

## Okanagan Basin Water Board Meeting Agenda



*Okanagan Basin*  
WATER BOARD

**DATE:** Tuesday, February 7, 2017

**TIME:** 10 a.m. to 2 p.m.

**PLACE:** Regional District of Central Okanagan  
1450 KLO Road, Kelowna, B.C.

1. **CALL MEETING TO ORDER**
2. **ELECTION OF CHAIR AND VICE CHAIR**
3. **INTRODUCTION OF LATE ITEMS**
4. **APPROVAL OF AGENDA**
5. **BOARD ROUNDTABLE DISCUSSION**
  - 5.1 OBWB Directors share about the top water issues in their area at this time.
6. **ADOPTION OF MINUTES**
  - 6.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of December 6, 2016 at Regional District of Okanagan-Similkameen, Penticton, B.C. *(page 1)*
7. **STAFF REPORTS**
  - 7.1 Executive Director Report *(page 7)* *(resolution requested)*
    - 7.1.1 Hullcar Aquifer Inter-Ministry Working Group Update *(page 12)*
    - 7.1.2 Lessons from Colonial & Indigenous Water Stewardship Project *(page 14)*
  - 7.2 Water Stewardship Director Report *(page 16)*
  - 7.3 Operations and Grants Manager Report *(page 19)* *(resolutions requested)*
  - 7.4 Communications Director Report *(page 23)*
    - 7.4.1 Make Water Work 2016 Wrap-up Report *(page 27)*
    - 7.4.2 Don't Move A Mussel 2016 Wrap-up Report *(page 37)*
  - 7.5 Policy and Planning Specialist Report *(page 47)*
8. **NEXT MEETING**
  - 8.1 The next meeting of the Okanagan Basin Water Board will be Tuesday, March 7, 2016 from 10 a.m. to 2 p.m., at the Regional District of Okanagan-Similkameen in Penticton.
9. **ADJOURNMENT**



**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD DECEMBER 6, 2016, AT THE REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN  
101 MARTIN ST., PENTICTON, B.C.**

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**PRESENT**

Chair Doug Findlater	Regional District Central Okanagan
Vice-chair Juliette Cunningham	Regional District North Okanagan
Director Doug Dirk	Regional District North Okanagan
Director Cindy Fortin	Regional District Central Okanagan
Director Tracy Gray	Regional District Central Okanagan
Director Ron Hovanes	Regional District Okanagan-Similkameen
Director Sue McKortoff	Regional District Okanagan-Similkameen
Director Toby Pike	Water Supply Association of BC
Director Brian Guy	Okanagan Water Stewardship Council

**REGRETS**

Director Bob Fleming	Regional District North Okanagan
Director Peter Waterman	Regional District Okanagan-Similkameen
Director Lisa Wilson	Okanagan Nation Alliance

**OBWB STAFF**

Anna Warwick Sears	Executive Director
Nelson Jatel	Water Stewardship Director
James Littley	Operations and Grants Manager
Corinne Jackson	Communications Director
Kellie Garcia	Policy and Planning Specialist

**1. CALL MEETING TO ORDER**

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

**2. APPROVAL OF AGENDA**

***"THAT the agenda of the regular meeting of the Okanagan Basin Water Board of December 6, 2016 be approved."***

**CARRIED**

**3. DELEGATION**

- 3.1 Lisa Scott, Okanagan and Similkameen Invasive Species Society (OASISS) re: 2016 public outreach for Zebra/Quagga mussel prevention

OASISS receives funding from the OBWB to assist with prevention work (e.g. water sampling for mussels) and additional public outreach with the Water Board's "Don't Move A Mussel" (DMM) program. Ms. Scott provided an overview of OASISS' 2016 outreach efforts and began with a review of invasive zebra and quagga mussels noting their ability to survive in brackish water and up to 30 days out of water. It was also noted that the inability to see the mussels at their youngest stage makes the practice of "clean, drain, dry" very important.

The board was reminded of the risks the mussels pose with their ability to deplete food sources for local species such as salmon, litter beaches with sharp shells, and create toxic algae blooms.

The Okanagan is also more vulnerable than some areas because of the high calcium and PH levels in our waters, ensuring greater viability for the mussels.

Ms. Scott clarified provincial and OBWB-study figures on the cost of invasive mussels. While B.C. has suggested it would cost the province \$42 mill. annually, it has also noted this doesn't include the cost to fisheries, tourism and property values. An OBWB study, which did consider these costs, suggested the overall price would be \$43 mill. annually to the Okanagan alone.

It appears the level of knowledge at the Coast is much lower than in Okanagan, added Ms. Scott, noting the importance of reaching tourists, not just locals with the mussel message.

Dir. Grey entered the meeting at 10:20 a.m.

The board was also provided an update on the mussels found in Montana and the state's declaration of a state-wide natural resource emergency. Currently, the mussels are known to be in four locations and additional water testing is being conducted.

Montana has inspection stations but was unable to stop the mussels. The concern now is ensuring they do not make their way over the Continental Divide, putting all other parts of the Pacific Northwest at risk.

Ms. Scott noted that collaborations continue to be key. B.C. had eight inspections stations operating April 1 to mid-October, 2016. In that time, 24,500 inspections were conducted; 17 watercraft were confirmed carrying adult invasive mussels; 92 required decontamination; 63 were quarantined. For its part, OBWB funding allowed OASISS to conduct mussel monitoring and public outreach at various locations in the Okanagan. In all, OASISS reached 1,800 people at outreach events and had 1,460 boater interactions. Staff also distributed DMM materials to the public as well as water-recreation related retail outlets, yacht clubs, tourism offices and more.

Based on boater surveys (local and visiting), it appears mussel awareness is growing, up from 48% in 2015 to 76% in 2016, she said. When asked where people are getting the message, responses included boat launch signs (18%), inspection stations (17%), radio (13%) and billboards (13%). Based on the efforts of the DMM campaign and its use of boat launch signs, radio, billboards, and more, it would seem to indicate these are working, added Scott.

According to those surveyed, 35% of out-of-province boaters said they did not encounter an inspection station. This indicates there are some holes in our inspection system, but also the importance of outreach at boat launches, she said. Some of the other identified gaps include ongoing funding for various programs, limited inspection hours makes it easier for infested watercraft to get through, Canada Border Services officers are not all fully trained to address the mussels, there are still some boaters who do not understand the issue.

Possible solutions, said Ms. Scott include more boat launch signs, provide information to car wash stations, marinas, yacht clubs and others, and increased mussel monitoring.

Directors had a number of comments and questions. Dir. Guy reiterated past comments that mussel education should be part of the boat licencing program. Mr. Littley noted this has been put to the province and the Invasive Species Council of BC to look at promoting but it's unclear where this is at.

It was suggested that with the provincial election coming up there should be some push to get this addressed as part of the government's pre-election budget. The board also voted to send a letter to the province and federal government to increase funding to address the issue.

***“THAT the OBWB send a letter to the province and federal government re: increased funding for enforcement and education.”***

**CARRIED**

The board was told of an upcoming emergency call on Dec. 9 to discuss the Montana situation and response from others in the Pacific Northwest. It's expected that a call to action will be developed and sent to senior levels of government. It was suggested that the call be circulated to the board and, if approved, that the OBWB request that it be added as a signatory.

***“That the call to action be circulated to the board and, if approved, that the OBWB request it be added as a signatory.”***

**CARRIED**

#### **4. ADOPTION OF MINUTES**

- 4.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of Nov. 1, 2016 at the Regional District of Central Okanagan in Kelowna.

***“THAT the minutes of the regular meeting of the Okanagan Basin Water Board of Nov. 1, 2016 at the Regional District of Central Okanagan be approved.”***

**CARRIED**

#### **5. STAFF REPORTS**

- 5.1 Executive Director Report

Dr. Sears provided a brief overview of a meeting staff had with Okanagan MLAs Norm Letnick (Min. of Agriculture) and Steve Thompson (Min. of Forests, Lands and Natural Resource Ops) to give an update on various local water issues. She also noted a discussion with the B.C. Assistant Deputy Minister of Environment at a recent B.C. Water Funders meeting, and their interest in the OBWB's response to the new Water Sustainability Act and invasive mussel issue. There are still questions as to how the province is going to implement portions of the WSA, Dr. Sears added.

Following up on last month's discussion regarding confusion around groundwater licencing, directors were told that information will be developed for domestic well owners and posted to Water Board websites.

***“THAT the Executive Director's Report, dated November 30, 2016, be received.”***

**CARRIED**

- 5.2 Water Stewardship Report

Mr. Jatel noted the election of a new Water Stewardship Council chair, Brian Guy, and vice-chair Denise Nielsen, for the next 18 months.

This month's council meeting will hear presentations from Environment and Climate Change Canada's Stewart Cohen, an expert in climate change, and West Coast Environmental Law's Linda Nowlan on recommended updates to the federal Fisheries Act, reintroducing protections that were removed under the previous federal government. The council will follow this discussion up with a letter to the board which will include recommendations regarding the federal legislation.

The BC Water Use Reporting Centre web tool, initially developed for water utilities to help manage and report their water use to the province, and then recently expanded for agricultural water users, is now being considered by the province for a pilot by the Oil and Gas Commission.

Staff held a wrap-up meeting with the Environmental Flow Needs team to review the work in 2016 and consider improvements for 2017, including ensuring data collection is accurate so that it can stand up to challenges.

***“THAT the Water Stewardship Director’s report, dated November 30, 2016, be received.”***

**CARRIED**

### 5.3 Operations and Grants Manager Report

Mr. Littley told the board that a federal permit has been received, allowing for milfoil control in Vaseux Lake and that the OBWB is now waiting on provincial approval to begin work in 2017. Staff will be attending a residents meeting in Ok Falls tomorrow to discuss the issue.

The board was provided with a five-year asset replacement schedule. In response to questions, directors were told that borrowing is not being considered. Chair Findlater suggested that staff look at possible grants.

***“THAT the board approve the 5-year asset replacement schedule and that staff seek approval from the Regional Districts for the 5-year replacement schedule as presented.”***

**CARRIED**

***“THAT the Operations and Grants Manager’s Report, dated November 30, 2016, be received.”***

**CARRIED**

### 5.4 Communications Director Report

Ms. Jackson provided an update, noting the launch of the new OBWB-funded BC Wildlife Federation app, allowing users to report environmental infractions to the province, such as mud bogging and cattle in fish-bearing streams. An overview was also given on the Water Board-sponsored “Flow’NGrow” workshop co-presented with the Partnership for Water Sustainability in BC and the Irrigation Industry Assoc. of BC. She also noted the “Alien Invasion” invasive species exhibit at the Environmental Education Centre of the Okanagan, which staff provided input and support.

The board was given a brief update on the Make Water Work and Don’t Move A Mussel campaigns. With a budget of \$48,000 for MWW (\$1-3,000 from local government and utility partners and matched by OBWB-Okanagan WaterWise), and more than \$32,000 provided in-kind by contest and media partners, the 2016 campaign was worth more than \$80,000. As for DMM, OBWB’s OkWaterWise spent a little over \$47,000, and with more than \$58,000 provided in-kind, staff delivered a program worth over \$105,000. Full reports on both programs will be provided at the next meeting.

Ms. Jackson also reported on meetings re: invasive mussel outreach, the DMM campaign and ways to collaborate with the Central Kootenay Invasive Species Society and Formula 1 power boat racing’s Mike McLellan.

***“THAT the Communications Director’s Report, dated November 30, 2016, be received.”***

**CARRIED****5.5 Policy and Planning Specialist Report**

Ms. Garcia updated the board on a workshop regarding the Okanagan Mainstem Lakes and River Drought Triggers project. While water suppliers support the concept of drought triggers there was some debate about the guidelines. These are now being reviewed, recognizing that the waters of our valley are all connected and the need to work together to address drought.

Work on the Agricultural Drought Status Outreach project is continuing. The consulting team has been interviewing growers about the best way to receive drought communications from their utility, and will be talking with pilot project partners, RDNO and RDOS, about logistics for communications. The consultants will present their findings to the oversight committee next week and plan to have outreach materials ready for an April pilot.

***“THAT the Policy and Planning Specialist’s Report, dated November 28, 2016, be received.”***

**CARRIED****6. NEW & UNFINISHED BUSINESS****6.1 In-camera session**

A resolution was presented that the board go into closed meeting at 12:57 p.m.

***“THAT the board meeting be closed under sec. 90 (2) (b) of the Community Charter.”***

**CARRIED**

Moved to come out of in-camera at 1:01 p.m. and rise and report.

***“THAT the OBWB approve the ‘Okanagan Basin Water Board Milfoil Control Equipment Trust and Agency Agreement’ as presented and forward it to the Regional District of Okanagan-Similkameen for its approval, and when this is secured, to the Regional District of Central Okanagan and the Regional District of North Okanagan.”***

**CARRIED****7. CORRESPONDENCE****9.1 Okanagan Canadian Standards Association Sustainable Forest Management Public Advisory Group**

***“THAT the letter from Okanagan Canadian Standards Association Sustainable Forest Management Public Advisory Group be received.”***

**CARRIED****8. NEXT MEETING**

The next meeting of the Okanagan Basin Water Board will be Tuesday, Feb. 7, 2017 at the Regional District of Central Okanagan in Kelowna at 10 a.m.

**10. ADJOURNMENT**

***“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of December 6, 2016 be adjourned at 1:06 p.m.”***

**CARRIED**

Certified Correct:		
Chair		Executive Director



## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
February 7, 2017  
Agenda No: 7.1

File No. 0550.04

To: OBWB Directors  
From: Anna Warwick Sears  
Date: February 1, 2017  
Subject: **Executive Director Report**

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### **Changes to Board of Directors and Board Election**

The first item on the agenda is the election or re-election of Chair and Vice-Chair for the OBWB. Please reach out to your fellow directors to discuss nominations before the meeting. We'll have ballots prepared if there is more than one nomination for either position. For 2017, OBWB Directors are:

**RDNO:** Juliette Cunningham, Doug Dirk, Rick Fairbairn (alternates: Catherine Lord, Bob Fleming, Mike Macnabb).

**RDCO:** Doug Findlater, Tracy Gray, Cindy Fortin (alternates: James Baker, Wayne Carson, Patty Hanson).

**RDOS:** Sue McKortoff, Ron Hovanes, Peter Waterman (alternates: Mark Pendergraft, Tom Siddon, Toni Boot).

**Water Management Appointments:** Lisa Wilson (Okanagan Nation Alliance), Toby Pike (Water Supply Association of BC), Brian Guy (OWSC; alternate: Denise Neilsen).

### **Board Roundtable Discussion**

We often arrange delegations for the beginning of OBWB meetings to keep the board apprised of water projects by our partners and grantees. This month, rather than a delegation, we want to try a roundtable of updates and discussion by OBWB Directors.

Each OBWB Director is encouraged to consider what water issues are top of mind in their local municipality or regional district area, whether these are infrastructure challenges, water quality concerns, regulatory or governance questions, or issues about water supply or flooding. We're hoping that, going around the table, everyone will speak for 2-5 minutes, and then we can have questions and discussion. It will be useful for the staff to hear about emerging concerns, and useful for the board to hear about common problems in other areas.

### **2017 meeting schedule**

Our 2017 schedule, adopted at the November 2016 meeting, follows the traditional pattern of rotating between regional district board rooms, and regular meetings are on the first Tuesday of the month. The exceptions are a planned joint meeting with the Okanagan Water Stewardship Council in June (normal board meeting date, but location TBD), cancelling the July meeting (because of



conflicts created by the Canada Day holiday), and moving the September meeting/AGM to Friday, September 8<sup>th</sup> (location TBD). Holding our AGM on Friday increases public attendance.

#### **Milfoil equipment transfer**

The plan to transfer legal ownership of the milfoil control equipment to RDOS is moving forward. I have now consulted with the CAOs of RDCO and RDNO. They have given their provisional approval, pending some minor revisions. I've been asked to get a resolution of board approval by the RDCO, and RDNO will send a letter indicating approval at the administrative level. I'm hoping to have the transfer completed in February or March, once all the agreements and approvals are in place.

#### **Constructed Wetlands Planning Grant application**

OBWB staff have submitted an application to the Ministry of Community, Sport and Cultural Development for an Infrastructure Planning Grant to develop a guide for Okanagan communities wishing to develop constructed wetlands (copies of the application will be available on request). The need for the guide arose through our work on the Okanagan Wetlands Strategy. It will support public works and planning staff to plan and prepare RFPs, and to work with engineering consultants. The maximum grant amount is \$10,000, with a \$10,000 match. The OBWB's matching portion would come from funds we have in the existing Wetlands Strategy project budget. To complete the application process, we need a resolution of support from the board.

**Recommended resolution:** *That the OBWB supports the Infrastructure Planning Grant application, "Guidebook for establishing constructed wetlands in the Okanagan."*

#### **Groundwater update**

When the province brought in the Water Sustainability Act on March 29, 2016, they required all large, non-domestic groundwater users to obtain a license, by March 1, 2019. However, they agreed to waive the application fee for those who apply before April 1, 2017. This fee-waiver has now been extended to December 31, 2017. In their words,

*"There are benefits to getting your groundwater licence application in early. By submitting an application for existing non-domestic groundwater use, government will have the knowledge of your use and be able to consider it during water scarcity, when reviewing other applications, and to provide notice when other applications may affect the security of your water."*

While most of the focus has been on the groundwater licensing, it's also very important for domestic well owners to get permits for their wells – to ensure their use is protected if someone applies for a groundwater extraction license in a connected aquifer. The OBWB has created a web page with information specifically for homeowners with their own wells ([www.obwb.ca/well](http://www.obwb.ca/well)). This has been reviewed by provincial staff, and who expressed appreciation for the help with outreach.

To keep up with ongoing developments in the Hullcar aquifer, I've also attached the latest Ministry of Environment update, for your information.

We are currently working to analyze the first round of data for the Mission Creek surface/groundwater interactions project. Our partners at FLNRO and the Ministry of Environment are very pleased with the work, and have invited us to publish it under their Water Science Series. We've also agreed to share the data with Bernie Bauer's fluvial geomorphology class, who will do their own analysis. This is a student exercise, but may produce interesting, independent results.

### **University of Victoria water law projects**

Although there is significant interest throughout B.C. in establishing watershed agencies, there is not currently any legislation that would allow establishment of something in the form of the OBWB. We are established under the Municipalities Enabling and Validating Act, which the Ministry of Community, Sport, and Cultural Development is not keen to use for other watershed agencies or organizations. The Environmental Law Centre became interested, because of the potential role of watershed groups for implementation of the Water Sustainability Act. As of January 2017, they have assigned a law student, Alexandra McArdle, to research the need for a Watershed Authority Act, and what such legislation would include for optimal watershed governance in B.C. I've agreed to be an advisor, and to share information about important aspects of OBWB's structure that make it effective.

In another project, I've agreed to be an advisor on research by Deborah Curran and her colleague, Val Napoleon, who are working with three B.C. indigenous communities to explore how Indigenous water law and the Water Sustainability Act can work together to support water sustainability in B.C. While the research is focused in the Similkameen, rather than the Okanagan, it will be very useful and enlightening as we continue to strengthen our working relationships and mutual understanding with the Okanagan Nation Alliance. I've attached a summary of the research plan, and will hand out copies of the outcome of a related effort in the Shuswap.

### **IJC Updates**

Communications staff at the Washington D.C. office of the International Joint Commission are publishing a newsletter article about the Okanagan/Okanogan Basin, and our concerns and efforts against invasive mussels. This article will be distributed across the IJC's region, and all the boards and partners from B.C. to New Brunswick. The draft article will be shared at the board meeting.

The IJC has appointed me to another term on the International Osoyoos Lake Board of Control, through September, 2018. As of today, the U.S. Commissioners are still in place, but as Obama appointees, they may be soon replaced by the new administration.

### **Update on California/Southwest Drought**

The drought in California and other portions of the U.S. Southwest was very influential for how we responded to the drought in 2015, as well as the revamping of the province's drought response plans. This year's rain has broken the drought for surface water through much of Northern California. Aquifers are also recovering in many parts of the state, as wetter conditions reduce pumping and increase recharge. Nonetheless, some aquifers will likely never recover because of the severity of the overdraft. Here is a good perspective from the U.C. Davis' Center for Watershed Sciences:

*Droughts usually bring water shortages, but not all water shortages are from drought. Some speak of drought as permanent for California. But, it is better to think of California being a dry place with permanent water shortages (except in unusual wet years), which is also prone to drier than average years, which are droughts. California must reconcile itself to being a dry place and some long-term water shortages. It must also prepare for periods of drier than average conditions with greater shortages and costs, which are droughts.*

*For policy-makers the distinction is important. If every year is labeled a drought crisis or emergency, then "drought" loses important meaning and urgency needed to motivate and conserve to higher levels in drier conditions. In addition to managing during drought, we must manage other years for normally dry conditions, which will often include deliveries less than desires and storing water and suppressing some demands in preparation for still-drier drought conditions.*

<https://californiawaterblog.com/2017/01/10/tails-of-californias-drought/>

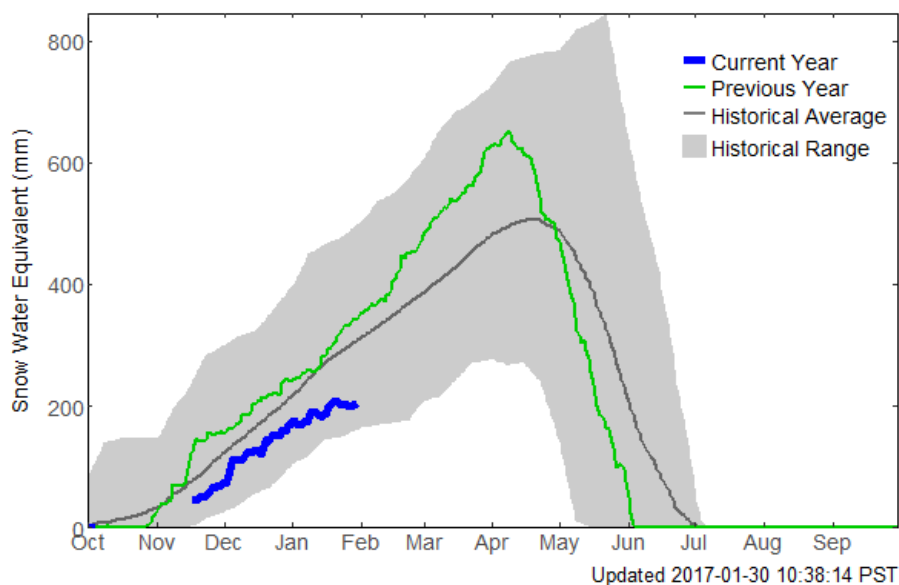
Lake Mead and the Colorado River are far from recovering. Arizona is about to launch severe water conservation policies, because there is a 50-50 chance that the lake will fall so low this year that Arizona will be cut off from its share of the water. Much of the water conservation would come from agriculture and groundwater replenishment programs. Phoenix and Tucson water rates will also increase. The lake is now 135 ft below full pool, and 34 ft above the minimum for power generation on Hoover Dam. However, they expect to benefit from a good freshet this year, given a higher than average snow pack in the mountains. For more on the Colorado River politics, see:

<http://www.desertsun.com/story/news/environment/2017/01/20/big-unfinished-business-trump-colorado-river-deals-shrinking-salton-sea/96846680/>

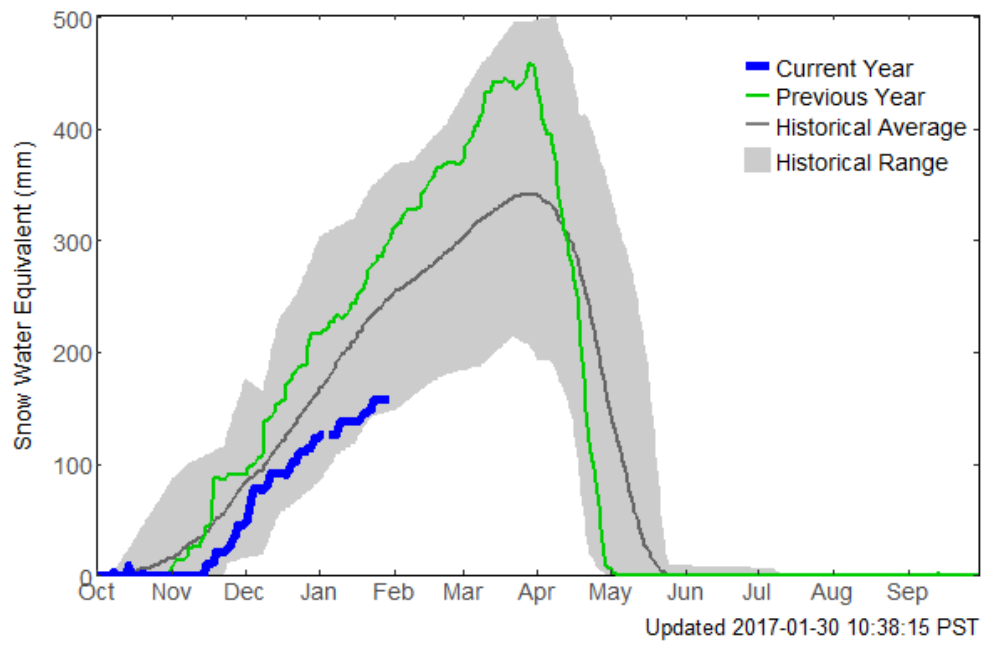
### **Weather update**

Okanagan snow packs are below average. As of January 22, the Mission Creek snow pillow was 70% of normal, and Brenda Mines was 64% of normal. Long-term weather forecasts continue to predict above normal precipitation and below normal temperatures for B.C. and Washington State, and warm, dry weather for California, but so far the opposite has occurred. There's a nice discussion of it here: <http://cliffmass.blogspot.ca/2017/01/dry-north-wet-south-expected-winter.html>

Mission Creek Snow Pillow – January 30<sup>th</sup>, 2017



Brenda Mines Snow Pillow – January 30<sup>th</sup>, 2017



# Hullcar Aquifer Inter-Ministry Working Group Updates

## *Upcoming Public Information Sessions*

### Core Ministry Team Members:

#### Director Lead:

Christa Zacharias-Homer  
Ministry of Environment  
Deputy Director, Regional  
Operations Branch

#### Technical Team Lead:

Orlando Schmidt  
Ministry of Agriculture  
Regional Manager, Coast  
and Interior

### Goals of the Inter- Ministry Working Group:

- \* To ensure safe drinking water for the residents of Hullcar Aquifer and Steele Springs Water District
- \* To build public trust and demonstrate collaboration among Ministries
- \* To determine possible sources of nitrate in the Hullcar Aquifer
- \* To foster sustainable economic development for the local agrifood sector

The inter-ministry working group is preparing to host upcoming public information sessions. Over the last few months, a significant number of scientific studies and analysis has been conducted to better understand the source, movement and persistence of nitrates in the Hullcar Aquifer. This preparation includes assessing the studies and providing feedback. Once the studies have been accepted by the Ministry of Environment, public information sessions will be scheduled. This preparation includes assessing the reports and providing feedback to the representatives conducting the studies. These results will be presented in an interactive format in the Hullcar Valley in the new year. Dates and location will be determined soon.



## *Post - Harvest Nitrate Study Released*

The Post-Harvest Nitrate Study Progress Report has been released on the Ministry website. The progress report can be found at this link:

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/soil-nutrients/nutrient-management/technical-reports/soil-nutrient-studies>

### Highlights of the report:

- In the fall of 2016, 40 agricultural fields over or near the 'Hullcar Aquifer 103' were sampled
- Post-harvest nitrate test (PHNT) values were high or very high in 38% of the fields sampled, medium in 43% of the fields, and low in 20% of the fields
- Average PHNT was 113 kg N/ha among annual crops (mostly corn), 54 kg N/ha among perennial crops (mostly alfalfa)
- Next steps will help determine how much post-harvest nitrate leaches between growing seasons



## *Environmental Impact Assessments*

Environmental Impact Study Reports have been received for Grace-Mar Farm, H.S. Jansen & Sons Farm and Ken Regehr Feedlot. Information sessions will be scheduled. Representatives from the Inter-Ministry are currently reviewing and providing feedback on each of the Reports.

## *Steele Springs Nitrate Sampling*

The Ministry of Environment sampled the SSDW overflow on December 12, 2016. The Ministry's result was 12.3 mg/L which is up from the November result (11.0 mg/L)

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## *Upcoming dates of interest:*

January	Environmental Impact Assessments being reviewed by Inter-Ministry Working Group
January TBD	Technical Communications Working Group Meeting
February (Tentative)	Public Information Sessions

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More info can be found at:

<http://www2.gov.bc.ca/gov/content/environment/air-land-water/site-permitting-compliance/hullcar-aquifer>

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## Water Law: Lessons from Colonial and Indigenous Stewardship

Professors Deborah Curran and Val Napoleon  
Indigenous Law Research Unit and Environmental Law  
Centre University of Victoria (Faculty of Law)



### Project Description

We are undertaking a research project that will explore how Indigenous communities and licenced water users in the agriculture and utility sectors steward water in the context of Indigenous and colonial water law. Focusing on three watersheds of the province where water use is at issue – the Similkameen, Cowichan, and Nemiah – we will investigate how communities use water in times of plenty and times of drought whether or not they hold the “right” to use water under licence from the provincial government. The intent is to show Indigenous and non-Indigenous community watershed stewardship and practices so as to further build collaborative watershed management relationships and processes in the context of the opportunity created by the new *Water Sustainability Act (WSA)*. Our interest is sparked by the new *WSA* that keeps in place much of the existing structure of water rights that do not change as stream flow fluctuates. Also, the *WSA* does not acknowledge Aboriginal rights to water, and it fails to consider Indigenous law born of Indigenous societies fulfilling their legal obligations to steward streams and aquifers.

It is clear from existing research that water users do not adhere strictly to their licenced water rights. Rather, in times of shortage or changing economic conditions they trade water, use less water than to which they are entitled, and work with their neighbours to optimize the water balance in their particular watershed. Their motivations are ecological, economic and social: To maintain viable communities water use must change as conditions fluctuate. The gaps between actual water use licenced under colonial law, Indigenous water stewardship, and the letter of the *WSA* raise many important questions about the interaction between watershed (land and water) stewardship and colonial law that have broad applicability to ongoing water issues in the province and elsewhere.

Our objectives are twofold:

- (1) To explore the boundaries of Indigenous laws and non-Indigenous licensee behaviour to inform how the new *WSA* can adapt to local sustainability approaches; and
- (2) To articulate and mobilize Indigenous water laws in collaborative watershed-based initiatives.

We therefore ask:

- (a) Irrespective of colonial law, how do farmers, water utilities and Indigenous communities steward and manage water, and does this correlate with the categories of the new *WSA*?
- (b) How might the *WSA* assist in the stewardship of water in a way that reflects existing local practices, Indigenous law, social relations, economic arrangements and ecological conditions?
- (c) Within each Indigenous legal order, what are/have been the legal institutions needed to operationalize Indigenous water law today?
- (d) In the partner Indigenous communities, what are the water laws and governing structures that support or undermine the legal order, and how might these be examined or addressed?



## What We Will Do

We will interview up to twenty agriculture and utility sector water rights holders in the three regions of the province to uncover how they understand and use their water rights, how they adjust to changes in stream flow in the context of water law, and how they steward water in a watershed context. At the same time, we will work with three Indigenous communities to map their Indigenous water law and draw parallels between Indigenous water stewardship and licenced water user behaviour in the context of specific watersheds.

## The Results

Our findings of how water users actually divert and use water in the context of the *Water Sustainability Act* will help us to:

1. Contribute to the mapping of Indigenous law and Indigenous approaches to the stewardship of natural resources;
2. Demonstrate watershed-based approaches to water stewardship and management that are based on socio-ecological and economic needs in a community and occurs outside of colonial legal boundaries. This information will assist local governments, landowners, First Nations, farmers and other stakeholders to collaboratively formulate water management solutions, for example through water sustainability planning or collaborative water conservation initiatives; and
3. Provide input to the provincial government about how the new *Water Sustainability Act* can assist water users to steward water in the context of changing hydrology.

The specific outcomes are to:

- i. *Produce* a body of water law and legal processes from each Indigenous legal order and from the informal non-Indigenous normative order in each watershed;
- ii. *Collaborate* with the partner communities to restate local water customs and law that will remain with them for further use, application, critical evaluation and refinement, and that will inform collaborative initiatives towards watershed-based stewardship and planning that are beginning to address the reconciliation of Indigenous and colonial legal systems;
- iii. *Reveal* local non-Indigenous water stewardship and management customs that can inform the implementation of the new *WSA* and structure of colonial water law, particularly for the creation of water sustainability plans.

## Other Collaborators

Partners and collaborators include the Centre for Indigenous Environmental Resources (Merrell-Ann Phare), First Nations Fisheries Council (Deana Machin), Cowichan Tribes (Larry George), Lower Similkameen Indian Band (Tracy Lawlor), Tsilhqot'in Nation (Crystal Verhaeghe), Water Sustainability Branch of the BC Ministry of Environment (Director Lynn Kriwoken), Okanagan Basin Water Board (Anna Warwick Sears), Water Sustainability Project of the Polis Project (Oliver Brandes, UVic), Cowichan Watershed Board (Rob Hutchins) and researchers Michele-Lee Moore (UVic Geography), Steve Conrad (SFU Resource and Environmental Management), Nigel Bankes (University of Calgary Law) and John Janmaat (UBC Okanagan).

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
February 7, 2017  
Agenda No: 7.2

File No. 0550.04

To: Board of Directors  
From: Nelson R. Jatel  
Date: January 31, 2017  
Subject: Water Stewardship Director's Report

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### Water Stewardship Council (Council)

At our December 8<sup>th</sup> Council we had two engaging speakers: Dr. Linda Nowlan presented on reforming Canada's fisheries laws; and Dr. Stewart Cohen, a 32 year veteran staff member with Environment Canada presented on some of the latest climate change data and trends and his recent paper titled: Climate and water availability indicators in Canada: Challenges and a way forward. Part III – Future scenarios.



Council Chair, Dr. Brian Guy, presented the revised Council work plan that was discussed and amended by Council. The revised work plan for the new 18 month term was adopted by Council with a unanimous vote. The new Council work plan includes the formation of new working committees, namely:

- Communication
- Environmental Flow Needs
- Water Supply and Demand Update
- Irrigation Management
- Drought and Flood Planning
- Source Water Protection and Wetlands
- Policy – Provincial / Federal

All board members are encouraged to attend our February 9<sup>th</sup> Council meeting at the Coast Capri Hotel from 12:30pm – 4:30pm. Council will be exploring ecosystem valuation with two guest speakers: Dr. Lael Parrett (UBCO) and Richard Bussanich (ONA Fisheries Department).

## Project updates

### 1) Okanagan Wetland Strategy

The Okanagan Wetland Strategy continues to be developed. The project leadership team met on January 23<sup>rd</sup> to identify final writing assignments and reviewed the latest draft version. We anticipate completing and launching the completed Okanagan Wetland Strategy at this year's September Annual General Meeting.

Topics covered in the Okanagan Wetland Strategy include:

- Area, Mandate and Goals of the Strategy
- Okanagan Wetland Extent
- Wetland Losses
- Wetland Types
- Wetland Functions and Threats
- Wetlands and Species/Ecosystems at Risk
- Wetlands and Climate Change
- Wetland Governance and Management
- Wetland Indicators
- Wetlands and Agriculture
- Wetlands Cultural Values
- Wetland Inventory and Mapping
- Wetland Restoration/Enhancement: Lessons Learned
- Action Plan



As part of the OBWB's ongoing initiative to protect, conserve and support the creation of new wetlands a new funding proposal has been developed to develop a new planning tool for constructed wetlands given the unique hydrology and climate of the Okanagan. (See the Executive Director's Report for full details.)

## Okanagan Water Stewardship Council

technical advisory committee



December 2016

### Council Members:

(Term 7: November 2016 – April 2018)

*Appointed representatives / alternates*

- **AAFC, Research Branch**  
*Denise Neilsen / Scott Smith*
- **APEGBC**  
*Don Dobson / Sue Lapp / Shawn Badasha*
- **BC Agriculture Council**  
*Hans Buchler*
- **BC Cattlemen's Association**  
*Lee Hesketh / Linda Allison*
- **BC Fruit Growers Association**  
*Kevin Day / Richard McDonald*
- **BC Ground Water Association**  
*Marta Green / Remi Alard*
- **BC Ministry of Agriculture**  
*Andrew Petersen / Stephanie Tam*
- **BC Water Supply Association**  
*Bob Hrasko / Patti Meger*
- **BC Wildlife Federation – Region 8**  
*Doug Flintoff / Lorne Davies*
- **Canadian Water Resources Association**  
*Brian Guy/ Rod MacLean/ Dwayne Meredith*
- **City of Kelowna**  
*Andrew Reeder/Jason Angus*
- **City of Vernon**  
*Ed Stranks / Rob Miles*
- **Environment Canada – Pacific & Yukon**  
*Kendall Woo / Ian Rogalski*
- **Fisheries and Oceans Canada**  
*Doug Edwards*
- **Interior Health**  
*Rob Birtles / Judi Ekkert*
- **Irrigation Council of BC**  
*Ted Van der Gulik / Bruce Naka*
- **Kelowna Chamber of Commerce**  
*Caroline Grover /Tom Dyas / Jeff Robinson*
- **Ministry of FLNRO: Fish/Wildlife**  
*Grant Furness / Lora Niel*
- **Ministry of FLNRO: Resource Mgmt**  
*Robert Warner / Ray Crampton*
- **Okanagan Collaborative Conservation**  
*Scott Boswell / Tanis Gieselman*
- **Okanagan College**  
*Allison MacMillan / Rob St Onge*
- **Okanagan Mainline Real Estate Board** David  
*O'Keefe / Howard Newfeld*
- **Okanagan Nation Alliance**  
*Zoe Eyjolfson /Elinor McGrath /Natasha Lukey*
- **RD of Central Okanagan**  
*Margaret Bakelaar / Chris Radford*
- **RD of North Okanagan**  
*Renee Clark / Jennifer Miles*
- **RD of Okanagan –Similkameen**  
*Zoe Kirk / Evelyn Riechert*
- **Shuswap Okanagan Forestry Association**  
*Murray Wilson / Michael Bragg*
- **UBC Okanagan**  
*Bernard Bauer / Carolina Restrepo-Tamayo*

### Council Report Highlights

- OBWB undertakes another round of communication with Federal/ Provincial governments pushing for a stronger protection from invasive mussels
- Term 7 work plan development – areas of focus (finalized):
  - Update the Okanagan Sustainable Water Strategy
  - Update the Phase 2 Okanagan Supply/Demand project
  - Policy
  - Communication, extension and outreach
  - Develop a decision-making framework for water licensing decisions using EFNs
  - Source water protection
  - Drought and flood planning
  - Irrigation Management
- Presentation by Dr. Stewart Cohen – Climate Impacts on water Availability in Canada – a need for collaborative adaptation
- Presentation by Dr. Linda Nowlan – Scaling up the Fisheries Act
- Zoning protocol to regulate development about large lakes pending approval
- FLNRO livestock watering regulation under development
- Drought status outreach project – two pilot projects with agricultural communities and water utilities
- RDCO and RDNO working on Regional Growth Strategy indicators and priorities; RDOS rewriting their water regulation by-laws
- BCWF conservation application has been launched for i-phone users
- WCQI grant application deadline: February 17 at 4pm
- CWRA annual national conference will take place in June 2017 in Lethbridge.

### WSC Working Committees: 2016-18 term

Committee	Progress Status				
	None	Fair	Good	Excellent	Complete
Communication, extension and outreach	✓				
EFNs Phase III – decision making framework	✓				
Update Okanagan Supply and Demand Study	✓				
Irrigation Management	✓				
Update Okanagan Sustainable water Strategy 2.0	✓				
Source water protection	✓				
Drought and flood planning	✓				
Policy	✓				

For more information contact:

**Nelson Jatel**, Water Stewardship Director  
Okanagan Basin Water board  
[nelson.jatel@obwb.ca](mailto:nelson.jatel@obwb.ca)

(250) 469-6295

[www.obwb.ca/wsc](http://www.obwb.ca/wsc)



## MEMORANDUM

Okanagan Basin Water Board Regular meeting February 7, 2017 Agenda No: 6.3
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File No. 0550.04

To: OBWB Chair and Board  
From: James Littley  
Date: February 1, 2017  
Subject: Operations and Grants Manager Report

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### Milfoil Control Program Update

Milfoil de-rooting activity is currently concentrated in central Okanagan Lake, as heavy ice in the north Okanagan has made many areas impassable. All three rototillers and our shallow-water cultivator are currently being used for de-rooting.

In January, Dr. Sears and I presented to the three Regional District Boards for approval of OBWB's 5-year Asset Replacement Plan. With the approval of the plan, we have put out a Request for Proposals for the design of one aquatic harvester and one rototiller, which meet Transport Canada regulations. The intention is to work with a marine architect or engineer, to ensure that the design of any new machines meets our operational needs, as well as all Canadian regulations, prior to calling for tenders to build the machines. Any recommendation for awarding of a contract will be sent to the Board at the March meeting.

As part of our 5-year Asset Replacement Plan, we had anticipated purchasing one used shop truck this year, and one used shop truck in 2020. The shop trucks are used to transport our operators, fuel, equipment and replacement parts throughout the valley, in some cases adding 40,000 km per year. In the past, OBWB has had one shop truck for three operators, while the other operators received a vehicle allowance or mileage reimbursement to use their personal vehicles. At the current CRA reimbursement rates it is more cost-effective to provide a used truck for those operators regularly travelling long distances. This will bring the number of shop trucks to three, with no further shop truck replacements anticipated in the 5-year plan. This will not affect the total budget for the 5-year plan, and will not significantly affect the equipment reserve. Following our purchasing policy that requires a board resolution, I recommend:

#### **Recommendation:**

***"THAT the OBWB authorize the anticipated 2017 and 2020 shop truck purchases to be made in the current fiscal year, to a maximum price of \$30,000 per unit."***

### SFA Grant Program

The OBWB has received the following application for new grant funding from the City of Vernon. This is an application to install a sewer line in the Smith Road Area. The total budget for this application was \$234,041 servicing 95% pre-1978 development. The total annual OBWB grant for this project would be \$2,908.78. This project has passed provincial review, and meets all OBWB requirements.

#### **Recommendation:**

***"THAT the SFA application for the City of Vernon Smith Road project be approved as outlined above."***

### **Invasive Mussel Update**

In December, staff participated in an Emergency Call to Action meeting regarding invasive mussels, hosted by PNWER, ISCBC and the Alberta Invasive Species Council. Following this meeting, ISCBC provided a point-form summary of the key Calls to Action. Using this summary, OBWB staff created a list of actions to be called-for from each level of government, and also collaborative actions which could be worked on by other organizations. I have attached this list for discussion.

## **Invasive Mussel Prevention Call to Action Framework**

This document provides a framework identifying the responsible participants for the calls to action made during an “Emergency Call to Action Meeting” hosted by PNWER, ISCBC and AISC, on December 9<sup>th</sup>, 2016.

### **Calls for Federal Action:**

1. Work with provinces and territories to ensure that 100% of boats are inspected before entering Western Canada.
  - Provide funding to match current inspection and containment spending in western provinces.
  - Ensure a standard approach is taken by Canada Border Services Agency (CBSA) offices across Canada, using Uniform Minimum Protocols and Standards for Watercraft Interception Programs for Dreissenid Mussels.
2. Work with provinces to shorten and streamline regulatory requirements for the use of treatment tools (such as chemical or biological treatments) for research, and for rapid response to invasive mussel infestations.
3. Include funding for invasive mussel prevention and response in the Columbia River Treaty Review as an improvement within the existing framework.

### **Calls for Provincial Action (B.C. Specific):**

1. Ensure 100% of boats are inspected before entering B.C.
  - Expand watercraft inspection station hours and dates of operation.
  - Develop a business plan for ongoing operations at all entry points to the province.
  - Explore regulatory options to restrict boat passage at borders to specific locations or times.
  - Increase enforcement options to ensure that all high-risk boats follow through and report to decontamination stations.
  - Explore options for using mussel-sniffing dogs to identify infestations.
  - Explore options for centralized decontamination centres as a cost-saving measure.
2. Explore regulatory changes for mandatory registration of boats using B.C. waters.
  - Explore developing an education module on invasive mussels for pleasure craft boat licensing, and other water related licencing information, such as fishing regulations.
3. Review and update regulatory tools to enable that invasive mussels can trigger an environmental emergency.
  - Update “Early Detection Rapid Response Plan” for B.C. to include containment plan consistent with the B.C. Emergency Management System “Elements of an Emergency Plan” Framework.
  - Ensure development of specific sampling plan and procedures as part of the emergency response plan.



- Ensure communication tools and process is in place for emergency response.
  - Host emergency response exercise with relevant organizations to rehearse containment, communications and response, and to identify gaps.
4. Provide training materials and programs for distribution to water-related industries, local governments and local organizations to increase awareness, and capacity for early detection.

Calls for Collaborative Action:

1. Draft letters to federal and provincial governments calling for actions as outlined above, with multiple signatories, and invite letters of support from other organizations.
2. Explore new funding opportunities including:
  - Growing Forward 3
  - Infrastructure Canada
  - Insurance Corporation of British Columbia (partial user-pay on boat trailers)
  - Fisheries and Oceans Canada, Environment and Climate Change Canada, Transport Canada, Health Canada
3. Increase Research to include:
  - Effects of invasive mussels on local native fish populations
  - Control and eradication methods
  - Infrastructure protection materials and methods
4. Increase collaboration and communication including:
  - Increase voluntary compliance/certification with boaters and freshwater users
  - Work with watercraft industries (marinas, boat haulers, yacht clubs etc.) to ensure voluntary compliance with Clean, Drain, Dry and establish a “certification” for compliance
  - Establish a sampling and monitoring plan for B.C. which increases monitoring efforts with centralized reporting
  - Continue to engage multiple federal ministries to increase involvement and funding and to ensure a cohesive, collaborative response
  - Continue to work with B.C. Wildlife Service to prevent transfer of aquatic invasive species (AIS) within B.C.
  - Explore outreach and partnership opportunities with First Nations
  - Engage local governments and UBCM to increase AIS awareness, and incorporate into existing terrestrial invasive species programs
5. Enhance outreach through use of senior government websites, programs and resources available to schools and re-branding of key messages to include testimonials from affected people and industries.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
February 7, 2017  
Agenda No: 7.4

File No. 0550.04

To: OBWB Directors  
From: Corinne Jackson  
Date: February 1, 2017  
Subject: Communications Director Report

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### Make Water Work 2016-2017

The wrap-up report for Make Water Work 2016 is attached. Looking at final results, we were able to leverage some \$48,000 in funding (\$2-3,000 in funding from 14 local government/utility partners matched by the OBWB-Okanagan WaterWise) to deliver a campaign valued at \$80,823 thanks to in-kind support from media and business partners. Since 2012, the annual investment from local governments, matched by us, has delivered a valley-wide campaign worth an estimated value of \$648,837 – with radio, billboards, stories in newspapers, radio and TV, Facebook ads, etc. – all speaking with one voice on conservation.

A few more highlights from 2016 ...

- 1) We freshened up the **website** ([www.MakeWaterWork.ca](http://www.MakeWaterWork.ca)), including the “Pledge” page with interactive map showing who took the pledge, updated the “Plant” page, “What’s New” pages and others.
- 2) We attracted **more visitors than ever to the website** – encouraging people to pledge to save water, providing conservation tips, helping them find your water restriction web pages, and more. In all, we had 5,148 visits (3,742 unique).
- 3) We added 2 NEW **Make Water Work Plant Collection partners** – Sagebrush Nursery and Grasslands Nursery – bringing the number of Okanagan garden centres partners from 7 to 9 in total.
- 4) This year’s campaign included...a **news conference** launch at the UnH2O (xeriscape demonstration) Gardens in Kelowna, attended by mayors and deputy mayors from throughout the valley, as well as media.
- 5) An expanded **MWW Plant Collection** (from 23 to 54 varieties).
- 6) The creation of 3 **MWW demonstration gardens** (1, 2, and 3-drop beds) at Summerland Ornamental Gardens.
- 7) The unveiling of the MWW garden funded through an RBC Blue Water grant at RDOS.
- 8) Expanded use of the MWW **web badge** by partners. Again, trying to encourage all partners to post the badge on their own websites where it is easily seen and hyperlinked to [MWW.ca](http://MWW.ca), improving visibility of the water conservation message.
- 9) Series of 4 **posters**, including a revised “Plant Collection” poster for display in communities, branded with each partner’s logo
- 10) **Vehicle magnets** for utilities to help promote the water conservation message

- 11) **Postcards** for distribution with conservation tips, info on the contest and plant collection
- 12) **Radio ads** on Bell Media stations throughout the valley, branded with each partner's name
- 13) **Contest** with more than \$8000 in prize from KelownaGardens.com, Bylands, ProSource Irrigation and Eco-Turf
- 14) **Billboards, bus shelters and buses**, branded with each partner's logo
- 15) **Kelowna Now sponsored story** in addition to at least 22 news stories in other Okanagan media
- 16) **Fridge magnets**
- 17) **Facebook ads**
- 18) **Social media posts** (by OkWaterWise on Facebook, Twitter and (NEW) Instagram, as well as posts from KelownaGardens.com, and many of our partners)
- 19) **Yard signs** for utilities to post in appropriate garden beds and give to residents to post
- 20) **MORE MWW Frisbees**
- 21) An Okanagan WaterWise Communications and Outreach Coordinator for the summer, to help with face-to-face **outreach support** for MWW and other OBWB/OkWaterWise outreach initiatives.

A large part of the success of the Make Water Work program is due to our partners helping get the word out – from collecting pledges at various community events (e.g. Peachland's MWW event), using the vehicle magnets to increase awareness, posting & hyperlinking a MWW web badge on websites, etc. A call has now gone out to our partners, offering matching funds for a 2017 MWW campaign. To date, we have confirmation from RDNO-Greater Vernon Water, Lake Country, Peachland, Penticton, Oliver and Osoyoos.

Above and beyond the MWW campaign, the OBWB also has a contract with the Okanagan Xeriscape Association to provide hands-on WaterWise education and outreach in the community.

#### **Don't Move A Mussel 2016-2017**

Please find the wrap-up report for Don't Move A Mussel 2016 attached. Last year, we were able to use our \$47,000 to attract an additional \$58,240 in in-kind support to deliver a program valued at more than \$105,000.

In looking at the work that has been done since 2013 when we launched DMM, the OBWB and its Okanagan WaterWise program have spent a little over \$176,270 on the campaign (including a website at [DontMoveAMussel.ca](http://DontMoveAMussel.ca), radio ads, billboards, etc.). Thanks to support from media partners and others, we have leveraged these dollars to provide a campaign worth more than \$652,700 over the last four years.

In addition to the annual DMM media campaign, the OBWB has each year hired a summertime Communications & Outreach Coordinator to assist with DMM, MWW and other outreach. The OBWB has also contracted with the Okanagan and Similkameen Invasive Species Society (OASISS) to assist with additional DMM direct outreach to boaters, and mussel monitoring. OBWB has also contributed substantial staff-time, including liaising and attending meetings with senior government officials and others on the mussel issue – all important in helping keep Okanagan waters mussel-free.

Work is already underway to re-launch DMM 2017 – with discussions regarding billboards, advertising to snowbirds who will be returning to our valley soon, and more. We have also provided new decals to Formula 1 tunnel boat racer Mike McLellan who has a new boat with new sponsors. Mr. McLellan approached us in 2015, wanting to help promote the DMM message and he's already out there talking mussels in advance of the 2017 boating season, including at the Vancouver Boat Show held Jan. 18 to 22 and at Vernon Winter Carnival this weekend. We're still waiting on photos of the decal boat and truck, but below is a post from his Facebook feed.



#### **Other communication initiatives:**

Following up on a motion made at the last board meeting, we put out a news release December 15, accompanied by the letter sent to the federal government calling for a stronger mussel defence now that a key Pacific Northwest ally, Montana, is infested. The news release also spoke to our ongoing call to the province for improvements to B.C.'s mussel prevention program. The release was picked up and appeared in media province-wide. A summary is provided below, including hyperlinks to a few of the pieces.

We have been invited once again to partner with RDCO's Waste Reduction Office to sell rain barrels in conjunction with the sale of their composters. We have agreed to pre-sell 200 at cost. (Last year we committed to selling 100 which sold out one week into the month-long sale, and ended up upping the amount to 150.) Advertising will begin soon.

We are pleased to announce Alyssa Bougie has accepted a contract as our Okanagan WaterWise Communications and Outreach Coordinator. In past years this position has been in place June to September. However, thanks to a grant through the UN Association of Canada and Social Development Canada's Green Corps program, we were able to hire someone sooner. Ms. Bougie begins on Thursday, Feb. 2 and will be helping with Canada Water Week/UN World Water Day events (March 19-25), Make Water Work, Don't Move A Mussel and other public outreach activities.

#### **Summary of Recent Media**

- |         |   |
|---------|---|
| Nov. 23 | "Water conservation and quality improvement grants accessible," <i>Lake Country Calendar</i>                                    |
| Nov. 30 | "Water conservation and quality improvement grants accessible," <i>Kelowna Capital News</i>                                     |
| Dec. 1  | "Our resilient Okanagan," <i>Castanet</i>   |
| Dec. 14 | "Editorial: Mussels keep marching," <i>Vernon Morning Star, Lake Country Calendar</i>   |
| Dec. 14 | "Invasive zebra mussels found for the first time in Montana. Is BC next?," <i>Cantech Letter</i> (online tech news)             |
| Dec. 15 | " <a href="#">Westward expansion of invasive mussels creeps closer to the Okanagan.</a> " <i>Global Okanagan</i> (VIDEO LINKED) |

Dec. 15 "Invasive mussels pushing their way to B.C.," *Penticton Western News*, *Salmon Arm Observer*

Dec. 15 "Invasive mussels found in Montana - Okanagan Water Board calls for tighter restrictions at home," *InfoNews Kelowna*

Dec. 15 "Water Board calls for stronger defence against invasive mussels," *Kelowna Now*

Dec. 15 "Invasive mussels closer to Okanagan," *Kiss FM Vernon*

Dec. 19 "[Mussels in Montana prompt Okanagan Basin Water Board to renew calls for stronger prevention by feds and province](#)," *The Early Edition - AM1150 (AUDIO LINKED)*

Dec. 21 "Invasive mussels getting through US inspections," *Salmon Arm Observer*

Dec. 21 "Invasive mussels getting through US inspections," *Province-wide Black Press*, including *Kelowna Capital News*, *Salmon Arm Observer*, *Revelstoke Review*, *Fernie Free Press*

Jan. 4 "[Vaseux Lake residents concerned about lake water quality](#)," *InfoNews Kelowna*

Jan. 5 "Mussel money," *Kiss FM Vernon*

Jan. 6 "No taxpayer funds for drought-tolerant landscaping," *Vernon Morning Star*

Jan. 9 "Creeks target of water quality study," *Vernon Morning Star*

Jan. 11 "[Unearthing a creek](#)," *Castanet Penticton*

Jan. 12 "RDCO board meeting highlights - OBWB equipment replacement," *InfoNews Kelowna*

Jan. 14 "RDOS director looks back at 2016 - OBWB invasive mussels efforts," *Penticton Western News*



# MAKE WATER WORK 2016 CAMPAIGN WRAP UP REPORT

## BILLBOARDS, BUS SHELTERS & BUSES



SUMMERLAND BUS SHELTER



KELOWNA BUSES



RDOS BILLBOARD CREATIVE



ACTUAL PENTICTON BILLBOARD

**TOTAL BILLBOARDS, BUS SHELTERS AND BUSES (May 16–September 18)**

**19**

**LOCATIONS**

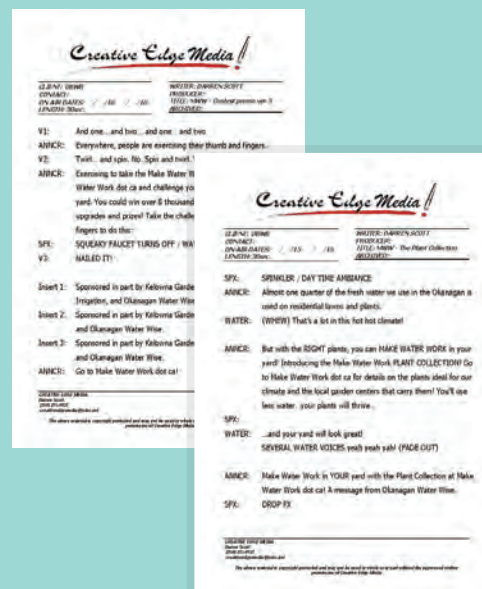
Armstrong, Vernon, Lake Country, Kelowna(5),  
Peachland(3), Summerland(4), Penticton(2), Oliver(2)

**TOTAL IMPRESSIONS (BILLBOARDS & BUSES ONLY)**

**9,232,735**

470 15 weeks within May 4 – Sept.6 30-second commercials  
(235 paid, 235 bonus)

Armstrong	RDNO	Lake Country	SEKID
BMID	GEID	RWD	Kelowna
Peachland	Summerland	Penticton	RDOS
Oliver	Osoyoos		



## FACEBOOK AD REPORT

CONTEST ADS (JULY 7 – AUGUST 20)	IMPRESSIONS	CLICKS	CTR*	FREQUENCY**	ACTIONS***
Contest	116,754	1,832	0.27%	3.24	1,896
<hr/>					
REGULAR ADS (JULY 13 – JULY 31)					
Water Between Dusk & Dawn	9,318	88	1.14%	1.14	144
Water Plants Not Pavement	15,394	85	1.18%	1.22	216
Don't Mow, Let it Grow	12,220	111	0.9%	1.21	131
Plant Collection	10,142	231	0.43%	1.25	342
<hr/>					
TOTAL	47,074	515	0.91%	1.21	833
2016 TOTALS	163,828	2,347	0.59%	2.23	2,729
(2015 – JUNE 15 – SEPT. 18	99,430	3,051	3.07%	2.41	1,639)

**Okanagan WaterWise** 

Written by [Pulse Group Media & Communications Ltd](#) [?] · July 7 · 

Make Water Work and you could win a WaterWise yard makeover!



**Make Water Work!**

Take the challenge to Make Water Work for your chance to win a WaterWise yard upgrade, valued at up to \$6,000! Pledge with us to conserve this precious resource! Contest ends August 21st, 2016.

[Learn More](#)

[WWW.MAKEWATERWORK.CA](http://WWW.MAKEWATERWORK.CA)

**Okanagan WaterWise**  
Written by: Pulse Group Media & Communications Ltd (T: July 13) - 46

Did you know? The Okanagan has one of the highest rates of water use per person in Canada. **MAKE WATER WORK!**



**Put water where it's needed**

**Water plants, NOT pavement.**

Take the challenge today! Pledge to Make Water Work for your chance to win \$8,000 in WaterWise yard prizes!

[LEARN MORE](#)

**Changnan Water/Wire**  
 Division of Pulse Group Media & Communications Ltd. July 12, 2016

Did you know? 24% of ALL water used in the Changnan is used on our household lawns and gardens. **MAKE WATER WORK!**



Water stays longer when grass is longer

**Don't mow. Let it grow!**  
 Take the chance today! Pledge to Make Water Work for your chance to win \$8,000 in WaterWire and gear!

[GET IN WATERWORK@CHANGNAN.COM](#)

**Learn More**

Okanagan WaterWise  
 (link to Plant Group News & Communications List) [Like](#) [+1](#) [Share](#)

There is LESS water available per person in the Okanagan than anywhere else in Canada. Discover WaterWise plants with the MAKE WATER WORK! Plant Collection!

Choose plants suitable to our dry climate

Beautiful plants, less water!  
 Take the challenge today! Plant to Make Water Work for your chance to win \$8,000 in WaterWise yard prizes!

okanaganwaterwise.ca

Learn More

\*CTR = Click Thru Rate

“The average number of times each person saw your ad

“The number of actions (page likes, shares, web visits, etc) taken after someone sees your ad, even if they didn’t click on it.



## VEHICLE & FRIDGE MAGNETS



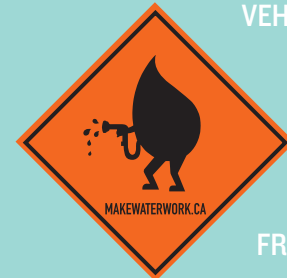
TOWN OF OLIVER



SOUTH EAST KELOWNA  
IRRIGATION DISTRICT



VEHICLE MAGNET



FRIDGE MAGNET

### TOTAL PIECES

14 vehicle magnets (1 per local government / utility partner to supplement 2015 supply)

3,000 fridge magnets distributed by local government / utility partners, contest partners & others

## FRISBEES



### TOTAL PIECES

2,000 Frisbees distributed by local government/utility partners and others

## YARD SIGNS



LAKESHORE DRIVE, KELOWNA



GARDEN WORKS, PENTICTON

### 6"X6" SIGNS

140

### 4"X4" SIGNS (NO NEW SIGNS IN 2016)

55

### DISTRIBUTED TO

MWW local government / utility partners, garden centre and contest partners (KelownaGardens.com, Bylands, ProSource Irrigation, Eco Turf Farms, Okanagan Xeriscape Association and 9 garden centres carrying the MWW Plant Collection)





## RACK CARDS

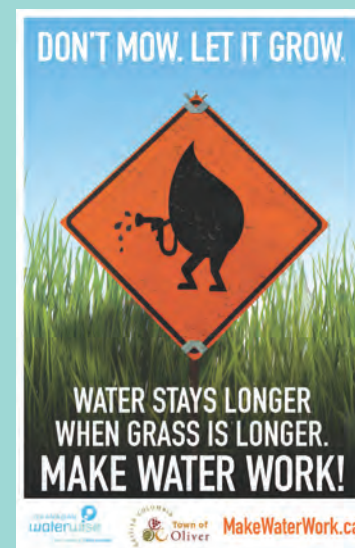
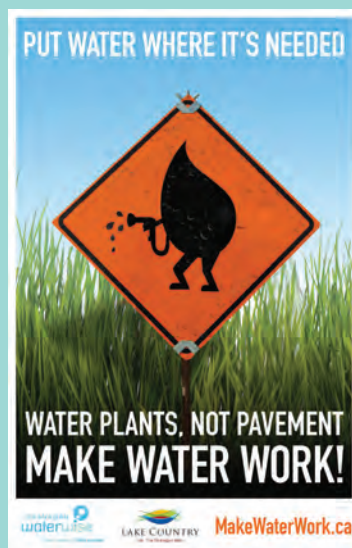


## TOTAL PIECES

5,000

Distributed by MWW local government / utility partners, contest partners, garden centre partners and others

## 4 POSTER SERIES



## VERSIONS

Armstrong  
BMID  
Peachland  
Oliver

RDNO  
GEID  
Summerland  
Osoyoos

Lake Country  
RWD  
Penticton  
Okanagan WaterWise

Kelowna  
SEKID  
RDOS

## KELOWNA NOW ADS\*

### SKYSCAPER (RECTANGLE) ADS (JULY 15 – AUGUST 21)

### IMPRESSIONS

### CLICKS

### CTR\*

96,009

20

0.0002%

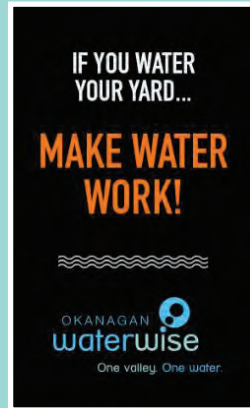
### SQUARE ADS (JULY 15 – AUGUST 21)

48,806

34

0.0007%

\*Kelowna Now provided in-kind animated ads with purchase of sponsored content



## KELOWNA NOW SPONSORED CONTENT

Sponsored - posted August 6, 2016 by Kathryn Helms

### Discover the beauty of xeriscape in the dry Okanagan

**NowLabs**  
CONTENT

Did you know that there is less water available in the Okanagan than anywhere else in Canada? Not only do we have less water, the Okanagan has one of the highest rates of water use per person in the nation! With the arrival of another deliciously warm Okanagan August, many of us are searching for ways to decrease water usage. Because 24% of all domestic water we use is on household lawns and gardens, xeriscaping is one solution to our water challenges.

For some, xeriscaping may be an uninviting word, reminiscent of an ugly, brown cactus surrounded by a grey, drab rock garden. Fortunately, xeriscaping is not about dry, rocky landscapes. Despite being a garden design focused on working with the natural environment, xeriscaping can be luscious and beautiful.

With Okanagan WaterWise's annual Okanagan-wide Make Water Work Challenge, it's time for us to step up our game and conserve some water. Visit their website for water-saving tips and learn how to make your yard and garden drought resistant for the chance to win a \$6,000 WaterWise yard upgrade.

#### The garden before xeriscaping

Many Okanagan yards are composed of traditional grass, exposed sandy beds and water dependent plants.

Traditional turf can be a thirsty, labour intensive and chemically addicted plant.

**KelownaNow**  
August 6

Helping our community and the environment is rarely so enjoyable and satisfying...

### Discover the beauty of xeriscape in the dry Okanagan

sponsored: Did you know that there is less water available in the Okanagan than anywhere else in Canada? Not only do we have less water, the Okanagan has one...

KELOWNANOW.COM | BY KELOWNANOW

Like Comment Share

Karen Munro, Phillip James and 10 others

Chronological

### SPONSORED STORY (PUBLISHED AUGUST 6, 2016)

1,218 reads (as of August 15, 2016)

### FACEBOOK POST (STORY PROMOTION)

3,386 people reached

12 likes/reactions

3 comments

In addition the the above, there were at least 22 stories generated in Okanagan media regarding the campaign between May – November.



## PLANT COLLECTION\*

IN 2016, OUR MAKE WATER WORK GARDEN CENTRE PARTNERS GREW TO 9! OBWB-OK WATERWISE COORDINATED THE DESIGN, PURCHASE AND DISTRIBUTION OF MARKETING MATERIALS, INCLUDING FLYER BANNERS, BENCH TAPE, PLANT STICKERS, POT STAKES AND RADIO ADVERTISING FOR THE 9 PARTNERS BETWEEN ARMSTRONG AND OSOYOOS.



### TOTAL PIECES

8 banners

236.5 feet of bench tape

3,000 plant pot stickers

55 pot stakes (no new stakes purchased in 2016)

\*Although the Plant Collection materials were not part of the MWW campaign budget, the effort does tie into the MWW campaign.



## ADDITIONAL OUTREACH



### OBWB - OKANAGAN WATERWISE (JUNE 18 – SEPT. 3)

24 events  
1,286 interactions

\*In addition to outreach by OK WaterWise staff, MWW partners also held a number of events which helped promote the Make Water Work initiative and water conservation. Photos from some of those events are included here.



## WEBSITE

### HOME PAGE



### PLEDGE PAGE



### NEWS PAGE



### WINNERS GALLERY PAGE



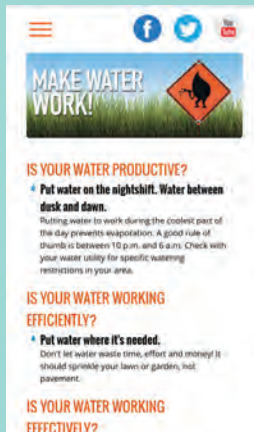
## MOBILE RESPONSIVE SITE

(LAUNCHED NOV. 21, 2016)

### HOME PAGE



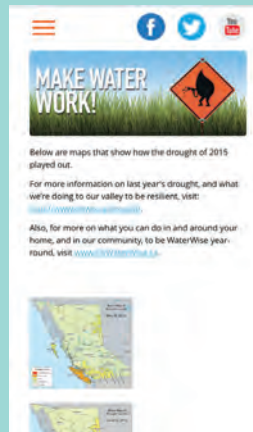
### TIPS PAGE



### PLANTS PAGE



### DROUGHT PAGE



## MAKEWATERWORK.CA GOOGLE ANALYTICS

TOTAL VISITS (MAY 1 - OCTOBER 15, 2016)

5,148 (3,742 unique)

PAGES PER VISIT

2.06

AVERAGE VISIT DURATION

00:01:45

CONTEST ENTRIES

720 (514 Unique)



## OVERALL COST & RESULTS

	OBWB & PARTNERS	IN KIND	VALUE
<b>BILLBOARDS</b> (SPACE & PRODUCTION)	\$18,427.50	\$5,750.00	\$24,177.50
<b>BUS SHELTERS</b> (PRODUCTION)	\$869.87	\$0.00	\$869.87
<b>BUS ADS</b> (SPACE & PRODUCTION)	\$5,876.00	\$5,850.00	\$11,726.00
<b>BELL MEDIA ADS</b>	\$7,045.00	\$7,500.00	\$14,545.00
<b>FACEBOOK ADS</b>	\$1,500.00	\$0.00	\$1,500.00
<b>KELOWNA NOW ADS</b>	\$0.00	\$5,720.00	\$5,720.00
<b>FRISBEES</b> (+ SHIPPING)	\$3,056.50	\$0.00	\$3,056.50
<b>FRIDGE MAGNETS</b> (+ SHIPPING)	\$932.00	\$0.00	\$932.00
<b>CAR MAGNETS</b>	\$728.00	\$0.00	\$728.00
<b>RACK CARDS</b>	\$677.82	\$0.00	\$677.82
<b>YARD SIGNS</b>	\$1,190.70	\$0.00	\$1,190.70
<b>RADIO CREATIVE &amp; PRODUCTION</b>	\$1,200.00	\$0.00	\$1,200.00
<b>SPONSORED CONTENT</b> (WRITING & PUBLICATION)	\$2,000.00	\$0.00	\$2,000.00
<b>PRIZING</b> (KELOWNAGARDENS.COM, BYLANDS, PROSOURCE IRRIGATION, ECO TURF)	\$0.00	\$8,000.00	\$8,000.00
<b>AGENCY SERVICES</b> (DESIGN, MANAGEMENT AND WEB UPDATES)	\$5,000.00	\$0.0	\$5,000.00
<b>TOTAL</b>	<b>\$48,503.39</b>	<b>\$32,820.00</b>	<b>\$80,823.39</b>

# DON'T MOVE A MUSSEL 2016 CAMPAIGN WRAP UP REPORT

## BELL MEDIA REPORT



## SUMMARY

193 30-sec. commercials region wide

553 30-sec. commercials (bonus)

192 60-sec. live & recorded sponsor cut-ins (brought to you by DMM)

DMM exposure & link on SunFM event webpages (Kelowna, Vernon, Penticton)

Logo on SunFM Kelowna FunSeeker, Vernon FunFinder, Penticton Heatseeker

Approx. 18 social media posts (Facebook, Instagram)

Distribution of 225 muscle shirts at approx. 32 outreach events

Distribution of 900 rack cards at approx. 32 outreach events

May 13 – September 6

May 13 – September 6

June 23 – August 27

June 22 – September 6

June 22 – September 6

June 29 – September 21

June 23 – August 27

June 23 – August 27



## SUMMARY

197 30-sec. commercials (105 on K96.3 Kelowna, 92 on Country 100.7 – heard Okanagan-wide)

May 16 – September 11

197 30-sec. commercials (bonus: (105 on K96.3 Kelowna, 92 on Country 100.7 – heard Okanagan-wide)

May 16 – September 11

DMM web badge hyperlinked to DMM from K96.3 Kelowna and Country 100.7 homepages

May 16 – September 19

18 Social media posts (Facebook, Instagram)

May 16 – September 11

Street Team outreach at 29 locations

June 1 – August 28

Distribution of 160 DMM floating keychains, 300 rack cards and 112 DMM muscle shirts at 27 events

July 1 – August 28

Logo on Summer Community Cruiser

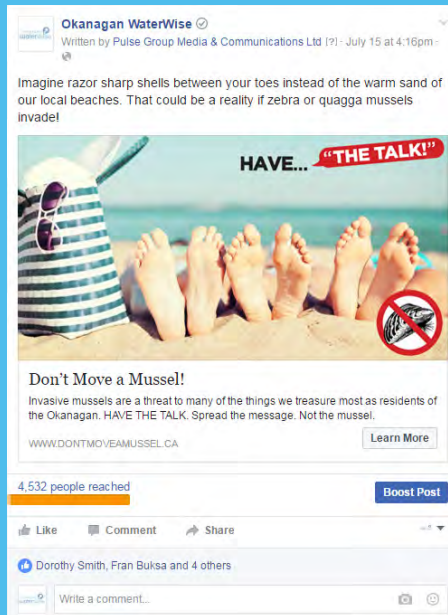
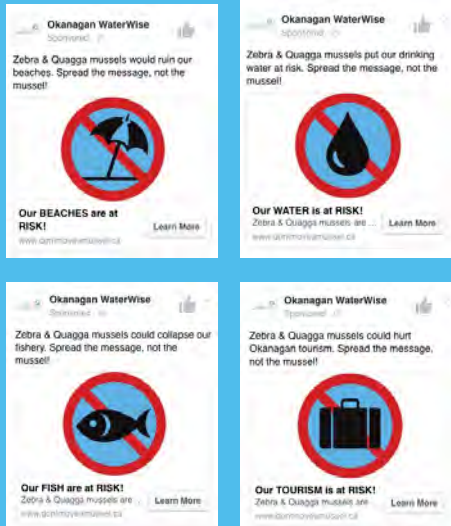
July 1 – August 28

39 on-air community reports over 15 weeks

May 16 – August 28



# FACEBOOK AD REPORT



## 2016 DMM FACEBOOK STATS

"HAVE THE TALK" AD CAMPAIGN	REACH	IMPRESSIONS	CLICKS	CTR	FREQUENCY	ACTIONS
<b>JULY 8 – JULY 12</b>						
Economy Trio	6,804	9,197	213	0.14	1.35	217
Lesiure Trio	5,600	7,659	140	0.19	1.37	145
Beaches	5,968	14,015	40	0.26	2.35	43
Water Trio	2,431	3,151	41	0.20	1.3	42
Tourism	3,672	6,987	40	0.17	1.9	41
Lakes	3,574	3,753	51	0.11	1.89	51
Houses	2,643	4,551	30	0.15	1.72	31
Fish	1,293	1,789	17	0.20	1.38	25
Taxes	937	1,554	6	0.52	1.66	6
Boats	1,450	2,311	15	0.10	1.59	16
Water	211	326	0	0.00	1.55	0
Economy	398	603	0	0.00	1.52	2
<b>SUB TOTAL</b>	<b>34,981</b>	<b>55,896</b>	<b>593</b>	<b>0.17</b>	<b>1.63</b>	<b>619</b>
<b>JULY 15 – AUGUST 4</b>						
Feet	11,656	15,652	94	1.06	1.3	155
Boat	12,080	14,366	110	0.91	1.23	197
<b>SUB TOTAL</b>	<b>23,736</b>	<b>30,018</b>	<b>204</b>	<b>0.99</b>	<b>1.27</b>	<b>352</b>
<b>AUGUST 18 – SEPTEMBER 18</b>						
Feet	40,383	35,4018	580	0.88	8.77	606
Boat	29,671	15,7369	326	0.89	5.3	405
<b>SUB TOTAL</b>	<b>70,054</b>	<b>51,1387</b>	<b>906</b>	<b>0.89</b>	<b>7.04</b>	<b>1,011</b>
<b>GRAND TOTAL</b>	<b>128,771</b>	<b>597,301</b>	<b>1,703</b>	<b>0.68</b>	<b>3.31</b>	<b>1,982</b>

Ads ran between July 8 – September 18, 2016

\*The average number of times each person saw your ad

\*\*The number of actions (page likes, shares, web visits, etc) taken after someone sees your ad, even if they didn't click on it.

BILLBOARDS & BUS ADS

BUS ADS



BILLBOARDS



BILLBOARDS

BUS ADS

LOCATIONS

IMPRESSIONS

6 (May 16 – September 21)

3 (July 4 – September 25)

Enderby/Armstrong, Vernon, Lake Country, Penticton, Oliver, Osoyoos, Kelowna

6,568,958+



## PUBLICATIONS

SunCruiser Okanagan Boating  
(front page 'promo', full page ad, 1 page editorial)

## DATES

April 2016

## DISTRIBUTION

20,000



## RACK CARDS

# DON'T MOVE A MUSSEL



**INVASIVE MUSSELS COULD COST US \$40 MILLION/YEAR**

### WHAT IS AT RISK IN THE OKANAGAN?

- Our **beaches** – covered with sharp shells and the smell of decaying mussels
- Our **fish and lakes**, with potential collapse of our fishery and lake eco-system
- Safety of our **drinking water** from toxic algae
  - Boats and motorcraft with mussel clogged motors
- Increased taxes to help manage the infestation

HELP SPREAD THE MESSAGE, **NOT** THE MUSSEL.  
**DONTMOVEAMUSSEL.CA**

OKANAGAN waterwise  
One today. One water.



oasiss  
Okanagan and Similkameen  
Invasive Species Society

## Protect B.C. Waters from ZEBRA & QUAGGA MUSSELS



Zebra and quagga mussels are propeller blade shaped freshwater mussels that can reach up to 30mm in size. They are not yet in British Columbia and pose a serious threat to native species in our lakes and rivers.

Live mussels attached to boats, other watercraft and recreational equipment can easily be transferred from one body of water to another. Mussel larvae can float undetected in water in bait buckets, live-wells, pumps and bilges.

Once introduced, zebra and quagga mussels are very difficult to eradicate and costly to remove. They threaten native species and fisheries, and increase maintenance costs of hydroelectric, domestic water, industrial, agricultural and recreational facilities.

**Practicing CLEAN, DRAIN, DRY is key to stop invasive mussels from entering B.C.**

- CLEAN** off all plants, animals and mud from your boat and equipment (e.g. boots, waders, fishing gear). Use available power washing stations.
- DRAIN** onto land all water from bait buckets, live-wells, pumps, motor, bilges, and remove drain plugs.
- DRY** all items completely before launching the watercraft into another body of water.

**CHECK HIDING SPOTS FOR INVASIVE SPECIES.**



**REPORT INVASIVE MUSSELS: 1-877-952-7277 (RAPP)**  
(B.C. CONSERVATION OFFICER SERVICE)

## POSTERS

# DON'T MOVE A MUSSEL

**INVASIVE MUSSELS COULD COST OVER \$40 MILLION/YEAR**

### WHAT IS AT RISK IN THE OKANAGAN?



OUR FISH   OUR LAKES   OUR BEACHES   OUR WATER  
OUR TOURISM   OUR ECONOMY   OUR PROPERTY VALUES   OUR BOATS

HELP SPREAD THE MESSAGE, **NOT** THE MUSSEL.  
**DONTMOVEAMUSSEL.CA**

OKANAGAN waterwise  
One today. One water.

oasiss  
Okanagan and Similkameen  
Invasive Species Society



THE ACTION PLAN  
2016-2019

### TOTAL PIECES

7,500 – rack cards

8.5 x 11 posters – no new prints required in 2016

11 x 17 posters – no new prints required in 2016

### DISTRIBUTED BY

Distributed by OBWB/Okanagan WaterWise and at least 5 partners to approximately 440 locations (both items were distributed to local governments, tourism offices, water recreation business & groups, and at boat launches and events throughout the Okanagan).

## MUSCLE SHIRTS



### TOTAL PIECES DISTRIBUTED BY

500  
OBWB/Okanagan WaterWise,  
Bell Media and Newcap, and  
Okanagan and Similkameen  
Invasive Species Society  
(OASISS)



## ADDITIONAL OUTREACH



**OBWB — OKANAGAN WATERWISE**  
(1 STAFF PERSON)

22 event

1,266 interactions

**OASISS**  
(3 OUTREACH STAFF)

31 events over 37 days

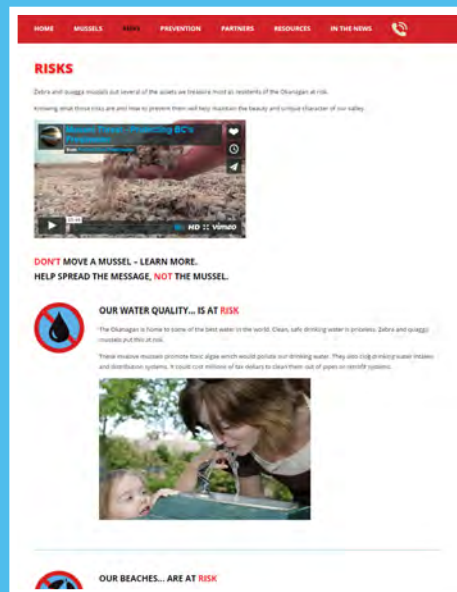
1,821 interactions

19 boat launches over 97 days

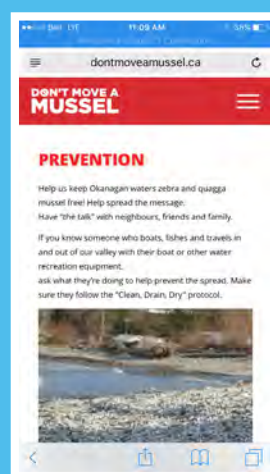
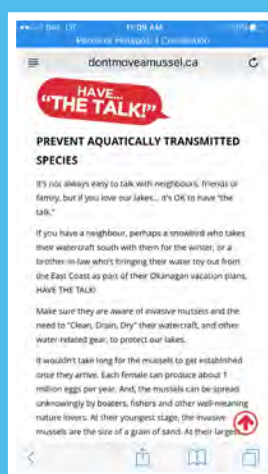
1,460 interactions



## WEBSITE



## MOBILE RESPONSIVE SITE (LAUNCHED NOV. 16, 2016)



MAY 1-OCTOBER 15, 2016

TOTAL VISITS  
PAGES PER VISIT  
AVERAGE VISIT DURATION

4,205 (3,465 unique)  
1.64  
1:02

## OVERALL COST & RESULTS

	COST	IN-KIND	VALUE
BELL MEDIA ADS & OUTREACH	\$7,500	\$27,185	\$34,685
NEWCAP ADS & OUTREACH	\$5,000	\$19,695	\$24,695
RADIO CREATIVE & PRODUCTION	\$1,200	\$0	\$1,200
FACEBOOK ADS	\$1,555	\$0	\$1,555
SUNCRUISER MEDIA	\$1,500	\$4,600	\$6,100
BILLBOARDS & BUS ADS	\$17,452.50	\$6,760.00	\$24,212.50
BILLBOARD & TRANSIT PRODUCTION	\$3,213.60	\$0	\$3,213.60
RACK CARD PRINTING	\$867.10	\$0	\$867.10
MUSCLE SHIRTS	\$3,700	\$0	\$3,700
AGENCY SERVICES (includes print & online creative – website, rack cards, billboards, etc.)	\$5,195	\$0	\$5,195
<b>TOTAL</b>	<b>\$47,183.20</b>	<b>\$58,240</b>	<b>\$105,423.20</b>



## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
February 7, 2017  
Agenda No: 7.5

File No. 0550.04

To: OBWB Directors  
From: Kellie Garcia  
Date: January 30, 2017  
Subject: Policy and Planning Specialist Report

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### Sustainable Water Strategy Action Plan 2.0

For the next year or so, I will be working with the Water Stewardship Council on an important and timely initiative: leading the update of the Okanagan Sustainable Water Strategy (SWS). SWS Action Plan 1.0 was released in 2008, after more than 2 years of planning, discussion, consultation, and writing. It contains 45 recommended actions designed to protect water at its source, share water in times of shortages, manage water demand, and identify the best approaches to improve valley-wide governance. The actions in SWS 1.0 have guided the priorities and projects of Council and OBWB staff for more than 8 years. SWS 1.0 has also been used to inform and inspire new studies, identify emerging issues, and develop scientific insights into potential solutions.

There are several reasons for updating the Strategy. First, the progress report completed in late-2010 rated 31 of the 45 actions as having excellent or good progress. Six years later, it is safe to say that many actions in SWS 1.0 are complete or near complete. Second, newly available research and information and significant changes in the regulatory environment (i.e. *Water Sustainability Act*) signifies that SWS 2.0 will contain new priorities and actions. Third, SWS 1.0 has been an important plain-language reference document. The document has been distributed to numerous staff and elected officials at all levels of government, non-profit organizations, and others involved in water management in the Okanagan and beyond. The updated SWS 2.0 will take the place of SWS 1.0 as the go-to document on water issues and priorities for the Okanagan valley.

Among other changes, SWS 2.0 will incorporate insights on changes in water legislation and regulations; and address other issues, such as our capacity to withstand impacts from climate change, and regional ecological challenges. The final deliverable will be an updated and current guide to water management issues and priorities in a format and style similar to SWS 1.0.

SWS 2.0 will be informed by the OBWB Strategic Plan 2014-2019, and will help inform the next five-year strategic plan for the Board.

### Farm Water Planning – Okanagan Pilot Project

I've been invited to sit on the Project Management Committee for an Okanagan agriculture-focused pilot project. The project, which is funded through the Climate Action Initiative, includes refining the Integrated



Farm Water Planning Toolkit that was developed for the Cowichan region so that it meets the needs of Okanagan producers, and testing it with the range of production types in the Okanagan. Contractors will be trained to deliver the toolkit, and help prepare farm water management plans through on-site, individualized support and advice. The plans will consider the full range of water management issues, including supply, quality, irrigation, drainage, and climate change. There will be no cost to the producers, and the pilot project will support improvements to the toolkit and better information regarding water management issues and needs – across production systems – in the Okanagan.

