

## Okanagan Basin Water Board Meeting Agenda



*Okanagan Basin*  
WATER BOARD

**DATE:** Tuesday, September 6, 2019

**TIME:** 12:30 p.m. to 2 p.m.

**PLACE:** Rotary Centre for the Arts, Kelowna, B.C.  
421 Cawston Ave., Kelowna, B.C.

**1. CALL MEETING TO ORDER**

- 1.1 Acknowledgement of First Nations Traditional Territory

**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 June 4, 2019 at the Regional District of Okanagan-Similkameen, Penticton B.C. (page 1)

**5. CHAIR'S REPORT**

**6. STAFF REPORTS**

- 6.1 Executive Director Report (page 8)  
6.1.1 Milfoil control and RMRM – a Primer DRAFT  
6.2 Water Stewardship Director Report (page 12) (resolution required)  
6.3 Operations and Grants Manager Report (page 16)  
6.4 Communications Director Report (page 19)  
6.5 Policy and Planning Specialist Report (page 23)

**7. NEW AND UNFINISHED BUSINESS**

- 7.1 Update OBWB signing authority (page 27) (resolution required)

**8. CORRESPONDENCE**

- 8.1 Letter from Town of Oliver to B.C. and federal government re: milfoil and Rocky Mountain Ridged Mussels (RMRM) (page 29)  
8.2 Letter from Vaseux Lake Stewardship Assoc. to B.C. and federal government re: milfoil and RMRM (pg. 31)  
8.3 Letter from City of West Kelowna to B.C. and federal government re: milfoil and RMRM (pg. 35)  
8.4 Letter from District of Peachland to B.C. and federal government re: milfoil and RMRM (pg. 36)  
8.5 Letter from B.C. government to OBWB re: milfoil and RMRM (pg. 38)  
8.6 Letter from B.C. government to Vernon Chamber re: milfoil and RMRM (pg. 40)  
8.7 Letter from City of Kelowna to federal government re: milfoil and RMRM (pg. 42)  
8.8 Letter from B.C. government to Town of Osoyoos re: milfoil and RMRM (pg. 44)  
8.9 Letter from Greater Vernon Chamber to federal government re: RMRM SARA decision (pg. 46)  
8.10 Letter from Greater Vernon Chamber to B.C. re: RMRM SARA decision (pg. 48)  
8.11 Letter from OBWB to federal government re: RMRM SARA decision (pg. 50)  
8.12 Letter from OBWB to B.C. government re: RMRM SARA decision (pg. 52)

**9. NEXT MEETING**

- 9.1 The next meeting of the Okanagan Basin Water Board will be 10 am – 2 pm on Tuesday, October 1, 2019 at the Regional District of North Okanagan, in Coldstream, B.C.

**10. ADJOURNMENT**

**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD JUNE 4, 2019, AT THE REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN  
101 MARTIN ST., PENTICTON, B.C.**

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**PRESENT**

Chair Sue McKortoff	Regional District Okanagan-Similkameen
Vice-Chair Cindy Fortin	Regional District Central Okanagan
Director Rick Fairbairn	Regional District North Okanagan
Alt. Director Shirley Fowler	Regional District North Okanagan
Director James Baker	Regional District Central Okanagan
Director Colin Basran	Regional District Central Okanagan
Director Toni Boot	Regional District Okanagan-Similkameen
Director Rick Knodel	Regional District Okanagan-Similkameen
Director Bob Hrasko	Water Supply Association of BC
Director Denise Neilsen	Okanagan Water Stewardship Council

**REGRETS**

Director Victor Cumming	Regional District North Okanagan
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**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

**1. CALL MEETING TO ORDER**

Chair McKortoff called the meeting to order at 10:03 a.m.

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

**2. INTRODUCTION OF LATE ITEMS**

- 6.1.1 In-camera LiDAR item
- 6.3.1 Addendum to Office and Grants Manager Memo
- 8.6 and 8.7 Letters for correspondence

**3. APPROVAL OF AGENDA**

***"THAT the agenda of the regular meeting of the Okanagan Basin Water Board of June 4, 2019 be approved as amended."***

**CARRIED**

**4. ADOPTION OF MINUTES**

- 4.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of May 7, 2019 at the Four Points Sheraton Hotel.

***"THAT the minutes of the regular meeting of the Okanagan Basin Water Board of Four Points Sheraton Hotel May 7, 2019 be approved."***

**CARRIED**

Dir. Basran entered the meeting at 10:06 a.m.

**5. CHAIR'S REPORT**

Chair McKortoff noted a weed harvester on Osoyoos Lake. Mr. Littley provided more detail noting it as a private business to meet demand from homeowners. In response to questions, he added that the business will be required to follow the same regulations as the OBWB as it relates to Rocky Mountain Ridged Mussels (RMRM) and other environmental regulations. The private harvester will provide another option for homeowners while OBWB efforts address public and priority areas.

Directors were offered an opportunity to discuss their meetings at the Federation of Canadian Municipalities conference. Dir. Fairbairn noted that there was discussion about wanting the federal government to work more directly with local governments on Gas Tax funding, rather than working with the province as an intermediary.

A number of directors noted that it was difficult to get meetings with ministers and the Union of BC Municipalities convention offers a much better opportunity. Chair McKortoff said the Southern Interior Local Government Association is also best for these types of meetings. Dir. Basran added that he was one of nine mayors who met with Prime Minister Justin Trudeau and he met with an infrastructure manager, but there were not a lot of ministers attending. The focus seemed more on social policy, he said, noting that Kelowna-Lake Country MP Stephen Fuhr seems best able to arrange meetings with ministers.

**6. STAFF REPORTS****6.1 Executive Director Report**

Dr. Sears noted that the Okanagan Nation Alliance (ONA) Chiefs Executive Council is looking to appoint a new representative to the OBWB's Board of Directors.

The OBWB's Annual Public Meeting will be held Fri. Sept. 6.

LiDAR data is now making its way around to Okanagan local governments and the ONA for use by staff. Water Board staff are also continuing to work with ONA on some of their flood planning initiatives. A meeting is also scheduled with Regional Districts to discuss next steps in flood mapping.

Dr. Sears added that the City of Kelowna has said it will be adding their voice on the milfoil rototilling and RMRM issue. MP Fuhr met with the federal fisheries ministry to provide an update and local MLAs have also met with B.C.'s Minister of Forests, Lands and Natural Resource Operations to discuss concerns on this issue.

At the most recent Osoyoos Lake Board of Control meeting it was noted that a drought declaration was likely, given irrigation demand and the forecast for a dry and warmer than normal summer.

***"THAT the Executive Director's Report, dated May 29, 2019, be received."***

**CARRIED**

**6.1.1 In-camera session (under sec. 90(1)(j) of the Community Charter**

***"THAT the OBWB move to in-camera under section 90(1)(j) of the Community Charter."***

**CARRIED**

Rise and Report

***“THAT the OBWB approve a LiDAR contract extension to Eagle Mapping for \$120,263.”***

**CARRIED**

## 6.2 Water Stewardship Director Report

Mr. Jatel reported on the May joint board-council meeting and committee reports. Dir. Neilsen noted the success of the follow-up strategic planning session.

This month provincial limnologist Mike Sokal will present on Okanagan water quality research findings and Kariann Aarup will provide an overview of the AquaHacking Challenge.

A new Okanagan local government wetland guide is being developed by Associated Engineering to assist wetland conservation and restoration initiatives in the valley.

EFN Phase 2 is wrapping up, determining specific flow needs on 18 priority streams in the Okanagan, including flow needs for different times of year. A final report should be ready in September. This work was done in partnership with ONA and the province.

***“THAT the Water Stewardship Director’s Report, dated May 27, 2019, be received.”***

**CARRIED**

## 6.3 Operations and Grants Manager Report

Mr. Littley provided an overview of senior government response to invasive mussels since the OBWB began calling for action in 2012. As of 2019, the province now has 12 inspection stations (one open 24-hours), 64 auxiliary officers, 3 full-status officers with the authority to chase down those who don’t stop at the stations, a second mussel-sniffing dog, and some permanent funding that was built into the budget as of last year.

The province is still dependent on additional funding from BC Hydro, Columbia Basin Trust, Columbia Power and Fortis BC. This five-year funding partnership which began in spring 2016 is coming to an end in early 2020. Dr. Sears recently presented in Ottawa to the Standing Committee on Fisheries and Oceans and reiterated the OBWB’s call for matching federal funding to supplement provincial budgets, similar to what is being done in the U.S.

The province’s own numbers indicate 81% compliance at inspection stations with a number of people still not stopping during hours that they’re open. Also, 11 of the 12 stations are open either dawn to dusk, or 10 hours a day, leaving several hours a day when an infested watercraft could come through.

In reviewing the gaps, it was recommended that the OBWB: 1) repeat its call for provincial legislation requiring all watercraft report for an inspection before launching in B.C. waters; 2) call for permanent and sufficient funding for its invasive mussel defence program, including full-status conservation officers to enforce compliance; 3) continue to urge the federal government to provide matching funds to the provinces for the inspection program, and 4) recommend local governments and water purveyors conduct vulnerability assessments on in-water infrastructure and prepare for a potential invasive mussel infestation.

With further discussion, it was noted that some jurisdictions have introduced regulations requiring those travelling with boats to pull their drain plug before travel, which could be recommended. An update to the Wildlife Act was also suggested to close a loophole in current legislation used to ticket someone for not stopping at an inspection station.

The board voted to send a follow-up letter to the province with recommendations for further action and a media release.

***“THAT the OBWB send a letter to the province regarding its efforts to address invasive mussels with further recommendations, and follow-up with a media release.”***

**CARRIED**

Mr. Littley updated the board on the RMRM/milfoil rototilling issue, stating that provincial staff have said that winter rototilling will be restricted around any new site found to have the native mussel. Staff are waiting to hear back from the federal Department of Fisheries and Oceans (DFO) regarding the potential listing of the RMRM as endangered. In the meantime, staff will conduct a survey of milfoil beds over the summer.

***“THAT the Operations and Grants Manager Report, dated May 28, 2019, be received.”***

**CARRIED**

#### 6.4 Communications Director Report

Ms. Jackson gave an update on the Okanagan WaterWise Challenge, encouraging young people to be Climate Heroes and submit multimedia entries. Submissions were received from North, Central and South Okanagan and all received prizes. Grand prize winners were a Grade 1 class from Vernon’s Ellison Elementary and a Grade 9 class from Rutland Sr. Secondary. Both won a two-hour cruise on Okanagan Lake to learn about water. Entries can be found at [www.OkWaterWise.ca/challenge](http://www.OkWaterWise.ca/challenge).

Make Water Work launched on May 16 at École Glenmore Elementary in Kelowna. Students unveiled their WaterWise gardens and shared their learnings with Okanagan mayors, media and guests. Mayors pledged to conserve and invited residents to join them. Ms. Jackson also updated the board on the expansion of garden centre partners, from six to nine throughout the valley, carrying and promoting the Make Water Work Plant Collection, encouraging residents to buy plants suitable to the Okanagan’s climate.

Staff have begun work to re-launch the Don’t Move A Mussel campaign with an updated website, advertising and more. Training is also being held with those doing outreach to ensure they have the latest information when speaking with the public.

***“THAT the Communications Director’s Report, dated May 29, 2019, be received.”***

**CARRIED**

#### 6.5 Policy and Planning Specialist Report

Ms. Garcia gave an update on the Agricultural Water Supply Communications Project, led by the OBWB to help utilities connect with ag customers regarding supply conditions so that they can plan for crop watering. Eight Okanagan water suppliers are participating in this year’s pilot project, and more than 300 customers have signed up to receive e-alerts with nearly 200 more expected to join.

The province's Thompson Okanagan Regional Drought Response Team has had two conference calls so far this year. On May 30, based on below normal snow pack and limited precipitation, the province elevated the Okanagan to a Level 2 drought rating indicating a potential water supply problem and the need for voluntary water conservation. Any changes in this rating will be determined by weather conditions but the forecast is for a hot, dry summer. In keeping with the OBWB's Drought Response Strategy, a Drought Bulletin was sent to Okanagan local governments and utilities.

There was some discussion about potential upland storage solutions. It was also noted that the Drought Bulletin is also sent to the media to reach the larger public. In response to questions, the board was told that the Make Water Work campaign, developed and delivered by local government and utility partners, includes the [MakeWaterWork.ca](http://MakeWaterWork.ca) website with links to watering restrictions for each community and messaging around drought. Specially created advertising is also ready to be rolled out if necessary.

***"THAT the Policy and Planning Specialist Report, dated May 28, 2019, be received."***  
**CARRIED**

**7. NEW & UNFINISHED BUSINESS**

**7.1 Review and approval of 2019 Audited Financial Statements**

Dr. Sears introduced Brennen Giroux who presented the draft financial statements. Mr. Giroux noted the LiDAR project as a significant item this year, as well as the purchase of a new rototiller, adding that there were no concerns.

The board reviewed the statements and brought it forward for a vote.

***"THAT the Okanagan Basin Water Board receive the 2019 Audited Financial Statements as presented."***

**CARRIED**

**7.2 AquaHacking Challenge Memo**

Dr. Sears provided an overview of the AquaHacking Challenge, noting it was started by the De Gaspe Beaubien Foundation five years ago in Eastern Canada to bridge post-secondary students and the technology sector to address some of the most pressing freshwater issues. Past issues have included flooding, blue-green algae blooms, and more.

The students form teams, hear from freshwater leaders in the region about local issues, they then work on solutions and compete for funds in a Dragon's Den-like event and are then placed in a technology incubator to further refine their efforts. This year, the foundation was looking to expand beyond the Great Lakes and hold a challenge in Western Canada as well, and the OBWB recommended the Okanagan. The valley was considered a good fit because of the water research and data that is already available. The OBWB was also considered a good fit as a host based on the partnerships it has already developed in several areas, including with its Water Stewardship Council.

Organizers are hoping to attract participation from universities in B.C. as well as possibly Alberta and western U.S. states. The challenge is nine months and coincides with the school year.

Dr. Sears added that if the board approves participation, Mr. Littley would be named project manager. Funding from Aqua Forum would also hire a part-time temporary project coordinator.



Board directors were pleased with the opportunity to bring the program to the Okanagan.

***“THAT the OBWB host 2019-2020 BC Aquahacking Challenge in partnership with Aqua Forum; AND THAT the OBWB Executive Director be authorized to sign a final agreement with Aqua Forum.”***

**CARRIED**

**8. CORRESPONDENCE**

***“THAT the correspondence from Township of Spallumcheen, Town of Osoyoos, District of Summerland, District of Lake Country, City of Vernon, Vernon Chamber of Commerce, and UN Association of Canada be received.”***

**CARRIED**

**9. DELEGATION**

9.1 Michael Bezener of the Enowkin Centre on the “K’əmcənītkw (Alongside the water) Floodplain Re-engagement Project”

Mr. Bezener provided an overview of the K’əmcənītkw Floodplain Re-engagement Project, recognizing funding through OBWB’s Water Conservation and Quality Improvement Program, with \$29,000 in 2018, and \$25,000 in 2019.

The project is taking place on Penticton Indian Reserve #1 and is an effort to reconnect the floodplain to restore salmon beds for sockeye (which are currently extirpated) and Chinook (which are on a serious decline), as well as help endangered birds and aquatic life in the area.

Traditional ecological knowledge has shown that a healthy ecosystem requires native insects which require native plants. As such, the project includes working with students to collect seeds from indigenous plants, grow them, and planting them by the river to attract insects for the fish, and planting to provide proper and necessary shelter for the fry.

As part of the project, soil tests were conducted to determine if the area was safe for the fish. An assessment was also done and found that the floodplain re-engagement was planned on an archeological site, so the team is now looking for a more suitable location nearby.

“We’re all Okanagans now,” Mr. Bezener said. “We have to work together and see ourselves as friends and neighbours and family, otherwise we don’t have a future together.” If successful with this effort, he added, “We will all be able to live here for 1000s and 1000s of years because everything is back in balance.”

The board thanked Mr. Bezener for his presentation and the work that is underway.

**10. NEXT MEETING**

10.1 The next meeting of the Okanagan Basin Water Board will be an abbreviated meeting on Friday, Sept. 6, 2019 following our Annual Public Meeting at Rotary Centre for the Arts in Kelowna. Exact details to be announced.

**11. ADJOURNMENT**

***“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of June 4, 2019 be adjourned at 1:55 p.m.”***

**CARRIED**

Certified Correct:		
Chair		Executive Director



## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
Sept. 6, 2019  
Agenda No: 6.1

File No. 0550.04

To: OBWB Directors  
From: Anna Warwick Sears  
Date: August 27, 2019  
Subject: Executive Director Report

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### **Abbreviated Board Meeting**

Each year in late August or early September, we hold our Annual Public Meeting, to present the annual report to a public audience. After the public meeting, lunch will be served for the board and staff, and we have a brief business meeting.

### **New Bank Accounts and Updated Signing Authority**

We are switching the OBWB's bank accounts from BMO to CIBC. The RDCO uses CIBC, and there are significant administrative efficiencies to this switch, as well as lower costs because we are under the RDCO finance umbrella. Shera-Lynn Gobeil, CIBC account manager, will be arriving during our lunch break to collect signatures from board directors for cheque signing authority. I've also provided an updated signing authority memo under New and Unfinished Business, later in the agenda.

### **ONA rep changes**

We have not yet had the announcement about the new OBWB director from the Okanagan Nation Alliance, and we anticipate that it will take place within the next few weeks. I will share the news with the board as soon as we receive the new appointment.

### **Collaborations on Flood Risk Reduction - update**

Last year, because of the forest fire smoke, we were only able to complete 80% of the LiDAR acquisition for our flood mapping project. In mid-August I received confirmation that all of the remaining LiDAR (3-dimensional imagery) and all of the orthophotos (2-dimensional, high-resolution aerial imagery) have now been captured. These are very large digital files, and it will take a few months to do the computer processing and quality assurance. I expect final delivery in November, and we will distribute all the resources to Okanagan community partners.

Over the long-term, GeoBC (B.C. Ministry of Forests, Lands, Natural Resource Operations and Rural Development [FLNRORD]) is committed to being the custodian of these data, and will be making them available at no cost on their website. However, this website is still under development so we are continuing to make the LiDAR and orthophotos available through data sharing agreements. The system is a bit cumbersome, but seems to be working.

More broadly, the OBWB's Lakeshore Flood Mapping project is moving forward on schedule. We are currently looking at options for displaying a simplified version of the maps on a website for the public.

### **Mussels and Milfoil**

As the board has seen, it has been a busy summer of advocacy for our milfoil control program. Thanks to the vigorous support from Okanagan local governments and partner organizations, and thanks to advocacy by our federal reps (including several meetings by MP Stephen Fuhr with Minister of Fisheries, Oceans and the Canadian Coast Guard Jonathan Wilkinson), the ministry has decided to not list the Rocky Mountain Ridged Mussel (RMRM) at this time, and has sent it back for "further analysis." The Species At Risk Act states that consideration be given for social and economic impacts, and we are requesting that these be included in the analysis.

Although it has been good news at the federal level, we are still operating under restrictive regulations at the provincial government level. We are still prohibited from operating the milfoil rototillers anywhere near a known mussel location (a site where they have found a live mussel or a shell fragment). We have requested regulatory relief from the provincial minister responsible, and will be meeting with the provincial regulator (regional FLNRORD staff from Penticton) on Sept. 4 and will share the outcome of this meeting on Sept. 6.

Please let us know if there is an opportunity for your local government to speak to this issue at the annual Union of BC Municipalities conference. I have attached a **draft** 'Primer' on the issue and we'd appreciate feedback on the content and layout – anything that would make it more useful for you in your discussions with provincial officials.

### **AquaHacking Challenge**

We are in the process of finalizing the Memorandum of Understanding between OBWB and Aqua Forum to formalize our arrangement for the AquaHacking Challenge. In July, we hired a part-time coordinator to help launch the project. Carolina Restrepo also holds a half-time position at UBC-Okanagan as coordinator at the Okanagan Institute for Biodiversity, Resilience, and Ecosystem Services (BRAES), and this dual role provides excellent access to the universities we will be engaging for the challenge. The salary for this position is being funded by Aqua Forum. James Littlely will be reporting on the structure and schedule of the AquaHacking Challenge in the Operations and Grants Manager memo. I have been working on developing the Water Issues for the challenge, and will provide a handout with the draft issues at the meeting. The final five issues will be selected by the advisory committee.

### **UBCM**

Kellie Garcia and I have been invited to attend UBCM on Monday, Sept. 23. We will be participating in the session titled TOOLS, FUNDING & RESOURCES FOR LOCAL GOVERNMENTS 1:30 p.m. – 4:30 p.m., sharing information about our CivicInfo planning resource database. I'm only planning to be in Vancouver on Monday, but if you have meetings with ministers scheduled on either Monday or Tuesday and you'd like my support, please let me know.

### **TOOLS, FUNDING & RESOURCES FOR LOCAL GOVERNMENTS – session description**

*This half-day session will provide opportunities for delegates to meet with representatives from over 25 agencies that provide tools, resources, funding or other supports that help local governments to increase capacity and undertake local planning, projects and development. Using a marketplace format, delegates will be able to meet face-to-face with representatives of agencies that are of most benefit to their community and take away information and resources. Participants will be provided with a directory of the contact people, purpose and resources of all the organizations that are at the session and will be encouraged to meet with numerous agencies by way of a session passport which, once completed, will be entered to win a prize.*

### **Similkameen Hydrology Modeling**

I am a member of the International Osoyoos Lake Board of Control (IOLBC), along with Mayor Sue McKortoff and eight other members from the U.S. and Canada. Our mandate is to oversee the operations of Zosel Dam, in Washington State, and ensure the lake levels are maintained at levels prescribed through an agreement under the Boundary Waters Treaty, administered by the International Joint Commission (IJC). The IOLBC recently applied to the IJC to fund an hydrology model of the Similkameen River, because of the back-water effect high flows have on Osoyoos Lake, and because low flows on the Similkameen are one of the factors leading to drought declarations on Osoyoos Lake.

Although the Similkameen is not part of the Okanagan Basin in Canada (OBWB jurisdiction), I have suggested that the OBWB can, if necessary, assist with project management for this study. Should we receive the federal funds, there would be no cash contribution required, but there would be some in-kind contribution required from the OBWB. We should receive word on the IJC's decision in the next few months.

### **2020-2024 Strategic Plan**

I hope to have the initial draft of the OBWB-Okanagan Water Stewardship Council 5-year strategic plan ready for review at our October board meeting. This is the outcome of our May joint session. Our current strategic plan runs through 2019.

### **Weather Report**

Thankfully, B.C. had only mild drought conditions this year. The long-term seasonal forecasts by Environment Canada and NOAA (US forecast) predict a warmer than average autumn and winter. El Nino conditions are neutral (B.C. tends to get less precipitation during El Nino and more during La Nina), and forecasts call for equal probability of above or below normal precipitation.

## Invasive Milfoil Control and the Rocky Mountain Ridged Mussel in the Okanagan – Primer

The Okanagan Basin Water Board (OBWB) has been controlling invasive Eurasian watermilfoil (milfoil) in the Okanagan since the 1970s. The program was developed by the B.C. Ministry of Environment after more than 17 years of scientific testing of control methods. Two methods - rototilling and harvesting - were selected as the most effective at reducing weed density and keeping public areas clear for beach users. Rototilling removes milfoil roots from the lake bottom during the winter while the plant is dormant and reduces stem density by up to 90% in a single treatment. This prevents the plant from growing during the summer, and promotes healthier water quality and better habitat for native plant and animal species. Harvesting is used during the summer to cut the top portion of the milfoil plants and remove the cut sections from the water. Harvesting has no long-term effect on milfoil growth and is a purely aesthetic treatment for public-use areas where rototilling is unfeasible or not permitted. Harvesting is not a substitute for rototilling.

Today, milfoil operators have on-board computers, loaded with up-to-date maps of all environmental work-windows and restrictions. Treatment areas are pre-approved through provincial and federal permitting processes, and all operations are GPS tracked and reported to the province annually. OBWB's operations are monitored by a Qualified Environmental Professional who has the authority to halt operations over any environmental concerns.

In 2018, the province introduced new regulations, intended to protect the native Rocky Mountain Ridged Mussel (RMRM). These regulations established a 100-meter buffer zone, prohibiting milfoil control anywhere an individual RMRM, or an RMRM shell fragment is found. This approach is based on Section 38 of the Species At Risk Act which says that "...cost effective measures to prevent the reduction or loss of the species should not be postponed for a lack of full scientific certainty." However, scientific studies from other regions have shown that uncontrolled milfoil growth leads to decreased water quality and direct harm to a number of native species of plants and animals, including other species of freshwater mussels.

In 2019, OBWB wrote a detailed letter to the Species at Risk Program of Fisheries and Oceans Canada recommending that RMRM not be up-listed to 'endangered' under the Species at Risk Act. The letter cited significant scientific and economic evidence to support ongoing milfoil rototilling in the Okanagan to protect water quality, other native species of both plants and animals, and the economy.

In August 2019, the Minister of Fisheries and Oceans Canada acknowledged that local communities raised "a number of important concerns... with respect to the possible unintended impacts on the ability to effectively control the Eurasian Watermilfoil in the same habitat as these mussels." RMRM remains listed as a 'species of special concern.'

Currently, provincial regulations mean that each new RMRM individual found in a rototilling area will cause the restrictions on milfoil rototilling to expand, leading to an increase in this invasive lake weed. OBWB believes a more balanced, evidence-based approach is needed, taking into account social and economic factors as well as the need to maintain adequate protection for the mussels and other native species.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
September 6, 2019  
Agenda No: 6.2

File No. 0550.04

To: Board of Directors  
From: Nelson R. Jatel  
Date: Aug. 27, 2019  
Subject: **Water Stewardship Director's Report**

### Water Stewardship Council

The Water Stewardship Council is the technical advisory body to the OBWB. The Council meets 8-10 times per year, resting during the summer months. In June, the Council and Board met together and focused on updating the OBWB's five-year strategic plan. The session engaged both Council and Board members in a lively dialogue and productive table discussions.



2019 Joint Board & Council meeting. Kelowna, BC.

During the joint Board-Council session, the Council's committee chairs (or designates) provided a short summary of active committee work including:

- **Brian Guy** – Water Policy Committee
- **Renee Clark** – Source Water Protection Committee
- **Scott Boswell** – Drought and Flood Committee
- **Mike Nolan** – Dams & Reservoir Committee
- **Bruce Naka** – Agriculture Irrigation Efficiency Committee

### ***New Council membership***

Over the summer we received a request to include representation on the Okanagan Water Stewardship Council from the B.C. government's Environmental Protection Division – Regional Operations Branch. Our new members are:

- **Jillian Tamblyn**, Senior Environmental Impact Assessment (EIA) Biologist (member), and
- **Dennis Einarson**, EIA Biologist (alternate).

Branch business relates to both the Environmental Management Act and the Integrated Pest Management Act. To put that into the context of some of the areas that the WSC has covered, EIA biologists work with Municipal Wastewater Regulation (sewage) and the Agricultural Environmental Management Code of Practice (agricultural waste and nutrient management).

Our next Council meeting is scheduled for Thurs., Sept. 12<sup>th</sup> at the Kelowna Capri Hotel from 12:30 – 4:30 p.m. The Council meeting will focus on climate and weather issues with presentations from Environment Canada staff. All board members are encouraged to attend Council meetings.

Copies of the Council committee presentations will be available at [www.OBWB.ca](http://www.OBWB.ca).

#### **Business arising from June council meeting**

Historically, municipal elections occurred on a three year cycle and the Water Stewardship Council 18 month term reflected the election cycle timing. Now, we have a four year cycle and the council terms of 18 months are out-of-sync with the election cycle. The Nominating Committee, a standing committee of the Council, met to review membership and term dates. The role of this sub-committee is to provide support and advice to the Water Stewardship Director in reviewing the structure, size, and composition of the Council, and in providing recommendations for Council membership to the OBWB Board. The committee submitted a proposal to the Council at the June 13<sup>th</sup> meeting recommending a change in Council terms. The Council discussed and passed a motion to present to the Board for consideration that: the Council term be changed from 18 months to 24 months to better align with the new four-year municipal election cycle.

The Council suggests extending the current term (scheduled to end in October 2019) to a new 24 month period. The new term (Term 9) **would start in April 2020.**

**Recommendation: That the OBWB change the Water Stewardship Council term from an 18-month to a 24-month term to align with the municipal election cycle.**



## **Project Management updates**

It was a busy summer for a number of OBWB projects including:

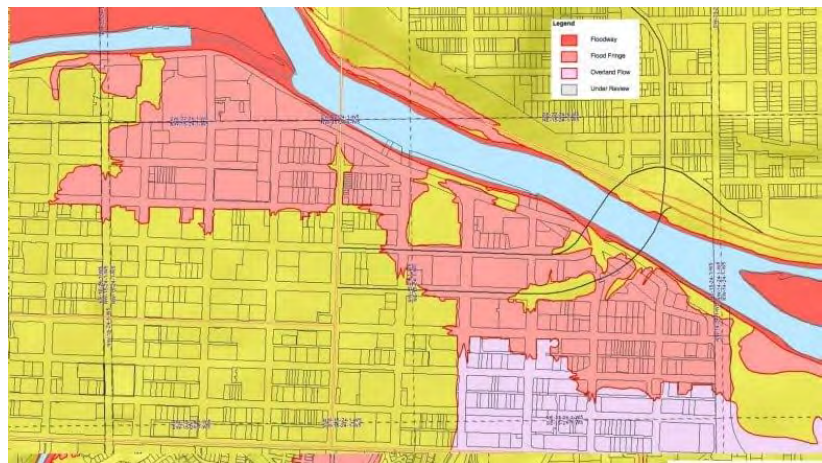
- Okanagan flood mapping project
- Okanagan river bathymetry project
- Okanagan Environmental Flow Needs (EFN) project
- Okanagan wetland project
- Okanagan sub-basin hydrology modelling (preliminary) project

Many of these projects are implemented with partnerships including the Okanagan Nation Alliance and other senior government staff as well as local consulting firms and experts. Two of the five major projects are highlighted in this month's board report: Okanagan flood mapping project and the river bathymetry project.

### **Okanagan flood mapping project**

Insurance executives in 2013 noted *"homeowners will never have access to comprehensive flood insurance in Canada unless there are new maps of flood-prone areas that take climate change into account."*<sup>1</sup>

Rapid population increase in the Okanagan watershed in recent decades (leading to urban growth and increased pressure for water supply storage), the wider inter-annual variability of streamflows, the limited discharge capacities of dams and river channels relative to lake inflow peaks (sometimes further limited by high streamflows generated downstream of Penticton), the exceptional flood events of 2017 and 2018, and projected climate changes, are factors that underscore the importance of floodplain mapping and the exploration of future flood management options available to water managers. Work continued over the summer on the Okanagan flood mapping project.



Example flood map identifying flood inundation zones.

The principal goals of this project are to:

- 1) Develop floodplain maps for the Okanagan Lake and River system watershed, based on historic observations, and for a future time period subject to projected climatic change; and
- 2) Improve understanding of flood management options available to Okanagan water managers and operators, in the face of climate variability and change.

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<sup>1</sup> CBC. 2013. Study surveyed senior executives at 13 Canadian insurance firms on extreme flooding.  
<https://www.cbc.ca/news/canada/calgary/no-flood-insurance-without-new-maps-say-ceos-1.1855255>



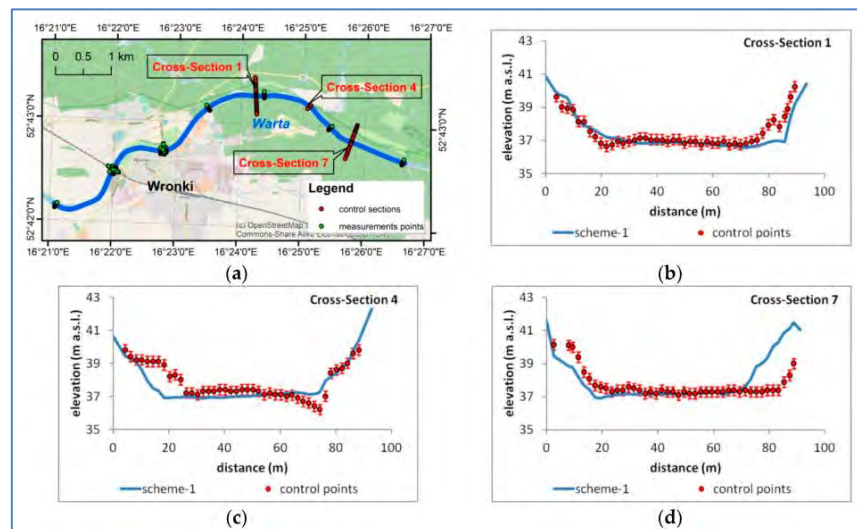
A key requirement for both of these goals is the development of a computationally efficient and accurate hydrology model of the Okanagan River basin for simulating the hydrologic response to climatic inputs, both historic and projected. By coupling the hydrologic model with hydraulic models and models of flow releases from lakes by operator decisions, the NHC consulting team is simulating the response of peak lake storage levels, peak stream flows, and flood risk, to extreme events in the historical and projected climate. This project is on-time and on-budget, anticipated to be completed in March 2020.

#### Phase 1 Okanagan flood mapping project: Goals

*The specific goals of Phase 1 of the Okanagan Mainstem Flood Mapping project include: review existing information relevant to the project, develop a hydrologic model from the Okanagan River basin, calibrate the model for unregulated sub-basins, complete a peak flow frequency analysis on the Similkameen River near Nighthawk, and prepare a final report and model.*

#### Okanagan River bathymetry project

A technical river bathymetric (static GNSS) survey of the Okanagan River to complete updated hydraulic modelling from Okanagan Lake to Osoyoos Lake was undertaken by the OBWB. The bathymetric survey data will be utilized to accurately determine cross section profiles at 274 locations previously surveyed. The newly acquired dataset will update the historic cross sections surveyed in 1980 and 1998. Multiple cross sections will provide OBWB a basis for analysis of changes in river bed, dikes and resulting hydraulics.



River bathymetry project measuring 274 historic cross sections updating the 1980/98 bathymetry surveys.

In 1980 the Ministry of Environment Water Management Branch facilitated the completion of a comprehensive survey of the Okanagan Flood Control System from Okanagan Lake to Osoyoos Lake. More recently, in 1998, a subsequent survey was completed of 42 cross sections from the 1980 survey. The 1998 cross section survey covered Vaseux Lake to Skaha Lake.

Since the 1998 survey there have been several significant changes to the river bank and bed including the construction of a new setback dike north of Oliver, and most recently, the Okanagan flooding events of 2017 and 2018 influenced the river system. The field work for this project is complete and the final report is being finalized and anticipated to be delivered to staff this month.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
Sept., 2019  
Agenda No: 6.3

File No. 0550.04

To: OBWB Directors  
From: James Littley  
Date: Aug. 26, 2019  
Subject: Operations and Grants Manager Report

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### Milfoil Control Update

Summer milfoil harvesting operations are now complete throughout the Okanagan. Due to the cooler than normal temperatures, and increased rain this summer, we generally saw lower than average milfoil growth throughout the valley. This meant that although milfoil beds were still dense in many areas, the plants did not reach the surface in as many places as the last few years when we had floods followed by long hot and dry summers. The milfoil crew are starting their fall maintenance summer in preparation to begin de-rooting operations in early October.

### Canadian Environmental Grantmakers Network (CEGN) 2020 Conference

CEGN is a network of funders inspired by a vision of an environmentally sound and sustainable Canada and working to strengthen the impact of philanthropy in support of that vision. CEGN represents private, public, community, and corporate foundations that share a desire to learn, collaborate, and leverage resources in pursuit of common priorities. OBWB has been a member of CEGN since 2008, and our participation has led to significant networking opportunities, enhancements of our own programs, and investments in our region. CEGN was also the forum which led to the creation of the BC Water Funders Collaborative, another important network which has benefitted OBWB programs, operations and funding.

In 2020, CEGN will hold its annual conference in Kelowna, and as a member of their board of directors, I have been asked to be the conference Chairperson. The conference is scheduled for May 26 - 28th at the Manteo Resort. There will likely be several opportunities for OBWB directors to engage at the conference, and I will provide updates as the conference agenda is developed.

### AquaHacking 2020 Challenge British Columbia

Planning is well underway for the 2020 B.C. AquaHacking Challenge, with our new Coordinator, Carolina Restrepo making significant progress. We have received several submissions for water issues that challenge participants will address with new technological solutions. Throughout September and October, we will be doing on-campus information sessions at colleges and universities throughout B.C. to recruit teams with the official kickoff event scheduled for late October. The complete draft timeline is attached to this memo. The Advisory Committee (AC) has also met once and will meet again in late September to choose the five water issues that will go forward to the competition. Members of the AC are listed below.

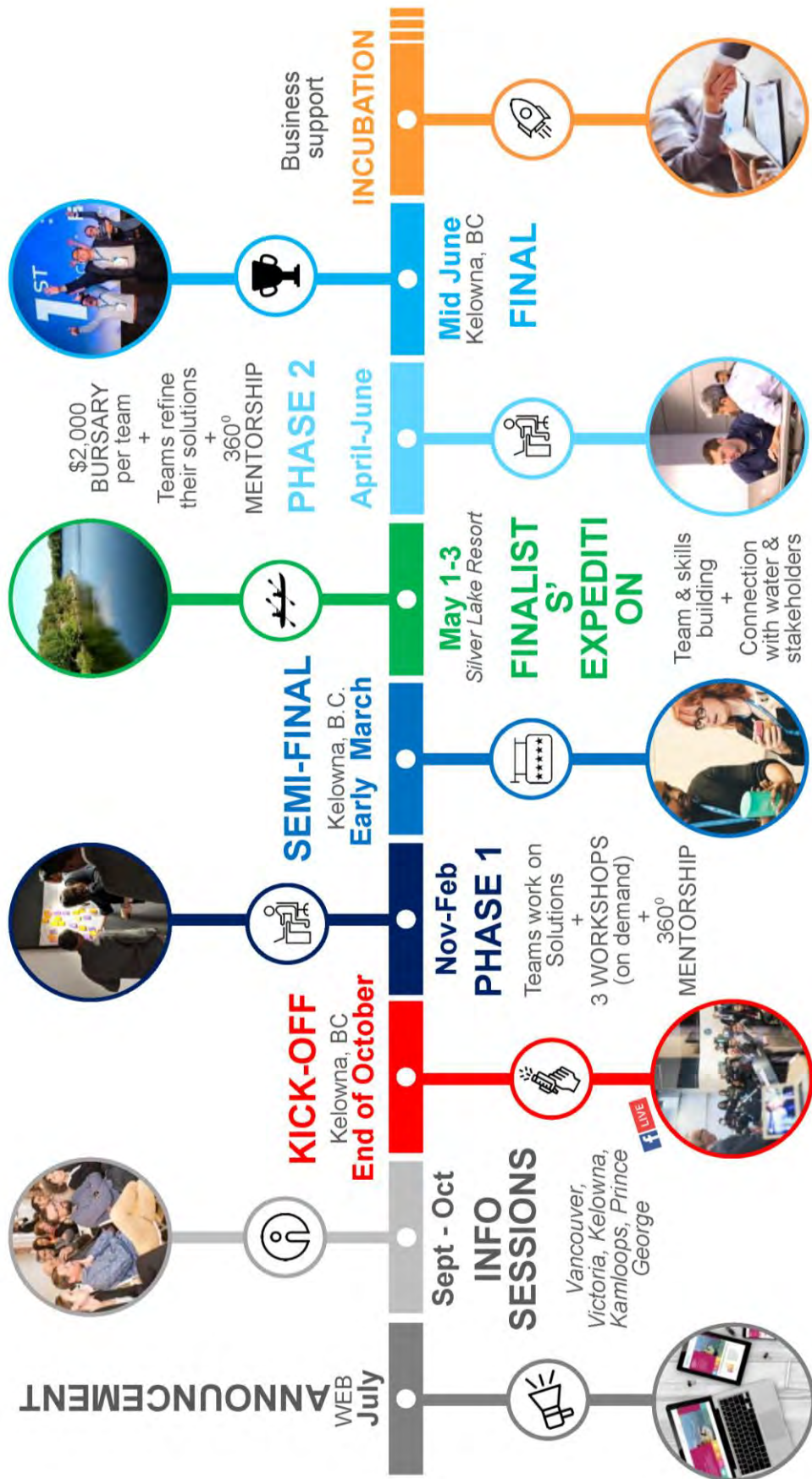
**AquaHacking 2020 Challenge British Columbia Advisory Committee members**

Anna Warwick Sears, Executive Director	OBWB
Kariann Aarup, Partnerships and Program Development	AquaHacking
Jeremy Clowes, Principal, Water and Wastewater Engineer	Urban Systems
Tarik Dessouki, Director, Environmental and Climate Monitoring Section Climate Change Strategy	Ministry of Environment and
Don Dobson, Principal, water resources expert, engineer	Dobson Engineering
Andrew Greer, Co-Founder	PURPPL
Corie Griffiths, Director Development Commission	Central Okanagan Economic
Rod MacLean, Manager of Utility Planning	City of Kelowna
Rehan Sadiq, Associate Dean and Professor, School of Engineering	UBC Okanagan
David Saltman, Founder Leadership Council	Okanagan Sustainability
Dave Teasdale, Water Treatment Professor	Okanagan College

**Also invited and to be confirmed:**

Sean Moore, Director, Watershed Science and Adaptation Climate Change Strategy	Ministry of Environment and
Ian Rogalski, Senior Analyst Change Canada	Environment and Climate
Tessa Terbasket, Natural Resources Research and Policy Coordinator	Okanagan Nation Alliance

# THE 2019- 2020 CHALLENGE TIMELINE – BRITISH COLUMBIA





## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
Sept. 6, 2019  
Agenda No: 6.4

File No. 0550.04

To: OBWB Directors  
From: Corinne Jackson  
Date: Aug. 27, 2019  
Subject: Communications Director Report

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It's been very busy since our last board meeting with several projects on the go. In the interests of time, with an abbreviated board meeting following the Annual Meeting, I have kept this brief and will provide more detail in October. Please find some highlights from the last couple months below.

### Okanagan WaterWise "Be a Climate Hero" Youth Challenge

On May 30 we partnered with Kelowna Dinner Cruises and RDCO's Environmental Education Centre of the Okanagan to provide a two hour on-the-water classroom presentation to a Grade 9 class from Rutland Sr. Secondary. The class was the winner of our Okanagan WaterWise "Be a Climate Hero" Youth Challenge in the Gr. 7-12 category. This was followed by a two hour cruise and presentation on June 7 with our K-Gr. 6 winners, a Gr. 1 class from Ellison Elementary in Vernon. This second cruise was provided in partnership with Cruise Okanagan and Okanagan Science Centre.

Feedback from the cruises was very positive, with teachers, parent chaperones and students excited to learn more while being out on the water. Some photos from the cruises are provided below. More can be found at

[https://www.facebook.com/pg/OkWaterWise/photos/?tab=album&album\\_id=2497408056956703](https://www.facebook.com/pg/OkWaterWise/photos/?tab=album&album_id=2497408056956703).

Prizes were also provided to our individual entry winners. You can find entries from our winners on our website at <https://okwaterwise.ca/challenge/>.





### **Make Water Work 2019**

As discussed at the last board meeting, we have been working with Hiilite to build out a stronger and more engaging Make Water Work campaign. This has been supported with updates to our website at [www.MakeWaterWork.ca](http://www.MakeWaterWork.ca), including the addition of information about the Community Challenge, and more. As well, we have seen excellent support from partners, including mayors collecting pledges, and utility staff going door-to-door with Make Water Work materials to supplement their water conservation messaging.

The deadline to collect pledges for our Make Water Work Community Champion is Sept. 3 to allow us to get ready for an announcement at the Sept. 6 OBWB Annual Meeting. The winner is determined based on the most pledges collected per capita. You can see where each community is at on the pledge page at [www.MakeWaterWork.ca/pledge](http://www.MakeWaterWork.ca/pledge). (The deadline for contest entries to win WaterWise yard prizes is Sept. 21.)







### Don't Move A Mussel

The Don't Move A Mussel campaign was re-launched in time for the May long-weekend and has been built out and tweaked throughout the summer to promote increased engagement. This has included a rebuilt website at [www.DontMoveAMussel.ca](http://www.DontMoveAMussel.ca), new radio ads, and more.

As in past years, the message has been spread through outreach at events throughout the Okanagan, as well as by our partners, including the Okanagan and Similkameen Invasive Species Society, Bell Media and others.





### **Other communication initiatives**

Additional communication projects over the last several weeks include work on: the Annual Report; Okanagan Drought Bulletins delivered on June 11 and June 17; news releases and letters regarding the Rocky Mountain Ridged Mussel-milfoil issue; AquaHacking; build out of the Okanagan WaterWise school curriculum; participation in a study looking at water-related Community Based Social Marketing campaigns in Canada as part of a Master's thesis; contributing to Thompson Okanagan Tourism Association's sustainability efforts (e.g. a pledge campaign).

Staff have also attended several outreach events throughout the valley this summer. Photos and information are posted regularly on our Facebook page at <https://www.facebook.com/OkWaterWise/> and Instagram page at [https://www.instagram.com/okanagan\\_waterwise/](https://www.instagram.com/okanagan_waterwise/).

### **Summary of Recent OBWB-Related Media**

There were many OBWB-related news stories since the last board meeting, related to drought levels, Make Water Work, invasive mussels, the RMRM-milfoil issue and much more. A complete list and update will be provided at the October board meeting.

### **Recent Presentations**

May 30	OkWW Challenge - Kelowna Cruise to Gr. 9 Rutland Sr. Secondary class – Corinne Jackson with RDCO's Environmental Education Centre of the Okanagan
June 3	"Being Okanagan WaterWise" to Rutland Elementary – Karen Christensen
June 4	"Okanagan Water Demand Model" to Interior GIS User Group – Stefanie Wenker
June 7	OkWW Challenge - Vernon Cruise to Gr. 1 Ellison Elem. class – Corinne Jackson with Okanagan Science Centre
June 10	"Being Okanagan WaterWise" to Anne McClymont Elementary – Karen Christensen
June 17	"Being Okanagan WaterWise" to Our Lady of Lourdes, West Kelowna – Karen Christensen

## MEMORANDUM

Okanagan Basin Water Board Regular meeting Sept. 6, 2019 Agenda No: 6.5
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File No. 0550.04

To: OBWB Directors  
From: Kellie Garcia  
Date: Aug. 23, 2019  
Subject: **Policy and Planning Specialist Report**

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### Drought Response

Record low snowpacks, a dry May, an early freshet, and forecasts for a warmer than normal summer put us in full drought-preparation mode in June. The Province moved the Okanagan to a drought Level 2 (dry) on June 11 and a Level 3 (very dry) on June 17. In response, the OBWB prepared and distributed two drought bulletins (June 20 bulletin attached). Luckily, we had a cooler and wetter July than expected and many reservoirs and streams rebounded. The Okanagan was downgraded to a Level 2 in mid-July, where it remained for the summer.

The Province's Thompson Okanagan Regional Drought Response Team (of which the OBWB is a member) met every one to two weeks over the summer to share information, review current conditions, discuss appropriate monitoring actions, and recommend drought levels. Periodically, I gathered information from Okanagan water suppliers on the status of their water supplies and restriction stages to relay to the drought response team. This information was considered when making decisions on drought levels.

### Agricultural Water Supply Communications Project

The purpose of this project is to help enhance communication between water suppliers and their agricultural customers, particularly during times of drought. The project provides 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. The e-alerts proved very useful in May and June when water suppliers were concerned that they may be facing water shortages over the summer. Water suppliers sent out messages with information about snow pack conditions, spring precipitation forecasts, and longer-term weather forecasts for the summer, and directed them to OBWB's 'Resources for Agricultural Water Users in the Okanagan' website ([www.obwb.ca/ag](http://www.obwb.ca/ag)) for water-use efficiency tips.

With input from agricultural representatives, the website has been built out to include guidelines for efficient irrigation systems, tips for responding to drought, an extensive list of resources by commodity, and frequently asked questions (see attached screenshot of home page).

## OKANAGAN DROUGHT BULLETIN #2019-2

**JUNE 20, 2019**



### OKANAGAN MOVED TO DROUGHT LEVEL 3

**Warm and dry conditions have prompted the Province of B.C. to announce a Level 3 drought for much of B.C., including the Okanagan region.**

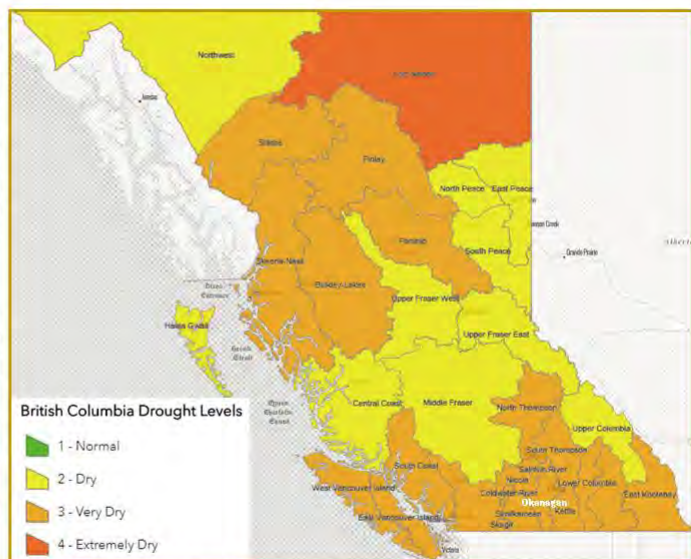
*Water suppliers should continue to monitor weather, reservoir and groundwater levels, and customer demand to assess whether higher water restrictions are necessary for your community.*

Low snowpack over the winter months combined with a warm spring has led to a rapid and early shift from the spring melt season to low flow conditions. With warmer than normal weather forecasted for the summer, we should prepare for what could be a very dry season. Drought Level 3 indicates that serious ecosystem or socioeconomic impacts are possible and calls for voluntary water use reductions from all water users, including residents, industry, farmers and municipalities. The suggested target is a 30% reduction in water use.

Across the Okanagan, a low snowpack and a dry spring reduced the inflow of water into storage reservoirs. We had the driest May on record in Kelowna, with just 43 mm of rain when we usually get 86. Some upland reservoirs did not fill and Okanagan Lake did not reach 'full pool.' And while some reservoirs "filled and spilled," in many cases storage is being accessed earlier than usual to supplement downstream flows and meet demand, which may cause challenges later in the season.

Local water regulations (stages) and conservation targets differ from provincial drought levels. Many Okanagan water suppliers have drought management plans and operate with year-round watering restrictions for their domestic customers. Water supply conditions are different across the valley, and whether a community moves to a higher restriction stage depends on several factors, including customer demand, infrastructure capacity, and local water supply levels.

Contact Kellie Garcia at [kellie.garcia@obwb.ca](mailto:kellie.garcia@obwb.ca) or 250-469-6321 for information about local drought planning and response efforts.



Provincial drought level map as of June 17, 2019.

Source: [BC Drought Information Portal](http://BC Drought Information Portal)





## ENVIRONMENTAL FLOW NEEDS

The Okanagan basin is the most northern extent accessible by anadromous (returning from the sea to spawn in rivers and streams) salmon in the Columbia River system. Sockeye, Chinook, Steelhead and Coho (in small numbers) use Okanagan tributaries for spawning and rearing. Okanagan streams and lakes are also home to resident Kokanee, Rainbow Trout and Whitefish. These fish species are culturally important to the Okanagan Nation, support a vibrant fishery, and are critical for healthy freshwater systems.

Low water levels can impede fish passage to spawning and feeding areas, increase susceptibility to disease and predation, cause stranding, or result in fish kills due to low oxygen and high water temperatures.

Maintaining environmental flow needs (EFNs), or the volume and timing of streamflow required for proper functioning of an aquatic ecosystem, is imperative. B.C.'s Water Sustainability Act gives the province the ability to restrict water withdrawals if streamflow drops below EFNs, or to completely stop withdrawals if flows drop below critical flow thresholds.

The OBWB, Okanagan Nation Alliance fisheries department, and federal and provincial fisheries departments are working together to derive credible, transparent and defensible EFN and critical flow values for Okanagan streams. Previously recommended EFNs have often been higher than what could be considered possible naturally, particularly in drier years. This project aims to determine EFNs that are attainable for water managers, and to study the relationship between flows and habitat function more closely. See [www.obwb.ca/efn/](http://www.obwb.ca/efn/) for more information.



Photo: Okanagan Nation Alliance fisheries staff taking measurements to help determine recommended EFN values.



## RESIDENTIAL WATER CONSERVATION

Make Water Work (MWW) is a valley-wide water conservation campaign aimed at tackling outdoor residential use, the second largest use (24%) of water in our region. MWW is managed by the OBWB's Okanagan WaterWise program and delivered in partnership with local governments and water utilities throughout the Okanagan.




Photo: Peachland Mayor Cindy Fortin urges residents to conserve and collects pledges to Make Water Work, hoping to claim the title of MWW Champion Community from 2018 winner, Armstrong.

MWW begins in May when residents begin to turn on their taps, and runs until early October as water supplies dwindle and farmers still need water for crops, and fish are beginning to return to local creeks to spawn. The campaign includes:

- the [MakeWaterWork.ca](http://MakeWaterWork.ca) website where residents can find tips to make water work more effectively and efficiently in their yards, watering restrictions for their community, the *Make Water Work Plant Collection* featuring plants best-suited to the Okanagan, and more;
- advertising on billboards, buses, bus shelters, radio, Facebook and Instagram;
- posters with MWW tips for partners to post in their community;
- bookmarks for partners to hand out that include the MWW tips, info on the *Make Water Work Plant Collection*, and invitation to pledge to conserve for a chance to win WaterWise yard prizes;
- MWW garden centre partners promoting the plant collection and outdoor water conservation;
- MWW Frisbees for partners to give out that act as a water-saving device, encouraging people to place them upside down under their sprinkler and once full to turn off the water;
- in-person outreach at events throughout the valley during the campaign, and
- a friendly community challenge, encouraging residents to pledge to win the title of "Make Water Work Community Champions."

Contact Corinne Jackson at [corinne.jackson@obwb.ca](mailto:corinne.jackson@obwb.ca) or 250-469-6271 for more information.

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## Resources For Agricultural Water Users:

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[Irrigation System Efficiency](#)
[Responding to Drought](#)
[Resources by Commodity](#)
[Frequently Asked Questions](#)



**ALERTS**

Click here to sign up for Water Supply Updates

[Suggestions for Resources to add?](#)

Click here to tell us how!

**OBWB Updates**

Okanagan drought level now 2


Okanagan Drought Bulletin – June 20, 2019

Okanagan Drought Bulletin – June 11, 2019

Weather Report – June 2019

Weather Report – May 2019

## Resources for Agricultural Water Users in the Okanagan



**Agricultural Irrigation accounts for 55% of water use in the Okanagan**

### Are you an Agricultural Water User?

Find tools and information about increasing your water-use efficiency and responding to drought, developed especially for you.

Good water management is the first step in ensuring a lasting water supply in your area throughout the growing season. Applying the right amount of water at the right time will help maximize your crop yield.

### Benefits of Good Water Management

**For your Farm:**

- Reduce unnecessary water use by knowing your crops irrigation requirements and **save water to be used later in the irrigation season.**
- Reduce leaching of nutrients** so that they remain available for your plants throughout the growing season.
- Maximize crop yield** and reduce the risk of disease and pests.

**For the Environment:**

- Save water for other needs** such as fish, wildlife and domestic users.
- Reduce surface water contamination** through runoff as a result of over-irrigation.
- Reduce leaching of nutrients** into groundwater.

Source: Irrigation Assessment Guide, Province of BC (2005)

### Read on:








[Irrigation System Efficiency](#)
[FAQ](#)
[Responding to Drought](#)
[Resources by Commodity](#)

### About This Project

The Okanagan Agricultural Water Supply Status Communications Pilot Project is a joint effort of the Okanagan Basin Water Board and the BC Agriculture & Food Climate Action Initiative.

Funding for this project has been provided in part by the Okanagan Basin Water Board and in part by the governments of Canada and British Columbia, and the Investment Agriculture Foundation of BC, under the Canadian Agricultural Partnership, a federal-provincial-territorial initiative.

The Regional Adaptation Enhancement Program/Farm Adoption Innovator Program is delivered by the BC Agriculture & Food Climate Action Initiative.



## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
September 6, 2019  
Agenda No: 7.1

File No.1610.01

To: OBWB Directors  
From: Anna Warwick Sears  
Date: August 27, 2019  
Subject: Updating Signing Authority

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**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 \$10,000 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 \$10,000, 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 by any one of the following: Chair, OBWB; Vice-Chair, OBWB; Chief Administrative Officer, RDCO; Director of Financial Services, RDCO; Executive Director, OBWB.

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 6th day of September, 2019.

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



June 3, 2019

Honourable Johathan Wilkinson  
Minister of Fisheries and Oceans  
[min@dfo-mpo.gc.ca](mailto:min@dfo-mpo.gc.ca)

Honourable Doug Donaldson  
Minister of Forests, Land, Natural Resource Operations & Rural Development  
[FLNR.Minister@gov.bc.ca](mailto:FLNR.Minister@gov.bc.ca)

Dear Honourable Ministers:

**Re: Reducing Conflict Between Native Mussel Protection and Invasive Milfoil Control in the Okanagan**

On behalf of the Town of Oliver, I write in support of a request by the Okanagan Basin Water Board that the Minister of Fisheries and Oceans Canada, and the B.C. Minister of Forests, Lands, Natural Resource Operations and Rural Development grant an authorization under the Federal Fisheries Act to continue a long standing milfoil control program. The Town of Oliver strongly concurs with the Okanagan Basin Water Board, that an evidence-based and balanced approach is necessary before the milfoil de-rooting program is significantly altered or prohibited, allowing this invasive weed to thrive in our local lakes.

In their letter of April 24, 2019, to yourselves, the Okanagan Basin Water Board provided extensive information to the respective Ministries on concerns of the Board, supported by local municipalities throughout the Okanagan, the negative effects of invasive Eurasian water milfoil on the aquatic environment as well as social and economic impact, the methods of milfoil control, history of the control program and numerous science based supporting reports.

I will not repeat the information, but I will respectfully ask that Ministry staff carefully and fully review the Okanagan Basin Water Board's letter and attached information.

Significant reduction or cessation of the long-standing milfoil control programs will have a devastating impact on our local tourism based economy, the enjoyment of our lakes and beaches by residents and visitors, the vibrancy of the accommodation and service industry. This is a serious issue for all Okanagan municipalities.

Office of the Mayor

Agenda No: 8.1



Regular: ☒ In-Camera: ☐

Date: Sept. 6, 2019

**OBWB**



Page 2  
June 3, 2019

On behalf of the Town of Oliver, I ask that the respective ministries consider and respect the fact-based evidence provided by Okanagan Basin Water Board and permit the effective traditional treatment of this invasive weed.

Yours truly,

A handwritten signature in black ink, appearing to read 'M. Johansen', with a stylized flourish at the end.

Martin Johansen  
Mayor

cc      Council  
         Okanagan MPs: Mel Arnold, Stephen Fuhr, Dan Albas, Richard Cannings  
         MLAs: Eric Foster, Norm Letnick, Steve Thomson, Ben Stewart, Dan Ashton, Linda Larson, Jackie  
         Tegart, Greg Kylo  
         Chiefs Executive Council, Okanagan Nation Alliance  
         Regional District Chairs for Okanagan-Similkameen, North Okanagan, Central Okanagan  
         Okanagan Municipalities  
         Okanagan Chambers of Commerce  
         South Okanagan Tourism Association  
         FLNRORD Thompson Okanagan Region, Ecosystems Section Head

Agenda No: 8-2



Regular: ☒ In-Camera: ☐

Date: Sept. 6, 2019

**OBWB**

Hon. Jonathan Wilkinson  
Minister of Fisheries and Oceans Canada  
[min@dfo-mpo.gc.ca](mailto:min@dfo-mpo.gc.ca)

Hon. Doug Donaldson  
Minister of Forests, Lands, Natural Resource Operations and Rural Development  
[FLNR.Minister@gov.bc.ca](mailto:FLNR.Minister@gov.bc.ca)

Vaseux Lake Stewardship Association Board of Directors

June 4<sup>th</sup>, 2019

Re: Milfoil control in Vaseux Lake

Dear Minister Wilkinson and Minister Donaldson,

The Vaseux Lake Stewardship Association (VLSA) was created in July 2017 to promote sound stewardship practices on Vaseux Lake through;

- (a) Educational Programs;
- (b) Promoting community participation;
- (c) Liaising with other organizations, various government agencies, First Nation Organizations and companies;
- (d) Disseminating information on stewardship initiatives;
- (e) Monitoring and assessing environmental sensitive activities that negatively affect the lake by causing siltation, milfoil growth and pollution;
- (f) Helping to protect water quality, biodiversity, habitat, ecosystems, and watershed-based landscapes.

The Association was first created to deal with the proliferation of milfoil throughout the lake.

Vaseux Lake is a small nutrient-rich, shallow lake in the Okanagan Basin which makes it very susceptible to milfoil. By the summer of 2016 the Lake was 20 to 25% covered in milfoil which had displaced local plants and caused a decrease in water flow and water circulation. The lake experienced major algae bloom and in the spring of 2016 local residents saw several hundred fish die from an anoxic layer of water most likely caused by the breakdown of milfoil during the winter months which depleted the oxygen in the water.

The Board has attached several pictures relating to the extent of the milfoil problem, algae bloom and dead fish which were collected for the Provincial Ministry in 2016.

The Vaseux Lake Stewardship Association Board is concerned by recent conservation efforts for the Rocky Mountain Mussel which now jeopardises the ability of the Okanagan Basin Water Board to use the rototiller in Vaseux Lake to treat the milfoil.



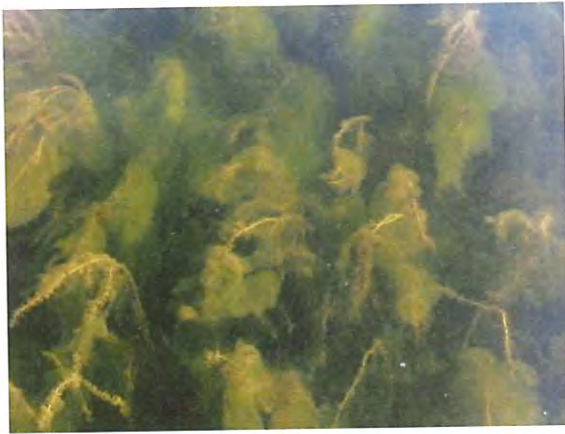


The VLSA certainly understands and fully cooperates in the protection of endangered species but we feel more study is required on the long term benefits or risk associated with using the rototiller in well-established milfoil beds.

Milfoil and algae pictures taken August 2016 on Vaseux Lake



Picture of dead fish was taken in May 2016 in front of one property owner on the South side of the lake over a ½ hour period.





The thick layer of decomposed material found under the milfoil beds is simply not an environment conducive to locating Rocky Mountain Mussel populations which prefer more aerated and rocky environment. There is plenty of evidence to show that milfoil left unchecked has consequences to water quality and biodiversity in a lake.

The Board feels it would be beneficial for the Provincial Ministry of Forest, Lands and Natural Resources, and the Federal Ministry of Fisheries and Oceans Canada to work with the Okanagan Nation Alliance, and the Okanagan Basin Water Board to study the ramifications of leaving milfoil bed untended, compared to areas that are rototilled on a regular basis.

The study could be jointly funded between the Federal and Provincial Government.

Vaseux Lake would be ideal for this study since the rototiller has not been used in our lake in the past and there would be no problem identifying sample areas that are treated for milfoil compared to areas that are not. This will help all stakeholders determine the long-term benefits and risks to overall water quality, the indigenous plants, fish, shellfish, and any other local species of invertebrates and animals found in the lake.

It is important to study the overall impact of the rototilling the milfoil, not just one species.

Sincerely,



Norm Gaumont

Chair Vaseux Lake Stewardship Association

[vaseuxsa@gmail.com](mailto:vaseuxsa@gmail.com)

250-535-0901





**Office of the Mayor**

2760 Cameron Road, West Kelowna, British Columbia V1Z 2T6

Tel (778) 797.2210 Fax (778) 797.1001

mayorandcouncil@westkelownacity.ca

Agenda No: 8.3

Regular: ☒ In-Camera: ☐

Date: Sept. 6, 2019



**OBWB**

June 4, 2019

Honourable Johnathan Wilkinson  
Minister of Fisheries and Oceans Canada  
[min@dfo-mpo.gc.ca](mailto:min@dfo-mpo.gc.ca)

Honourable Doug Donaldson  
Minister of Forests, Lands, Natural Resource Operations and Rural Development  
[FLNR.Minister@gov.bc.ca](mailto:FLNR.Minister@gov.bc.ca)

Dear Honourable Ministers,

The City of West Kelowna is aware of the importance of the Okanagan Basin Water Board (OBWB) program to remove invasive Eurasian watermilfoil from the five large lakes of the Okanagan. This program has effectively made most public beaches in the Okanagan Valley free of invasive weeds. The discontinuation of this program has significant economic, environmental and social effects.

West Kelowna Council support the OBWB's letter to you requesting an authorization under the federal Fisheries Act for the milfoil control program to continue.

West Kelowna like all Okanagan communities relies on the OBWB to preserve our most important mutual asset, our waterways and the continuing excellent work OBWB does on our behalf.

Sincerely,

A handwritten signature in black ink, appearing to read "Gord Milsom".

Gord Milsom  
Mayor

Cc Anna Warwick Sears, Okanagan Basin Water Board  
West Kelowna Council





## *The Corporation of the District of Peachland*

5806 Beach Avenue  
Peachland, BC  
VOH 1X7

Phone: 250-767-2647  
Fax: 250-767-3433  
[www.peachland.ca](http://www.peachland.ca)

June 12, 2019

Hon. Jonathan Wilkinson  
Minister of Fisheries and Oceans Canada  
[min@dfp-mpo.gc.ca](mailto:min@dfp-mpo.gc.ca)

Hon. Doug Donaldson  
Minister of Forests, Lands, Natural Resource Operations  
and Rural Development  
[FLNR.Minister@gov.bc.ca](mailto:FLNR.Minister@gov.bc.ca)

Re: Invasive Eurasian Milfoil Control in the Okanagan

Dear Minister Wilkinson and Minister Donaldson,

Peachland is located on the shores of Okanagan Lake between Kelowna and Penticton, with tourism being a major driver of our local economy. Peachland holds a head lease on 11.5 km of foreshore, which is unique to our community, and provides the public with easy access to public beaches and the many water sport opportunities in Okanagan Lake.

The reduction of the rototilling (de-rooting) of the invasive milfoil threatens the enjoyment of our beaches here, and throughout the Valley, the effects, of which, could be long-lasting and devastating to our economy, and other communities in the region.

Due to the efforts of the Okanagan Basin Water Board since the 1970s, -- the rototilling and harvesting of the Eurasian watermilfoil program in the five large lakes in the Okanagan --, most public beaches are free of the invasive weeds.

While the recent prohibition of rototilling is due to the federal and provincial government staff efforts to protect a species of freshwater mussel known as the Rocky Mountain Ridged Mussel (RMRRM), and it has been recommended by the Committee on the Status of Endangered Wildlife in Canada be listed as "Endangered", the end result could be devastating to local economies, and to the mussel itself, due to the rapid growth on the invasive milfoil, which can choke off large areas very quickly.

Continued:

Agenda No: 8.4



Regular: ☒ In-Camera: ☐

Date: Sept. 6, 2019

**OBWB**

Continued:

It should also be noted that these mussels range from southern California, east to Nevada, and throughout the Pacific Northwest, but in Canada they are limited to the Okanagan Basin, which represent only 5% of their total population.

At the Regular Council Meeting of June 11, 2019, Peachland Council resolved to support the efforts of the Okanagan Basin Water Board (OBWB) to continue the milfoil de-rooting program. In addition, Council is supportive of the OBWB position that a more evidence-based and balanced approach is needed before prohibiting milfoil de-rooting and allowing this invasive weed to thrive in our lakes.

Please consider the harm that could be done to Okanagan lakes and the negative impact on the communities that surround the lakes before deciding to reduce or end the milfoil de-rooting program.

Thank you for your consideration of this matter.

Yours truly,

A handwritten signature in black ink, appearing to read "Cindy Fortin". The signature is fluid and cursive, with the first name "Cindy" written in a larger, more prominent script than the last name "Fortin".

Mayor Cindy Fortin

cc. MP Dan Albas

MLA Dan Aston

Dr. Anna Warwick Sears, executive director, Okanagan Basin Water Board



Reference: 248268

June 14, 2019

VIA EMAIL: [anna.warwick.sears@obwb.ca](mailto:anna.warwick.sears@obwb.ca)

Anna Warwick Sears, Executive Director  
Okanagan Basin Water Board  
1450 KLO Road  
Kelowna, British Columbia  
V1W 3Z4

Agenda No: 8.5  
Regular: ☒ In-Camera: ☐  
Date: Sept. 6, 2019



**OBWB**

Dear Anna Warwick Sears:

Thank you for the detailed letter that was sent to Minister Doug Donaldson on April 24, 2019, regarding the Okanagan Basin Water Board's (OBWB) concerns around the impacts the management of the Rocky Mountain ridged mussel (RMRM) is having on the invasive Eurasian watermilfoil (milfoil) control program in the Okanagan. I have been asked to respond on the Minister's behalf.

Authorization for milfoil control in the Okanagan was provided to the OBWB in April 2019. Both control practices utilized by the OBWB (harvesting and rototilling) have been permitted. The only restriction in the authorization is the use of rototilling in areas where we have known live RMRM; however, harvesting is an acceptable practice in those specific areas.

The RMRM is a species listed as Special Concern under the Federal *Species at Risk Act*. It is currently under review at the federal level for designation as Endangered. This status requires adequate protection of the habitat in order to maintain viable, self-sustaining RMRM populations throughout the current distribution and range of this species. The province along with the residents of British Columbia, have a responsibility to manage for this species.

We are aware that the growth and densification of invasive milfoil may pose a risk to the RMRM through habitat change, as does the activity of controlling milfoil through rototilling the substrate. The province will be exploring opportunities to undertake research to better understand the risks of substrate rototilling versus milfoil infilling on RMRM populations. In addition, this summer ministry staff are planning to conduct further RMRM surveys in the areas where the OBWB would like authorization for rototilling and there are known, live RMRM populations. This work will help determine if alternate treatment options could be utilized in 2020. However in the interim, decisions have been made based on the RMRM legislated status, staff and specialists' current knowledge, and a more conservative approach until new research information becomes available.

Office of the Assistant  
Deputy Minister, South Area **Page 1 of 2**



Anna Warwick Sears, Executive Director

The ministry recognizes the threat that invasive Eurasian water-milfoil poses to the recreation and tourism values within the Okanagan Basin, and that these impacts have to be weighed against the need to adequately protect native ecosystems and the species that inhabit them.

Again, thank you for writing and sharing your concerns. I appreciate the OBWB's leadership on valley-wide water issues and willingness to continue working with ministry staff on this complex issue.

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'P' followed by a horizontal line.

Paul Rasmussen  
Assistant Deputy Minister

Pc: The Honourable Minister Doug Donaldson, Minister of Forests, Lands, Natural  
Resource Operations and Rural Development



Agenda No: 8.6  
Regular: ☒ In-Camera: ☐  
Date: Sept 6, 2019

**OBWB**

Reference: 248418

June 28, 2019

**VIA EMAIL: [info@vernonchamber.ca](mailto:info@vernonchamber.ca); [manager@vernonchamber.ca](mailto:manager@vernonchamber.ca)**

Dione Chambers, General Manager  
Greater Vernon Chamber of Commerce  
204-3002 32 Avenue  
Vernon, British Columbia  
V1T 2L7

Dear Dione Chambers:

Thank you for your letter of April 29, 2019, to Minister Donaldson, regarding your concerns around the impacts that Rocky Mountain Ridged Mussel (RMRM) management is having on the invasive Eurasian Watermilfoil (milfoil) control program in the Okanagan. I have been asked to respond.

The ministry recognizes the threat that invasive milfoil poses to the recreation and tourism values within the Okanagan Valley. It is also recognized that these impacts and the actions to mitigate them have to be weighed against the need to adequately protect native ecosystems and species that inhabit them. The RMRM is a species listed as special concern under the federal *Species at Risk Act*. It is currently under review at the federal level for designation as endangered. The province, along with the residents of British Columbia, have a responsibility to manage for this species. While the RMRM populations may appear to be large locally, in Canada this species is only found in the Okanagan Valley.

Authorization for milfoil control in the Okanagan was provided to the Okanagan Basin Water Board (OBWB) in April 2019. Both control practices utilized by the OBWB (harvesting and rototilling) have been permitted. The only restriction in the authorization is the use of rototilling in areas where there are known live RMRM; however, harvesting is an acceptable practice in those specific areas.

Ministry staff are aware that the growth and densification of invasive milfoil may pose a risk to the RMRM through habitat change in addition to the activity of controlling milfoil through rototilling the substrate. The province will be exploring opportunities for research to better understand the risks of substrate rototilling versus milfoil infilling on RMRM populations. In addition, this summer ministry staff are planning to conduct further surveys in areas where the OBWB would like authorization for rototilling and there are known live RMRM populations. This work will help determine if alternative treatment options could be utilized in 2020.

Page 1 of 2



Dione Chambers, General Manager

Again, thank you for writing and sharing your concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Zimmerman', followed by a long horizontal flourish.

Ted Zimmerman

Acting Regional Executive Director

pc: The Honourable Jonathan Wilkinson, Minister of Fisheries, Oceans and the Canadian  
Coast Guard  
Honourable Doug Donaldson, Minister of Forests, Lands, Natural Resource  
Operations and Rural Development



## OFFICE OF THE MAYOR

July 2, 2019  
File: 0705-55

Via email: [min@dfo-mpo.gc.ca](mailto:min@dfo-mpo.gc.ca)

Honourable Jonathan Wilkinson, MP  
Minister of Fisheries, Oceans and the Canadian Coast Guard  
House of Commons  
Ottawa, ON K1A 0A6

Dear Minister Wilkinson,

As Mayor of Kelowna and a director with the Okanagan Basin Water Board (OBWB), I write in support of exempting Eurasian Milfoil control activities from provincial efforts to protect the Rocky Mountain Ridged Mussel.

Our serious concern is that proposed regulations may be implemented that protect one species to the detriment of many others in Okanagan Lake.

In its report issued earlier this month, the federal government's Standing Committee on Fisheries and Oceans suggests the milfoil control program should be allowed to continue:

### **Recommendation 9**

**That Fisheries and Oceans Canada provide an exemption for Eurasian Water Milfoil control activities in high-value public areas of the Okanagan as allowed under the *Fisheries Act*.**

As you are likely aware, Eurasian Milfoil is very aggressive and once introduced to a waterbody, will displace native aquatic vegetation in a couple of years. In the Okanagan, Eurasian Milfoil was first identified in the Vernon arm of Okanagan Lake in 1970. By 1974, the plant was well established in all mainstem lakes of the Okanagan.

If not controlled, Eurasian Milfoil poses a risk to the Okanagan Lake's native species. It has less food value for waterfowl than the native vegetation it crowds out. OBWB research indicates there may also be a lower abundance and diversity of invertebrates in the foliage when Eurasian Milfoil grows in high densities. Dense growth along the shoreline may also negatively impact fish and wildlife.

... 2





## OFFICE OF THE MAYOR

Honourable Jonathan Wilkinson, MP

July 2, 2019

Page 2

The ability to control this invasive species is essential to our local environment and economy. Uncontrolled Eurasian Milfoil infestation can interfere with opportunities for water-based recreational activities, including motor boating, water skiing, sailing, swimming, and shore-based angling.

The practice of rototilling milfoil has proven effective at minimizing damage for decades. It is our hope that the health of the larger ecosystem of Okanagan Lake is not imperiled by an inability to control this invasive species. For these reasons, I strongly urge you to follow the federal government's lead in this case and permit the control of milfoil.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Basran'.

Colin Basran  
MAYOR

copy: Anna Warwick Sears, Executive Director, Okanagan Basin Water Board  
[anna.warwick.sears@obwb.ca](mailto:anna.warwick.sears@obwb.ca)



City Hall | 1435 Water Street, Kelowna BC V1Y 1J4  
TEL 250-469-8980 | FAX 250-862-3399  
[mayorandcouncil@kelowna.ca](mailto:mayorandcouncil@kelowna.ca)  
[kelowna.ca](http://kelowna.ca)



Reference: 248905

July 10, 2019

VIA EMAIL: [brianne@osoyoos.ca](mailto:brianne@osoyoos.ca)

Her Worship Mayor Sue McKortoff  
Town of Osoyoos  
8707 Main Street  
Osoyoos, British Columbia  
V0H 1V0

Dear Mayor McKortoff:

Thank you for your letter of May 21, 2019, to Minister Donaldson, regarding conflict between native mussel protection and invasive Eurasian watermilfoil (milfoil) control in the Okanagan. I have been asked to respond.

The ministry has received the letter of support provided by the Town of Osoyoos for the continuation of the Okanagan Basin Water Board's (OBWB) milfoil de-rooting program. Authorization for milfoil control in the Okanagan was provided to the OBWB in April 2019. Both control practices utilized by the OBWB (harvesting and rototilling) have been permitted. The only restriction in the authorization is the use of rototilling in areas where there are known live Rocky Mountain ridged mussels (RMRM); however, harvesting is an acceptable practice in those specific areas.

The RMRM is a species listed as special concern under the federal *Species at Risk Act*. It is currently under review at the federal level for designation as endangered. This status requires adequate protection of the habitat in order to maintain viable, self-sustaining RMRM populations throughout the current distribution and range of this species.

The ministry recognizes the threat that invasive milfoil poses to the recreation and tourism values within the Okanagan Basin. However, these impacts have to be weighed against the need to adequately protect native ecosystems and the species that inhabit them. Staff will continue to work with the OBWB and other partners to discover and implement improved milfoil management practices that also support healthy RMRM populations.

Again, thank you for writing and sharing your concerns.

Agenda No: 8.8



Regular: ☒ In-Camera: ☐

Date: Sept 6, 2019

**OBWB**



Her Worship Mayor Sue McKortoff

Sincerely,

A handwritten signature in black ink, appearing to read "T. Zimmerman", with a long horizontal flourish extending to the right.

Ted Zimmerman  
Acting Regional Executive Director

pc: The Honourable Jonathan Wilkinson, Minister of Fisheries, Oceans and the Canadian  
Coast Guard  
Honourable Doug Donaldson, Minister of Forests, Lands, Natural Resource  
Operations and Rural Development

Hon. Jonathan Wilkinson  
Minister of Fisheries and Oceans Canada  
min@dfo-mpo.gc.ca

Aug. 16, 2019



Agenda No: 8.9

Regular: ☒ In-Camera: ☐

Date: Sept 6, 2019

**Re: Native mussel protection and invasive milfoil control in the Okanagan**

**OBWB**

Dear Minister Wilkinson

On behalf of the Greater Vernon Chamber of Commerce and its 500-plus members, I want to thank you for your recent announcement regarding the Rocky Mountain Ridged Mussel (RMRM) in Okanagan Valley lakes and responding to the concerns from communities within our region.

Deferring the potential reclassification of the mussel under the Species at Risk Act (SARA) will allow authorities to have a better understanding of its population and where it is located. However, additional steps must be taken. As part of the deferral, our Chamber urges Fisheries and Oceans Canada to endorse actions proposed by the Okanagan Basin Water Board (OBWB).

Specifically, OBWB has requested that the two following items be addressed when considering the potential reclassification of RMRM:

- 1) A full public consultation process, with adequate notice and time to respond, on potentially listing the RMRM under the SARA, and public meetings to discuss the implications of the listing for Okanagan communities;
- 2) An economic analysis conducted by the federal government, looking at how the SARA listing (and thus prohibitions on rototilling milfoil) will affect milfoil weed growth, impacts on water quality, beach access, tourism and the Okanagan economy

As has been indicated in previous correspondence, our Chamber fully supports measures that protect native species, including the RMRM. However, we reiterate our concern that any regulations that prohibit rototilling of the invasive Eurasian milfoil could allow the weed to grow and negatively impact habitat for the mussels.

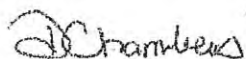
There is also the reality that OBWB's milfoil control program is essential from a social and economic perspective as the plant infests public beaches, boating areas and marinas. In 1991, a B.C. Ministry of Environment report indicated that terminating the milfoil control program would lead to an economic decline of \$85 million in tourism revenue, employment in tourism of 1,700 positions and real estate values of \$360 million. In Vernon, two of the community's primary beaches, as well as the marina, are partially or wholly prohibited from milfoil derooting due to RMRM. If the weed is permitted to flourish unchecked, there could be a significant economic cost.

It is because of these potential impacts that we strongly encourage comprehensive public consultation within the Okanagan Valley itself, while an economic analysis will provide much-

needed information on how a SARA designation could influence the spread of milfoil, water quality and the social and economic attributes that make the Okanagan unique in Canada.

In closing, our Chamber wants to thank you and your department for recognizing our concerns about the potential impact of a SARA designation on the overall health of the environment and the communities of the Okanagan.

Sincerely,



Dione Chambers, General Manager  
Greater Vernon Chamber of Commerce

CC:

Okanagan Basin Water Board;

MP Mel Arnold;

MP Stephen Fuhr;

Minister Donaldson;

MLA Eric Foster;

City of Vernon;

District of Coldstream;

Regional District of North Okanagan;

Okanagan Indian Band;

BC Chamber of Commerce





## OBWB

Hon. Doug Donaldson  
Minister of Forests, Lands, Natural Resource Operations and Rural Development  
[FLNR.Minister@gov.bc.ca](mailto:FLNR.Minister@gov.bc.ca)

Aug. 16, 2019

### Re: Native mussel protection and invasive milfoil control in the Okanagan

Dear Minister Donaldson,

On behalf of the Greater Vernon Chamber of Commerce and its 500-plus members, I urge your ministry to endorse actions proposed by the Okanagan Basin Water Board (OBWB) on invasive milfoil weed control and the native Rocky Mountain Ridged Mussel (RMRM).

Specifically, OBWB has requested that the ministry address the following item:

A permanent exemption by the province for the OBWB's milfoil control activities, allowing the agency to continue to work along public beach and boating areas where it has been rototilling for over 30 years, representing only a small fraction of the entire lakeshores.

As has been indicated in previous correspondence, our Chamber fully supports measures that protect native species, including the RMRM. However, we reiterate our concern that any regulations that prohibit rototilling of the invasive Eurasian milfoil could allow the weed to grow and negatively impact habitat for the mussels.

There is also the reality that OBWB's milfoil control program is essential from a social and economic perspective as the plant infests public beaches, boating areas and marinas. In 1991, a B.C. Ministry of Environment report indicated that terminating the milfoil control program would lead to an economic decline of \$85 million in tourism revenue, employment in tourism of 1,700 positions and real estate values of \$360 million. In Vernon, two of the community's primary beaches, as well as the marina, are partially or wholly prohibited from milfoil derooting due to RMRM. If the weed is allowed to flourish unchecked, there could be a significant economic cost.

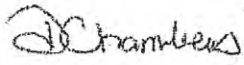
It should be acknowledged that OBWB officials have operated a milfoil control program for decades and they have first-hand knowledge and experience of our lakes and environment.



The federal Department of Fisheries and Oceans has recently announced a deferral on reclassifying the RMRM as endangered so further study can be initiated. Our Chamber has requested that the Department of Fisheries and Oceans process include community meetings in the Okanagan, as well as an economic analysis of how a SARA designation could influence milfoil weed growth, water quality and the economy. We hope your ministry will participate in the federal process.

In closing, our Chamber urges the Ministry of Forests, Lands, Natural Resource Operations and Rural Development to consider this matter a priority and that a balance is found between the environment, our communities and our economy.

Sincerely,



Dione Chambers, General Manager

Greater Vernon Chamber of Commerce

CC:

Okanagan Basin Water Board;

Minister Wilkinson;

MP Mel Arnold;

MP Stephen Fuhr;

MLA Eric Foster;

City of Vernon;

District of Coldstream;

Regional District of North Okanagan;

Okanagan Indian Band ;

BC Chamber of Commerce

Hon. Jonathan Wilkinson  
Minister of Fisheries and Oceans Canada  
min@dfo-mpo.gc.ca

August 26, 2019

Agenda No: 8.11  
Regular: ☒ In-Camera: ☐  
Date: Sept 6, 2019  
**OBWB**

**Re: Follow-up to Rocky Mountain Ridged Mussel SARA decision**

Dear Minister Wilkinson,

Thank you for listening to our concerns about the proposed listing of the Rocky Mountain Ridged Mussel (RMRM), and the conflicts it would have created with our control of invasive Eurasian watermilfoil (milfoil) in Okanagan Lakes. We strongly appreciate your recommendation that further analysis is needed.

As an Endangered listing of the RMRM – and the subsequent restrictions on invasive milfoil control would have significant social, cultural and economic impacts on Okanagan communities, we request a full, transparent public process accompany this analysis, including:

1. A full public consultation process, with adequate notice and time to respond, and public meetings to discuss the implications of the listing for Okanagan communities; and
2. An economic analysis, conducted by the federal government, looking at how the SARA listing (and thus prohibitions on the milfoil control) will affect milfoil weed growth, impacts on water quality, beach access, tourism and other aspects of the Okanagan economy. As you have stated in your August 15 press release, decisions for listing include *“an evaluation of the potential socio-economic impacts on Canadians.”*

The Okanagan Basin Water Board would be pleased to assist in these efforts. We are strongly supportive of protecting species and habitats, and we believe that the best way to sustain healthy aquatic environments in the Okanagan is to take a balanced approach – allowing for control of damaging invasive species in high-value public areas as well as protecting habitat for RMRM. As such, we further request that:

3. The milfoil control program of the OBWB be formally authorized, on a permanent basis, under the terms of the Fisheries Act, Aquatic Invasive Species Regulations, Section 19 (2) (a) (iii) and (b) by your Ministry.



Specifically, this section of the Fisheries Act permits the Minister to take measures to control any aquatic species in a particular region or body of water frequented by fish where the aquatic species is not indigenous and may harm fish, fish habitat or the use of fish. References for this harm were included in our letter to you of April 24, 2019.

- Until the public consultation and further research can be conducted in order to make an evidence-based decision, we request your support to continue milfoil rototilling in all areas that have historically been treated using this method.
- Further, we ask that, regardless of future recordings of RMRM, we be permitted to continue to rototill milfoil in high public-use areas, ensuring that prohibitions do not continue to expand in future years.

We are happy to continue working with ministry staff at all levels of government and to continue to provide leadership on valley-wide water issues.

Sincerely,



Anna Warwick Sears, Executive Director  
Okanagan Basin Water Board

CC:

- Okanagan MPs: Mel Arnold, Stephen Fuhr, Dan Albas, Richard Cannings;
- MLAs: Eric Foster, Norm Letnick, Steve Thomson, Ben Stewart, Dan Ashton, Linda Larson, Jackie Tegart, Greg Kylo
- Chiefs Executive Council, Okanagan Nation Alliance;
- Regional District Chairs for North Okanagan, Central Okanagan, and Okanagan-Similkameen;
- Okanagan Municipalities;
- Okanagan Chambers of Commerce and Thompson Okanagan Tourism Association
- FLNRORD Thompson Okanagan Region, Ecosystems Section Head
- Hon. Minister Doug Donaldson, FLNRORD



Hon. Doug Donaldson  
Minister of Forests, Lands, Natural Resource Operations and Rural Development  
FLNR.Minister@gov.bc.ca

Agenda No: 8.12



Regular: ☒ In-Camera: ☐

Date: Sept 6, 2019

August 26, 2019

**Re: Follow-up to Rocky Mountain Ridged Mussel SARA decision**

**OBWB**

Dear Minister Donaldson,

This letter is to follow up with you after our meeting on June 17<sup>th</sup> in Osoyoos; and also to follow up with respect to the Department of Fisheries and Oceans (DFO) decision on August 15, to not list the Rocky Mountain Ridged Mussel under the Species at Risk Act (SARA; DFO press release enclosed). The Okanagan Basin Water Board's (OBWB's) invasive milfoil rototilling season begins in October, and we respectfully ask that you provide immediate relief from the regulations restricting our program – cleaning the high-value beaches and public boating areas in the Okanagan.

We very much appreciated your obvious preparation and thoughtful consideration of Okanagan milfoil issues during our June meeting. Okanagan residents and visitors alike are personally passionate about the lakes, and the need to maintain access and enjoyment of the water and beaches. Milfoil spoils the experience, and wherever you go in the valley people support the control program. The current regulation, intended to protect RMRM, is instead protecting invasive milfoil.

We understand that while there was a pending “endangered” listing under SARA, your government could not loosen the regulations on milfoil rototilling. As a result, we remain under the regional staff's regulatory decision to prohibit rototilling wherever a mussel or a mussel shell fragment is found. This has direct negative effects on lake access and on lake water quality; with no evidence that the milfoil beds provide habitat for the mussels.

On August 15<sup>th</sup>, DFO decided to not up-list RMRM, stating:

*“During the public comment period earlier this year on the potential listing of the RMRM as an endangered species at risk, a number of important concerns were raised from local communities with respect to the possible unintended impacts on the ability to effectively control the Eurasian Watermilfoil in the same habitat as these mussels.*





*Stakeholder groups voiced concerns about potential impacts on the overall health of the environment in the region, as well as on the livelihood of communities in the Okanagan Valley."*

Now that the federal government has acted, making room for flexibility by the province, we request that your ministry allow us to control invasive milfoil, using rototillers, around the high-value beaches and public boating areas where we have been working for more than 30 years. These areas are a small fraction of the lakeshore, and include most of the places where residents and visitors can play and enjoy the water. Under the present regulations, the balance of your ministry's natural resource management is single-species focused (RMRM), with no consideration of the broader socio-economic impacts (lack of public access to beaches).

Following the August 15<sup>th</sup> decision, we have requested that DFO conduct a full public consultation process, including public meetings, before the RMRM is reconsidered for listing. We also asked that they undertake an analysis of how prohibiting milfoil rototilling will impact the Okanagan economy. Given the value of these areas to the public and the economy, we have further requested that DFO formally authorize the milfoil control program of B.C. on a permanent basis, under the Fisheries Act. The federal Fisheries Act also gives you, as provincial minister, the authority to grant this exemption.

*Thus, we ask you to amend existing regulations to allow us to continue to conduct milfoil rototilling in areas which have historically been treated using this method; and we ask that milfoil rototilling in the Okanagan by the OBWB be allowed to continue in high public-use areas regardless of future recordings of RMRM, ensuring that prohibitions do not continue to expand in future years.*

We are happy to continue working with ministry staff at all levels of government, on this and our many other partnerships to protect the waters of the Okanagan.

Sincerely,

Anna Warwick Sears, Executive Director  
Okanagan Basin Water Board

CC:

- Okanagan MPs: Mel Arnold, Stephen Fuhr, Dan Albas, Richard Cannings;
- MLAs: Eric Foster, Norm Letnick, Steve Thomson, Ben Stewart, Dan Ashton, Linda Larson, Greg Kylo
- Chiefs Executive Council, Okanagan Nation Alliance;
- Regional Districts of North Okanagan, Central Okanagan, and Okanagan-Similkameen;
- Okanagan Municipalities;
- Okanagan Chambers of Commerce and Thompson Okanagan Tourism Association
- FLNRORD Thompson Okanagan Region, Ecosystems Section Head
- Hon. John Wilkinson, Ministry of Fisheries, Oceans and the Canadian Coast Guard.

Enclosure:

## Government of Canada maintains the Rocky Mountain Ridged Mussel as a species of special concern

From: **Fisheries and Oceans Canada**: <https://www.canada.ca/en/fisheries-oceans/news/2019/08/government-of-canada-maintains-the-rocky-mountain-ridged-mussel-as-a-species-of-special-concern.html>

### News release

August 15, 2019

**Kelowna, British Columbia** — Canada's natural environment and wildlife are undeniably an integral part of our lives, and our livelihood. It is a core commitment of the Government of Canada to protect our aquatic life and environment from the impacts of a changing climate, as well as from the threat of invasive species. We must also carefully consider the health and stability of the economy and protect jobs in sustainable industries across the country. Environmental protection and economic prosperity must be prioritized together.

Today, the Minister of Fisheries, Oceans and the Canadian Coast Guard, the Honourable Jonathan Wilkinson, announced that the Government of Canada will not, at this time, be reclassifying the Rocky Mountain Ridged Mussel (RMRM) as endangered under the *Species At Risk Act* (SARA). A recommendation on whether to reclassify the species will be made at a future date.

The Rocky Mountain Ridged Mussel can be found in areas overlapping with the Eurasian Watermilfoil, which is an invasive plant that can negatively impact the health of aquatic ecosystems like the Okanagan and Osoyoos Lakes. During the public comment period





earlier this year on the potential listing of the RMRM as an endangered species at risk, a number of important concerns were raised from local communities with respect to the possible unintended impacts on the ability to effectively control the Eurasian Watermilfoil in the same habitat as these mussels.

Stakeholder groups voiced concerns about potential impacts on the overall health of the environment in the region, as well as on the livelihood of communities in the Okanagan Valley. Further analysis will be undertaken to better understand the population of this mussel, and where it is present.

The RMRM does remain a species of special concern under the *Species at Risk Act*.

### Quotes

“Helping to maintain a balance in our aquatic environments is a difficult task. Additional consideration on a potential reclassification of the Rocky Mountain Ridged Mussel will be done and this will also take into account socio-economic impacts and effects on the broader Okanagan Basin ecosystem. It has been determined that at this stage, maintaining the RMRM as a species of special concern under SARA is the best way forward.”

*The Honourable Jonathan Wilkinson, Minister of Fisheries, Oceans and the Canadian Coast Guard*

“As the Okanagan Basin Water Board (OBWB) correctly pointed out there were simply far too many unanswered questions and lack of recent data to risk the unintended impacts of the reclassification of the Rocky Mountain Ridged Mussel. For example, such action could have the potential to make it difficult to control Eurasian Watermilfoil; an invasive species that has the potential to wreak havoc in our beautiful local lakes. I would like to thank Dr. Anna Warwick Sears and the OBWB for their excellent work and attention to this important issue.”

*Stephen Fuhr, Member of Parliament for Kelowna-Lake Country*

### Quick facts

- In Canada, the RMRM is currently limited to the Okanagan Basin in B.C. It is exposed to habitat degradation as well as threats from Zebra and Quagga mussel infestation, and the introduction of invasive fish.
- The decision not to reclassify RMRM as endangered at this time comes after a comprehensive, 30-day public comment period, which ended in April, 2019. The issues and concerns raised during that period will continue to be given further consideration.
- Decisions to protect species under SARA are based on many considerations including assessments by the Committee on the Status of Endangered Wildlife in Canada and other scientific advice, consultations with Canadians, Indigenous communities, and industry, as well as, importantly, an evaluation of the potential socio-economic impacts on Canadians.