

# **Shawnigan Basin Society Business Plan and Budget Proposal for 2019 Sharing, Caring, Repairing**



Shawnigan  
Basin Society

**December 4, 2018**

## **Background:**

Shawnigan, from the height of land bordering the Capital Region to the outlet in Mill Bay, serves the water requirements for domestic, industrial, farming and recreational needs of over 12,000 people. Water consumption ranges from drilled wells in aquifers to private lake and stream intakes, to public and private major water distribution systems, much of it licensed but a considerable portion remains informal with little information on total usage. Habitation investment and commercial security depend ultimately on an adequate supply of pure water being reliably available from the watershed.

Logging, gravel extraction, quarrying, soil dumping, housing development, septic fields, farms, highways and resource roads, foreshore vegetation removal, lawn fertilization, upland off-road vehicle traffic and shooting galleries, and heavy boating traffic combine to degrade water quality. Great quantities of silt are delivered to the lake in winter rainstorms and the lake is infested with introduced fish species that have altered the predator/prey balances. Symptomatic of the many changes is the explosive growth of invasive Eurasian Milfoil around the perimeter of the lake in response to increased nutrients in the lake bottom silts and elevated temperatures. At the same time, population growth is making more demands on the watershed and climate change is affecting rainfall patterns leading to erosion-creating winter rain storms and extended summer droughts with increasing prospects of damaging wildfire.

All of these activities are overseen or regulated by different government agencies, federal, provincial and local but there is no single agency or any collaborative mechanism with the mandate or capacity to deal with the cumulative impacts of all these pressures.

The Shawnigan Basin Society was created in 2012, with advice from the Cowichan Watershed Board, to address these increasingly heavy and uncoordinated development pressures on the well-being of the Shawnigan Community Domestic Watershed. What was clearly needed was a planning and oversight agency with the necessary mandate to

coordinate the permitting and regulatory activities of the many public agencies and to work towards reducing cumulative impacts on the health and productivity of the watershed.

While the Shawnigan Community was of necessity focused on the challenge of the contaminated soil dumping at the quarry on Stebbings Road, the watershed continued to be affected by all the other pressures. The Society chose to do necessary scientific homework to enable future watershed planning to benefit from assembled information.

An ecological analysis of the upland forest was completed with support funding from the BC Real Estate Foundation to augment the locally allocated tax requisition provided by Area B of the Regional District. The Society studied the status of the basin forest cover and made recommendations for restoration of hydrologic functions that support the watershed's role as a critical water supply to the community. Satellite images from 1984 to the present were reviewed to illustrate the changing condition of the forest cover in comparison to the fully protected Sooke Lake Watershed to the south. Watershed mapping, including land forms, aquifer vulnerability and ownership patterns by logging companies, public bodies and private citizens were assembled and an accurate scale model of the source watershed was purchased with the assistance of Timber West.

Ongoing lake health activities were also undertaken, including selected foreshore restoration demonstration projects, support for the Ministry of Environment and the "Research Group" water quality sampling programs and the most recent investigation of milfoil extent and potential control methods.

The Society maintains a storefront office in Shawnigan Village to provide public access to the scientific information assembled, to enable the Board of Directors and our part-time Executive Director to meet with members of the public on the many watershed issues, to provide accurate land based information to the Advisory Planning Commission and to act as a convenient and visible staging point for community action. An "Ecological Design Panel" of land and resource experts is maintained by the Society to ensure a strong professional base for both gathering and interpreting information for basin planning. As the annual tax requisition is drawn from all of Area B, the Society has apportioned a share of its funding to support the Koksilah Watershed Group that is working to create the same type of comprehensive watershed information that has been assembled for Shawnigan.

In short, traditional fragmented jurisdictional decision-making necessitated a single agency – the Shawnigan Basin Society – to consider, devise, and implement solutions to respond to the negative ecological cumulative impacts suffered by the Shawnigan Lake Community watershed.

**Mission:**

Working to protect and secure the long-term health and safety of the Shawnigan Lake Community Watershed and the drinking water it provides.

**Goals:**

- 1) Restore hydrological integrity of the upland forests;
- 2) Prevent or limit silt and nutrient loading of Shawnigan Lake;
- 3) Implement invasive species controls i.e. Eurasian Milfoil; and
- 4) Restore foreshore function using bioremediation techniques and practices.

**Strategy:**

- 1) Establish the core funding necessary to enable conduct of research, public communication, and project development.
- 2) Use the annual tax allocation to pay for basic administrative and core operating costs and leverage while fund raising to support projects that further our goals.
- 3) Develop and solidify partnerships and increase our number of volunteers to enhance our community outreach and overall effectiveness (i.e. full time office hours, monthly information workshops, continued utilization from other community groups, etc.).
- 4) Determine and implement projects as additional funds become available.

Core funding and projected annual costs that are supported by a locally voted tax function. These funds essentially enable the Shawnigan Basin Society to function as an organization without having to also seek seed funds to offset core operating costs.

Projects and projected costs and funding targets, however, are continually sought from external sources including grants, donations, and sponsorships, which are then used as they become available. This also includes the ability to support any local organizational such as the Shawnigan Research Group and the Bioremediation Society. Please see below for budget particulars.

**Core Functions:** Shawnigan Basin Society village office communications; the use of social media to increase public engagement and information sharing; increasing membership; fundraising; and conducting lake and watershed familiarization tours.

**Project Functions:** Milfoil controls and science-based field trials, ongoing foreshore restoration efforts, Shawnigan Research Group support, Water Sustainability Plan

promotion with TimberWest, and actively participating with the Cowichan Valley Watershed Stewardship Coalition and the Cowichan Valley Regional District.

**Current partnership links include:** the Cowichan Land Trust Society; the Cowichan Valley Stewardship Coalition; TimberWest; the Shawnigan Research Group; the CVRD's Environmental Staff, specifically relating to the Drinking Water and Watershed Protection Bylaw; the Koksilah Watershed Society (part of the Cowichan Station Area Association); the Shawnigan Bioremediation Society; Shawnigan's Ecological Design Panel; and the local Advisory Planning Commission.

*The Cowichan Land Trust:* The SBS has had a relationship with the CLTS for at least three years since receiving a \$5000 grant from the Aviva Community Funding Program in 2015. At that time, the SBS needed a charitable organization to receive and disburse funds on our behalf. We soon learned the CLTS had established a method of doing so and had a history of implementing the process for other local non-profit organizations. The criteria for this process is twofold: 1) the SBS pays an annual membership fee to the CLTS, meaning our entire Board are considered members, and 2) our President is a Director on the CLTS Board.

*The Cowichan Valley Stewardship Coalition:* The SBS is proud to be one of ten regional district organizations, which make up the coalition. Others include: the Cowichan Lake and River Stewardship Society, One Cowichan, the Cowichan Stewardship Roundtable, the Cowichan Valley Naturalists, the Cowichan Watershed Board, the Somenos Marsh Wildlife Society, the Yellow Point Ecological Society, Green Blue (Ladysmith), and the Quamichan Watershed Stewardship Society. These organizations formed the coalition just prior to the Oct. 20, 2018 Municipal Election for which there were two referendum questions on the ballot. They worked in a unified fashion for the six weeks prior to the election within their respective local areas seeking support for the Drinking Water and Watershed Protection Bylaw that was ultimately voted and ratified.

*TimberWest:* The SBS has been working with TimberWest, the largest private land owner on Vancouver Island, for approximately eight years. As such, a strong relationship has developed. Most recently, and just prior to the formation of the coalition group, the SBS met with TimberWest to discuss the formation of a partnership. A more focussed and unified vision was clear: Shawnigan Lake been designated an "at risk" watershed by the Ministry of Environment; a state of emergency had been declared in BC during the summer of 2018 due to forest fires; and stage 4 water restrictions were implemented in the CVRD. Currently, TimberWest and the SBS are working to meet with the Ministers of Environment and Forests, Lands, Natural Resource Operations, and Rural Development and seek support for a Water Sustainability Plan. Such a plan is critical to mitigate against climate change for the east coast of Vancouver Island (within the boundaries of the CVRD), yet must be approved under the provincial *Water Sustainability Act*.

*The Shawnigan Research Group:* The SBS has a new Treasurer - a member of the SRG! The SBS is firmly committed to working with other local groups: collaboration + diversity = strength! We are also committed to supporting the SRG in their cause of having the 100,000 tonnes of contaminated soil sitting in the headwaters of Shawnigan Lake effectively remediated or removed from its current site. In 2018, the SRG was funded by the CVRD to sample, collect data, and monitor lake and stream water and sediment in various location in the Shawnigan Community watershed. These samples and the data they produce were then provided to the CVRD and the Ministry of Environment for informational and decision-making purposes. The SBS contributed \$4,000 toward this cause and will support the SRG to meet their goals.

*The CVRD's Environmental Services Department (specifically regarding the Drinking Water and Watershed Protection Bylaw):* The SBS, as part of the Cowichan Valley Stewardship Coalition has formally requested to immediately partner with the CVRD in developing and implementing appropriate policy and budget now that the Bylaw has been ratified. We believe that overarching policy ought to be adopted for the regional district and that local stewardship groups ought to enact on-the-ground initiatives based on the merits and specific conditions of their respective watersheds and landscapes.

*The Koksilah Watershed Society:* Last year the Shawnigan Basin Society provided \$10,000 out of our annual budget to the Society who is working toward acquiring the same comprehensive watershed information as that in Shawnigan Lake, namely an ecosystems-based conservation plan derived from the Shawnigan example. As the region north of the Koksilah River is part of Area B, known as Shawnigan Lake, tax dollars have been contributed by residents and received by the SBS as part of our annual tax function. Those dollars were hence returned to support the work of that second watershed within Area B. Note: \$2000 has been allocated within next year's budget to the Koksilah Watershed Society to ensure they are financially supported to succeed.

*The Shawnigan Bioremediation Society:* At our last AGM, on May 1, 2018, the SBS voted two Bioremediation Society members onto our Board of Directors. Again, collaboration among local groups and those exemplifying a desire to volunteer are integral to the advancement of projects and successes on multiple scales within the Shawnigan Community watershed. Using a significant and growing body of literature acknowledging the philosophy - using Nature to heal Nature – the Bioremediation Society is dedicated to the necessary experimentation and monitoring of remediation techniques and practices that include implementing wattle walls, live stakes, floating gardens, biochar, and fungi/mycelium as valid forms of restoration.

*Shawnigan Lake's Ecological Design Panel:* The EDP, formed in January 2015, are a group of senior technical experts in land use, satellite remote sensing, water resource management, forestry, ecology, ecosystem restoration, and public health. Their function is to provide objective advice on basin management to the Shawnigan Basin Society, land

developers, the Shawnigan Advisory Planning Commission, and the planning staff of the Regional District. The EDP are modeled after architectural design panels established in many urban communities to advise city councils regarding appropriate civic design.

*The Shawnigan Advisory Planning Commission:* The APC is an appointed group of residents whose role is to provide recommendations surrounding land use and rezoning applications made by developers to the Area Director and CVRD staff. The Shawnigan APC has worked with the Shawnigan Basin Society – and developed a framework for decision-making using the Ecosystems-Based Conservation Planning and Mapping completed in November 2015 by Silva Forest Foundation – to conduct site visits and analyses of interconnected, yet interdependent ecological systems contained in development applications. The goal in using this mapping is to consider various scopes and scales of footprint and how to lessen it with recommendations made by the EDP and APC members.

Given the list of the number and significance of partnerships already established and maintained, the Shawnigan Basin Society has made considerable movement in solidifying collaborative relationships. Therefore, a direct influence would be made to each of these groups if those relationships were severed due to discontinuance of funding. It is also important to note the Koksilah Watershed Society would also experience an immediate consequence in their goals without the financial support of the Shawnigan Basin Society.

**Budget Particulars:**

	<b>Per Month</b>	<b>Total</b>	<b>Draw From 2018 Core Allocation</b>
<b>Core Operating</b>			
Office Rental	\$1,050.00	\$12,600.00	
Executive Director (Net)	\$1,737.42	\$20,849.04	
EI/PPP/Tax Contributions	\$393.62	\$4,723.44	
Focus Advertising	\$50.00	\$600.00	
Telus Internet	\$50.00	\$600.00	
Hydro	\$50.00	\$600.00	
Director's Insurance		\$610.00	
Volunteer Canada Membership		\$125.00	
Koksilah Watershed Society (EBCP)		\$2,000.00	
Computer Ink		\$200.00	
Office Supplies	\$50.00	\$600.00	
Printing	\$50.00	\$600.00	
Professional Accountant		\$500.00	

Hostgator (Monthly Hosting)	\$20.00	\$120.00
Bank Fees	\$15.00	\$180.00
Hostgator (Annual Domain Name)		\$130.00
Cowichan Land Trust Membership		\$100.00
2 Community Mailouts	2X \$500	\$1,000.00
Watershed and Lake Familiarization Tours		volunteer-based
<b>Subtotal:</b>		<b>\$46,137.48</b>

**Core Capital (Project)**

Nano Oxygen System	1 X 6000	\$3,862.52	\$2,137.48
Milfoil Field Trial Materials	1 x \$1000		\$1,000.00
<b>Subtotal:</b>		<b>\$3,862.52</b>	<b>\$3,137.48</b>

**Total 2019 Budget Request** **\$50,000.00**

**Projected Projects:**

**Maintain Core Functions:** Shawnigan Basin Society village office communications; the use of social media to increase public engagement and information sharing; increasing membership; fundraising; and conducting lake and watershed familiarization tours.

**Project Functions:** ongoing milfoil control, foreshore restoration, and Shawnigan Research Group support; creating covenants and land trust areas in the Shawnigan watershed; and developing a 50-year forest plan with TimberWest and Island Timberlands.

**\* Shawnigan Research Group - Please refer to the 2019 Water Quality and Sediment Quality Sampling Program for details of work to be done in the Shawnigan Lake Watershed.**

<b>Discretionary Operating</b>	(Fund Raising and In-Kind Donations)	
Communications/IT Support	\$500.00	\$6,000.00
Administrative Support	\$400.00	\$4,800.00

Travel/Convention		\$1,000.00
Website Rebuild		\$3,000.00
Advertising/Convention Table		\$1,000.00
Professional Services (Restoration)		\$4,000.00
Volunteer Appreciation		\$1,000.00
Shawnigan Basin Society Logowear		\$500.00
Billboard Advertising		\$1,500.00
Public Outreach Events	2x \$1000	\$2,000.00
Food/Entertainment		\$125.00
<b>Subtotal:</b>		<b>\$24,925.00</b>

<b>Discretionary Capital (Project)</b>	(Fund Raising and In-Kind Donations)	
Land Conservancy Fund		\$50,000.00
Office Computer and Printer		\$2,500.00
Brochure Rack		\$1,000.00
Signage at Public Boat Launches	3 x \$500	\$1,500.00
<b>Subtotal:</b>		<b>\$55,000.00</b>
<b>Total Discretionary Costs</b>		<b>\$79,925.00</b>

<b>Local Organization Support</b>	(Fund Raising and In-Kind Donations)	
<b>Shawnigan Research Group</b>		
Direct Program Costs		
Sediment Sample Analysis	12 X \$225	\$2,700.00
Lake Water Sample Analysis	32 X \$260	\$8,320.00
Stream Water Sample Analysis	36 x \$260	\$9,360.00
Profiling Equipment		\$15,004.00
Consumables		\$600.00
<b>Subtotal:</b>		<b>\$35,984.00</b>
<b>Bioremediation Society Materials</b>		\$2,500.00
<b>Total Local Organization Costs:</b>		<b>\$38,484.00</b>

## **In kind-donations and volunteer contributions:**

Currently, there are nine Directors on the Shawnigan Basin Society Board. Each of these members, at the very least, volunteer a portion of time every month to attend our Board meeting. Although the Executive Director is paid a part time wage, a considerable number of hours have been donated since January 2015. Additionally, volunteer efforts from our SBS Board include: Milfoil survey work; time and materials to build a display mantle for our 3D high density foam map and various loose maps; communications planning; budgeting; networking; acquiring in-kind donations; brainstorming; foreshore restoration projects; bioremediation initiatives; producing educational materials; attending various local meetings; and regularly cleaning the office. It is impossible to estimate the number of hours donated by our team each year.

The SBS recently hired a communications expert to help us develop a plan in moving forward. That person was contracted for 25 hours but donated at least an additional 75 hours (at \$25/hr) as they were taken with our work and mission.

Wroughten Art recently donated new signage/logo now installed outside the Shawnigan Basin Society's office in the village. The estimated value of that donation is \$800.

Very recently, a student from Frances Kelsey has volunteered to become a social media youth interim for the purpose of feeding Facebook, Twitter, and Instagram with SBS activity to promote community engagement.

Additionally, the SBS has received many in-kind donations over the years, which continue to be regularly used in our work. These include:

- 1) a 21 ft. x 4 ft. single slab table (with 24 chairs for meetings) valued at \$25,000;
- 2) an Ecosystems-Based Conservation Planning Report and Mapping valued at \$80,000 (paid for by the SBS), which is regularly offered to the community, local developers, the EDP, and the APC for ecologically based decision-making;
- 3) a 3D high density map from TimberWest valued at \$10,000, which shows the topography and physical dimensions of the Shawnigan Lake watershed;
- 4) TimberWest hired consulting company Ekistics to conduct a "Thinking Like a Watershed" workshop, which inspired considerable community engagement but whose value is unknown;
- 5) Ekistics Community and Biophysical mapping valued at \$50,000;

- 6) a LandSat remote sensing master's degree thesis (from Royal Roads University), which looked at vegetation changes over a 40-year period within Shawnigan Lake by Mar Martinez valued at \$70,000 (calculated on what would have been billed by company for time, materials, and software);
- 7) a second master's degree final project (from Royal Roads University), which looks at alternative governance models and argues for Ecological Governance for Shawnigan Lake by Kelly Musselwhite valued at \$15,000 (1500 hours at \$10/hr);
- 8) a third master's degree thesis (from the University of Victoria) on community development for Shawnigan Lake by Christine Westland valued at \$15,000 (1500 hours at \$10/hr);
- 9) the writing, editing, formatting, and publication of *Saving Water: Stewardship of the Shawnigan Lake Community Watershed* by Dr. Bruce Fraser, Kelly Musselwhite, Brock Musselwhite, and Chase Musselwhite valued at \$20,000 (2000 hours at \$10/hr);
- 10) an Ecological Design Panel made up of 10 members who volunteer their time as needed;
- 11) currently, there is a list of 40 residents who are willing to be called upon to participate in a Milfoil Management 101 workshop and to volunteer to implement solutions;
- 12) a Shawnigan Research Group made up of 12 members who have volunteered many hundreds of hours including: the background work needed to prepare proposals; meetings with the Ministry of Environment and the CVRD; contacts with the lab; and water and sediment sampling, data collection, and delivering samples and data to the CVRD and the Ministry of Environment;
- 13) a Shawnigan Bioremediation Society have volunteered a significant body of time toward learning and teaching restoration techniques and practices with soil (fungi/mycelium), foreshore (wattle walls and live staking), and stream and lake water restoration (floating gardens, biochar, and fungi/mycelium). These practices follow similar principles as those taught by the Stewardship Centre of BC Green Shores program and Polster Environmental Services.
- 14) two local international schools (Shawnigan Lake and Brooks) where 10-15 students have volunteered for three ecological restoration projects with a minimum contribution of 6 hours each (totalling 60-90 hours of time and energy).