

Dear Editor,

Mr. Tyler Hodgkinson of Kalesnikoff Lumber Company indicated that the preservation of the Glade Creek waterfall would be stressed in KLC's proposed logging plan in his October 2015 article in your paper. While the effort to hear the community on this point is appreciated, I would like to communicate other concerns I heard repeatedly as I went door to door on behalf of the Glade Watershed Protection Committee. (1) The preservation of drinking water quality is the overarching concern. Other concerns are (2) logging trucks frequenting Glade Road through the community; (3) the presence of Bull Trout in Glade Creek and (4) the preservation of our bordering wooded area and posted hiking trails which are used for recreation.

1) For over four decades Glade Irrigation District has maintained a drinking water system in the Glade Watershed which provides water for about 100 homes. It is also noteworthy that residents of upper Glade, many of whom use sources of surface drinking water could be affected by the proposed plans to log as well those residents served by Glade Irrigation District.

According to B.C.'s Community Watershed Guidebook logged areas increase run-off, erosion and rate of snowmelt. Accelerated surface erosion, landslides and channel-change processes happen. Where harvesting and roadbuilding occur over an extensive area, there is even greater potential for soil disturbance as flow over skid trails and roads increases surface erosion and resulting water turbidity.

Indeed the Glade Creek Watershed has already experienced both man-made and natural disturbances: horse logging and hand-built trails in the 1920's and 30's; an intense forest fire in 1934; construction of power lines and associated road building in the 1970s and maintenance of powerlines which continue to the present time. Disturbances have resulted in at least 3 landslides and ongoing sources of sediment in Glade Creek Watershed (Interior Watershed Assessment Procedure & Reconnaissance Stability Assessment of Structure Locations Glade Creek. February 2001. M.Carver).

<http://gladewater.weebly.com/uploads/1/4/9/2/14923104/turbidity1.pdf>

When sediment production increases, it affects the efficacy of our water treatment process by introducing not only fine clays, sands and silts in the water but also organic compounds, plankton and microorganisms. The maximum acceptable concentration of turbidity in the Guidelines For Canadian Drinking Water Quality is 1.0 NTU (with a recommended target of 0.1 NTU). Where turbidity levels are elevated, disinfection is compromised. Bacteriological constituents in the water along with sediments may actually overwhelm the disinfection system at elevated levels even while treatment and delivery of water to the community are occurring.

Disinfection utilizing chlorine is the treatment currently in place for the Glade ID water system. This jurisdiction issues Water Quality Advisories when turbidity levels exceed a set level, even though chlorination is present. This is the only option available to the operators of this water system in terms of reducing risk to the users. As such Glade is under a Boil Water Advisory.

There is also the challenge of disinfection byproducts to consider. While protecting against microbial contamination is the top priority, chemical compounds are formed unintentionally when chlorine reacts with natural organic matter in water. In the early 1970s it was determined that drinking water chlorination could form a group of byproducts known as trihalomethanes (THMs), including chloroform and Haloacetic Acids (HAAs) which pose a long-term health risk to water consumers when at elevated levels. Our water system can only meet this challenge by an effort to control the amount of natural organic material getting into in the water prior to disinfection.

<http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/byproducts-sousproduits/index-eng.php#sa4>

Physical effects on the intake are also periodically experienced as a result of coarse sediment levels and organic levels are elevated. Any degradation of the source water could greatly affect the

decisions related to our water treatment system and the resulting costs for this community. Also, at the point of entry to households there are additional costs for filtration equipment during turbidity events. Logging the Glade Watershed would create an additional burden and risk for the people of Glade. Compounding the existing risk to the potability of our water cannot be supported.

In the the Drinking Water Protection Act a threat to drinking water is defined as, “ a condition or thing, or circumstances that may lead to a condition or thing, that may result in drinking water provided by a domestic water system not being potable water”. An investigation can be requested under Section 29 of the DWPA and I believe this is an instance in which such an investigation is warranted.

2) It concerns Glade residents that logging trucks may be routinely travel through this community where no sidewalks exist. As one resident put it, "Walking is big in Glade." Whether it's parents pushing strollers with toddlers trailing on tricycles or my elderly neighbours taking their constitutional, the roads of Glade are traversed many times daily. Would our kids waiting on the roadside for the school bus be vulnerable? Concerning the school bus, it should be on the record that residents here have drawn attention to the narrow curve on Glade Road near the highway access. Would the school bus safely pass a logging truck there? What about safety and congestion at the ferry loading sites?

3) A Bull Trout capture in Glade Creek was recorded by Fish and Wildlife in 2013. The sample was a juvenile, suggesting spawning has occurred. Bull Trout are a provincially Blue-Listed and their conservation is a priority to the province of BC. The Blue List includes any indigenous species or subspecies considered to be of Special Concern in British Columbia. They have characteristics that make them particularly vulnerable to human activities or natural events. Bull Trout are very sensitive to water temperature, turbidity and require cold, clear water. For example, any further sedimentation of the creek will negatively impact successful spawning, incubation and rearing. Logging practices can increase water temperature 2-4°C over a short time period and climate change effects may also increase temperatures (Macdonald et al. 2003). Glade Watershed should be monitored to assess its Bull Trout population, abundance and status in relation to provincial categories of risk. At the present time a profession assessment is planned for July and September of 2016. As well a temperature data logger will be installed in February 2016.

4) The lower reaches of Glade Watershed border our community. On any given day, summer or winter you will find adults, children and dogs enjoying the trails. In July heat it is a cool, fragrant retreat under the canopy among the waist-high ferns, while on snowshoes or skis in winter, it is a place of sparkling enchantment. The prospect of residents or visitors scrambling over parched piles of slash and gravel to reach the the waterfall is saddening.

In closing, I would like to say that Glade residents understand that logging is a part of the prosperity that maintains us but at this time of year when the bottom-line is considered, it's also true that our prosperity is measured by such things as pure water, a safe and vibrant environment in which to live.

Y.Neilson

Glade resident

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