

**Council Meeting**  
**June 17<sup>th</sup> 2020 | 9:00 AM - 12:30 PM**  
**Columbia Shuswap Regional District Boardroom**  
**555 Harbourfront Drive NE, Salmon Arm**

VIRTUAL MEETING

Record of Decisions and Action Items  
Approved September 9<sup>th</sup> 2020

**Meeting objectives**

1. Receive update on nutrient research with UBC-Okanagan (Mara Lake Paleolimnology Study)
2. Receive recommendations for Water Quality Grants; select successful applicants
3. Receive update on SWC Communications Plan for 2020

**Present**

Paul Demenok, Chair – Columbia Shuswap Regional District, Area C  
Tim Lavery, Vice Chair - City of Salmon Arm (*via Zoom*)  
Rene Talbot – Columbia Shuswap Regional District, Area D  
Rhona Martin – Columbia Shuswap Regional District, Area E  
Jay Simpson – Columbia Shuswap Regional District, Area F (*via Zoom*)  
Ken Christian – Thompson-Nicola Regional District, City of Kamloops (*via Zoom*)  
Rod Crowe – Thompson-Nicola Regional District, Village of Chase (*via Zoom*)  
Steven Teed - Adams Lake Indian Band, Secwepemc Nation (*via Zoom, until 10:50 AM*)  
Dave Nordquist - Adams Lake Indian Band, Secwepemc Nation (*via Zoom*)  
Denis Delisle – Regional District of North Okanagan, Area F (*via Zoom*)  
Lily Kotzeva - BC Ministry of Environment and Climate Change (*via Zoom*)  
Lorne Hunter – Community representative (*via Zoom*)  
Natalya Melnychuk - Community representative (*via Zoom, from 9:40 AM*)  
Sharon Bennett - Community representative (*via Zoom*)

Erin Vieira and Mike Simpson – Fraser Basin Council

**Observers**

John Irvine

**Regrets**

Colleen Anderson  
Randy Wood  
Chris Zabek  
Rick Fairbairn

<b>Call to Order</b>	The meeting was called to order at 9:00 AM by Chair Paul Demenok.
<b>Adoption of meeting summaries</b>	<p><b>Moved/seconded</b> by Director Talbot/Director Martin that:</p> <p>The summary of the March 11<sup>th</sup> 2020 meeting of the SWC be adopted.</p> <p><b>CARRIED</b></p>
<b>Correspondence</b>	<p><b>Moved/seconded</b> by Director Martin/Director Talbot that:</p> <p>The correspondence be received for information.</p> <p><u>Discussion:</u></p> <p>Chair Demenok commented that there have been several conference calls between himself, the Vice Chair, Director Simpson, staff, and others regarding a response to the letter referred to the SWC by the Columbia Shuswap Regional District. Mike Simpson recommended that the item of correspondence be deferred to later in the meeting.</p> <p><b>CARRIED</b></p>
<b>Old business</b>	<p><b>Moved/seconded</b> by Director Martin/Director Talbot that:</p> <p>The summary of the May 14<sup>th</sup> 2020 Water Protection Advisory Committee meeting be received for information,</p> <p>And that:</p> <p>The draft summary of the June 3<sup>rd</sup> 2020 Water Protection Advisory Committee meeting be received for information.</p> <p><b>CARRIED</b></p>
<b>Report from Chair</b>	Chair Demenok remarked that a letter was sent to Minister Robinson in late May, and there has not been a response yet. He also explained that the CSRD Board is meeting on June 18 <sup>th</sup> , and there will be a motion on the table regarding a voter assent process in CSRD Areas C, D, E, F and the District of Sicamous for the Shuswap Watershed Council Service Establishment Bylaw.
<b>Report from Program Managers: Annual Highlights Report for 2019-20</b>	Erin Vieira gave an overview of the SWC Annual Highlights Report for 2019-20, including the activities and achievements for water quality monitoring, water quality protection, water quality reporting, Zebra/Quagga Mussel prevention, and awareness campaigns for safe boating and water-based recreation. An overview of the annual revenues, expenditures and variances to year-end, March 31 <sup>st</sup> 2020, was provided:

<b>Revenue for 2019-20</b>	<b>(\$)</b>
Surplus (from March 31 <sup>st</sup> , 2019)	186,896
CSRD (C, D, E, F and District of Sicamous)	160,000
TNRD	53,600
City of Salmon Arm	40,000
Adams Lake Indian Band	1300
Grant funding: Transport Canada <i>Boating Safety Contribution Program</i>	19,538
<b>Total revenue</b>	<b>461,334</b>

<b>Expenses for 2019-20</b> (April 1 <sup>st</sup> 2019 - March 31 <sup>st</sup> 2020)	<b>Budget (\$)</b>	<b>Expenses (\$)</b>	<b>Variance (\$)</b>
Water Quality Monitoring	51,150	41,964	9186
Water Quality Protection	79,500	39,759	39,742
Zebra & Quagga Mussel Prevention	30,825	31,087	-262
Safe Recreation	26,050	25,810	240
Communications & Advocacy	42,200	39,967	2233
Management & Administration	43,150	40,753	2397
<b>Sub-total Operational Program Expenses</b>	<b>272,875</b>	<b>219,339</b>	<b>53,536</b>
Operating Reserve	188,459	0	188,459
<b>Total expenses</b>	<b>461,334</b>	<b>219,339</b>	<b>241,995</b>

Erin explained that the surplus in the Water Quality Protection Program was due to not administering a water quality grant program in 2019-20, as was originally budgeted. This, in turn, was a decision made due to not having the final reports from UBC-Okanagan, as well as some uncertainty about what measures for water quality protection would be imposed by the new provincial Agricultural Environmental Management Code of Practice.

The Annual Highlights Summary Report can be viewed or downloaded from the SWC website, [www.shuswapwater.ca](http://www.shuswapwater.ca).

**Report from  
Program Managers:  
Revised budget for  
2020-21**

Erin Vieira gave an overview of program activities since the last Council meeting in March:

- Staff promoted the Water Quality Grant Program, and received applications by the deadline of April 30<sup>th</sup>
- There have been two Water Protection Advisory Committee meetings; the outcomes of the meetings were the development the committee's procedures to review water quality grant applications, and the review and development of grant recommendations.
- Staff received final research report from Dr. Jeff Curtis and associates. The reports have been shared with SWC members, and posted on the SWC website.
- Zebra and Quagga Mussel prevention measures are being promoted throughout the region; early detection monitoring for mussels is underway in the watershed at 13 sites

- Staff received notice of a successful grant application to Transport Canada's Boating Safety Contribution Program; the SWC is receiving a grant in the amount of \$20,550 to support its Safe Recreation program
- Boating safety campaigns are underway for the spring and summer seasons
- Staff have procured a communications and social media professional to help with the development and delivery of a communications strategy in 2020. Staff posted an RFP in April, received 17 proposals by the closing date, and evaluated them; the successful applicant is Louise Wallace Richmond of Mediability Inc.

Erin presented a revised budget for 2020-21, accounting for two changes since the March 11<sup>th</sup> Council meeting (highlighting indicates changes):

<b>Revenue for 2020-21</b>	<b>Budget presented 11Mar2020 (\$)</b>	<b>Revised budget (\$)</b>
Operational surplus (from March 31 <sup>st</sup> , 2020)	40,000	53,536
Operating Reserve	188,459	188,459
CSRD (C, D, E, F and District of Sicamous)	160,000	160,000
Deduct cost of CSRD voter assent process	-25,000	-25,000
TNRD	53,600	53,600
City of Salmon Arm	40,000	40,000
Adams Lake Indian Band	1300	1300
Grant funding: Transport Canada <i>Boating Safety Contribution Program</i>	20,550	20,550
Grant funding: Environment Canada <i>Eco-Action Program</i>	100,000	0
<b>Total revenue</b>	<b>578,909</b>	<b>492,445</b>

<b>Work plan and expenses 2020-21</b>	<b>WP presented 11Mar2020 (\$)</b>	<b>Revised work plan (\$)</b>
Water Quality Monitoring	35,200	35,200
Water Quality Protection	213,600	113,600
Zebra & Quagga Mussel Prevention	35,400	35,400
Safe Recreation	27,400	27,400
Communications & Advocacy	48,700	68,700
Management & Administration	43,150	43,150
Sub-total Operational Expenses	403,450	323,450
Operating Reserve (includes \$20K Contingency Fund)	175,459	168,995
<b>Total expenses</b>	<b>578,909</b>	<b>492,445</b>

**Late agenda item:  
budget for 2021**

Chair Demenok commented on the year-end surplus of \$241,995 (i.e., the operational surplus plus the Operating Reserve). He remarked that there is value in carrying a surplus, as there are some items in the new strategic plan

that will incur expenses. He suggested that some of the reserve be allocated toward program operations next year to draw it down somewhat, which would result in each funding organization requisitioning smaller amounts. Director Martin inquired if drawing down the reserve would impart delays in new projects, which would be funded by the reserve.

Mayor Christian remarked that drawing down the reserve is a good idea: it would signal fiscal responsibility in times of Covid-19.

Vice Chair Lavery inquired how this would align with the timing of potential Alternate Approval process within the CSRD's service area, and the next SWC meeting scheduled for September. He further remarked that clear messaging explaining a partial reduction of the reserve would be important.

Chair Demenok remarked that reducing the tax requisition in 2021 could be a measure that the SWC may wish to use.

**Moved/seconded** by Chair Demenok/Director Martin that:

The Chair and Vice Chair would be authorized to request tax requisitions be reduced in 2021 proportionately for all funders, so as to reduce the SWC financial surplus by \$100,000.

#### **CARRIED**

#### **Guest presentation**

Mike Simpson introduced Nick Hebda. Nick explained that paleolimnology is a science of studying historical landscape events and their effects on water quality. Nick explained some of the methods of the paleolimnological study on Mara Lake, including the collection and analysis of diatoms, which are microscopic algae and useful as indicators of environmental change. Diatoms are very sensitive aquatic organisms that respond to changes in environmental factors, such as nutrients and temperature. The research team collected a sample of lake bottom sediment from Mara Lake. The sediment was analysed to determine the date range of its deposition. Nick analysed the sediments to determine various diatom species and abundance at different dates in the past, up to 250 years ago. Concurrent to diatom analysis, the sediment was analysed for phosphorus levels using chemical methods.

Statistical analysis of the diatom communities indicated a shift in species abundance starting in the 1980s and into the early 2000s, with a significant shift around 1995. The changes in diatom species and abundance relate to changes in historical phosphorus levels.

The results of the study indicate that total phosphorus levels in Mara Lake in the past were elevated, then they declined steadily over time from 1760 (the earliest sample in the study) until about 1980 when they started to increase again. Both methods - biological analysis of diatoms and chemical analysis of sediments - yielded these results.

Nick also observed increasing levels of Chrysophyte diatoms in the sediments over time. Chrysophytes are an algal group associated with recent algal blooms in Mara Lake.

Nick summarized the conclusions of the Mara Lake paleolimnology study:

- Total Phosphorus levels in Mara Lake today are probably not unprecedented in its long-term history
- Total Phosphorus levels in Mara Lake at the onset of major land use changes in the 20<sup>th</sup> century were very likely lower than they are today, and they have increased since the 1980s
- Paleolimnological inferences of increasing Phosphorus loading and increasing abundance of bloom-forming algae are consistent with other work that's been done in the watershed recently (i.e., the research by Dr. Jeff Curtis and Megan Ludwig).

Nick took questions from the Council members. When asked about why historical levels of phosphorus (i.e., in the 1700's and 1800's) in Mara Lake were higher than he would've expected, he speculated that it is a function of discharge (i.e., the volume of water flowing into the lake by the rivers). Higher discharge = higher amounts of Phosphorus even if P concentrations are very low. On the other hand, in Mara Lake's modern history (i.e., since the 1980s) the discharge into the lake has been consistent therefore the observed increasing levels of Phosphorus since that time can be attributed to yield off the landscape.

Nick explained that the increase in levels of Phosphorus in Mara Lake since the 1980s is consistent with what's been observed in other watersheds around the world. The effects of land use on water quality and rising levels of nutrients is known as "cultural eutrophication".

Chair Demenok thanked Nick Hebda for the presentation, and for his research on this subject.

**New business:  
Water Quality  
Grant Program**

Mike provided some historical context for the water quality grant program. In 2014, when the SWC was developing its programs the SWC received public input to not just monitor water quality, but to take action to protect and enhance it. More recently, at the February workshop, the SWC approved the water quality grant program and staff subsequently promoted the availability of grant funds for water quality improvement projects.

The purpose of the program is to protect water quality, guided by the recent science provided by UBC-Okanagan, to reduce nutrient inputs from land to surface waters in the Shuswap watershed.

Mike explained that staff received seven applications by the April 30<sup>th</sup> application deadline, with a total ask of \$148,000 SWC funds. Staff performed an initial, subjective screening of the applications and forwarded all seven applications to the Water Protection Advisory Committee for review and

evaluation. The WPAC then played an important role in developing review procedures, and then assessing the applications according to those procedures.

Mike presented an overview of the applications one by one, anonymously identified as A - G, and explained the Committee's recommendation to fund or not fund them.

Discussion:

Director Talbot commented that administering water quality grants is getting away from the primary purpose of the SWC; he remarked that these proponents should seek funds from other sources.

Lorne Hunter commented that reviewing the applications was a learning curve for the WPAC, and that if the SWC proceeds in subsequent years the committee has identified new criteria for the grant program.

Vice Chair Lavery remarked that the SWC is a take-action group and that the overall intention is to partner with landowners to improve water quality. He commented on the value of the projects as demonstrations.

Chair Demenok commented on the importance of being able to assess the impact of the water quality improvement projects over time. Vice Chair Lavery suggested the SWC consider existing methods or models for this.

**Moved/seconded** by Director Martin/Councillor Lavery that:

The Shuswap Watershed Council accept the recommendations of the WPAC with respect to the water quality grant applications for funding, and award funding as recommended, contingent on site visits.

Opposed: Director Talbot

**CARRIED**

**New business:  
Communications  
strategy for 2020**

Louise Wallace Richmond of Mediability Communications presented an overview of the SWC communications strategy for 2020.

Louise began by explaining the roles of the SWC and the CSRD with regards to communications. Each will have a part to play in the communication process.

She explained various elements of a communications strategy, including the overarching themes; the message 'sources'; the roles of the message sources including that of the SWC members, SWC staff, and SWC contractor; and the tactics. Communiques will be developed including FAQs, facts and figures, success stories, research and best practices, story-telling, and photos.

Discussion:

Chair Demenok suggested the SWC deliver virtual presentations or community meetings.

**Communications:  
correspondence**

Mike presented some key points to include in reply to anonymous correspondence that was referred to the SWC by the Columbia Shuswap Regional District. A brief discussion took place.

Action item: staff will prepare a reply letter to the correspondent.

*Director Martin left the meeting at 12:30*

**Roundtable updates**

Dave Nordquist explained a new project underway in Adams Lake, being done by Adams Lake Indian Band in partnership with the Okanagan Nation Alliance. They are collecting base-line data, and considering fertilizing the lake to enhance the salmon fishery. He also remarked that ALIB is also working with the BC Ministry of Environment to develop Water Quality Objectives for Shuswap Lake.

Director Simpson commented that Little Shuswap Lake Indian Band is working on Scotch Creek, and considering management objectives for water quality and fish habitat.

**Adjourn**

The June 17<sup>th</sup> 2020 meeting of the Shuswap Watershed Council adjourned at 12:40 PM.

**CERTIFIED CORRECT:**

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Chair