

Shawnigan  
Basin Society

September 18, 2023

Mr. Clayton Postings – General Manager, Strategic Services  
Mr. Keith Lawrence – Senior Environmental Analyst  
Mr. Jeff Moore – Senior Environmental Analyst  
Cowichan Valley Regional District  
175 Ingram Street  
Duncan, BC  
V9L 1N8

Dear Sirs,

Re: Potential Involvement of Shawnigan Basin Society (SBS) Via the Drinking Water and Watershed Protection Function (DWWP) (Function 532)

As per our discussion on the afternoon of September 12, 2023, we are sending you information on projects that we discussed with an estimate of the effort and fixed costs required to achieve success. This discussion is by topic with no emphasis on order.

A. Complete a Watershed Management Plan for Shawnigan Creek Watershed (SCW)

We were commissioned to complete a Watershed Management Plan (WMP) in 2022 which unfortunately coincided with the flooding of the Ingram Street building. By the time we could access literature in the CVRD library, we were well into the fall. This assignment was converted to a Watershed Characterization report due to the shortage of time to complete within the 2022 time frame. We would like to complete the WMP and would

recommend including First Nation sensitive areas in the watershed through an interface with Malahat Nation and Cowichan Tribes (see approach under Section E).

Approximate Hours involved: 500 hours

Fixed Costs involved: none

#### B. Assist with Water Quality Monitoring of Lakes and Streams

To date SBS has been involved with two types of water quality (WQ) monitoring in the SCW – profiling using a YSIProDSS water quality meter, and water sampling for subsequent water quality analysis at a qualified analytical laboratory. We recognize the importance of keeping a continuous monitoring record in the lake and associated streams. We completed a review of Palmer's recommended water quality sampling program, and produced a paper that provided review comments and further recommendations for sampling in the SCW. That review is attached (file name 'Recommended Future Sampling Program').

Note that this paper defines the parameters that could be sampled with *in situ* monitoring instruments (i.e., the YSIProDSS meter) versus those parameters that would require laboratory analysis. The Palmer study recommends annual WQ monitoring (including laboratory analysis) while the provincial program put forward by the BC Ministry of Environment and Climate Change Strategy (ENV) recommends Attainment Reports every three to five years. SBS is sensitive to costs, and recommends that the appropriate monitoring instrument (i.e., YSIProDSS meter) be acquired and that analytical water sampling be completed in conjunction with the Province. SBS is qualified and willing to take part in either type of sampling.

Approximate hours involved: - 100 hours per analytical sampling event

- 30 hours per *in situ* sampling event

Fixed Costs for WQ sampling: - YSIProDSS meter with 60m and 10m cable approx.  
\$26,000 (see 2021 quote attached)

- Approximately \$10,000 analytical costs per sampling event

The Shawnigan Basin Society,

Working towards the ecological preservation of the Shawnigan Basin and the Drinking water it provides.

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C. Provide Forest Tenure Functions for Designated Forests in the Shawnigan Creek Watershed

The Shawnigan Basin Society was approached by Barry Gates of the Trust for Sustainable Forestry to see if there was any interest to take over the Forest Tenure at the Elkington/Malahat Forest that the Trust currently holds. The Trust for Sustainable Forestry Forest Tenure document is attached. This forest of 350 acres (Figure 1) is a naturally regenerated forest last harvested in the 1950s. The SBS is interested to take over this forest tenure and develop this forest into a teaching and research forest as well as a centre for cultural activities for the Malahat Nation. We are in communication with the University of Victoria Centre for Forest Biology: this Centre has expressed an interest in using the Elkington/Malahat Forest as a teaching laboratory. We will approach the Malahat Nation to see if this First Nation would be interested in this forest for cultural activities.

The SBS would also propose to the CVRD that it takes over the management of the Stebbings Road Community as well as the Sooke Lake Road Community forests and turn these into teaching forests. These are also naturally regenerated forests but much younger than the Elkington/Malahat Forest.

One of the first things the SBS would do if it takes over the management of the Shawnigan Lake Community Forests is to engage with the Cowichan Valley Naturalists and carry out an ecological survey of these forests, with a particular attention paid to the roles of these forests in the Shawnigan Creek watershed. We estimate this survey would take 150 person-hours.

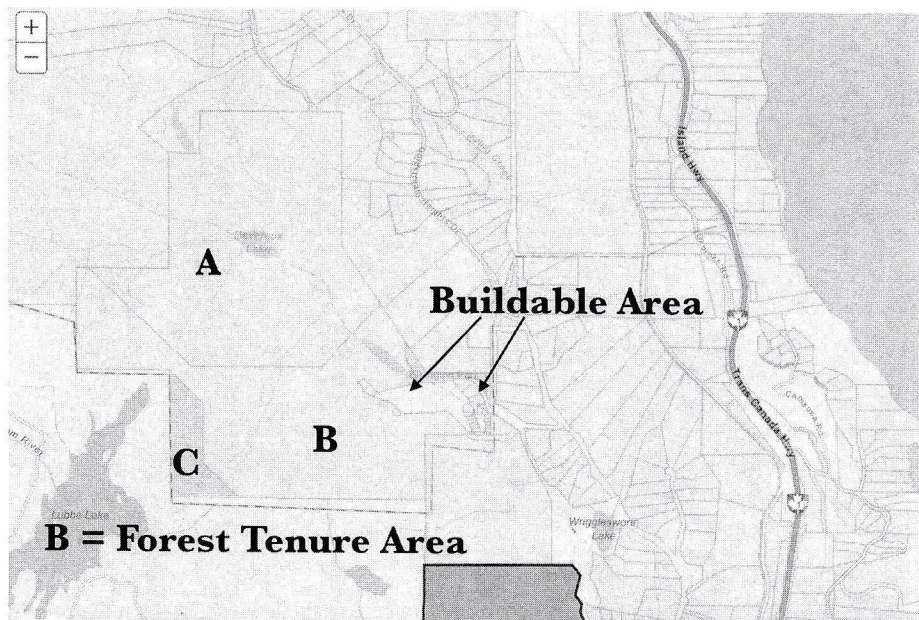


Figure 1: Elkington/Malahat Forest. Area indicated by 'B' is where the Trust for Sustainable Forestry has the Forest Tenure

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D. Develop Strategy for Cold Water Milfoil Removal (Invasive Plant in CVRD Lakes)

SBS has applied for a \$100,000 grant from Environment and Climate Change Canada (ECCC) through their EcoAction community funding program. This requires that SBS match the grant funding with volunteer services, funding, or donated contract services. Our grant application was focused on cold water Eurasian Water Milfoil removal from Shawnigan Lake. This species of milfoil is an invasive plant that, if left unchecked, can result in the eutrophication of Shawnigan Lake due to addition of nutrients and the water quality changes that result from the decomposition of large quantities of plant material. We are working with North Pacific Divers (NPD), a local commercial diving company, to develop a cold water removal process using a suction line operated by divers.

We were advised by ECCC that our proposal was not funded, primarily due to the low level of program funding for this year's program, and that our technological uncertainty was relatively high. We propose to get our permits in place and develop the pumping system and dewatering systems with funding we have through our fundraising efforts. As we discussed, we will resubmit the proposal next year, and would hope that we can get a letter of support from CVRD.

Approximate Hours involved: - 200 hours for permit application and to interface with NPD

- ECCC future program requires approximately 4,000 hours of volunteer assistance

Fixed Cost: - NPD supplies three or four staff, vessel, and dive equipment for a cost of approximately \$5,000/day

E. Assist with Reconciliation Objectives Through Our Contacts With Malahat Nation

We have a letter of intent from Malahat Nation, and have had a number of interactions with both Malahat Nation and Cowichan Tribes to date. We look forward to engaging with them for some of the potential work under the DWWP function. We do want to include First Nations (FN) insights into our programs, as indicated in Section A if CVRD choses to advance the WMP. We look forward to further discussion in support of the reconciliation process. Discussions with Malahat Nation staff indicate that some form of parallel contract is a preferred funding mechanism, as opposed to a subcontracting arrangement.

Approximate hours involved: - flexible

Fixed Costs: - Honoraria are provided to FN elders for their involvement.

- Malahat Nation has a cost structure associated with their involvement in technical programs.

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We look forward to further discussions. SBS is looking forward to improving the environment in cooperation with CVRD.

Yours truly,



David Munday, B.Sc., MBA, R.P. Bio.  
President  
Shawnigan Basin Society  
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Shawnigan Lake, BC  
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I acknowledge that the land on which I live, work, and play is the traditional and unceded territories of the Coast Salish and Hul'q'umi'num speaking Peoples.

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