

Okanagan Basin Water Board Meeting Agenda



Okanagan Basin
WATER BOARD

DATE: Tuesday, November 7, 2023

TIME: 10 a.m. – 12:30 p.m.

PLACE: Online

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 October 3, 2023 held online. (page 1)

5. STAFF REPORTS

- 5.1 Executive Director Report (page 6)
- 5.2 Deputy Administrator Report (page 9)
- 5.3 Water Stewardship Director Report (page 10)
- 5.4 Water Science Specialist Report (page 12)
- 5.5 Communications Director Report (page 14)

6. NEW AND UNFINISHED BUSINESS

- 6.1 Budget Features Memo – Proposed Budget 2024–25 (page 17) (resolution required)
 - 6.1.1 Budget Assessments and Segmented Budget
- 6.2 2024 Water Conservation & Quality Improvement Grant Program Memo (page 21) (resolution required)

7. IN-CAMERA

7.1 In-camera session (under sec. 90(1)(k) and 90(2)(b) of the Community Charter)

8. CORRESPONDENCE

8.1 Letter from Shuswap Waterfront Owners Assoc. to sr. gov'ts, cc'ed to OBWB, re: invasive mussels (page 23)

9. NEXT MEETING

9.1 The next meeting of the Okanagan Basin Water Board will be Tuesday, Dec. 5 at 10 a.m. ONLINE

10. 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. From time-to-time, the board will be holding its 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.

**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD
HELD OCTOBER 3, 2023
ONLINE**

PRESENT

Chair Sue McKortoff	Regional District Okanagan-Similkameen
Vice-Chair Blair Ireland	Regional District Central Okanagan
Director Victor Cumming	Regional District North Okanagan
Director Rick Fairbairn	Regional District North Okanagan
Director Wayne Carson	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 Jeremy Fyke	Okanagan Water Stewardship Council (OWSC)
Alt. Director Bob Fleming	Regional District North Okanagan

REGRETS

Director Christine Fraser	Regional District North Okanagan
Director Charlie Hodge	Regional District Central Okanagan
Director Tim Lezard	Okanagan Nation Alliance (ONA)

STAFF

Anna Warwick Sears	Executive Director
Corinne Jackson	Communications Director
James Littley	Deputy Administrator
Sandra Schira	Water Science Specialist
Amanda Burnett	Communications Coordinator

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. APPROVAL OF AGENDA

"THAT the agenda of the regular meeting of the Okanagan Basin Water Board of Oct. 3, 2023 be approved."

CARRIED

3. ADOPTION OF MINUTES

3.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of Sept. 8, 2023, held at Rotary Centre for the Arts in Kelowna.

"THAT the minutes of the regular meeting of the Okanagan Basin Water Board on Sept. 8, 2023, held at Rotary Centre for the Arts in Kelowna, be approved."

CARRIED

4. DIRECTOR ROUNDTABLE

The Okanagan Basin Water Board Directors were invited to share their experiences at the recent Union of B.C. Municipalities (WCQI) conference.

Chair McKortoff reported that she and Dr. Sears participated in a meeting at UBCM with the City of West Kelowna and B.C. Minister of Water, Land and Resource Stewardship (WLRS) Nathan Cullen regarding invasive zebra and quagga mussels. The meeting was especially timely considering the recent discovery of quagga mussel larvae in Idaho.

Dir. Knodel recounted meetings with B.C. Minister of Municipal Affairs Anne Kang and Minister of Emergency Management and Climate Readiness Bowinn Ma during which he recommended that the provincial government increase its efforts to prevent the spread of invasive mussels.

Dir. Ireland reported that he also met with Min. Cullen and noted the number of ministries working on various water issues and concerns around lack of enforcement for watershed protection.

Dir. Fairbairn noted discussions with BC Hydro regarding the decommissioning of Wilsey Dam, adding that they are looking at how to mediate large amounts of sediment.

Dir. Holmes entered the meeting at 10:08 a.m.

Dir. Cumming said he met with Premier David Eby and suggested that water be made a priority issue. In a meeting with Minister of Forests Bruce Ralston, the director emphasized the importance of wildfire prevention and fuel management in the Aberdeen Plateau area which is a critical water source for Greater Vernon.

Dir. Holmes added that he spoke with MLA Fin Donnelley, Parliamentary Secretary for Watershed Restoration regarding source water protection, noting that this is a common concern among local governments.

It was noted that the Deputy Minister of WLRS, Lori Halls, requested and was sent a briefing note from the OBWB regarding invasive mussels in Idaho and recommendations for action, in preparation for a meeting with Department of Fisheries and Oceans in Ottawa.

5. STAFF REPORTS

5.1 Executive Director Report

Dr. Sears updated the board on a UBCM clinic she co-presented, regarding building housing safely in floodplains, noting the progress of floodplain mapping and plans to reduce flood impacts on residential areas.

The board was presented with a 2024 OBWB meeting schedule.

“THAT the board schedule for the Okanagan Basin Water Board meetings for 2024 be approved.”

CARRIED

The board was told that OBWB staff have been working on the 2024-25 budget, including a renewal of a five-year office lease with RDCO and a 10-year lease with RDNO for the milfoil yard lease in Vernon.

“THAT the OBWB accept in principle the term and rate of the OBWB office lease renewal proposed by RDCO, to be finalized by staff.”

CARRIED

In discussing the rate proposed by RDNO for the milfoil yard lease, the board asked staff to provide a counter-offer and bring the matter back for discussion at the November board meeting.

“THAT OBWB staff provide a counter-offer to RDNO regarding the milfoil yard lease renewal and report back at the November board meeting.”

CARRIED

Dr. Sears told the board that planning is underway to hold a workshop regarding Mission Creek in response to community interest, and that she attended a transboundary mining conference in Osoyoos. The International Osoyoos Lake Board of Control (IOLBC) has its annual meeting on Oct. 4th at the Sonora Centre and is expected to discuss the possibility of expanding its focus to be an International Watershed Board. The result would be additional capacity to address an increasing number of transboundary water issues, beyond water levels and dam management. Finally, Dr. Sears noted that she’s been appointed to the transboundary Skagit Environmental Endowment Commission, which should help inform her work on the IOLBC and at OBWB.

“THAT the Executive Director’s Report, dated Sept. 27, 2023, be received.”

CARRIED**5.2 Deputy Administrator Report**

Mr. Littley updated the board regarding invasive quagga mussels discovered in the Snake River at Twin Falls, Idaho, a tributary to the Columbia River and the Okanagan River.

In response, Idaho turned to its emergency response plan and released a copper-based pesticide to kill the mussels, which will also kill local flora and fauna. It is still unclear how effective this treatment will be.

The board was told that work is continuing to finalize a mussel infrastructure vulnerability toolkit for use by utilities, and it was recommended that the OBWB convene a working group to broaden the conversation and response. A temporary moratorium on out-of-province watercraft until provincial and federal protective measures improve was also discussed.

“THAT staff be directed to form a working group in response to invasive mussels being detected in Idaho’s Snake River, a tributary to the Columbia River which connects to the Okanagan River.”

CARRIED

Following discussion, the OBWB was invited to host an invasive mussel information booth at the upcoming Okanagan Nation Alliance AGM in Penticton.

An update was also provided on the milfoil control program. Rototilling is now underway, and staff are working with a contractor on its next five-year provincial permit.

“THAT the Deputy Administrator’s Report, dated Sept. 26, 2023, be received.”

CARRIED**5.3 Office and Grants Manager Report**

Ms. Restrepo-Tamayo provided an update on *siwłk^w (Water) for All – Co-creating Futures, Environmental Flows Conference 2024*, to be held March 13-15, 2024 in Kelowna.

The conference is a follow up to the OBWB's environmental flow needs conference in 2018. The upcoming conference is intended to bring together representatives from national and international organizations who are engaged in water management or research, including fisheries and water managers, First Nations, regulators, policy-makers, academia, funders and NGOs.

Early registration is open until Nov. 30 at <https://environmentalflores2024.ca/>.

"THAT the Office and Grants Manager's Report, dated Sept. 27, 2023, be received."
CARRIED

5.4 Water Science Specialist Report

Ms. Schira updated the board on her latest research on climate indicators. She noted that 2023 has been a record-breaking year and the hottest year on record, globally. With fall around the corner, she provided data showing that the season (September to November) shows the smallest observed increase in temperature compared to the 1951-1980 historical average 0.9C in Vernon, 0.8C in Kelowna and 0.5C in Penticton), however, the change has resulted in some significant impacts, including at least one fall day every year with a maximum temperature over 30C and the number of days with minimum temperature below 0C has decreased by about five days in each location.

This data is being compiled and will be part of a website available to the public.

"THAT the Water Science Specialist Report, Sept. 25, 2023, be received."
CARRIED

5.5 Communications Director Report

Ms. Schira provided the drought update portion of Ms. Jackson's memo, noting the Okanagan remains at Level 5 drought with a number of streams running below environmental flow needs and even critical flow needs for fish. The province will review drought levels again at the next meeting of the Thompson Okanagan Regional Drought Team meeting tomorrow, Oct. 4.

In response to questions from directors, it was noted that the drought team is made up of water-related staff from provincial and federal governments (e.g. B.C.'s WLRs ministry, and Fisheries and Oceans Canada), First Nations, local water utilities, and the OBWB, and is intended to provide the province with up-to-date information on water conditions. While the province sets the drought levels, the OBWB has been working with utilities to communicate on water conservation and local water restrictions.

Ms. Burnett gave an update on communication efforts to raise awareness regarding invasive mussels and the importance of taking precautions to prevent their spread, especially with two long-weekends in October.

Finally, it was noted that the Annual Report is on the OBWB website and a highlight video from the meeting is posted on the OBWB-Okanagan WaterWise YouTube channel.

"THAT the Communications Director's Report, dated Sept. 27, 2023, be received."
CARRIED

6. **NEXT MEETING**

6.1 The next meeting of the Okanagan Basin Water Board will be Tuesday, Nov. 7 from 10 a.m. – 12 p.m., online.

7. **ADJOURNMENT**

“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of Oct. 3, 2023 be adjourned at 11:36 a.m.”

CARRIED

Certified Correct:		
Chair		Executive Director

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
November 7, 2023
Agenda No: 5.1

To: OBWB Directors
From: Anna Warwick Sears
Date: November 1, 2023
Subject: Executive Director Report

Meeting with Premier David Eby

Roly Russell, MLA for Boundary-Similkameen (including Osoyoos) invited me to an hour-long meeting with Premier David Eby on October 21st in Grand Forks. The goal of the meeting was to highlight interior watershed issues. Other attendees included a representative from the B.C. Cattlemen's Association, planners from Grand Forks, Regional District of Kootenay Boundary, and a local advocate for better forestry practices. I had an opportunity to express the need to expand the Watershed Security Fund, and the need to deal with provincial water staffing shortages, along with funding for activities like mussel inspections and replacement of the Okanagan Lake dam in Penticton.



Merging B.C. Water Ministries

The day before the meeting with Premier Eby, the B.C. government released its new ministry realignment, to consolidate most of water policy and management in the Ministry of Water, Land, and Resource Stewardship (WLRS). This is widely considered a positive development, and hopefully will lead to water receiving a higher priority in natural resource decision-making. I will be working with other OBWB staff and the Okanagan Water Stewardship Council to draft a letter to the premier and Minister of WLRS Nathan Cullen, acknowledging this change and reiterating our concerns about water management going forward under the new alignment. The October 20 media release is provided below:

Regulatory orders confirm transfers of natural-resource responsibilities between ministries to align with government priorities of reconciliation, resource stewardship and strong, sustainable economic development for people and communities.

Following the creation of the Ministry of Water, Land and Resource Stewardship in April 2022, and in line with more recent updates to the focus of the ministry in December 2022, complete and/or sections of the following legislative acts are being transferred from the Ministry of Forests to the Ministry of Water, Land and Resource Stewardship:

- *Water Sustainability Act*
- *Land Act*
- *Wildlife Act*
- *24 additional acts*

These changes continue the reorganization initiated in 2022, which is advancing government's goals of working in partnership with First Nations, responding to climate change, supporting sustainable economic development, and ensuring B.C. resources benefit local communities and people.

These changes will enable the Ministry of Forests to focus on transforming the forest sector and ensure British Columbians are supporting a resilient and sustainable land base and strengthening B.C.'s wildfire response and mitigation for the safety of the province and its people.

Weather Report

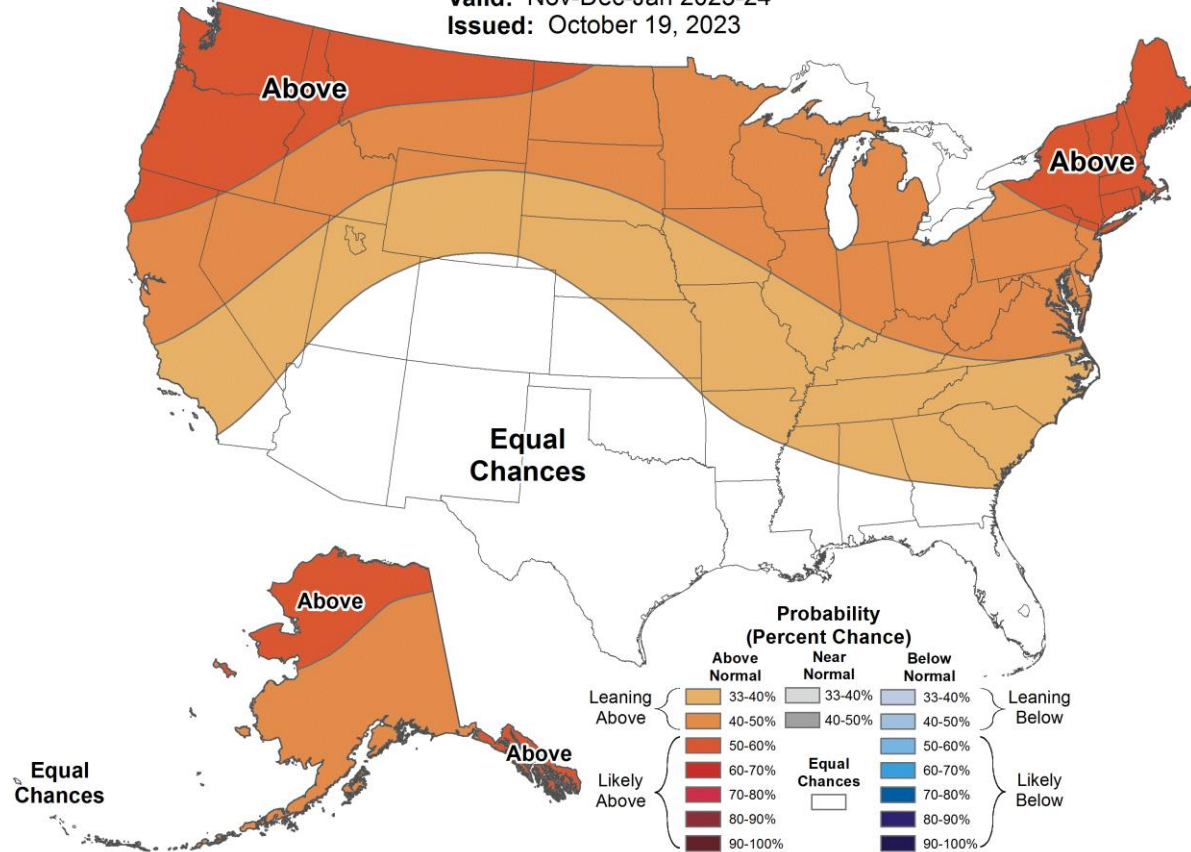
Seasonal forecasts continue to project a warmer-and-drier-than-normal fall and winter due to continued El Niño conditions. Okanagan Lake is below normal, and the provincial dam operator is releasing lower-than-normal flows to the Okanagan River channel, to slow the lake-level fall. Given the El Niño conditions, there is a possibility that the drought will continue into 2024. Snow pillows are not yet registering meaningful amounts at Brenda Mines, Mission Creek, or Silver Star stations. See Seasonal Temperature Outlook graphic below.



Seasonal Temperature Outlook



Valid: Nov-Dec-Jan 2023-24
Issued: October 19, 2023



MEMORANDUM

Okanagan Basin Water Board
Regular meeting
Nov. 7, 2023
Agenda No: 5.2

To: OBWB Directors
From: James Littley
Date: October 31, 2023
Subject: Deputy Administrator Report

Invasive Mussel Update

In October, I presented to several local governments on the initial detection and response to invasive mussels in Idaho, and on the OBWB's calls to action. Letters have been sent to the governments of B.C. and Canada, and a request for letters of support has been sent to all local governments in the province, the Okanagan Nation Alliance, invasive species councils, tourism associations and chambers of commerce, as well as other partners. Several local governments have already provided letters or resolutions of support, sent to senior governments. I will continue to present in person on request, and we have also posted a recorded version of my presentation to our YouTube channel.

Idaho has finished the first round of their planned response to the mussel detection, using a copper chelate pesticide. Media reports indicate that fish and plants were washing up dead in the treatment area, a known effect of the pesticide. It will take at least several months of water sampling to show whether the treatment was successful. Water samples detect free-floating larvae after mussels have reproduced. Water temperatures are currently too low for reproduction, so any new larvae are unlikely to be in the water until temperatures rise in the spring and summer.

Invasive Mussel Infrastructure Vulnerability Assessment Guide

The vulnerability assessment guide is almost complete, with a few edits remaining on the content. The guide has been reviewed by mussel experts, infrastructure experts, biologists, engineers, and utility managers. I expect design and layout of the guide to be complete by the end of November, with a final version ready for distribution by the end of the year or early in 2024.

Milfoil Control Program

We are currently rototilling in the north end/Vernon arm and West Kelowna portions of Okanagan Lake, and in Wood Lake. Rototilling will continue throughout the winter. In Germany, the new amphibious harvester build is on-schedule with a delivery date expected in June. The milfoil shop's ceiling insulation was replaced in early October, remediating the mold found in the original insulation.

Our new permit application will be ready to submit to the province in the coming weeks. Applications must be submitted at least 45 days before starting work, and our application will be submitted with almost triple the required time to allow us to work with provincial staff to address any concerns.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
November 7, 2023
Agenda No: 5.3

To: OBWB Directors
From: Nelson R. Jatel
Date: October 30, 2023
Subject: **Water Stewardship Director's Report**

Okanagan Water Stewardship Council (OWSC)

Last month's council meeting provided insights and allowed for collaborative discussions – focusing on our neighbour watershed, the Shuswap. We heard from the Fraser Basin Council's Ms. **Erin Vieira**, representing the Shuswap Watershed Council, and Dr. **Natalya Melnychuk**, the Water Policy Advisor from B.C. Ministry of Water, Land and Resource Stewardship. Both provided invaluable perspectives on water stewardship, emphasizing the importance of information sharing and addressing shared challenges.

Our next meeting is on Nov. 9th. It will include a presentation from the OBWB's James Littlely, regarding the threats to the Okanagan posed by zebra and quagga mussels, shedding light on the current situation and delving into the policy needs to combat these invasive species. We will also discuss a new working group, aimed at guiding and bolstering future actions to safeguard our water resources from the mussels. This proactive approach underscores our commitment to preserving the region's aquatic ecosystem.

Environmental Flows Needs (EFN)

2024 Environmental Flows Conference

Building on the success of the 2018 EFN conference, staff are busy organizing our Environmental Flows (EF) 2024 Conference, *siwłk^w (Water) For All – Co-creating Futures*, March 13-15, 2024 in Kelowna. This month saw the launch of an engaging introductory multi-media campaign, designed to captivate and inform potential attendees. EFs focus on the water flows crucial for maintaining both freshwater ecosystems and human well-being. The Okanagan Valley's semi-arid climate, coupled with a growing population, amplifies the importance of grasping and emphasizing EFs. This conference will help equip local authorities to judiciously allocate water, striking a balance between ecological preservation and societal demands. As climate change reshapes our surroundings, the significance of EFNs in mitigating drought impacts and conserving biodiversity grows exponentially. We are thrilled to announce that the ONA has generously come on board as a gold sponsor, and SW Audio has committed as a copper sponsor. Registration and sponsorship details are now accessible online. To revisit the highlights of the 2018 conference, head to www.obwb.ca/efnconference. For details on the EF 2024 conference and to register, visit www.environmentalfloWS2024.ca.

Sharing EFN knowledge for other B.C. projects

In recent communications between Teck Resources Ltd. and the Okanagan Basin Water Board, there has been a collaborative effort to organize an information session focusing on the Environmental Flow Needs (EFN) assessments. This session, scheduled for November 21, 2023, in Kelowna, aims to share insights and experiences from the OBWB's work on EFN assessments. The agenda for this session

addresses specific topics and areas of interest. The discussions are expected to encompass the Okanagan EFN setting methods and dataset development, with an emphasis on collaborative efforts in these areas. Teck has also expressed interest in involving key contributors to the EFN assessments, recognizing the value they bring to the table. The session promises to be a significant platform for knowledge exchange, fostering a deeper understanding of EFN assessments and their implications.

Okanagan Hydrometric (Stream Flow) Monitoring

Last month, the Okanagan Hydrometric Program continued to monitor water flow and levels across various Okanagan streams continuously. As we transitioned from late summer to early fall, the Okanagan experienced diminished water flows. This time is marked by heightened agricultural water needs, which starkly contrasts with the stream flow and the cold-water-temperature needs for spawning fish species like Kokanee and Sockeye salmon. This contrast becomes even more pronounced during potential drought conditions.

The hydrometric data we gather is indispensable for local governments within the Okanagan. It provides a clear picture of water availability, facilitating effective water resource management. As the repercussions of climate change intensify, this data becomes a linchpin for predicting floods and preparing for droughts. Given the Okanagan's stature as a key agricultural center, this reliable data ensures that farmers can make judicious irrigation choices, maximizing their crop output while preserving water. Additionally, this data is instrumental in guiding land-use decisions, infrastructure development, and fostering sustainable habits within the community.

This month, stream monitoring was a priority. As the weather gets colder, attention will shift from field work to the important work of quality control and quality management of data. Our synergistic endeavors with partners like the Okanagan Nation Alliance, Water Survey Canada, and others are geared towards bolstering our hydrometric monitoring capabilities. This commitment ensures that we consistently lead the way in sustainable water management practices in the Okanagan.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
Nov. 7, 2023
Agenda No: 5.4

To: OBWB Directors
From: Sandra K. Schira, Water Science Specialist
Date: October 30, 2023
Subject: **Climate Change Indicators Project & Drought Update**

Indicators Project Update

Significant progress has been made on the climate indicators dashboard. A working version has been created and is currently operational with a few tasks remaining, including completing hydrological indicators, completing the sounding documentation such as methodologies, drafting relevant results information, and completing internal staff reviews. The prototype can display indicators for Kelowna, Vernon, and Penticton, displaying indicators both annually and seasonally, where appropriate.

Currently, the dashboard covers temperature, precipitation, and inflows into Okanagan Lake, natural streams, and Mission Creek. Creating indicators both relevant and appropriate to the unique hydrology of each system is complex, and staff is taking the time to review the options. Criteria for considering streams for the project include 1) a continuous monitoring record of at least 30 years, 2) an unregulated stream, and 3) the station is still in operation. These criteria were selected to help ensure results are more attributable to climate change and compounding factors such as regulation and land use changes are minimized. However, since land use may still play a role, carefully selecting which streams to consider and picking the appropriate indicators is vital. To that end, hydrological indicators will focus on extremes.

Despite being a regulated stream, Mission Creek is included as it is the largest tributary to Okanagan Lake, and plays a significant role in local hydrology. However, because it is subject to regulation, the creek will receive its own list of indicators, which will be carefully considered. The primary focus will be on extreme events such as flood events and droughts. Mission Creek also has one of the longest data records of any stream, which is very useful to the project. Due to the shorter available data record for hydrological indicators the baseline period will need to be shifted to 1971-2000 rather than 1951-1980, which was used for the climate indicators.

Drought Update

The provincial drought levels for the Okanagan were lowered to a 2 on Oct. 19 (Figure 1). The level was lowered due to improved flows attributed to recent precipitation events, the end of the seasonal agricultural irrigation period, dropping temperatures, and lower flows expected at this time of year. While the Okanagan has been lowered to Level 2, some individual streams remain at higher drought

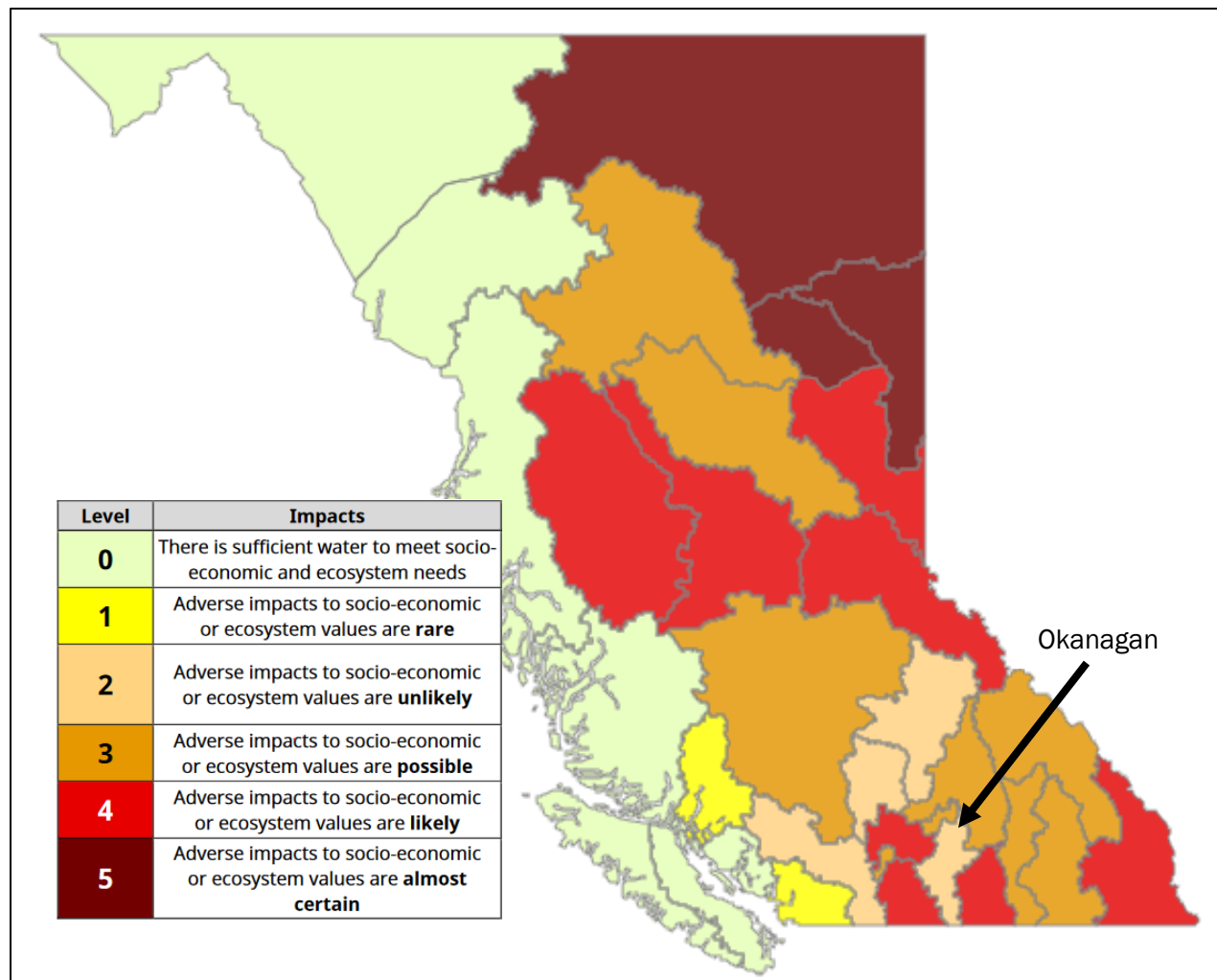


Figure 1 Provincial drought levels map as of October 19, 2023. Drought levels shown are separate from local drought stages. Source: B.C. Drought Information Portal

levels. For example, Shuttleworth and Vaseux remain at Level 5. This demonstrates the different responses of various streams to precipitation and the difference between regulated and unregulated systems.

The improvement in drought conditions is good news. Many stations were at, or close to, the lowest recorded flows for much of the summer. With the Okanagan still in drought, there is concern about the potential for a multi-year drought if significant recharge does not occur over winter. Hopefully, additional precipitation this fall and winter will allow the Okanagan to rebound.

Water Supply Association of B.C. 2023 Conference

Staff attended the Water Supply Association of B.C. general meeting and conference. The event was hosted in Nelson, B.C., and had attendance from large and small suppliers from the Kootenays, Okanagan, and beyond. The event provided excellent networking opportunities and a forum to learn about industry priorities and concerns. The conference's key themes were emergency preparedness, multi-year droughts, upper basin storage, and water quality standards.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
Nov. 7, 2023
Agenda No: 5.5

To: OBWB Directors
From: Corinne Jackson
Date: November 1, 2023
Subject: Communications Director Report

Drought Communications & Make Water Work 2023

Our Make Water Work campaign, aimed at residential outdoor water conservation, ends in mid-October as people turn off their outdoor taps. However, as of today, the Okanagan is still listed at Level 2 drought, with some streams in the region at Level 3 (Equisis, Shingle/Shatford and Inkaneep creeks), and at Level 5 (Shuttleworth and Vaseux creeks). Unless we have enough precipitation in the fall and winter for aquifers and reservoirs to rebound, there is concern we could start next year's farming and gardening season in drought. As such, we are shifting our communication efforts to encourage indoor conservation, and to think ahead to next year and preparing landscapes to be more WaterWise while also meeting the needs of a healthy ecosystem.

Water Board staff have been attending regular online Thompson Okanagan Regional Drought Team meetings throughout the spring, summer and into fall, gathering current water data from provincial and federal staff, local utilities and First Nations fisheries departments. This has then been reported back out to the Okanagan community through Drought Bulletins, news releases, Make Water Work advertising, and social media posts. (In past years these meetings have been bi-weekly. This year, they began on May 17, but as the drought quickly intensified they moved to weekly between May 31 - Oct. 4, and have since dropped back to bi-weekly.) The drought team is holding an in-person 2023 drought meeting in Kelowna in November which will look at the challenges this year (including communication of water availability, groundwater/ surface water interactions, drought response actions), and potential improvements for next year. Given the continued high drought levels in parts of the region, the possibility of continuing to hold regular meetings through the coming weeks to ensure accurate recording will also be discussed.

We will develop a wrap-up report on this year's Make Water Work campaign over the next few weeks and deliver it to the board for discussion, leaving the winter and early spring to plan for 2024.

Invasive Mussel Communications & Don't Move A Mussel 2023

The formal Don't Move A Mussel advertising campaign ended in mid-October to coincide with the end of the boating season. However, we are continuing to communicate about invasive mussels due to the detection of quagga mussels in Idaho in September, and our recently updated calls to action, including a temporary moratorium on out-of-province watercraft.

In addition to posting information on our various social media channels, we have now uploaded a video to our YouTube channel, regarding the board's calls to action. It can be found at <https://www.youtube.com/watch?v=j255iBHtzLg&t=641s>. Letters requesting support for the OBWB's

call have also been sent to B.C. local governments, water stewardship groups, tourism organizations and chambers of commerce. This has received considerable attention and media clips regarding this are noted below.

We were also invited to attend the Okanagan Nation Alliance's recent Annual General Assembly in Penticton to answer questions about invasive mussels and the threat to the Okanagan.



Photo left: OBWB Deputy Administrator James Littley and Communications Coordinator Amanda Burnett, on hand to answer questions regarding invasive mussels at the Okanagan Nation Alliance's Annual General Assembly.

As in the case of Make Water Work, we will develop a wrap-up report on this year's mussel campaign and deliver it to the board for discussion in time to begin planning for a 2024 spring roll-out.

Summary of OBWB-Related News Coverage

- | | |
|----------|---|
| Sept. 24 | "Alarm sounds over low water in Shingle Creek," <i>Penticton Herald</i> |
| Sept. 27 | "Column – Gardening with Nature: Fundraising sale shows drought-resistant plants are growing in popularity," <i>Castanet.net</i> |
| Sept. 27 | "City of West Kelowna Council highlights: Council acknowledges provincial and partnership support at 2023 UBCM conference," <i>iHeartRadio.ca</i> |
| Sept. 29 | " Drought persists, climate change felt across the Okanagan ," <i>Castanet.net</i> |
| Oct. 2 | "Grant for Wood Lake Project gives \$25,000," <i>Castanet.net</i> |
| Oct. 11 | "Column – Gardening with Nature: Volunteers are the heart and soul of Okanagan Xeriscape Association," <i>Castanet.net</i> |
| Oct. 13 | Okanagan Basin Water Board calls for moratorium on out-of-province watercraft," <i>Global Okanagan</i> |
| Oct. 14 | "Mussel scare prompts Okanagan Water Board to call for out-of-province boat ban," <i>Kelowna Capital News, Vernon Morning Star, Revelstoke Review</i> |
| Oct. 20 | "OBWB to recommend actions to prevent invasive mussel outbreaks," <i>VernonMatters.ca</i> |
| Oct. 20 | " Biologists offer tour of rare remaining urban wetlands in Kelowna ," <i>Castanet.net</i> |
| Oct. 21 | "Okanagan water board calling for temporary moratorium on out-of-province boats," <i>InfoNews.ca</i> |
| Oct. 23 | "Moratorium on out-of-province boats suggested to stop invasive mussels in the Okanagan," <i>Castanet.net</i> |

- Oct. 23 ["Vernon council on board with temporary ban on out-of- province boats on lakes,"](#) *Vernon Matters.ca*
- Oct. 23 "RDCO Board Report: Letter of support for Okanagan Water Board's invasive mussel calls to action," *iHeartRadio.ca*
- Oct. 24 "Vernon debates banning out-of-province boats," *Vernon Morning Star, Kelowna Capital News, Revelstoke Review*
- Oct. 25 "Column – Gardening with Nature: Enjoy ornamental grasses through the winter months," *Castanet.net*
- Oct. 25 Peachland supports push to ban watercraft from coming into B.C.," *Castanet.net*
- Oct. 30 ["Okanagan floats idea of a moratorium on out-of-province boats,"](#) *CBC Radio - Calgary Eyeopener*
- Oct. 30 ["Okanagan Basin Water Board calls on local governments to support a temporary ban on out-of-province boats to prevent local lakes from invasive mussels,"](#) *CBC Radio – Radio West*

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
November 7, 2023
Agenda No: 6.1

To: OBWB Directors
From: Anna Warwick Sears, Executive Director
Date: November 1, 2023
Subject: **Budget Features 2023-2024 Memo**

The OBWB runs a lean organization, delivering the highest level of service at the greatest value to the community. The following recommendations build on current services and operations. The OBWB's 2024-2025 budget must be adopted on or before the OBWB meeting of December 5, 2023, and the board may adopt the budget as proposed at this November 7, 2023, meeting.

Attachment 6.1.1

- The Regional District Provisional Assessments page shows the total requisitions for each project from each regional district.
- The OBWB Segmented Budget for the year ending March 31, 2025, shows the breakdown between the Sewerage Facilities Assistance (SFA) Grants, Watermilfoil, and Water Management programs. The grey column "2025 Consolidated Budget" is the proposed budget for the coming year. The blue "2024 Consolidated Budget" is for the current fiscal year, and the lavender "2023 Consolidated Audited Year End" reflects actual expenditures for our programs in the audited year-end for March 31, 2023.

Budget Overview

The 2024-25 budget focuses on priority programs and services. Our most recent audited financial statements (2022-23) are provided in the OBWB annual report posted on the OBWB website.

The draft 2024-25 budget has the following features:

- The overall OBWB requisition is \$3,910,386, up 1.99% from the 2023-24 requisition of \$3,833,982.
- In total, this is equivalent to 2.7 cents/\$1,000 assessment, down from 3.0 cents/\$1,000 assessment because of increased property values.

Sewage Facilities Assistance (SFA) Grant Program

The requisition for sewage facilities grants is 0.6 cents/\$1,000 assessment, down from 0.9 cents/\$1,000 last year. We are required by legislation to hold a reserve to buffer mid-year changes in grant obligations (such as increased interest rates) that would require a mid-year budget amendment. As the reserve is currently large enough to provide reasonable protection from fluctuations, the 2024-25 budget includes a transfer of \$50,000 to reduce requisitions for this program – leaving a projected reserve balance of \$1,002,000. The requisition ceiling for the SFA program is 21.0 cents/\$1,000 assessments, which means we are only using 3% of our funding capacity. We are continuing to review the current program and assess the long-term needs for sewage infrastructure in the valley.

Watermilfoil Control Program

The requisition for watermilfoil is 0.78 cents/\$1,000 assessment, up from 0.69 cents/\$1,000 assessment last year. This year's budget covers anticipated extra costs for milfoil mapping and permitting. Federal and provincial milfoil control permits are set to be renewed for another five years in the coming fiscal year. We are working with contractors to create a new, comprehensive set of milfoil maps, and hope to significantly expand the areas of our permits, adding flexibility to respond to changing milfoil growth over the next five years and beyond. The budget also includes a large transfer of \$275,000 to build up the reserve for replacing aging equipment per our Asset Replacement Schedule. The reserve was drawn down in this fiscal year to purchase the new amphibious harvester.

Water Management

The requisition for Water Management is 1.3 cents/\$1,000 assessment, down from 1.4 cents/\$1,000 last year. There is a 2.0 cents/\$1,000 ceiling for the program. As in previous years, we anticipate additional matching grants for our projects from senior government agencies and will continue to apply for external funding to enhance project budgets. On average, since 2006, grants have made up 42% of overall program funding each year. Ongoing priorities include increased funding for invasive mussel monitoring and prevention outreach; work to review and update the Okanagan Lake Regulation System and the management plan for lake levels; continuing the build-out of the hydrometric (streamflow monitoring) program; and water quality projects.

Our Supplementary Letters Patent gives a ceiling of 3.6 cents/\$1,000 assessment for the combined budgets of the Milfoil and Water Management programs, and our current combined budget as proposed is 2.1 cents/\$1,000, which means we are using 58% of our funding capacity room.

Recommended Resolution: THAT the OBWB adopts the 2024-2025 budget as presented.



Okanagan Basin Water Board
Regular meeting
Nov. 7, 2023
Agenda No: 6.1.1

**Regional District Provisional Assessment
Budget For The Year Ending March 31, 2025**

	Central Okanagan	Okanagan Similkameen	North Okanagan	Total
	\$ 91,482,143,593	28,597,667,436	25,634,722,685	145,714,533,714
Percentage Share	62.78%	19.63%	17.59%	100.00%
REQUISITION				
Water Management	1,183,371	370,015	331,563	1,884,949
Water Milfoil	717,475	224,339	201,026	1,142,840
Sewerage Assistance	554,094	173,254	155,249	882,597
Total	\$ 2,454,940	767,608	687,838	3,910,386
<i>Total Prior Year Requisition</i>	<i>\$ 2,394,322</i>	<i>752,611</i>	<i>687,049</i>	<i>3,833,982</i>



Budget for the year ending March 31, 2025

	Water Management	Water Milfoil	Sewerage Assistance	2025 Consolidated Budget	2024 Consolidated Budget	2023 Consolidated Budget	2023 Consolidated Audited Year End
Revenues							
Requisitions	\$ 1,884,949	\$ 1,142,840	\$ 882,597	\$ 3,910,386	\$ 3,833,982	\$ 3,693,017	\$ 3,693,604
Grant income	0	0	0	0	0	0	56,855
Interest income	17,462	1,356	15,027	33,845	18,050	8,600	133,770
Other Income	0	0	0	0	0	0	8,406
Transfer from reserve	0	0	50,000	50,000	400,000	100,000	240
	1,902,411	1,144,196	947,624	3,994,231	4,252,032	3,801,617	3,892,875
				2.0%	3.8%		
Expenses							
Assistance grants	350,000	0	847,624	1,197,624	1,498,441	1,562,567	1,562,567
Amortization	4,000	100,000	0	104,000	66,000	83,000	48,460
Transfer amortization to tangible capital assets	(4,000)	(100,000)	0	(104,000)	(66,000)	(83,000)	(48,460)
Contract services	702,000	38,000	0	740,000	758,664	746,000	909,037
Director's remuneration and expenses	13,500	13,000	0	26,500	26,000	25,000	14,367
Stewardship council expenses	34,010	0	0	34,010	20,000	2,500	2,311
Equipment costs	2,500	151,500	0	154,000	124,000	114,600	134,010
Insurance	4,778	48,773	0	53,551	49,000	38,000	44,647
Interest charges	400	400	0	800	800	450	92
Office	35,900	20,800	0	56,700	46,867	42,800	47,839
Outreach and publicity	37,000	3,500	0	40,500	38,500	62,000	40,569
Administrative allocation	(50,000)	(50,000)	100,000	0	0	0	0
Professional fees	41,875	43,875	0	85,750	80,000	80,800	80,626
Rental costs	9,548	35,349	0	44,897	32,960	34,600	32,365
Safety	2,500	11,500	0	14,000	11,500	9,000	4,057
Travel, conferences and meetings	52,000	1,200	0	53,200	41,200	40,200	46,546
Utilities, yard supplies and maintenance	0	21,700	0	21,700	18,200	21,200	19,124
Wages and benefits	666,400	529,600	0	1,196,000	1,125,900	996,900	954,718
Capital Purchase (as per Asset Replacement Plan)	0	0	0	0	300,000	0	0
Transfer to equipment reserve	0	275,000	0	275,000	80,000	25,000	0
	1,902,411	1,144,196	947,624	3,994,231	4,252,032	3,801,617	3,892,875
Net revenues (deficiency) over expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
November 7, 2023
Agenda No: 6.2

To: OBWB Directors
From: Carolina Restrepo Tamayo, Office and Grants Manager
Date: October 30th, 2023
Subject: **Water Conservation and Quality Improvement Grants Program 2024-2025**

The Water Conservation and Quality Improvement (WCQI) Grant Program provides between \$3,000 and \$30,000 in funding to local governments, improvement districts, and non-profits for projects in the Okanagan basin that conserve water or improve water quality. The program has been running since 2006. This year, the call for applications will go out in late November, with the application deadline set for Friday, Feb. 23 at 4 p.m. The board is asked to approve an annual theme for 2024, review the process and scoring criteria, and make a resolution of approval.

Process

The process for awarding grants is:

1. Board approves scoring criteria and annual theme;
2. Applicants receive letters of support from local government based on that government's water-related objectives, community values and other normal considerations;
3. Staff review the applications independently based on board-approved scoring criteria;
4. Staff meet to determine recommendations based on individual assessments; and
5. Recommendations are forwarded to the board. Board discussion and voting on grant awards should occur as any other regular business, with input from all directors. Board may award, not award, or alter funding within project and program limitations.

Scoring Criteria

These weighted criteria are included in the grant program guide:	
20 points	Outcome for water quality or conservation
20	Basin-wide benefit
15	Method appropriate for objectives
15	Budget and timeline
10	Use and promotion of best practices
10	Collaboration
10	Quality of Proposal

100*
*Up to 10 bonus points can be awarded based on board-approved annual themes

Annual Theme

Each year, as part of the approved scoring criteria, the board approves an annual theme or themes, for staff to prioritize during the application review process. This allows the board to pre-determine which type of projects should receive bonus points, while also meeting the regular criteria of the grant program. Last year's theme was "From data to action for community resilience," with projects that directly use existing data, such as hydrometric data, LiDAR, topobathymetry, and water quality data to develop water sustainability projects being awarded up to 10 bonus points.

This year, staff recommend the theme of "**Drought Resilience**", awarding up to 10 bonus points for projects whose goals are directed to the prevention, management, and/or mitigation of drought or water shortages in the basin. Projects that include collective efforts from different communities, local governments, and/or non-governmental partners will be especially considered for extra points.

Recommendation: *THAT the process and scoring criteria for the grant competition be approved as outlined; AND THAT for the 2024-2025 WCQI grant competition, 10 bonus points will be awarded for projects in any category related to drought planning, management and mitigation.*



**Shuswap Waterfront
Owners Association**

Box 24123, Scotch Creek, BC V0E 3L0
info@swoa.ca www.swoa.ca

Okanagan Basin Water Board
Regular meeting
Nov. 7, 2023
Agenda No: 8.1

October 28, 2023

Hon. George Heyman
Minister of Environment and Climate Change Strategy of British Columbia
via Email: env.minister@gov.bc.ca
PO Box 9360 Stn Prov Govt
Victoria, BC
V8W 9M2

The Honourable Diane Lebouthiller
Minister of Fisheries, Oceans and the Canadian Coast Guard
via Email: DFO.Minister-Ministre.MPO@dfo-mpo.gc.ca
200 Kent St
Station 15N100
Ottawa, ON
K1A 0A6

Re: Invasive Mussels

Dear Minister Heyman and Minister Lebouthiller:

The Shuswap Waterfront Owners Association (SWOA) is a registered society incorporated in 2009 representing over 1300 members who own lakefront properties on Shuswap and Mara Lakes in the Columbia Shuswap Regional District of British Columbia.

Previously, SWOA has written in support of the Provincial and Federal governments' defensive actions to prevent the introduction of invasive Zebra and Quagga (ZQM) mussels into B.C. waters. However, given recent reports where a boat heavily infested with Zebra and Quagga mussels was detected at the Golden Inspection Station along with a confirmed infestation of ZQM in the Snake River in Idaho, a tributary of the Columbia River, the level of concern of our members has increased significantly. It is our opinion, that despite current efforts and initiatives, the risk of introducing ZQM to British Columbia waters remains unacceptably high.

The May 2023 release of *Potential Economic Impact of Zebra and Quagga Mussels in B.C.* by the Ministry of Water, Land and Resource Stewardship, contains updated information and figures that is of little comfort. The original report, released in 2013, indicated that the annual cost resulting from a ZQM invasion could be \$53.4 million dollars. The most recent report now estimates that the annual cost could actually range from \$64 to \$129 million, including:

- ❑ \$33.7 to \$92.5 million in mitigation costs for water-related infrastructure; including \$17.1 to \$23.3 million for hydro infrastructure.
- ❑ \$8 to \$49.7 million for water supply infrastructure for municipal, domestic and aquaculture.
- ❑ \$2.5 to \$5.3 million for agricultural irrigation and golf courses.
- ❑ \$3.7 to \$8.1 million in additional annual maintenance to boats and marinas.
- ❑ \$2.5 to \$12.6 million in lost profits and provincial revenues from losses in water-based non-resident tourism; and,
- ❑ \$30.2 million annualized loss in residential property values and property taxes due to reduced water quality and lost shoreline amenity values.

Considering the budgeted cost of \$3.8 million for the full mussel defense program, including 24/7 operation of inspection sites at B.C. borders, the costs associated with an invasion far exceed the costs of prevention. On behalf of our members, we ask that you take immediate steps to fully fund the mussel defense program and bolster the efforts for this prevention program.

Finally, as noted above, news reports of the detection of Zebra and Quagga mussels in the Snake River in Idaho, a tributary to the Columbia River are very concerning. The reports indicated that the infestation has been treated with a copper compound, but further monitoring will be needed to determine if the treatment has been successful in eradicating the infestation.

As a result of these findings, both the Okanogan Basin Water Board in BC and the Alberta government are lobbying for a ban on boats from the area being brought across the border into Canada from the US. Even with the potential economic loss that might occur if such a ban be adopted, we would expect the loss would be much less than the costs that would be incurred if ZQM were to become established in BC waters.

In conclusion, SWOA is urging your governments to take decisive action to ensure that the introduction of invasive mussels into B.C does not occur.

Yours truly,



A.C. Mitchell
President
Shuswap Waterfront Owners Association

Shuswap Watershed Council, **Jay Simpson** jsimpson@csrd.bc.ca

MLA for Shuswap, **Greg Kylo** Greg.Kylo@MLA.leg.bc.ca

Columbia Shuswap Invasive Species Society, **Robyn Hooper** info@columbiaShuswapinvasives.org

Okanagan Similkameen Invasive Species Society, **Lisa Scott** oasiss@shaw.ca

Invasive Species Council of B.C., **Gail Wallin** info@bcinvasives.ca

Columbia Shuswap Regional District, **John MacLean** jmaclean@csrd.bc.ca

MP for Okanagan Shuswap, **Mel Arnold** mel.arnold@parl.gc.ca

Okanogan Basin Water Board **Anna Warwick Sears** anna.warwick.sears@obwb.ca