardous waste in the MOE Hazardous Waste Legislation. Coal tar creosote is toxic by MOE definition and is leachable in soil and water.

The Agency for Toxic Substances and Disease registry, The International Agency for Research on Cancer (IARC) has identified that coal tar is carcinogenic to humans. (pg. 6 attached)

<https://www.atsdr.cdc.gov/ToxProfiles/tp85-c1-b.pdf>

Upland hired GHD to test the creosoted timbers and they were found to be significantly below acceptable standards. The MOE did not test. All sampling needs to be done by the MOE.

The MOE provided Upland's compliance reports from 1992 to 2012 (see attached).

In 1992 and 1993 creosoted wood waste was found deposited at Upland's site. There were no deposits to the permitted pit location.

In 1992, just after Upland received their permit for a demolition and construction waste landfill, through to 1998 unauthorized log sort waste was found in the upper level of Upland's site. Permittee reps were advised not to dispose log sort waste at this site. By November 1994 unauthorized log sort waste stored at the site had doubled. By 1995 unauthorized log sort waste stored at the site had more than redoubled in volume to approximately 20,000 to 40,000 cubic meters. Upland's permit is for 3200 cubic meters a year of inert waste. Upland was directed to apply for an amendment to their permit to accept that type of waste and for a change in permitted location of waste. There is no record of this being done at that time. Upland was never penalized for their non-compliance.

CREC requests Mayor and Council reconsider Upland's zoning due to the deposit of unauthorized quality of waste at Upland's site in accordance with the legal opinion by UVic Environmental Law Center and the City's lawyer.

In MOE's response letter we are told that the application for the OC is an upgrade required by the Regional District Waste Management Board. It does not need to be and should not be an increase in quantity from 3,200 cubic meters a year to 25,000 cubic meters a year or from inert waste to waste that can be contaminated and leachable, including contaminated soil. **Dr. Gilles Wendling, P. Eng and hydrogeologist, finds there is still a risk to Campbell River's Drinking Water due to lack of critical information in Upland's consultant, GHD, reports. Also, Upland-hired hydrogeologist Guy Patrick's 3rd party review agrees with Dr. Wendling's finding that more information is needed to the west and east of Upland's site.**

Mr. Patrick found that "areas of uncertainty to the west may benefit from a more rigorous assessment, and noted that the depth to bedrock was not defined immediately east of Rico Lake suggesting the possibility of a dip or trough in the bedrock in that area...."

Mr. Patrick found that "surface water features are located hydraulically downgradient of the Site beyond 500 m that may receive groundwater passing beneath the Site. These features, which are not explicitly discussed as potential groundwater discharge areas, include ephemeral streams to the southeast, and possibly Lost Lake to the east." Upland/GHD further addendum report does not provide all the recommended investigation given in Dr. Wendling's and Guy Patrick's reviews.

Should the MOE approve Upland's application, without further investigation it would be in disregard of 2 out of 3 hydrogeologist review findings.

Upland has stated that there is no risk to Campbell River's drinking water because the landfill application is for a pit and water does not flow uphill.

However, liner seepage, identified in Upland/GHD reports, is expected. Should the liner fail due to incompatibility with hydrocarbons, proposed to be landfilled at Upland's site or liner creep, causing tears due to the weight of the landfill, contaminants in leachate will flow down into the highly vulnerable aquifer under the pit and travel out in the aquifer to the surrounding environment. A 2001 Environment Canada publication stated that: *"It is now accepted that all landfills will eventually release leachate to the surrounding environment...."*

Dr. Wendling found that fractures in the bedrock aquifer with potential drainage towards Rico Lake need to be better understood.

In addition, the proposed final elevation of the landfill at 195 meters above sea level (masl) is above Rico lake (179-180masl) and McIvor Lake (177masl). As stated above, water does not flow uphill. The run off will flow downhill. Upland/GHD reports state: "A portion of the western property boundary dips steeply west towards Rico Lake." Ditches and swales for water management are proposed to be for 1:100 year rain events. BC Hydro reports that in November 2016 we had two 1:150 year rain events.

Thank you for inviting Dr. Gilles Wendling to present to Council. More recent reviews and amendments are available: Upland-Hired, Guy Patrick Third Party Review:

<https://crecwebcom.files.wordpress.com/2016/05/2017-10-05-ghd-to-moe-independent-peer-review-1.pdf>

Upland/GHD Addendum:

<https://crecwebcom.files.wordpress.com/2016/05/2017-10-20-ghd-to-moe-technical-addendum.pdf>

Dr. Gilles Wendling Review of Guy Patrick 3rd Party Review and Upland/GHD Addendum:

<https://crecwebcom.files.wordpress.com/2017/11/2017-11-23-uplands-review-gws.pdf>

Thank you for your time.

Sincerely,

Leona Adams, President, CREC

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