Name: Anne Blaney  
Email: [blaneyanne50@gmail.com](mailto:blaneyanne50@gmail.com)  
Community: Glenora Area E  
Post Code: V9L 6S8  
Prov: BC  
Country: Canada  
Phone: [778-422-1624](tel:778-422-1624)

Interests: Reference to biologist, soil specialist, hydrologist, or geologist to get feedback for at risk soil conditions for lead contamination of soil, ground and surface water from 40+ year old Gun Range in Cowichan River Provincial Park located 300 metres from the Cowichan River.

Comments: In preparation for the 2017 Cowichan River Parks Management Plan, I have joined with a group of my neighbors in Glenora to research the appropriateness of a Gun Club (Cowichan Fish and Game) in a protected area. The Gun Club was, without consultation to the Cowichan Tribes or community, issued a 31 year lease (for $1000 per year) from BC Parks. Myself, I am have spent much time learning about toxic soil contamination from lead at outdoor ranges, particularly old ranges, as this one is 40 years old at least. I have read many studies and I have been in contact with the US Geological Survey as well as the Senior Contaminated Sites Officer in BC and Lead Recycler /Reclaimers from the US  According to the USGS, 1.4-15 tons of lead from spent bullets are deposited in soils of outdoor shooting ranges annually. We did the math (shots fired/per set. # users/day, etc) and this figure appears accurate. Additionally, these outdoor gun ranges have turned from being rifle ranges into recreational semi-automatic handgun ranges,causing even a greater amount of lead to enter into the soil (and the constant explosive noise from a hand gun vs a rifle). The Contaminated Sites Officer told me that they had no plans for lead testing as "there was no scientific proof there was lead contamination at the range." What I would like to do is to get the name of any geologist, biologist, hydrologist who would be able to give me some feedback as to the soil conditions that are present at the Cowichan Fish and Game. If the soil is acidic (which it has to be since it is a Western Hemlock/Douglas Fir forest) with an absence of the minerals phosphorus, calcium and magnesium(minerals that slow lead decay)  
(the research says this zone has iron), and the rainfall of Mild Moist Maritime correct, than it would show the conditions most at risk for lead migrating into groundwater and off site, either into the nearby streams, park or Cowichan River, 300 metres away. Lead migrates into groundwater in acidic soils. Rainfall increases the rate of lead decay. So either the lead is still onsite or migrating out, but it does go somewhere. So, it would be  
great to hear from someone on your board concerned about lead contamination in the Cowichan River watershed from this outdoor shooting range.