

Okanagan Basin Water Board Meeting Agenda



Okanagan Basin
WATER BOARD

DATE: Tuesday, December 7, 2021

TIME: 10 a.m. to 12 p.m.

PLACE: *Online (see notation below)

1. CALL MEETING TO ORDER

1.1 Acknowledgement of First Nations Traditional Territory

We acknowledge that we are holding this meeting on the unceded territory of the Syilx Okanagan Nation.

2. INTRODUCTION OF LATE ITEMS

3. APPROVAL OF AGENDA

4. ADOPTION OF MINUTES

4.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of November 2, 2021 held online. (page 1)

5. DELEGATION

5.1 Lisa Scott, Executive Director, Okanagan and Similkameen Invasive Species Society, presenting on invasive mussel prevention efforts in 2021

6. STAFF REPORTS

6.1 Communications Director Report (page 6)

6.1.1 Don't Move A Mussel 2021 Wrap-Up Report (to be sent separately)

6.1.2 Make Water Work 2021 Wrap-Up Report (to be sent separately)

6.2 Executive Director Report (page 11) (resolution required)

6.2.1 OBWB Signing Authority amendment (resolution required)

6.3 Special Projects Coordinator Report (page 16)

6.4 Policy and Planning Specialist Report (page 17)

6.5 Operations and Grants Manager Report (page 19) (resolution required)

6.6 Water Stewardship Director Report (page 21)

7. CORRESPONDENCE

7.1 Letter to the City of Vernon from B.C. Ministry of Forests, Lands, Natural Resource Operations and Rural Development, re: lake level management (page 23)

7.2 Letter to Hon. Joyce Murray, Minister of Fisheries, Oceans and the Canadian Coast Guard, from the Shuswap Watershed Council, re: invasive mussel prevention (page 26)

8. NEXT MEETING

8.1 The next meeting of the Okanagan Basin Water Board will be **Tuesday, February 1, 2022 online or at RDCO, to be determined.** (CALENDAR INVITE TO FOLLOW)

9. ADJOURNMENT

*** NOTE:** Meetings of the Okanagan Basin Water Board are open to the public, and only closed for in-camera sessions as set out in the B.C. Community Charter. Given the current situation with COVID-19, the board will be holding this meeting online. If you are interested in attending this online meeting, please contact our Communications Director Corinne Jackson at corinne.jackson@obwb.ca for further details. Thank you for your patience and understanding.



Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 4.1

**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD
HELD NOVEMBER 2, 2021, ONLINE
OKANAGAN, B.C.**

PRESENT

Chair Sue McKortoff	Regional District Okanagan-Similkameen
Vice-Chair Cindy Fortin	Regional District Central Okanagan
Director Victor Cumming	Regional District North Okanagan
Director Rick Fairbairn	Regional District North Okanagan
Director Bob Fleming	Regional District North Okanagan
Director James Baker	Regional District Central Okanagan
Director Colin Basran	Regional District Central Okanagan
Director Doug Holmes	Regional District Okanagan-Similkameen
Director Rick Knodel	Regional District Okanagan-Similkameen
Director Bob Hrasko	Water Supply Association of B.C.
Director Scott Boswell	Okanagan Water Stewardship Council (OWSC)

REGRETS

Director Christopher Derickson	Okanagan Nation Alliance (ONA)
Caitlyn Glasser	ONA Technical Staff

STAFF

Anna Warwick Sears	Executive Director
Nelson Jatel	Water Stewardship Director
Corinne Jackson	Communications Director
James Littley	Operations and Grants Manager
Kellie Garcia	Policy and Planning Specialist
Carolina Restrepo-Tamayo	Special Projects Coordinator

GUESTS

Gregg Howald	FreshWater Life
Ryan Cope	Seven in the Ocean
Jan Vozenilek	Copper Sky Productions

1. CALL MEETING TO ORDER

Chair McKortoff called the meeting to order at 10:01 a.m.

Chair McKortoff respectfully acknowledged that the meeting was being held on the traditional and unceded territory of the Syilx Okanagan Nation.

2. INTRODUCTION OF LATE ITEMS

No late items were brought forward.

3. APPROVAL OF AGENDA

“THAT the agenda of the regular meeting of the Okanagan Basin Water Board of November 2, 2021 be approved.”

CARRIED

4. ADOPTION OF MINUTES

- 4.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of October 5, 2021 held online.

“THAT the minutes of the regular meeting of the Okanagan Basin Water Board on October 5, 2021 held online be approved.”

CARRIED

5. DELEGATION

Gregg Howald, Ryan Cope and Jan Vozenilek on microplastics research project

Directors were provided an update on an OBWB-funded water research project. Freshwater is critical for many of our planet's ecosystems, but is under increasing threat from invasive species, over-exploitation, climate change and pollution, noted Ms. Cope. The research began with the question, “If plastics are finding their way into the ocean, is it possible that they are also in Okanagan lakes?” The research is looking at macro and microplastics in Okanagan Lake, as well as the Kelowna wastewater treatment plant to determine if wastewater is a potential contamination source and if so, how to mitigate it.

In addition to the OBWB, project partners include Okanagan Nation Alliance (ONA) for technical support with sampling, UBC Okanagan (UBCO) for initial analysis and follow-up with Okanagan College (OC)'s Water Engineering Technology Program, and Fresh Outlook Foundation. OC has eight students who are assisting, with four looking at wastewater and four looking at freshwater samples, as part of a capstone project.

A surface water trawl did a sampling test run on Aug. 5 and then took samples on Aug. 25th at five sites: north of William R. Bennett bridge, at the bridge, at Kelowna wastewater facility, at the mouth of Mission Creek, and south of the bridge and the wastewater outflow. Initial review found plastics in the lake samples and in samples from the treatment plant. Students are now looking at how to quantify the results, determine the source, and if it is something to be concerned about. Determining the source of pollutants may require further study, the research group added.

In response to questions, Mr. Howald said that it would be useful to do deep water samples, considering water intakes and wildlife that feed in deeper waters. However, he added, this would require more resources than this initial scoping study has at this time. Globally, we know that microplastics are entering the food chain (e.g. in fish tissue), but the consequences on wildlife and human species is still unclear and warrants additional research, he said.

6. STAFF REPORTS

- 6.1 Executive Director Report

Dr. Sears presented the board meeting schedule for 2022.

“That the OBWB adopts the 2022 meeting schedule as presented.”

CARRIED

The board was updated on the appointment of auditors, noting that the OBWB uses the same team as Regional District of Central Okanagan for efficiency and cost savings. The RDCO went through an RFP process and, based on review and recommendation is looking to contract with BDO Canada LLP.

“That the OBWB appoints BDO Canada LLP as auditors for the fiscal years ending on March 31, 2022, 2023, and 2024.”

CARRIED

Dr. Sears noted a budget amendment for 2022, looking ahead at interest rates and its affect on the Sewage Grant Program. It was recommended that funds be transferred from reserve to cover the expected grants.

“That the OBWB approves a budget amendment, increasing the Fiscal Year 2021-2022 transfer from reserves by \$55,800.”

CARRIED

Directors were told that provincial staff will be providing a formal review letter of the OBWB's Supplementary Letters Patent (SLP) but have verbally suggested that the document does not appear to restrict Okanagan Nation Alliance (ONA) voting powers, so any changes to grow the board's relationship with ONA would likely have to go through the Okanagan regional districts.

Dr. Sears stated that the Okanagan Lake Regulation System report has been released by the province and is posted on their website. The report suggests a number of studies which would be conducted by OBWB, but also the province, possibly ONA and others.

The board was also told about a recent watershed security survey conducted for the Real Estate Foundation of BC and which shows strong support for water.

“THAT the Executive Director's Report, dated October 27, 2021, be received.”

CARRIED

6.2 Operations and Grants Manager Report

Mr. Littley presented on proposed updates to the Water Conservation and Quality Improvement Grant Program's application and review process with the intention of improving the process for applicants, to make scoring more objective and simpler, and ensure the program is setup to achieve its stated objectives. The board was also asked to approve the annual grant theme.

“THAT the WCQI Grant program Scoring Criteria be amended as outlined above; AND THAT the WCQI Application Form and Internal Scoring Guide be amended for consistency with the new Scoring Criteria; AND THAT for the 2022-2023 WCQI grant competition annual theme, the OBWB seeks projects in any category that address source protection with applications in these categories prioritized for funding during staff review with the awarding of up to 10 extra points toward the total score; AND THAT the process and scoring criteria for the grant competition be approved as outlined.”

CARRIED

Directors were updated on the topo-bathymetric LiDAR project, noting all data has now been collected and the contractor is in the data-processing phase with a report expected by Feb. 28.

This year's low lake levels have required milfoil staff to use a crane to lift rototillers into lake waters. While the lake levels may limit de-rooting in very shallow areas, the milfoil may be killed in these areas anyway, if these areas freeze or are scoured by wave action.

“THAT the Operations and Grants Manager Report, dated October 26, 2021, be received.”

CARRIED

6.3 Water Stewardship Director Report

Mr. Jatel reported on the previous month's Okanagan Water Stewardship Council meeting and a discussion around groundwater licencing required by B.C.'s 2016 Water Sustainability Act. The BC Groundwater Association will be using a countdown clock to raise awareness for the March 1, 2022 deadline. In response to questions, Dr. Sears noted that licencing is required of commercial and agricultural water users, but residents are also encouraged to register their well since one can't protect their rights to water under 'First-in-time, First-in-right' without registering. Information is available for the public on the OkWaterWise.ca and OBWB.ca websites.

The November council meeting on Tues. Nov. 16, 1-4 p.m. will include discussion around environmental water indicators.

ONA, and Environment and Climate Change Canada, have been reviewing hydrometric data collected from recently installed stations, and the team is looking ahead to plans for 2022.

"THAT the Water Stewardship Director's Report, dated October 27, 2021, be received."
CARRIED

6.4 Special Projects Coordinator Report

Ms. Restrepo-Tamayo reported on the winding down of the 2021 Western Canada AquaHacking Challenge with grant reporting and debriefing with co-hosts and partners.

Work is continuing on the Osoyoos Lake Water Science Forum, confirming venues and finalizing the program. The deadline for posters was extended and will now be accepted until Feb. 1 with details available on the event website, www.OBWB.ca/olwsf.

"THAT the Specialist Projects Coordinator's Report, dated October 26, 2021, be received."
CARRIED

6.5 Policy and Planning Specialist Report

Ms. Garcia updated the board on the Source Water Protection Toolkit webinar series being held Wednesdays, 11 a.m. to noon until Dec. 15, each focussing on a different tool included in the kit. The webinars are attracting a diverse audience including local and First Nations government staff from across B.C., conservation groups, and more. Presentations about the toolkit are also being organized to various Okanagan local governments.

The OBWB worked with the En'owkin Centre to organize a site tour of the k'əmcnitkʷ Floodplain Re-engagement Project in Penticton. The project recently received funding through the Healthy Watersheds Initiative (HWI) as part of the Water Board's Okanagan Collaborative Source Protection Project.

"THAT the Policy and Planning Specialist's Report, dated October 27, 2021, be received."
CARRIED

6.6 Communications Director Report

Ms. Jackson reported that work is underway to compile data from this year's Make Water Work (valley-wide outdoor residential water conservation) and Don't Move A Mussel (invasive zebra and quagga mussel) campaigns.

This month has also been busy with work to update the Okanagan WaterWise website.

Communications support has also been provided in the last few weeks to a number of OBWB-related projects including a City of Kelowna water education video, the WaterWays exhibit at Kelowna Museums, the Community Water Forum – cohosted by OBWB, UBCO and ONA. Additional support was also provided to BC Groundwater Assoc. in their efforts to raise awareness for the groundwater licencing deadline.

“THAT the Communications Director’s Report, dated October 27, 2021, be received.”
CARRIED

7. NEW AND UNFINISHED BUSINESS

7.1 Budget Features Memo – Proposed Budget for 2022 – 2023

Dr. Sears presented the proposed budget for the OBWB’s upcoming fiscal year.

“That the OBWB adopts the 2022-2023 budget as presented.”
CARRIED

8. CORRESPONDENCE

8.1 Letter from B.C. Minister of State Nathan Cullen re: Proposed new ministry

8.2 Letter from City of Vernon to Province of B.C. re: lake level management

Dir. Cumming spoke to the letter and concern around low lake levels and the possible impacts on water intakes if they freeze, and for kokanee. Dr. Sears noted that at this time, provincial staff are forecasting that releases between now and spring will likely be minimal due to low lake levels.

“THAT the correspondence from B.C. Minister of State Nathan Cullen to the OBWB, and City of Vernon to the Province of B.C., be received.”
CARRIED

9. NEXT MEETING

9.1 The next meeting of the Okanagan Basin Water Board will be held Tuesday, December 7, 2021 at 10 a.m. online.

10. ADJOURNMENT

“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of November 2, 2021 be adjourned at 11:55 p.m.”
CARRIED

Certified Correct:		
Chair		Executive Director

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 6.1

File No. 0550.04

To: OBWB Directors
From: Corinne Jackson
Date: December 1, 2021
Subject: Communications Director Report

Invasive Mussels Outreach Provincial Update

Last week, B.C. Ministry of Environment and Climate Change Strategy's Martina Beck, Invasive Fauna Unit Head, held a wrap-up meeting with B.C. groups engaged in aquatic invasive species outreach and monitoring, and provided an update on the province's invasive mussel defence efforts.



OBWB-OkWaterWise images above and below from previous inspection seasons.

Below is a breakdown of the B.C. inspection program which took place between mid-May to October:

- there were between 43 and 45 inspection staff through the season
- approx. 33,000 inspections were conducted (*up from 2020 with 29,900 inspections, but still less than a high of 52,000 in 2019*)
- 244 watercraft coming into B.C. were identified as high-risk for invasive zebra or quagga mussels
- 153 watercraft were decontaminated, 100 were given decontamination orders, and 18 were quarantined to meet the required 30-day drying time
- 17 were confirmed carrying the mussels (*for comparison, in 2020: 16 mussel-fouled watercraft were intercepted; 2019: 22; 2018: 25, 2017: 25*)

This year's 17 infested watercraft came from: Ontario (7), Manitoba (2), Quebec (1), Colorado (1), Michigan (1), Missouri (1), Illinois (1), Ohio (1), Wisconsin (1) and Minnesota (1)

Their destination: the Okanagan (8), Lower Mainland (4), Vancouver Island (3), Kootenays (1), and Skeena (1).



According to Insp. Dave Webster, in charge of the mussel defence program for the B.C. Conservation Officer Service, compliance appears to be increasing as public awareness continues to grow. Most who are unaware seem to have only acquired a watercraft since the beginning of the pandemic, as people were staying closer to home.

The Aquatic Invasive Species K9 unit continues to include Kilo and Major, but both have new handlers as Sgt. Josh Lockwood – based out of the Okanagan – potentially moves into an auxiliary role and Sgt. Cynthia Mann – based in the Kootenays – retires. The two dogs will be based out of Cranbrook and Golden.

Provincial staff and invasive species groups collected 900 plankton tow samples from 75 waterbodies in 2021. All have come back negative for invasive mussel and invasive clam veligers.

I provided a brief update on OBWB-OkWaterWise activities, including our [letter sent to the province](#) in the spring with our six calls to action, including the introduction of pull-the-plug legislation, and request for a review and update to the 2014 B.C. Early Detection, Rapid Response Plan. I was told that “pull-the-plug” is on the province’s radar, but there was no further update.

I noted our presentation in September to B.C.’s Select Standing Committee on Finance and Government Services with three recommendations for funding, including one requesting a restoration of mussel inspection program funding to at least 2017 levels with \$3.8 mill./year and adjust for inflation going forward. And, a brief update was given on our Don’t Move A Mussel campaign (which I will also be delivering as part of my report to the board next week).

“Make Water Work” and “Don’t Move A Mussel” 2021

As noted last month, work is continuing on wrap-up reports for our Make Water Work (outdoor residential water conservation) campaign and Don’t Move A Mussel campaign. The reports will be provided as separate attachments and presented to the board next week.

Other communication initiatives

With administrators and teachers now settled into the school year, we are ramping up efforts to get recently printed copies of the ***“Our Relationship with Water in the Okanagan – Explorations in Outdoor Education to Support the B.C. Curriculum”*** education guides into teachers’ hands. I have contacted all five school districts in the Okanagan and three have responded so far, with great enthusiasm: SD 23 (Central Okanagan), 67 (Okanagan Skaha), and 53 (Okanagan-Similkameen). Through the school district offices we have now distributed an introductory letter, a poster (a copy has been included at the end of my report), and enough copies of the three-series guide for each school. We will be following up with SD 22 (Vernon) and SD 83 (North Okanagan-Shuswap).

The guides are also available online.

Part 1 – Introduction at <https://okwaterwise.ca/resources/Our-Relationship-with-Water-Introduction.pdf>;
 Part 2 – Okanagan Watershed and Climate at <https://okwaterwise.ca/resources/Our-Relationship-with-Water-Okanagan-Watershed-Climate-Module.pdf>, and
 Part 3 – Building Outdoor Learning Spaces at <https://okwaterwise.ca/resources/Our-Relationship-with-Water-Building-Outdoor-Learning-Spaces-Module.pdf>.

Five years in the making, and several people involved over that time, a number of us recently came together to celebrate the launch of the guides, and discuss ways to help get the word out. (See photo below.)



Photo: Just a few of the people who have been involved in the “*Our Relationship with Water in the Okanagan*” project. Front (l to r): Syilx elders Grouse and Pamela Barnes, biologist Darryl Arsenault, Desiree Marshall-Peer education consultant and professor at UBC Okanagan’s Faculty of Education. Back (l to r) SD23 Deputy Supt. Terry Beaudry, graphic designer Karen Christensen, OBWB Communications Director Corinne Jackson, and Tanis Gieselman, formerly with Okanagan Collaborative Conservation Program. In front, Arsenault’s fluffy sidekick, Harper. A full list of those involved can be found on page 2 here: <https://okwaterwise.ca/resources/Our-Relationship-with-Water-Introduction.pdf>

This month, work continued on a redesign of the **OkWaterWise website**. On Nov. 20, I participated in the 2nd of four land-based gatherings being held until May, as part of the **UBC Okanagan School of Education-led Co-Curricular-Making project**, aimed at de-colonizing and indigenizing education. A strong focus of the project is on water and our relationship with water. More information on this project can be found at <https://education.ok.ubc.ca/research-partnerships/co-curricular-making/>.

I have also been continuing to assist with communications support for the **Source Water Protection Toolkit webinars**, and yesterday’s **Community Water Forum**, co-hosted with UBC Okanagan and Okanagan Nation Alliance. A news release was also prepared and sent out yesterday announcing the opening of the 2022 **OBWB Water Conservation & Quality Improvement Grant** intake.

Summary of OBWB-Related News Media

- Oct. 28 “[Cranes needed to launch rototillers into Okanagan Lake due to low water levels,](#)”
Castanet.net
- Oct. 28 “Low lake level defeats normal launch of weed harvesters,” *Kelowna Daily Courier*
- Oct. 31 “[Plan to upgrade Okanagan Lake water flow management,](#)” *Lake Country Calendar,*
Kelowna Capital News, WestK News, Penticton Western News, Summerland Review,
Keremeos Review
- Nov. 1 “[Worried about flooding or drought in the Okanagan It’ll take 7 years to find solutions,](#)”
InfoNews.ca

Nov. 6 [“OBWB briefs: Survey shows rising concern for water security,”](#) Kelowna Capital News

Recent Presentations

Nov. 3 “Source Water Protection Toolkit,” to Greater Vernon Advisory Committee – Kellie Garcia
Nov. 16 “Source Water Protection Toolkit,” to West Kelowna City Council – Kellie Garcia
Nov. 22 “Source Water Protection Toolkit,” to Summerland City Council – Kellie Garcia
Nov. 23 “Flooding and the Okanagan Lake Regulation System,” to a UBC Okanagan engineering
class – Anna Warwick Sears

OUR RELATIONSHIP WITH **WATER** in the **OKANAGAN**

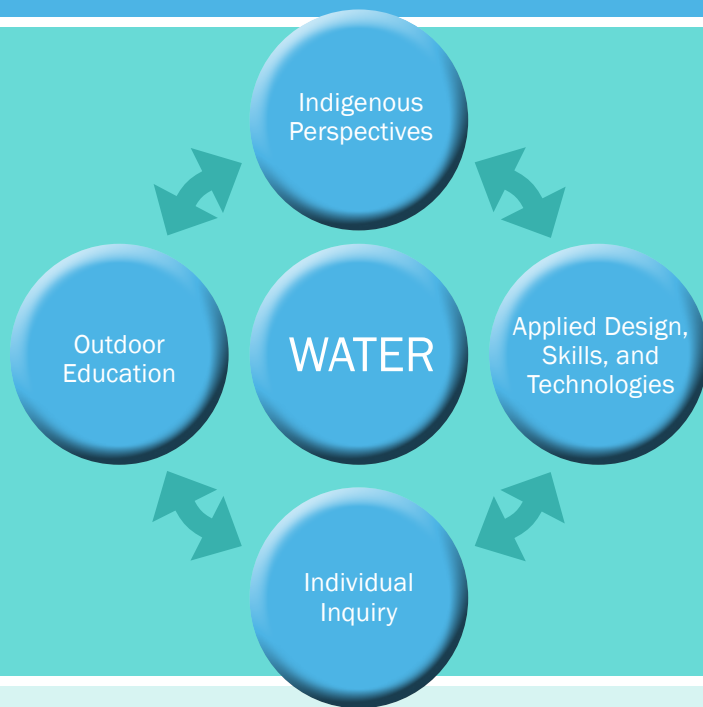
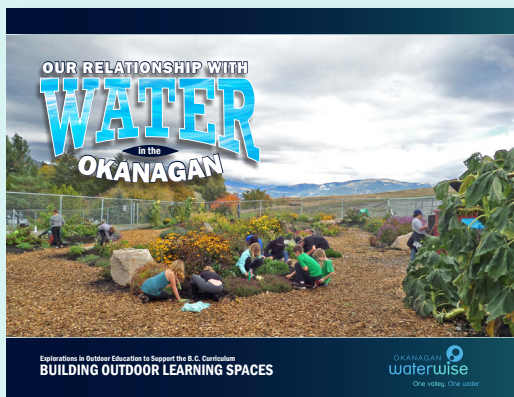
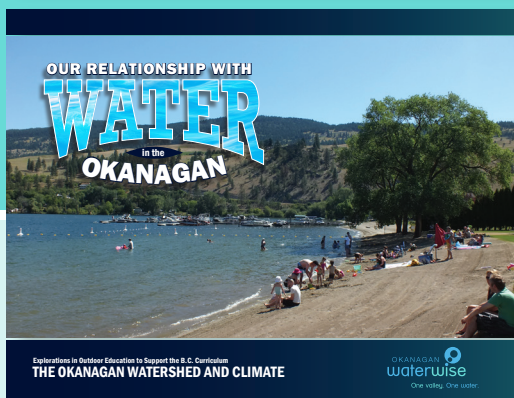
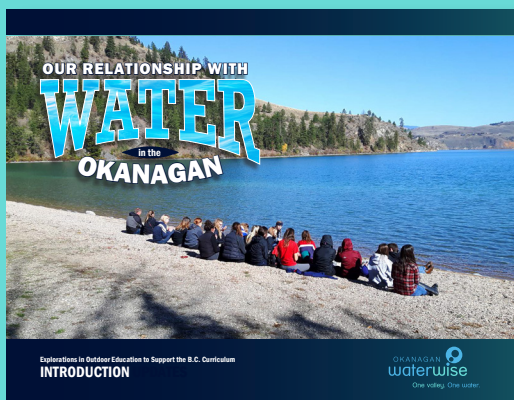
**Explorations in Outdoor Learning
to Support the B.C. Curriculum**

NEW!

OUTDOOR LEARNING TEACHER RESOURCES

“These guides are an authentic source of local information for educators - a one-stop shop for all things dealing with Okanagan outdoor and water education, accessible for teachers with experience or those just starting.”

- Desiree Marshall-Peer, professor at UBC Okanagan's School of Education and co-author



Outdoor education offers many opportunities to connect with the B.C. curriculum.

This unique made-in-the-Okanagan resource will help local educators and students examine the relationships between water and humans, plants, ecosystems, the water cycle, water conservation, and the “myth of abundance” of water in the Okanagan.

- * place-based
- * made in the Okanagan
- * authentic
- * lesson plans and Blackline Masters
- * FREE to download
- * developed with SD22, SD23, local Indigenous Knowledge Keepers, UBCO School of Education contributors

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 6.2

To: OBWB Directors
From: Anna Warwick Sears
Date: December 1, 2021
Subject: Executive Director Report

COVID-19 Considerations:

OBWB office-based staff continue to work from home, but most have been coming into the office a few times a week. Milfoil staff are observing COVID-19 safety protocols while moving equipment, and mostly work alone. As the pandemic progresses, we are taking a slow, deliberate approach and responding to health directives.

OBWB Signing Authority Amendment

Our accounting staff at RDCO have asked us to amend our signing authority. At present, the signing authority for cheques is different from the signing authority for electronic funds transfers (EFTs). Cheques require two signatures for amounts over \$25,000, while EFTs require two signatures for amounts over \$10,000. The new, amended resolution (see 6.2.1 attached) makes the signing authority the same for cheques and EFTs. In addition, the accounting staff have requested that the RDCO Finance Manager be empowered to approve release of EFTs over \$25,000 after they have received two signatures. This is an administrative task, separate from signing authority, but is still required to be listed in the resolution.

Recommended motion: *That Signing Authority Resolution be approved as presented.*

Growing the ONA/OBWB Relationship

I am still waiting for B.C. Ministry of Municipal Affairs to complete their formal review, initiated in August, of our Supplementary Letters Patent, regarding the voting powers of board directors. Although at our October 29th meeting, the Director of Governance Services felt it was straightforward, the process has been slowed by the emergency flooding conditions.

Flood Resilience

In September, I made a request to the B.C. Select Standing Committee on Finance and Governance Services, that \$1 million/year for five years be earmarked in the B.C. budget to fund the review and update of the Okanagan Lake Regulation System's (OLRS) infrastructure and operations. The Committee has brought this forward in their recommendation to government, starting with the 2022 budget.

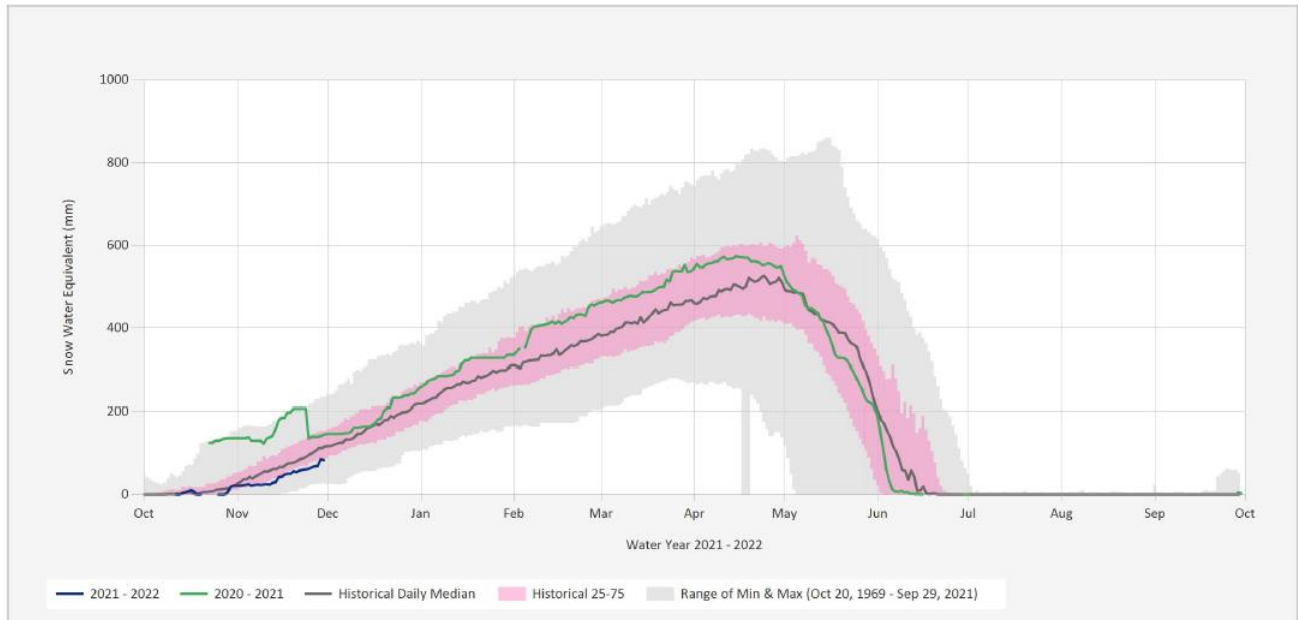
The recent floods in the Fraser Valley, Merritt, and Princeton, clearly demonstrate the importance of proactive flood prevention measures. For the Okanagan, this OLRS review — evaluating lake level management, and the adequacy of dikes, dams, and other infrastructure — is an essential next step for flood prevention. At the same time, it's going to be very important for all Okanagan communities to undertake flood mitigation measures to reduce flood risks. The RDCO's recent flood mitigation strategy (Phase 3 of their flood management plan) has many good examples of non-structural flood mitigation options: <https://www.rdco.com/Flood-Mitigation-Planning-Resource-Guide.pdf>

Weather Report

We are expected to have continued La Nina conditions through the winter, bringing cooler and wetter than normal conditions, which should help our lakes “recover” from the drought conditions of this summer. Snow pillow charts show snow water accumulating at near-normal levels.

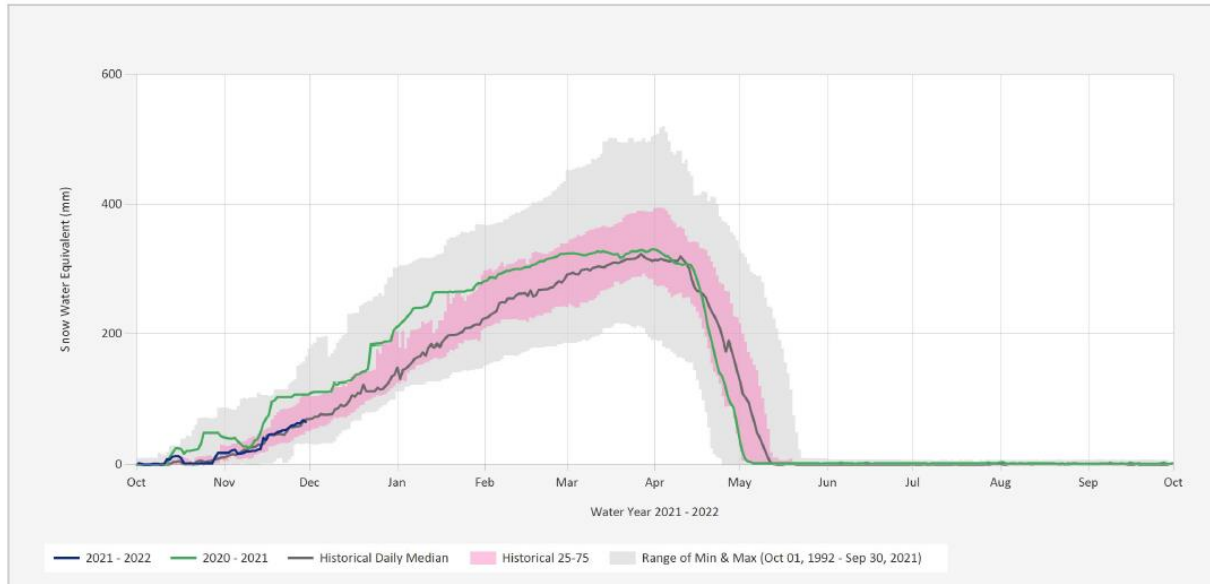
Mission Creek Snow Weather Station – November 30, 2021

Source Data: SW.Daily@2F05P
Location: Mission Creek, Latitude: 49.94467, Longitude: -118.9497, Elevation: : 1780 m



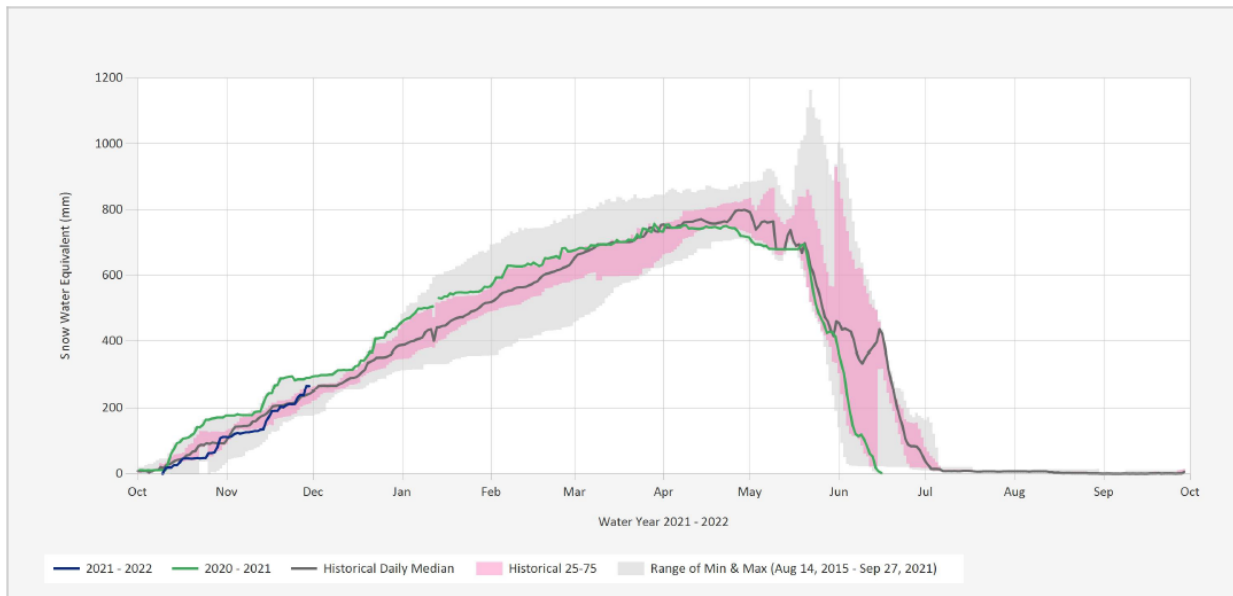
Brenda Mine Snow Weather Station – November 30, 2021

Source Data: SW.Daily@2F18P
Location: Brenda Mine, Latitude: 49.8623611, Longitude: -119.9821111, Elevation: : 1460 m



Silver Star Snow Weather Station – November 30, 2021

Source Data: SW.Daily@2F10P
Location: Silver Star Mountain, Latitude: 50.37136, Longitude: -119.06211, Elevation: : 1840 m



MEMORANDUM

Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 6.2.1

File No.1610.01

To: OBWB Directors
From: Anna Warwick Sears
Date: December 1, 2021
Subject: Updating Signing Authority

Recommendation: That the OBWB adopt the following resolution.

"WHEREAS it is desirable for the Okanagan Basin Water Board (the "Board" or "OBWB") to authorize certain of its officers to, inter alia, approve payments and contracts, deposit and receive cheques and electronic fund transfers, and obtain and deliver from the Board's bankers, copies of all or any stocks and bonds; NOW THEREFORE, the Board hereby enacts as follows:

Cheques/Orders to Pay (i.e. Wires):

1. The cheque signing officers for the OBWB are:
 - a. Any one of the Directors of the Board; and
 - b. One of the following: Chief Administrative Officer, Regional District of Central Okanagan (RDCO); Director of Financial Services, RDCO; Executive Director, OBWB.
2. All cheques/orders to pay over \$25,000 must be signed by two original signatures. Cheques of \$25,000 or less can be signed electronically.

Electronic Funds Transfer (EFTs) via transfer generated by Regional District Central Okanagan staff:

3. For all EFTs:
 - a. Secure online banking procedures must be used.
 - b. The creator of the transfer cannot be the approver.
4. Payroll:
 - c. Documentation and all EFTs prepared by RDCO staff will be signed off and approved by any one of the following: Chair, OBWB; Vice-Chair, OBWB; Executive Director, OBWB; Chief Administrative Officer, RDCO; Director of Financial Services, RDCO; Finance Manager, RDCO.

5. Regular Accounts Payable:

- d. For transfers within vendor payments of \$25,000 or less each, documentation will be signed off and EFTs will be approved online by one of the following: Chair, OBWB; Vice-Chair, OBWB; Executive Director, OBWB; Chief Administrative Officer, RDCO; Director of Financial Services, RDCO; Finance Manager, RDCO.
- e. For transfers with vendor payments over \$25,000, documentation will be signed off by: Any one of the Directors of the OBWB; and one of the following: Chief Administrative Officer, RDCO; Director of Financial Services, RDCO; Executive Director, OBWB. EFTs will be approved online for release by any one of the following: Chair, OBWB; Vice-Chair, OBWB; Chief Administrative Officer, RDCO; Director of Financial Services, RDCO; Executive Director, OBWB; Finance Manager, RDCO.

Government Remittances (i.e., Source deductions, CRA, WCB, GST, PST, etc...)

- 6. RDCO Finance staff are required to file information online with regards to periodic reporting and required remittances on behalf of the OBWB. Payment is made on filing the report, at which time the government entity is authorized by RDCO Finance staff to withdraw the amount owing or deposit any refund into the OBWB account.
 - a. The RDCO Finance staff person filing the report is to provide a copy of the report with the balance to be paid/refunded and obtain the signature of the Executive Director of the OBWB or the Finance Manager of the RDCO.

Other Transfers:

- 7. The Finance Manager, RDCO and the Executive Director, OBWB are authorized to transfer funds between all OBWB bank accounts (including transfer of investments to and from the OBWB bank accounts).

And Furthermore:

- 8. That this resolution be communicated to the Bank and remain in force until written notice of change is given to the bank manager of the branch of the Bank at which the account of the Board is kept and receipt of such notice duly acknowledged in writing.
- 9. And that the Chair, OBWB; the OBWB Directors appointed to the Board by the RDCO; and the Executive Director, OBWB; have authority to sign contracts approved by the Okanagan Basin Water Board."
- 10. This resolution shall take effect on the 7th day of December, 2021.

"That the Signing Authority Resolution be approved as presented."

MEMORANDUM

Okanagan Basin Water Board Regular meeting December 7, 2021 Agenda No: 6.3

To: Board Directors
From: Carolina Restrepo Tamayo
Date: November 30th, 2021
Subject: **Special Projects Coordinator report**

During October, I have been working on two projects: The AquaHacking Challenge 2021 and the Osoyoos Lake Water Science Forum 2022.

AquaHacking

As reported last month, the AquaHacking Western Canada Challenge came to an end in September with the virtual final taking place Sept. 14. However, during the month of November I have continued spending some time closing the project in terms of budget and grant reporting.

Osoyoos Lake Water Science Forum (OLWSF) 2022

This month the planning for the event was dedicated to:

- Finance Committee: Budget was updated with the confirmed revenues and updated quotes of potential expenses. Currently, more than 100% of the current conference budget is secured thanks to the sponsorship plan we are offering Canadian and U.S. consulting companies. More revenues are expected from fundraising efforts, since we want to have a reserve for additional event expenses that may come at a later date.
- All venues are now confirmed. Agreements with local hotels are in place and I will be in Osoyoos December 1st to confirm on-site logistics, as well as to meet with the Osoyoos Mayor (and OBWB Board Chair) Sue McKortoff, Osoyoos Museum staff, and other potential partners.
- Program Committee: There has been significant progress made on the draft program this month with Dr. Sears confirming several speakers. The Program Committee will be meeting Dec. 8 to discuss and provide final input on content and balance. A call has gone out for posters with a deadline of Feb. 2, 2022. We have about five posters confirmed so far.
- As part of the conference, we are expecting to have the WaterWays exhibit in Osoyoos. This project, developed with support from OBWB, UBC Okanagan and Okanagan Nation Alliance, among others partners, is an excellent example of how science and Traditional Ecological Knowledge can be integrated in a project. We are in the process of negotiating with Kelowna Museum and Osoyoos Museum to make this happen.
- Communications: Logo and poster design are ready, and website – including registration and program – will be operational by the second week of December when registration is expected to open. A promotion campaign will be designed for the launch.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 6.4

File No. 0550.04

To: OBWB Directors
From: Kellie Garcia
Date: November 30, 2021
Subject: Policy and Planning Specialist Report

Okanagan Collaborative Source Water Protection Project

Source Water Protection Webinars

The OBWB hosted four source water protection webinars in November as part of our series funded through the Healthy Watersheds Initiative and Interior Health. Webinar recordings are available at www.sourcewaterprotectiontoolkit.ca.

On November 3, the webinar featured two Indigenous-led initiatives that are protecting watersheds and advancing habitat recovery: the Cowichan Watershed Board and the *k'əmcənɪtkw* Floodplain Re-engagement Project. 73 people attended this webinar.

The November 10 webinar featured speakers from the Ontario Ministry of Environment, Conservation and Parks, Conservation Ontario, and the Sudbury, Grand River, and Ausable Bayfield conservation authorities. Presenters talked about how they are working together across their jurisdictions to increase awareness and stewardship of watersheds and drinking water resources. 62 people attended this webinar.

On November 17, Deborah Curran with University of Victoria's Environmental Law Centre and Rod MacLean with the City of Kelowna talked about advancing local government policies and regulations to protect water sources. 44 people attended this webinar.

And finally, our webinar on November 24 focused on securing long-term funding for source water protection. We heard from the City of Victoria about their stormwater utility that collects funds to protect water, and from the BC Wildlife Federation about how local governments can tap into funds and other resources by working on multipurpose projects with conservation organizations. 42 people attended this webinar.

Upcoming webinars include:

Dec 1 Protecting and restoring watersheds and aquifers to improve water quality
Dec 8 Using mapping to understand and manage risks to drinking water
Dec 15 Monitoring and reporting for source water protection
Jan 12 syilx relationship to water and overview of syilx-led water protection projects

Presentations to Councils and/or Regional Boards

In November, I gave presentations on the source water protection toolkit to the Greater Vernon Advisory Committee (Nov. 3), West Kelowna Council (Nov. 16), and Summerland Council (Nov. 22).

My upcoming presentations to boards and councils include:

- RDCO Board on Dec. 6,
- Vernon Council on Dec. 13,
- Osoyoos Council on Dec. 14,
- Peachland Council on Dec. 14,
- RDOS Board on Dec. 16,
- Lake Country Council on Jan. 4,
- Oliver Council on Jan. 10, and
- Penticton Council on Jan. 18 (to be confirmed).

Drought 2021 Debrief

On November 4, I participated in a workshop hosted by the provincial leaders of the Thompson Okanagan Regional Drought Response Team. At the workshop, we assessed the drought team's performance, evaluated our responses and communications in 2021, celebrated successes, and worked on an action plan for improvement. The facilitator is preparing a workshop summary, and I will share the relevant points of this summary with the Board at a future meeting.

Agriculture water supply communications project

I am wrapping up the three-year pilot project that focused on enhancing communications between water suppliers and their agricultural customers, particularly during times of drought. The project provided water suppliers with customized communications materials and mechanisms, including a key messages document, water supply status graphics, and access to an e-alert system centrally hosted by the OBWB.

I met with the participating water suppliers yesterday to gather their feedback on the pilot and talk about next steps. Several water suppliers voiced support for the OBWB to continue to provide them with consistent messaging and an e-alert platform, so I will be thinking more about this over the winter. I meet with the Oversight Committee for the project on December 3 and then will just have my final report and budget to complete. I will provide an in-depth project report to the Board in February.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 6.5

File No. 0550.04

To: OBWB Directors
From: James Littley
Date: November 30, 2021
Subject: **Operations and Grants Manager Report**

SFA Grant Program

The Sewerage Facilities Assistance Grant Program uses a two-part application system allowing us to project future expenditures in the annual budget. Communities seeking grants must first provide a notification form to the OBWB one year in advance of the first grant payment, estimating the costs of the completed project. This notification allows us to project the estimated cost of the new grant in our budget for the following year. The notification must be approved in principle by the board to make funding available in the first year of the grant.

Once the project is complete, the community submits a final application form with confirmed numbers, and the board formally approves the grant. Since the board has already approved the budget for the 2022-23 fiscal year (FY), if the board approves the current notification in principle, the first-year grant funding for this project will have to be allocated out of the sewer reserve. The alternative would be to delay the first year of the grant repayment so that it can be captured in the 2024 FY budget and requisitioned. Historically, the board has given approval in principle to grant notification which are received up until the end of the calendar year, or where reserves are sufficient to cover the new grant.

The OBWB has received the following notification:

City of Vernon – Okanagan Landing 2021 sewer extensions:

We have received a notification for a grant to the City of Vernon for the extension of sewer in the Okanagan Landing area. This is one of a number of small projects which OBWB has provided grants to over the past several years in the area. The preliminary annual SFA grant value is estimated at \$12,030 using the project budget, and today's interest rates as established by the Municipal Finance Authority. The project will service 95% pre-1978 development. Once the project is complete, Vernon will submit an application with final numbers for board approval.

Recommended motion: *That the SFA grant for the City of Vernon - Okanagan Landing 2021 sewer extensions project be approved in principle, pending a formal application with final project budget numbers.*

Milfoil Control Program

Winter de-rooting operations are currently underway in Okanagan and Wood Lakes. We are on schedule and have not experienced any significant difficulties aside from the extra requirements for crane equipment due to low water levels that I reported at the November board meeting.

Surplus Equipment Disposal

We are also currently working on disposing of old equipment via sales or auction. This includes two surplus pickup trucks, the old crane truck, and the blue rototiller that was replaced in 2018, and would need significant repair to be of further use. Recovered funds from the sales will be put into the milfoil equipment reserve.

Milfoil Turbidity Study

OBWB recently received a draft report following a study on turbidity caused by our milfoil rototilling operations. During our last permit review by Fisheries and Oceans Canada, they recommended that we implement a sediment control plan for our operations, which this study will help to inform. The study found that rototilling does not raise the level of turbidity above the BC Approved Water Quality Guidelines for aquatic life, as the temporary increase in sediment in the water settles out quickly. The only risk for exceeding the guidelines could be in large areas that are treated over a long period of time (at least several weeks). Therefore, we plan to conduct another study, with a longer data collection period to determine if operational changes are required in some areas to reduce the period of disturbance. Once that study is completed, a final report will be available to support our operations and future permit applications.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
December 6, 2021
Agenda No: 6.6

File No. 0550.04

To: OBWB Directors
From: Nelson R. Jatel
Date: December 1, 2021
Subject: **Water Stewardship Director's Report**

Okanagan Water Stewardship Council (Council)

The Council provides a monthly forum, involving Council members and guests, to discuss relevant and timely watershed topics and strengthen the network of people contributing to the OBWB's performance success. This is the 15th year of Council meetings, with current leadership from elected Chair, Mr. Scott Boswell (OCCP), and Vice-chair Dr. Jeremy Fyke (ECC).

At the November 16th Council meeting the theme was Okanagan water(shed) indicators. Dr. **Brian Guy** and Dr. **Bernie Bauer** presented on indicators and highlighted various aspects of developing watershed indicators described in a briefing note circulated with the Council's monthly meeting agenda. We broke-out into two rounds of discussion groups and identified a range of important issues/considerations when developing watershed indicators. The need for the province to re-invest in producing watershed "state of the basin" documents, like those produced in the 1980s and 90s, were identified as good investments to communicate the large warehouse of provincially collected watershed information to the public. The Policy committee will continue to develop a process for data management and the development of water(shed) indicators that support/enhance decision-making.

The Council leadership team consisting of the chair, co-chair and committee chairs met on November 25th. The Council has six active standing committees: *Policy, Water and Climate, Alluvial Fans, Wetlands, Agriculture Water, Water Quality, and a Source Protection (ad hoc) committee.*

Our next Council meeting is scheduled for Thursday, December 9th from 1 p.m. – 4 p.m. on Zoom. The Council will be discussing new mapping techniques used to improve our understanding of watershed landscape changes, including forest fires, with a presentation from **Dr. Francois Robinne**, exploring *Wildfire risks to waters supply in Canada: From baseline information to sustainable action*. Dr. Robinne is a Wildfire Research Scientist at the Canadian Forest Service.

Board members are encouraged to attend.

Project updates:

Okanagan Flood Risk Mapping project

On November 30th, the monthly project management team met and the IBI team provided a project status update and discussed data gaps. The team will continue to contact local and First Nation government technical staff throughout December to further build the model database. A 2nd technical working group meeting is planned for mid-January, where the technical working group will have a first look at preliminary flood risk map model results and will have an opportunity to comment.

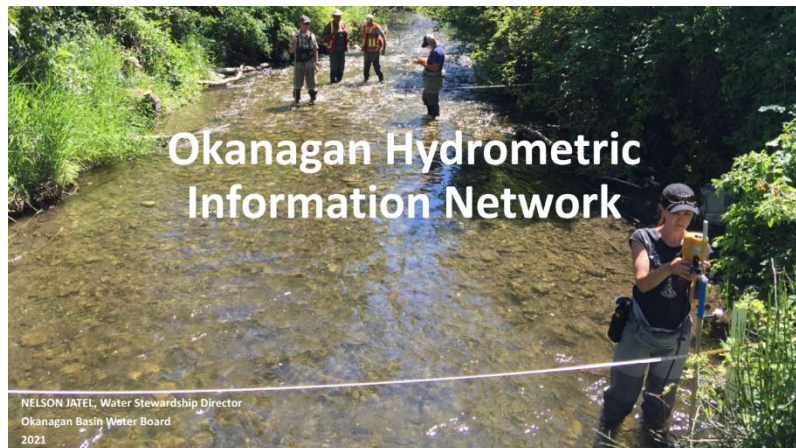
In partnership with the ONA, this project builds on a previously completed flood and hazard risk mapping project and will increase the resolution and granularity of flood risk maps. This project will produce digital maps to support flood planning and adaptation, customized to support all levels of government.



Okanagan Lake flooding in 2017.

OBWB Hydrometric Service

The objective of the OBWB's Okanagan Basin Hydrometric Information Network is to develop and manage an adequate hydrometric information network for the valley. Throughout November, I continued to work with staff from the Okanagan Nation Alliance, Environment and Climate Change Canada (ECCC) and our project team to operationalize the service and finalize our budget and operational plan for 2022-23 operations.



The OBWB received feedback from the ONA fisheries department in November, communicating that the newly installed Summerland Trout Creek hydrometric station and turbidity meter were already being applied by their team to support the ongoing fish habitat restoration project on Trout Creek.

Both ECCC and ONA staff were busy throughout November collecting and managing hydrometric data. Efforts continued to ensure Okanagan real-time station data was processed through our Aquarius server as well as data QA/QC work. Data collected by OBWB/ONA hydrometric stations is posted on the B.C. government water data websites, providing public access to our collected hydrometric data.



Okanagan Basin Water Board Regular meeting December 7, 2021 Agenda No: 7.1

Reference: 267969

November 15, 2021

Mayor Victor I. Cumming
The Corporation of the City of Vernon
3400 - 30th Street
Vernon, British Columbia
V1T 5E6

Dear Mayor Cumming:

Thank you for your letter of October 27, 2021, to Honourable Katrine Conroy, Minister of Forests, Lands, Natural Resource Operations and Rural Development, regarding concerns about Okanagan Lake water levels. I have been asked to respond.

As mentioned in your letter, there are significant issues as a result of this year's abnormally low lake levels. A higher-than-normal snowpack in early 2021 led to a drawdown in the lake level in anticipation of a large runoff. However, conditions changed; BC experienced the heat dome phenomenon and drought-like weather developed. Maintaining normal water levels is difficult during periods of drought. Water managers have been working to keep the lake as high as possible but must also balance the lake level with downstream minimum requirements for fish and irrigation.

Today's water level on Okanagan Lake is similar to the previous two significant Okanagan droughts in 2003 and 2009. Current levels are lower than in 2009 but higher than in 2003. Fortunately, the snowpacks that developed the winters following those years were adequate to largely replenish the lake and bring it back into its usual operating range. We expect this year's developing snowpack will also be adequate, although a second drought year could create further problems.

The original federal-provincial agreement that set the target elevations for Okanagan Lake anticipated that the lake could possibly go as low as 340.4 metres (1928 datum) in the event of a multi-year drought. That level would be more than one metre lower than the current situation. Operators of the dam at the lake outlet expect to maintain minimal outflows during the winter and possibly through the next freshet.

Ministry fisheries staff have indicated that low water levels will not be a negative factor in kokanee shore spawning. It appears there are abundant shore spawning kokanee numbers this year, but they are not at a saturation point with regards to available spawning habitat. The greater concern would be if the lake were to drop significantly over the winter. However, that situation is unlikely with the minimal outflows projected.

Page 1 of 2

Mayor Victor I. Cumming

The BC River Forecast Centre provides the inflow estimates that guide the lake target level management. They continue to invest in, and improve, the models they use for their forecasting, but are presented with significant challenges in the face of climate change and factoring extreme conditions not previously encountered.

Again, thank you for writing to share your concerns.

Sincerely,



Paul Rasmussen
Assistant Deputy Minister

pc: Honourable Katrine Conroy, Minister of Forests, Lands, Natural Resource Operations
and Rural Development



File: 410-30

THE CORPORATION OF THE CITY OF VERNON

October 27, 2021

3400 - 30TH STREET VERNON, BRITISH COLUMBIA V1T 5L6
TELEPHONE (250) 545-1361 FAX (250) 545-4048

Minister Katrine Conroy
Forests, Lands and Resources
FLNR.Minister@gov.bc.ca

OFFICE OF THE MAYOR

Dear Minister Conroy:

RE: OKANAGAN LAKE LEVELS

As we enter into fall, the water level of Okanagan Lake is of great concern to many in the valley. Traditional spawning beds are left dry in crucial areas of the lake shore. Public access points are often rock and mud flats. Water levels at public boat launches have dropped below long used pads, often leaving the launch unusable and dangerous. Many docks are standing a metre or more above the water level, effectively making them inaccessible to watercraft. Many adjacent property owners rely on lake intakes for potable water. Normally below water level and rarely prone to freezing, many now have long, fully exposed lines as they approach the shore line. These will likely freeze this winter, possibly burst and leave the property with no source of water.

These are all significant issues as a result of abnormally low lake levels.

I am writing at the direction of my council and on behalf of many Vernon and area residents who are shocked at the current lake levels. Residents who are watching the fall spawn largely fail. Residents who are likely to be without water as winter sets in.

I would like to share with these residents what the Provincial plans are on the short term and long-term basis for responsible lake level management.

I would sincerely appreciate direction from the Ministry.

Sincerely,

Victor I. Cumming
Mayor

Copy: Harwinder Sandhu, MLA
Shaun Reimer, Operator
Ray Crampton, Regional Manager
Anna Warwick Sears, OBWB
Colin Basran, City of Kelowna
John Vassilaki, City of Penticton
Byron Louis, Chief, OKIB

Hon. Joyce Murray
Minister of Fisheries, Oceans, and the Canadian Coast Guard
House of Commons
Ottawa, Ontario
Sent by e-mail to Joyce.Murray@parl.gc.ca

Okanagan Basin Water Board
Regular meeting
December 7, 2021
Agenda No: 7.2

26 November 2021

Re: Urgent need to prevent the spread of aquatic invasive mussels to British Columbia

Dear Minister Murray,

Congratulations on your recent appointment as the Minister of Fisheries, Oceans, and the Canadian Coast Guard.

We are writing to you on behalf of the Shuswap Watershed Council (SWC), Shuswap Waterfront Owners Association (SWOA), and Columbia Shuswap Invasive Species Society (CSISS) to express our concern about the threat of Zebra and Quagga Mussels (ZQM) to British Columbia waters. Although BC does not presently have any known infestations of these invasive mussels, an introduction would have devastating ecological and economic impacts. BC, and Western Canada, need much stronger protection measures against ZQM.

Zebra and Quagga Mussels have colonized in lakes in Manitoba, Ontario, and many states including as far west as California. ZQM move from one watershed to another primarily via watercraft: either as adult mussels attached to watercraft, or as larvae trapped in standing water inside watercraft compartments. The Shuswap, in the Interior of BC, is a popular tourist destination and it receives a huge influx of watercraft each summer - and each year, watercraft contaminated with invasive mussels arrive in BC¹. Furthermore, our water's warm temperatures and high calcium content, and our mild winters make our region even more vulnerable to a mussel infestation because these conditions increase the chance of the mussels' survival. A single contaminated watercraft from an infested lake could start an irreversible infestation in BC. There is no method of eradicating Zebra or Quagga Mussels from an ecosystem as large and complex as the Shuswap.

Once established, ZQM would have devastating and costly impacts to water quality, fish populations and habitat, hydro-electric facilities, water utilities, beaches, and property values. A 2013 Okanagan Basin Water Board (OBWB) study conservatively estimated an infestation at \$42 million annually in direct costs and lost revenues in the Okanagan alone. What's more, if ZQM colonize in Shuswap or Okanagan Lakes, they would move downstream to the Fraser and Columbia River systems that are so

¹ The Province of BC Invasive Mussel Defence Program reported that it intercepted 17 mussel-fouled watercraft at their watercraft inspection stations in 2021. Provincial reports available here:
<https://www2.gov.bc.ca/gov/content/invasive-mussels/invasive-mussel-defence-program>.



important to Pacific salmon and for hydro-electric power generation. Estimates from the Pacific Northwest Economic Region (PNWER) peg the costs of an invasive mussel infestation at \$500 million annually to the region.

We have shared our concerns with your predecessors, and with provincial counterparts, through previous correspondence on several occasions. Unfortunately, we feel that the federal government still has not taken sufficient action on the issue nor has it provided equitable funding to British Columbia to stop the spread of ZQM. A report on Aquatic Invasive Species (AIS) by the Commissioner of the Environment and Sustainable Development² (April 2019) notes that Zebra mussels are “one of the most destructive invasive species ever to have invaded North American fresh waters...” and the report is consistent with our concerns about the lack of urgency and intervention by the Department of Fisheries and Oceans. Additionally, a report from the Standing Committee on Fisheries and Oceans (June 2019) found that the federal government’s protection of Canadian lakes and waterways against aquatic invasive species is inadequate.

The Shuswap Watershed Council (SWC) takes this issue seriously and is invested in keeping invasive mussels out through funding public awareness campaigns in our region to ‘Clean-Drain-Dry your watercraft’ and ‘Don’t Move a Mussel’ since 2018. To date, the SWC has spent \$92,000 in local taxpayers’ dollars on these campaigns; it’s spent an additional \$45,000 supporting early detection monitoring in the Shuswap watershed which is carried out through a partnership with the Columbia Shuswap Invasive Species Society (CSISS). In 2021, the SWC is spending \$57,000 on these activities. While we feel that preventing the spread of ZQM should be handled by senior governments, we also are compelled as a regional watershed partnership not to be idle on this issue; our local residents are part of the defense against ZQM and they need to be informed and engaged.

Despite current efforts by the SWC, CSISS, and the Province’s Invasive Mussel Defence Program, the threat of a mussel infestation continues as demonstrated by the interception of mussel-fouled watercraft every summer at our provincial borders. We would like to see more leadership, action, and funding from the federal government. A new federal investment in our province could go toward the following:

- Expansion of the provincial watercraft inspection program that’s run by the BC Conservation Officer service to allow for the establishment of additional inspection stations and longer hours and seasons of operation. No entry-point to BC should be open to un-checked watercraft.
- New measures to ensure aircraft (i.e., floatplanes) aren’t transporting aquatic invasive species
- Early detection monitoring programs, complementing what’s already underway in BC by regional groups and the Province of BC
- Education and outreach, to expand and compensate existing campaigns in BC including “Clean Drain Dry” and “Don’t Move A Mussel” campaigns.

Furthermore, the Department needs to take stronger action on containing mussel infestations and fully enact the *Aquatic Invasive Species Regulation* of the Federal Fisheries Act. Prevention efforts in the west must be met with robust measures for containment in eastern and central Canada. Simply put,

² Source: https://www.oag-bvg.gc.ca/internet/English/parl_cesd_201904_01_e_43307.html



watercraft should not be able to leave lakes or rivers known to have ZQM infestations without being inspected, decontaminated, and issued a quarantine period if necessary.

Considering all that is at risk in the Shuswap, and indeed British Columbia in general, the likelihood of an introduction of Zebra and Quagga Mussels to British Columbia, and the projected on-going costs and lost revenue associated with any new ZQM infestation in BC, collectively we call on the Government of Canada to take a more active role by helping us defend BC's waters against ZQM and by containing existing infestations. We thank you for your attention and swift action on this matter.

Sincerely,

A handwritten signature in black ink, appearing to be 'PD'.

Paul Demenok, Chair
Shuswap Watershed Council
Director, Area 'C' South Shuswap, Columbia Shuswap Regional District
pdemenok@csrd.bc.ca

A handwritten signature in black ink, appearing to be 'Clyde Mitchell'.

Clyde Mitchell, President
Shuswap Waterfront Owners Association
president@swoa.ca

A handwritten signature in black ink, appearing to be 'Robyn Hooper'.

Robyn Hooper, Executive Director
Columbia Shuswap Invasive Species Society
rhooper@columbiashuswapinvasives.org



CC:

- North Okanagan - Shuswap MP and Deputy Shadow Minister for Fisheries, Oceans and the Canadian Coast Guard, Mel Arnold
- Shuswap-area MLAs: Greg Kylo (Shuswap), Harwinder Sandhu (Vernon - Monashee), Todd Stone (Kamloops - South Thompson), Peter Milobar (Kamloops - North Thompson)
- Secwepemc Chiefs: Lynn Kenoras-Duck (Adams Lake Indian Band), Oliver Arnouse (Little Shuswap Lake Band), Judy Wilson (Neskonlith), Wayne Christian (Splatsin)
- Shuswap Local Government Chairs and Mayors: Kevin Flynn (Columbia Shuswap Regional District), Ken Gillis (Thompson-Nicola Regional District), Kevin Acton (Regional District of North Okanagan, Village of Lumby), Alan Harrison (City of Salmon Arm), Terry Rysz (District of Sicamous), Rod Crowe (Village of Chase), Greg McCune (City of Enderby)
- Shadow Minister for Fisheries, Oceans, and the Canadian Coast Guard, MP Rick Perkins
- Critic for Fisheries, Oceans and the Canadian Coast Guard, MP Lisa Marie Barron
- Shuswap Area Chambers of Commerce Presidents: Mark Thio (Salmon Arm Chamber), Lynn Ewart (South Shuswap Chamber), Angela Lagore (North Shuswap Chamber), Victoria Cameron (Sicamous and District Chamber)
- Okanagan Basin Water Board, Chair Sue McKortoff
- Invasive Species Council of BC, Executive Director Gail Wallin



About the Shuswap Watershed Council

The Shuswap Watershed Council (SWC) was established in 2014 as a watershed-based partnership that enhances water quality and safe recreation in the Shuswap. There are up to 18 SWC members that represent three regional districts, two municipalities, the Secwepemc Nation, two provincial government agencies, and Shuswap communities. The SWC is a collaborative, non-regulatory group. It works alongside organizations that have regulatory roles in managing the Shuswap watershed, complementing their work and carefully avoiding duplication. Its primary mandate is to enhance, protect, and advocate for water quality in the Shuswap watershed.

About the Shuswap Waterfront Owners Association

The Shuswap Waterfront Owners Association communicates with and advocates for the rights of waterfront property owners with the goal of protecting lakeshore environment and fostering respect for, and quiet enjoyment of, all beachfront areas on the Shuswap and surrounding lakes. SWOA has a membership of over 1350 representing 568 properties.

About the Columbia Shuswap Invasive Species Society

The Columbia Shuswap Invasive Species Society (CSISS) is a non-profit organization dedicated to preventing and managing the spread of invasive species within the Columbia-Shuswap region. We work with government partners, non-profit organizations and interested parties to document, control and educate the public about the seriousness and impact of invasive species.