

# Okanagan Basin Water Board Meeting Agenda



**DATE:** Tuesday, April 1, 2014

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

**PLACE:** Regional District North Okanagan  
9848 Aberdeen Rd., Coldstream, B.C.

1. **CALL MEETING TO ORDER**
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 March 4, 2014 at Regional District of Okanagan-Similkameen. *(page 1)*
5. **PRESENTATION**
  - 5.1 Zee Marcolin, Manager of Greater Vernon Water on the Antwerp Springs contamination event and court decision
6. **STAFF REPORTS**
  - 6.1 Executive Director Report *(page 7)* *(resolution requested)*
  - 6.2 Water Stewardship Director Report *(page 9)* *(resolution requested)*
  - 6.3 Communications Director Report *(page 14)*
7. **NEW AND UNFINISHED BUSINESS**
  - 7.1 WCQI Grant Recommendations for 2014 *(page 20)* *(resolution requested)*
  - 7.2 Briefing Note to Okanagan Caucus re. zebra/quagga mussels *(page 30)*
8. **NEXT MEETING**
  - 8.1 The next meeting of the Okanagan Basin Water Board will be on Tuesday, May 6, at the Regional District of Central Okanagan, in Kelowna.
9. **ADJOURNMENT**

**PLEASE NOTE:** We will be discussing our summer board meeting schedule, recommending that the OBWB NOT hold its regular July board meeting on July 1 – Canada Day, and instead meet on August 5.



**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD MARCH 4, 2014, AT 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 Bob Fleming	Regional District North Okanagan
Director Keith Fielding	Regional District Central Okanagan
Director Gerry Zimmermann	Regional District Central Okanagan
Director Wes Hopkin	Regional District Okanagan-Similkameen
Director Allan Patton	Regional District Okanagan-Similkameen
Director Stu Wells	Regional District Okanagan-Similkameen
Director Toby Pike	Water Supply Association of BC
Director Don Dobson	Okanagan Water Stewardship Council

**REGRETS**

Director James Pepper	Okanagan Nation Alliance
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**OBWB STAFF**

Anna Warwick Sears	Executive Director
Nelson Jatel	Water Stewardship Director
Corinne Jackson	Communications Director
James Littlely	Office and Projects Manager

**1. CALL MEETING TO ORDER**

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

**2. INTRODUCTION OF LATE ITEMS**

7.3 Watersheds Forum Declaration

**3. APPROVAL OF AGENDA**

***"THAT the agenda of the regular meeting of the Okanagan Basin Water Board of March 4, 2014 be approved as amended."***

**CARRIED**

**4. ADOPTION OF MINUTES**

4.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of Feb. 4, 2013 at Regional District of Central Okanagan.

***"THAT the minutes of the regular meeting of the Okanagan Basin Water Board of Dec. 3, 2013 at Regional District of Central Okanagan be adopted."***

**CARRIED**

**5. PRESENTATION**

5.1 Tricia Brett – UBC-O researcher on Endocrine Disrupting Compounds (EDCs) in Okanagan Waste Water

Dr. Warwick Sears introduced Ms. Brett and her project, noting the research began in 2007/8 and was conducted in partnership with several partners including the OBWB, the Okanagan Indian Band, Suknaqinx Indian Band, Health Canada, Province of B.C. and Interior Health.

Ms. Brett provided an overview of the concerns with endocrine disrupting compounds (e.g. found in birth control pills) in waste water and her research findings.

Among the findings, was the impact of treated waste water on living organisms, in this case goldfish. The fish were placed into MacKay Reservoir (pond with treated sewage) and a control pond. The fish in MacKay have grown much larger.

Also, the research looked at three wastewater treatment plants in the Okanagan and their different methods of discharge. In the case of Vernon, the wastewater is discharged into the MacKay reservoir and then used as spray irrigation. The Kelowna treatment plant sends its wastewater through a deep water outfall into Okanagan Lake, and Penticton releases their treated wastewater into the Okanagan River channel.

According to Ms. Brett, Kelowna changed its biofilters in 2010 which seemed to have a positive effect and may be a good option for retrofits. Also, while there were low estrogen detection levels in Okanagan Lake it is still something that should be monitored, she added.

The compounds break down in the environment, added Ms. Brett noting that they can be diluted in water and degraded by light. Degradation levels increase in spring and summer, and are lower in fall and then much lower in winter. Holding back wastewater until spring/summer might be a solution, she added, recognizing this also may be difficult.

In response to questions, Ms. Brett said that rivers are not good receiving waters for this compound because it doesn't degrade as well and, especially if the river is spawning habitat.

Ms. Brett provided a number of recommendations, including:

- That there be further polishing/cleaning of wastewater prior to release into the environment
  - o MacKay Reservoir is functioning well as an additional level of polishing
  - o Wetlands, engineered or natural, are another effective method, allowing another level of filtering and cleaning
  - o contact with soils and UV rays is also helpful

There was discussion around RDOS' efforts to discharge wastewater from the new Ok Falls plant into a wetland before it is discharged into Okanagan River. Opposition from the Canadian Wildlife Service and its concerns with impact to wildlife was also noted. Consultant Dr. Natasha Neumann commented that an engineered wetland, and a natural one, will attract wildlife.

Mike Sokol, with BC Ministry of Forests, Lands and Natural Resource Operations noted that the Okanagan's EDC research is the most extensive in the province and it would like to see a consistent approach for wastewater treatment plants in B.C. He also noted that his office had recommended that the Ok Falls wastewater be filtered through a wetland before release into the river.

The board thanked the presenters for their information. Dr. Warwick Sears added that it will be useful in drafting the board's response to the federal government, asking that the issue of the Ok Falls discharge be addressed.

**6. STAFF REPORTS**

## 6.1 Executive Director Report

2014 Renewal of Water Management Program

Dr. Warwick Sears recommended that the board change its renewal of the Water Management Program from every three years to every four, to match the local government election cycle.

***“THAT the OBWB, as part of the process of the Water Management Program, request that the renewal period be extended to every four years, to match the election cycle.”***

**CARRIED**

Environment Canada Grant Applications

An overview was provided of recent EC grant applications, including: one to collect groundwater information that would likely be connected to the BC Water Use Reporting Centre database; a study on the discharge of tertiary treated wastewater from Ok Falls into a wetland before release to Ok River; phase 2 of the Okanagan Wetland Strategy; additional funding to re-establish strategic Water Survey of Canada hydrometric stations to monitor streamflow for flood and drought planning.

BC Water Funders Update

The OBWB continues to have a presence with the BC Water Funders group, trying to raise awareness for issues we are interested in having funded.

Off-Road Report

Dr. Warwick Sears drew attention to proposed legislation which will help protect water sources. Directors discussed the legislation’s significance and suggested a letter of support be sent to the province.

***“THAT the OBWB send a letter to the Province of B.C., supporting the ORV legislation and emphasizing its importance.”***

**CARRIED**

Funds for Irrigation Training

It was noted that funding has already been budgeted to help address the lack of trained irrigation installers in the Okanagan. The board was told of an opportunity to partner with the Irrigation Industry Association of BC for training.

There was some discussion about the need to train residential but also agricultural irrigation installers. It was noted that City of Kelowna and RDNO require certified installers for any work done on public land.

In response to a question, Dr. Warwick Sears suggested that the OBWB should be promoting a two-pronged approach: local governments should require certified irrigators, and should be making sure that those already working in the sector are properly trained.

***“THAT the OBWB partner with the Irrigation Industry Association of BC to deliver irrigation training courses in the Okanagan; AND, that the opportunity be promoted to those working in agricultural, residential and commercial irrigation.”***

**CARRIED**

Dr. Warwick Sears noted the recent release of a BC Water Study indicating great interest and concern on water issues. She also noted recent provincial research on Rocky Mountain Ridged

Mussels in the Okanagan, suggesting they aren't as rare or as unstable a population as initially thought. She also reminded directors about the showing of Watermark on March 17.

***"THAT the Executive Director's Report, dated Feb. 24, 2013, be received."***  
**CARRIED**

#### 6.2 Water Stewardship Director Report

Mr. Jatel gave an overview of the previous council meeting and discussions around flood management.

It was noted that there was concern voiced that the province's current efforts are focused on emergency management and not on prevention. The need for updated flood maps was also noted.

The council's next meeting is March 13.

***"THAT the Water Stewardship Director's Report, dated Feb. 25, 2014, be received."***  
**CARRIED**

#### 6.3 Office and Project Manager Report

Mr. Littley provided an update on mooring practices with the milfoil machines, adding that a review suggests the current practice is the most practical but will continue to be monitored.

The deadline for applications to the Water Conservation and Quality Improvement Grant Program was Feb. 21, added Mr. Littley. There were 27 applications requesting a total of \$472,648 for an available \$300,000. The applications will be reviewed and recommendations will be presented to directors at the April board meeting.

***"THAT the Office and Project Manager's Report, dated Feb. 25, 2014, be received."***  
**CARRIED**

#### 6.4 Communications Director Report

Ms. Jackson reported on response to a news release issued following the previous month's board meeting re: the OBWB's call for action by senior government on zebra and quagga mussels. In addition to several news stories, she noted the issue was also the focus of MP Dan Albas's monthly report to constituents, carried in local media.

She gave an update on the 2014 Make Water Work (MWW) campaign, noting that all Okanagan local governments are continuing as partners in the initiative. Partners that have accepted matching dollars for targeted advertising in their community are the same as those in 2013, ensuring the valley-wide message is echoed in the North, Central and South Okanagan. New full-partners this year include Summerland and Kelowna Joint Water Committee's Black Mountain Irrigation District, City of Kelowna, Glenmore Ellison Irrigation District, Rutland Waterworks District, and South-East Kelowna Irrigation District.

In addition to Watermark showing March 17 as part of Canada Water Week/UN World Water Day activities, Ms. Jackson noted the 4<sup>th</sup> annual Okanagan WaterWise Challenge for youth launches March 17 and a panel discussion on "water and energy" is also planned for March 20.

***“THAT the Communications Director’s Report, dated Feb. 26, 2014, be received.”***  
**CARRIED**

**7. NEW AND UNFINISHED BUSINESS**

7.1 OBWB Signing Authority Memo

Dr. Warwick Sears presented the signing authority memo.

***“THAT the Signing Authority Resolution be approved as presented.”***  
**CARRIED**

7.2 Zebra mussel inspection program

Dr. Warwick Sears opened the discussion around Mr. Jatel’s memo and its recommendation that the province invest \$30,000 to develop a “Made in B.C.” business case for implementing a cost-neutral, user-pay sticker program for recreational watercraft.

Mr. Jatel noted that the business case will allow policy makers to assess the costs and benefits of similar user-pay programs and their suitability to B.C.

In response to questions, it was said that the program could be similar to RCMP issuing a ticket for speeding – someone with a watercraft and without a sticker could be fined.

It was suggested that the provincial program should include inspection stations, but that to be effective it should also be tied to the federal boat operators licence program.

***“THAT the OBWB forward a recommendation to the Province of B.C. that it invest \$30,000 to develop a ‘Made in B.C.’ business case for implementing a cost-neutral, user-pay sticker program for recreational watercraft, ensuring B.C. water remain uninfected by invasive mussels and other harmful aquatic invasive species.”***  
**CARRIED**

7.3 Watersheds Forum Declaration

The Water Board was asked to consider signing onto a Watersheds declaration. Dr. Warwick Sears invited feedback.

After some discussion and consideration, the board decided to receive it as information.

***“THAT the Watersheds Forum Declaration be received.”***  
**CARRIED**

**8. NEXT MEETING**

8.1 The next meeting of the Okanagan Basin Water Board will be April 1, 2014 at the Regional District of North Okanagan.

**9. ADJOURNMENT**

***“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of February 4, 2014 be adjourned at 1:29 p.m.”***  
**CARRIED**

Certified Correct:		
Chair		Executive Director

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 1, 2014  
Agenda No: 6.1

File No. 0550.04

To: OBWB Directors  
From: Anna Warwick Sears, Executive Director  
Date: March 26, 2014  
Subject: Executive Director Report

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### OBWB July/August Meetings

It's always important that the OBWB meet once in the summer. This year, the July meeting falls on Canada Day, so I recommend that the Board cancels this meeting, but meet in August as scheduled. It is very difficult to reschedule these meetings on different weekdays, especially during the summer.

*Recommended motion: That the July 1, 2014 OBWB meeting be cancelled.*

### Zebra/Quagga Mussel Briefing Note

The OBWB was invited to submit a briefing note to the Okanagan MLA Caucus for their meeting on March 25<sup>th</sup> (see attached report). As we finalized the report, we received word that, on March 12, a boat with mussels was stopped and decontaminated in Osoyoos. We were told us that while it was alarming, no live mussels were released and the incident gave them a chance to test their response systems. The biggest gap is the need for federal regulations that allow border officials to bar entry to contaminated boats. We have been in contact with MPs Ron Cannan and Dan Albas, and they report that the regulations are in process but they do not know the timelines. After federal legislation, the next greatest gap appears to be capacity and equipment for the Conservation Officer service.

### Workshop on License Allocation Process

On March 11, we held a very productive meeting with FLNRO staff and technical experts to discuss the future of the license allocation process in the Okanagan. The goal is to incorporate Okanagan Water Supply and Demand data into license decision making, as well as new Water Sustainability Act requirements like groundwater licensing and environmental flows. It is excellent that the OBWB is welcome in this discussion, and we anticipate a good process moving forward.

### Okanagan Falls Wastewater Discharge

Last month, we applied to Environment Canada for funding for a cost-benefit analysis of discharging Okanagan Falls wastewater into a constructed wetland. After discussions with CWS staff regarding the application, it seems unlikely they would be able to permit discharge into the existing wetland on the west side of the channel because it is a natural wildlife refuge, but they may support a new constructed wetland on the east side. This would require a new design and some arrangement for the purchase or use of agricultural land adjacent to the wastewater treatment plant. As there is broad agreement it would be desirable to further filter the tertiary-treated effluent before it is discharged into the channel, it may be possible to find additional funding for this new solution. Tricia



Brett, who conducted studies on effluent discharges to the Okanagan River in Penticton, is considering a study in Okanagan Falls.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 1, 2014  
Agenda No: 6.2

File No. 0550.04

To: Board of Directors  
From: Nelson R. Jatel, Water Stewardship Director  
Date: March 26, 2014  
Subject: **Water Stewardship Council committee comments and recommendations on Bill 18 – the Water Sustainability Act: An Okanagan perspective**

### **Bill 18: Water Sustainability Act (WSA)**

On March 11, 2014, the *Water Sustainability Act* was introduced as Bill 18 into the B.C. Legislature for first reading.

If passed, the new *Water Sustainability Act* (WSA) will replace the existing *Water Act*, which was first passed by the legislature in 1909. Although the current act was amended many times over the years, the WSA represents a major step forward for sustainable management of our most precious resource. Most notably, the new act will bring groundwater into the licensing system, will expand government's ability to protect fish and aquatic environments, and provides the opportunity for communities to lead water planning initiatives.

Government reports that it received over 3,000 comments on the Legislative Proposal last fall which were reviewed and considered in the preparation of this bill. The B.C. Government is also reviewing its approach to water pricing with the release of Pricing B.C.'s Water that sets out a number of principles that will help shape how government develops options for water fees and rentals.

### **Water Stewardship Council – Committee review**

At the March Council meeting, I presented an overview of the new WSA and a council committee was formed to review the act and identify how Bill 18 responded to two previously submitted Board recommendations:

- Modernizing the B.C. Water Act – The Okanagan voice [30 April 2010]
- Modernizing the B.C. Water Act – An Okanagan perspective [15 November 2013]

Committee members who participated in this review included: Margaret Bakelaar, Bernie Bauer, Andrew Petersen, Don Dobson, Craig Nichol, John Janmaat, Anna Warwick Sears, and Nelson Jatel.

## General comments

Since the introduction of Bill 18 a number of legal water experts have provided comment on the new water act, including Mr. Andrew Gage<sup>1</sup>, a staff lawyer at West Coast Environmental Law, where he stated,

Taken as a whole, the WSA is a pretty good new *Water Act* – or rather it could be, depending on what the regulations say when they are developed. Clearly we have some concern, but many of the concerns that we had during the last round of public consultation have been addressed at least in part.

Deborah Curran, UVic Environmental Law Centre, noted in Mr. Gage’s report that:

Overall, [Bill 18 is] one of the best pieces of environmental legislation in the past 15 years...After reviewing the Act, we’re actually fairly impressed. There is a lot to like about this Act – even though many of the critical details will need to be worked out in the regulations. That being said, there are also concerns and disappointments: especially related to addressing the environmental impacts of current water users and a relaxing of rules regarding making water available for hydraulic fracturing.

Mr. Gage’s article noted both strengths and weaknesses of the new act. Noted strengths of the new Act include: groundwater will be regulated, water flows for fish will be better protected, water sustainability planning, and beneficial use is flexible and efficient. Some of the identified weaknesses of the Act include: continued application of First-in-Time, First-in-Right (FITFIR) as a system for water allocation (s. 22), more short-term water for fracking (s. 10), reduced public access, and mitigating harm to streams (s. 16).

## Committee comments & considerations - Bill 18: Responding to Okanagan water needs

How does the new act respond to Okanagan water needs? The Council committee agreed that the new WSA is a significant improvement over the old act and in particular in two areas – water licensing and groundwater.

### ***Protection of stream health and aquatic environments***

The WSA provides significant new improvements in protection of stream health and aquatic environments (s. 15) addressing three issues important to the Okanagan:

- Accommodate, clarify, and harmonize the ambiguities in jurisdictional authorities as they pertain to stream health and aquatic environments.
- Develop explicit language in the *Water Act* to support responsible, multi-use of watersheds where source waters for common purposes (i.e. drinking water, agriculture water, etc.) are at risk of quality or quantity considerations.
- Establish limited-use ‘permits’ for purpose such as off-stream watering. **[The committee anticipates that the enabling language in the act will translate into establishing new regulations that address this issue].**

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<sup>1</sup> Gage, Andrew, 14 March 2014, The strengths and weaknesses of the new Water Sustainability Act. West Coast Environmental Law. Web source: <http://wcel.org/resources/environmental-law-alert/strengths-and-weaknesses-new-water-sustainability-act>  
140401\_WSD Report\_Memo

Additional comments from committee members included:

- Addressing environmental flow needs is exceptional. Under section 15, however, it appears that decisions will be made on a piecemeal basis by the various assigned decision makers on individual applications. A more comprehensive approach may be required to adequately address proper functioning of an aquatic ecosystem.
- The application of mitigation measures and compensation in the decision making process is valued. However the use of the term “significant adverse impact” may be problematic without proper guidance. In addition, local governments may already require mitigation and in some cases compensation (including funds) as part of the land use planning process and riparian area regulations. There should be coordination or integration with the decision maker and local government on mitigation and compensation measures proposed.

### ***Improving water governance***

The committee identified that the WSA is mostly silent on issues pertaining to First Nations claims to water rights and responsibilities. Although there may be legitimate political reasons for such avoidance, the issue of First Nations claims is a significant factor in managing future water in the Okanagan. Also, the act does not address enabling public input when issuing new large volume water licenses. Nor does it add important definitions for the following terms: large water users, drought, water boards, and priority watersheds (areas). Water Boards are mentioned in the Act (in Bold) without any definition.

A significant portion of the act introduces the concept of a Water Sustainability Plan - WSP (division 4, s64 - 85). Division 4 provides significant detail and provides for an opportunity to develop a process implementing WSPs that result in the completion of plans throughout the province, and in particular in the Okanagan. The feasibility, practicality, and the application of appropriate human and financial resources to implement these plans are suspect and should be one of the critical issues addressed by the province in the near term. WSPs may reduce conflicts and risks as well as connect land and water planning. How and if the connection will be made with other planning processes is a critical aspect of the regulations and further direction may be required to assist in the implementation of this section of the act.

The new act provides strong improvements to water governance in the following areas that benefit the Okanagan:

- Make effective use of existing Water Act management tools including Water Users’ Communities, Water Use Plans, and Water Management Plans.
- Create enabling legislation for watershed-based boards. Where appropriate, these boards will bridge multi-government jurisdictions to enable the identification and implementation of solutions to water management challenges.

There continues to be a need for the B.C. government to demonstrate appropriate financial support for enabling this new legislation. The Council continues to recommend that the B.C. government dedicate adequate resources (funding, extension, people, and data/information support) to the new WSA and subsequent regulations. The BC Water Use Reporting Centre, developed by the OBWB and successfully operating in the Okanagan and the Regional District of Nanaimo, is an important model that should be considered by the government to measure water extraction province-wide and has the potential to support water resource rents. The development of a business case to implement an independent commission that is transparent, arms-length from government, and tasked with measuring and collecting water rents is an important concept for consideration by the ministries of Environment and FLNRO in managing B.C.’s water.

The Board has identified the need for the B.C. government to develop through the Act and Regulation a unification of water and land regulations and provide clear direction to local government with regards to a range of water-related policy and legislation including the Right to Farm, Riparian Area Regulation, the Drinking Water Protection Act, and others. It appears that some of these considerations have been integrated in the new act (s. 43). How this act may be applied by local governments and integrated in operational practices is still uncertain.

The concern identified in earlier communications with the government about the emphasis on the resource sector, and in particular the oil and gas industry, continues to be an issue with the WSA. The Council's recommendation that the WSA, and subsequent regulations, ensure long-term protection of current and future B.C. residents, continues to be a priority. Water legislation and regulations should be developed and implemented with considered sober second thought and not be overly influenced by any one economic sector.

### ***Flexible and efficient water allocation***

The WSA has made the language within the *Water Act* clearer, emphasizing the public ownership of water. A section on precedence of rights (s. 22) provides clarity on the application of First-in-Time, First-in-Right (FITFIR). Voluntary storage and conservation flow contributions are also addressed in the act. It has also simplified the language used and clearly communicates the rights and responsibilities for (a) specific uses, and (b) specific conditions under the Water Act. The act enables the review of licence fee structures to enable cost recovery for monitoring and enforcement of licence terms and conditions, and expenses related to water supply monitoring and prediction. The act could be improved by addressing the following:

- Allow flexibility in the duration of the allowable irrigation period and provide partial-season licenses.
- Institute a province-wide water information system (i.e. BC Water Use Reporting Centre) that would provide for a watershed level accounting of water use. This is important to support the rationalization of current water licenses and actual water use.
- Clarifying local government involvement – or not – in authorizations to assist in understanding and more closely aligning land and water decision-making.

### ***Groundwater regulation***

The new WSA does an excellent job of integrating groundwater regulation. The act describes a system of licensing for groundwater extraction and recognizes that water (surface and ground) must be accounted for within a connected administrative system – to support comprehensive watershed management. The act also enables a 'grandfathering' process for existing wells to bring them into conformity with the new licensing system and integrates groundwater management components for the watershed within Water Use Plans and Water Sustainability Plans.

One consideration that is not accounted for in the act is the extraction of saline groundwater so that its licensing and regulation is consistent with that of other groundwater.

### ***Concluding remarks***

The new B.C. Water Sustainability Act is a significant improvement over the old Water Act. Considerable caution is being voiced given the uncertainty of regulations and the details that will determine the effectiveness of the new act. The committee recommends that the Board strongly support the new act and recommend the changes identified above. Of considerable note is the need for the act to meaningfully recognize First Nations water rights and treaty – providing for long-term certainty for the environment, economy and social fabric of local communities throughout the province. How the act is resourced continues to be a significant challenge. The province has developed a discussion paper titled, "Pricing B.C.'s Water," and has asked for input into the

principles of how water rates should be addressed given the increased costs associated with the new act with a deadline for feedback of April 8, 2014.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 1, 2014  
Agenda No: 6.3

File No. 0550.04

To: OBWB Directors  
From: Corinne Jackson  
Date: March 26, 2014  
Subject: Communications Director Report

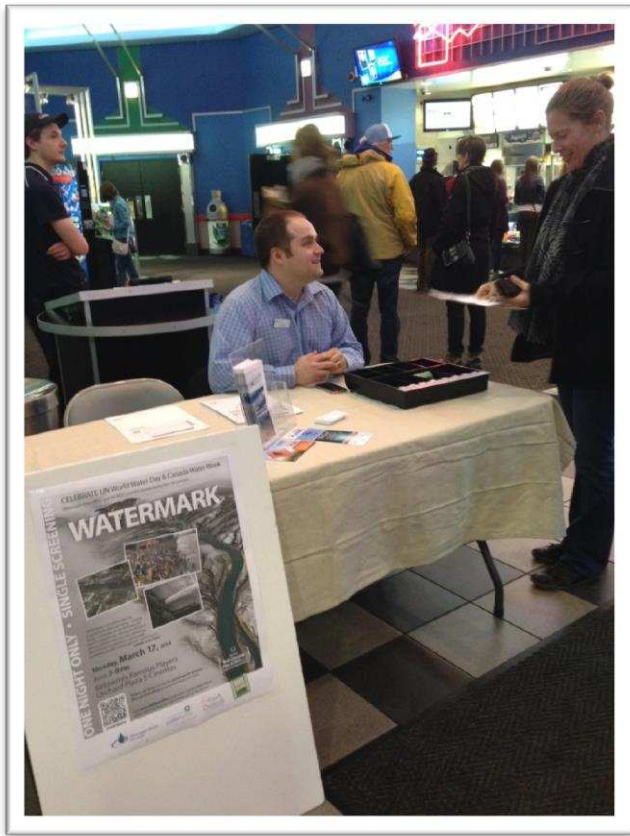
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### UN World Water Day / Canada Water Week

The OBWB/Okanagan WaterWise's offerings for this year's Canada Water Week celebrations provided something for everyone.

The week kicked off on Monday, March 17 with a screening of the award-winning documentary *Watermark* at the Orchard Plaza 5 Cinema in Kelowna. In all, about 283 people – adults and some children – attended the event and feedback was very positive. The film was incredibly thought-provoking and it was great to see so many people pour out of the theatre at the end, and stay to discuss the film with other attendees. We had a few people suggest they would like to see it shown again. Fresh Outlook Foundation's REEL Change Sustainability Film Fest helped with some of the publicity for the event and are considering showing the film as part of their 2014 festival line-up.





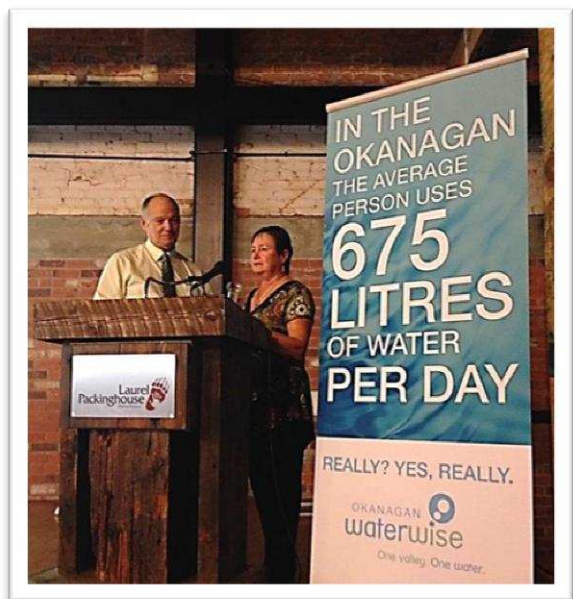
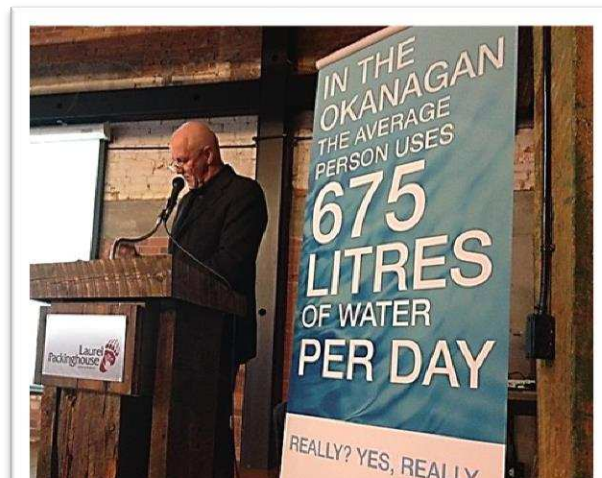
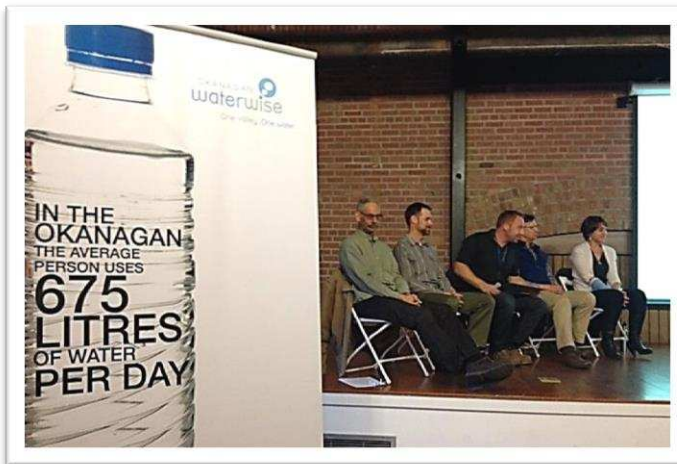
### Panel

In addition to the OBWB's events, UBC Okanagan also organized a keynote address by Dr. Jeannette Armstrong on Wed. March 19, as well as a festive ceremony at the campus on Th. March 20 and its Splashdown event later that afternoon. With plenty of activities to choose from this year, the OBWB/OkWaterWise "WAVES of Change" panel attracted 62 attendees. (We had 75 register.)

The event began with a very touching tribute to Judie Steeves and the presentation of the "Water Leadership Award." Well-known Kelowna broadcaster Phil Johnson then took the stage and was a brilliant MC for the main event, weaving real-life stories about the importance of water and energy conservation, while moderating the panel discussion.



In addition to the panel, we had information tables set up by Greenstep Solutions and FortisBC – who was giving away Tap by Tap water-conservation kits. (You might recall, the kits were an outreach initiative in which OkWaterWise was a partner.) We also had a display table, raising awareness around invasive mussels, our Make Water Work initiative, and other Okanagan WaterWise water conservation/protection messages.



## Kids Contest

Also, as part of Canada Water Week events, we launched our 4<sup>th</sup> annual Okanagan WaterWise contest for youth. This year's theme is "Map your Tap," encouraging young people to learn where the water from their tap comes from, to connect with these source water areas and recognize the need to protect them.

We are inviting classrooms, as well as individual youth throughout the Okanagan to submit a multi-media entry (e.g. a video, song, photo with 150 word essay, poem, photo essay, drawings, paintings, etc.). We are very thankful to our sponsors which include: Vernon Recreation Centre, Kelowna's H2O Centre and Penticton Recreation for pool passes. We have also teamed up again with Cruise Okanagan in Vernon, Kelowna Dinner Cruises and Casabella Princess Cruises in Penticton to provide a 2-hour cruise on Okanagan Lake to learn about our water with help from Okanagan Science Centre.

Contest ends April 25. Winners announced May 6 during BC Drinking Water Week. Details at [www.OkWaterWise.ca](http://www.OkWaterWise.ca).



## Valley-wide water conservation partnerships expand

On March 6-7 we held our "Growing a WaterWise Community in the Okanagan" strategic workshop, bringing together the Make Water Work committee (Okanagan local government utility and communications staff) and the landscape/irrigation/nursery sector in the valley. This workshop was held thanks to funding and support from Tides Canada and RBC Blue Water.

A final report is being drafted and will be presented to the board. But, enthusiasm is strong and workshop participants are already talking with each other, making plans to build a stronger water conservation program in the valley.





## Summary of Recent Media

Late February to mid-March was a **very** busy month for communications, with

- continued discussion that followed our Feb. 6 news release asking for stronger action by senior levels of government on invasive mussels,
- the release of B.C.'s proposed Water Sustainability Act legislation,
- Canada Water Week events, and then
- news last Wed. March 19 that a quagga-mussel infested boat was stopped at the Osoyoos border.

Whereas the previous month saw OBWB activities reported 21 times, we were able to track 42 news stories during this latest time period. Coverage included items on BC-CTV, in the Vancouver Sun and The Province. Please find a listing of coverage below.

Feb. 25	“MP Report-Being proactive against invasive species important,” <i>Peachland View</i>
Feb. 27	“Politicians take on mussels,” <i>Westside Weekly</i>
March 9	“Region takes aim at mussels,” <i>Vernon AM Star</i>
March 10	“OBWB celebrates Canada Water Week,” <i>Kelowna Daily Courier</i>
March 11	“Board highlights - Invasive mussels plan proposed,” <i>Kelowna Capital News</i>
March 12	“Water Board Director pleased with Water Sustainability Act,” <i>AM 1150</i>
March 13	“UBC supports World Water Day with community events,” <i>UBCO Sustainability Office News</i>
March 14	“Events planned to mark World Water Day,” <i>Kelowna Daily Courier</i>

- March 14 "Okanagan celebrates Water Week with several activities," *Kelowna Capital News*
- March 14 "Water Stewardship council responds to proposed B.C. water law," *Kelowna Capital News*
- March 14 "Canada Water Week in the Okanagan," *AM1150 Early Edition*
- March 15 "Positive first steps in new BC water act," *Castanet*
- March 16 "B.C.'s new water law welcomed," *Kelowna Daily Courier*
- March 16 "Kids map their tap," *Vernon Morning Star*
- March 17 "CWW - Emerging water issues in the Okanagan," *AM1150 Early Edition*
- March 18 "CWW - Invasive mussels and threats to Okanagan water," *AM1150 Early Edition*
- March 19 "Education at Water Week," *Castanet*
- March 19 "Invasive mussels stopped from entering Okanagan," *Vernon Morning Star*
- March 19 "Invasive mussels were bound for Okanagan Lake," *InfoTel News*
- March 19 "Zebra, quagga mussels found on U.S. boat coming into Canada," *Kelowna Capital News*
- March 19 "Mussels almost make their way into Okanagan Lake," *Global News*
- March 19 "CWW - WAVES of Change," *AM1150 Early Edition*
- March 20 "Agents catch zebra mussels at Osoyoos border," *CBC Radio Daybreak South*
- March 20 "B.C. waterways spared devastating infestation thanks to one careful look," *Canadian Press*
- March 20 "Border control have no 'mussel' when it comes to infested watercraft," *InfoTel News*
- March 20 "Infested 'mussel' boat," *Castanet*
- March 20 "Invasive mussels spotted at border," *Kelowna Daily Courier*
- March 20 "Invasive mussels stopped from entering Okanagan Lake," *KelownaNow*
- March 20 "Mussels found entering B.C." *CBC Daybreak Morning News*
- March 20 "Mussels scare water board," *Castanet*
- March 20 "Okanagan waterways spared devastating mussel infestation thanks to one careful look," *Vancouver Sun*
- March 20 "Okanagan waterways spared devastating mussel infestation thanks to one careful look," *The Province*
- March 20 "Quagga mussel scare," *Keremeos Review*
- March 20 "Zebra mussels stopped at Osoyoos border crossing," *Penticton Western News*
- March 20 "CWW - Mussels at Osoyoos border crossing," *AM1150 Early Edition*
- March 21 "Our lakes at risk," *BC CTV News*
- March 21 "Celebrating Canada Water Week," *Kelowna Capital News*
- March 21 "Editorial - Mussel scare a wake-up," *Vernon Morning Star*
- March 21 "Mussel menace averted," *Kelowna Daily Courier*
- March 21 "Mussels spread avoided," *Vernon AM Star*
- March 21 "CWW - Wrap up," *AM1150 Early Edition*
- March 23 "Updates on tap for 105-yr-old water plan," *Vernon Morning Star*



## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 1, 2014  
Agenda No: 7.1

File No. 0550.04

To: OBWB Directors  
From: James Littley  
Date: March 25, 2014

**Subject: Water Conservation and Quality Improvement Grant Program – 2014 Recommendations**

The intent of the WCQI grant program is to assist local governments to enhance valley-wide sustainable use of water. Through this program, the OBWB fosters innovative and collaborative projects that might otherwise lack funds to be done in a timely manner. Projects were selected for recommendation based on a range of factors – including how well the project meets the goals of the program, the amount of funding available, and whether the project supports other Okanagan Basin Water Board and regional initiatives. Recommendations are aimed at providing appropriate funding to as many projects as possible to help maximize the success of the funded projects. As in previous years, the 2013 WCQI grant program was over-subscribed. The total amount applied for was \$592,778, for a total of \$300,000 available – down from last year's requests which totaled \$672,480. The applications were split between the regional districts as follows:

	Number of Applications	Total Requested	Total Available
RDNO	4	\$45,700	\$57,000
RDCO	10	\$235,598	\$178,920
RDOS	13	\$191,350	\$64,050
<b>Totals</b>	<b>26</b>	<b>\$472,648</b>	<b>\$300,000</b>

Recommendations are based on section 2.3 of the program guide (attached below recommendations).

Organization	Project Title	Grant Requested	Recommended Funding
<b>Regional District North Okanagan</b>			
Greater Vernon Water	North Kal Lake IPZ Storm Water Reclamation Project	\$20,000	\$20,000
Greater Vernon Water	Water Ambassador Summer Program	\$8,000	\$8,000
Greater Vernon Water	Water Educational Programming	\$8,000	\$8,000
Greater Vernon Water	Water Quality Monitoring - Cosens Bay	\$9,700	\$9,700
<b>Total</b>		<b>\$45,700</b>	<b>\$45,700</b>
<b>Regional District Central Okanagan</b>			
District of Peachland	Habitat and Sediment Assessment on Peachland Creek	\$29,800	\$29,800
District of West Kelowna	Water Leak Detection Equipment	\$30,000	\$25,000
RDCO	Biosolids Land Application at Brenda Mines	\$30,000	\$25,000
City of Kelowna	Sand Reinforcement Beach Restoration	\$30,000	\$20,000

RDCO	Regional District Floodplain Assessment and Mapping	\$20,000	\$20,000
Okanagan Xeriscape Association	Fostering Collaboration to Promote a Culture of Landscape Water Conservation	\$20,400	\$18,000
RDCO	Treated Effluent Irrigation at Bylands Nursery	\$25,000	\$16,000
Mission Creek Restoration Initiative	Baseline Biophysical and Ecological Resource Management Plan	\$30,000	\$15,790
District of Lake Country	Road Drainage Assessment: Vernon Creek Watershed	\$10,398	\$10,000
Okanagan Collaborative Conservation Program	Okanagan Habitat Connectivity	\$10,000	\$10,000
<b>Total</b>		<b>\$235,598</b>	<b>\$189,590</b>
<b>Regional District Okanagan Similkameen</b>			
Town of Oliver	Ground source water assessment and protection plan	\$25,000	\$15,000
RDOS	Regional Water Use and Conservation Bylaw	\$15,000	\$10,525
RDOS	Water Ambassador Program	\$15,000	\$10,525
Kaleden Irrigation District	Source Assessment of Skaha Lake KID Intake	\$10,000	\$10,000
Okanagan Nation Alliance	ORRI - Water Quality Assurance	\$11,000	\$10,000
Okanagan Similkameen Stewardship Society	Park Rill Riparian and Aquatic Assessment	\$10,250	\$8,000
Friends of Summerland Ornamental Gardens	Water Conservation Landscaping Leadership	\$12,500	-
Okanagan Nation Alliance	Shuttleworth Creek Diversion and Well Phase 2	\$25,600	-
RDOS	Drinking Water Source Protection for Naramata	\$25,000	-
RDOS	Drought Tournament Module Development for High Schools	\$6,000	-
RDOS	Kaleden Lakeshore and Skaha Estates Sewering Assessment	\$20,000	-
RDOS	Willowbrook Water System Assessment	\$10,000	-
RDOS	Workshops on water Conservation for Industry	\$6,000	-
<b>Total</b>		<b>\$191,350</b>	<b>\$64,050</b>

## Regional District North Okanagan

Available funds: \$57,000 Total Requested: \$45,700 Recommended Funding: \$45,700

**Project Title:** North Kalamalka Lake Intake Protection Zone Storm Water Reclamation Project  
**Organization:** Greater Vernon Water  
**Project Goals:** Kalamalka Lake is a major domestic water source for Greater Vernon, providing about 40% of water to customers. In 2011, Greater Vernon Water received an OBWB WCQI grant to identify, map, monitor, and rank storm water outfalls that discharged into the north arm of Kalamalka Lake. The resulting report identified three outfalls (#13, 14 and 18) ranked as "high risk" to the water quality entering the intake. This project will be the second phase in order to mitigate water quality risks.  
**Staff Notes:** Direct impact on drinking water quality, building on previously funded work. Focussed on action.  
**Project Budget:** \$40,000                      Amount Requested: \$20,000                      Recommended Funding: \$20,000

**Project Title:** Water Ambassador Summer Program  
**Organization:** Greater Vernon Water  
**Project Goals:** This project is phase two of the 2013 Landscape Irrigation Auditing Program. The aim of this project is to continue with residential water audits while expanding the program to cover commercial and agricultural assessments. This program will train two summer staff to become Ambassadors for water sustainability in the North Okanagan. These staff will also participate in Farmers' Markets, community events, and public demonstrations where they will deliver material on making water work.  
**Staff Notes:** Builds on work done previously in the North Okanagan, and mimics a successful program from RDOS. Focussed on action and education.  
**Project Budget:** \$16,000                      Amount Requested: \$8,000                      Recommended Funding: \$8,000

**Project Title:** Water Educational Programming  
**Organization:** Greater Vernon Water  
**Project Goals:** The aim of this project is to develop youth educational programs on the topics of water sustainability, quality, and conservation as they relate to our local watershed. RDNO will partner with an educational organization that has experience in creating and presenting programs. This project aims to connect youth with community resources and inspire students to take action in water sustainability. All programs will be linked to the BC curriculum.  
**Staff Notes:** Complements current OBWB programs and objectives through the education of youth.  
**Project Budget:** \$10,000                      Amount Requested: \$8,000                      Recommended Funding: \$8,000

**Project Title:** Water Quality Monitoring – Cosens Bay  
**Organization:** Regional District of North Okanagan  
**Project Goals:** The proposed study involves a water quality sampling program in Cosens Bay to determine if there is any influence or impact from septic systems on water quality in this area. Cosens Bay was homesteaded in 1893 and has evolved into a seasonal community over the last 100 years.

Currently, Cosens Bay consists of a mixture of modern homes and older cottages stretching along 3 km of Kalamalka Lake shoreline with approximately 100 lots that are directly adjacent to the Lake. These lots have soils of variable drainage and rockiness, which result in challenges for on-site septic disposal. This proposed study would examine potential Kalamalka Lake water quality impacts from previous and current septic disposal methods within the Cosens Bay area.

The proposed sampling would contrast water quality and periphyton growth between the summer months, when most residents are residing in Cosens Bay, and autumn, when few residents will be in the community. The methodology will be designed to determine if there is a correlation between an observed seasonal peak in septic system use and any detectable impacts on water quality in the Cosens Bay area of Kalamalka Lake.

**Staff Notes:** Directly assesses the impact of older septic systems on water quality in the Bay. Lends itself to future action to improve sewage infrastructure in the area.  
**Project Budget:** \$11,080                      Amount Requested: \$9,700                      Recommended Funding: \$9,700

**Regional District Central Okanagan**

Available funds: \$178,920 Total Requested: \$235,598 Recommended funding: \$190,220

**Project Title: Habitat and Sediment Assessment on Peachland Creek**  
**Organization: District of Peachland**  
**Project Goals:** The District's 2007 Water Master Plan has identified Peachland Creek as the primary source of drinking water for Peachland. The plan is to interconnect the three existing water systems to the Peachland Creek source and construct a water treatment plant near the Peachland Creek intake in 2017. The water quality data for Peachland Creek that has been collected for the past several years near the Peachland Creek intake is indicating a significant increase in turbidity during the spring freshet. As a result, Peachland has been issuing a boil water advisory every year during this period. Inspections by District staff have confirmed that it is not related to the zip line operation or any other activities near the intake. Peachland's Watershed Assessment for Drinking Water Source Protection Plan, 2010, also recommended that Peachland undertake an assessment of the current habitat and sediment sources on Peachland Creek. It is proposed to complete a channel assessment of the creek channel from the Peachland Reservoir Dam downstream to the intake after the spring freshet in 2014. The purpose of the assessment is to document the channel conditions, slopes, identify (and GPS) active and potential sources of sediment in the channel and any disturbances that could affect water quality and identify sensitive habitat, and estimate sediment loads. The assessment would allow for prioritization of risk reduction efforts and include recommendations for remedial actions to reduce the sediment load in the channel with estimated costs for those sites that can be addressed. The overall intent of the assessment is to reduce the sediment/turbidity in the creek at the District intake that will result in improved water quality and reduced operational costs for the District.

**Staff Notes:** Directly addresses a drinking water quality problem and advances the District's Master Water Plan.  
**Project Budget:** \$39,400                      Amount Requested: \$29,800                      Recommended Funding: \$29,800

**Project Title: Water Leak Detection Equipment**  
**Organization: District of West Kelowna**  
**Project Goals:** The District of West Kelowna's soon to be adopted Water Master Plan indicates that 21% of the annual volumes used in the municipality go unaccounted for due to leaks in the distribution network. The plan calls for "focused identification of the leaks" to ensure the long term sustainability of the system. The District of West Kelowna's will prioritize leak reduction investigations, taking into account the age of infrastructure, system pressure losses and statistical information provided in the Water Master Plan. The equipment will be given to qualified water operators who will conduct investigations and report back with their findings to the Utilities Supervisor. The Utilities Department will prioritize leak repairs in relation to the maintenance and operational needs of the water system as a whole. Over the long term, consistently faulty and aging pipes will be replaced. The plan proposes a high priority be placed on a renewal and replacement program at a cost of \$1.8 million per year.

**Staff Notes:** This type of equipment was used in a similar project at RDCO last grant cycle, with great success. Leak detection leads to large savings in electricity costs for pumping.  
**Project Budget:** \$45,000                      Amount Requested: \$30,000                      Recommended Funding: \$25,000

**Project Title: Biosolids Land Application at Brenda Mines**  
**Organization: Regional District of Central Okanagan**  
**Project Goals:** The project aims at studying the impacts to water quality in Okanagan Lake and Trepanier Creek basin associated with the land application of biosolids and revegetation of the Brenda Mines site. Biosolids from the Westside Regional Wastewater Treatment Plant will be applied to the tailings dam at the Brenda Mines site to provide a source of organic material and nutrients required to reforest the site from its current sparsely vegetated state.

**Staff Notes:** This project has the potential to increase natural water filtration through reforestation. The proposal for the first year is to collect baseline data and establishing monitoring sites and sampling procedures.  
**Project Budget:** \$190,000                      Amount Requested: \$30,000                      Recommended Funding: \$25,000

**Project Title: Sand Reinforcement Beach Restoration**  
**Organization: City of Kelowna**  
**Project Goals:** To use a sustainable approach to protect an 120m long section of Okanagan Lake foreshore from storm events in order to prevent further upland erosion of public land; to mimic natural appearances and processes, i.e., long shore sediment transport; to add potential fish rearing substrate; to maintain habitat connectivity between the



land and the lake, (i.e., to introduce no barriers to wildlife movement); to add riparian plantings to help stabilize the shoreline and add habitat benefit; and to limit impacts and disturbance to existing property and to adjacent beach front property owners.

Staff Notes: An innovative approach to shoreline erosion, which has the potential to improve water quality.  
Project Budget: \$192,000                      Amount Requested: \$30,000                      Recommended Funding: \$20,000

Project Title: **Regional District Floodplain Assessment and Mapping**

Organization: **Regional District of Central Okanagan**

Project Goals: Due to changes in flood hazards over time, (e.g., changes in forest cover, watershed hydrology, riverbed geomorphology) flooding poses high risks to the region's water quality, economic vitality, infrastructure, environment, safety, property owners and communities. The aim of the project is to review and assess floodplains in the regional district to include the creation of a spatial database of flood hazard prone watercourses, identification of flood risks, the main sources, areas liable to flood and identification of flood zones along the watercourses (areas for the probability of flooding). Floodplain management will assist in protecting water resources from contamination and maintain or enhance water quality.

Staff Notes: This project directly supports improvement of a critical issue. Methods developed through this project may be used valley-wide to mitigate the risk of future flood damage in our communities.

Project Budget: \$40,000                      Amount Requested: \$20,000                      Recommended Funding: \$20,000

Project Title: **Fostering Collaboration to Promote a Culture of Landscape Water Conservation**

Organization: **Okanagan Xeriscape Association**

Project Goals: The project aims to reduce outdoor residential water use using educational and marketing strategies that envision the valley's watershed as a shared whole. By strengthening OXA's connections with stakeholders in the North and South Okanagan, a larger audience of homeowners and landscape professionals can be reached with OXA's education program and on-line resources that are designed to shift landscape perceptions and increase water conservation practices. Because valley-wide collaboration is important to developing shared cultural standards of landscaping, the OXA is also initiating an innovative pilot project with multi-jurisdictional partners to promote the sale of Okanagan-appropriate plants at the retail level.

Staff Notes: OXA has been a strong partner, developing a number of education and practical tools to assist in reducing outdoor water consumption throughout the valley. Focussed on collaboration and valley-wide benefit.

Project Budget: \$54,510                      Amount Requested: \$20,400                      Recommended Funding: \$18,000

Project Title: **Treated Effluent Irrigation at Bylands Nursery**

Organization: **Regional District of Central Okanagan**

Project Goals: The project aims at assessing and testing the feasibility of using treated effluent from the Westside Regional Wastewater Treatment Plant as a source of irrigation water for the neighbouring Bylands Nursery property. The ultimate goal of this project would be to eliminate the need for Bylands to pump water from Okanagan Lake to irrigate its nursery on Gellatly Road.

Staff Notes: This project has the potential to reduce water consumption and treatment costs, as well as innovatively using treated effluent in a responsible manner. Good partnership between local government and industry.

Project Budget: \$50,000                      Amount Requested: \$25,000                      Recommended Funding: \$16,000

Project Title: **Baseline Biophysical and Ecological Resource Management Plan**

Organization: **Mission Creek Restoration Initiative**

Project Goals: MCRI is a multi-phase, multi-stakeholder project to restore lower sections of Mission Creek. The primary goal is to restore fish and wildlife stocks and habitat. Complementary objectives are to conserve and expand biodiversity and species at risk, improve flood protection, and enable and encourage community stewardship. During this phase of the project, MCRI will work with a consultant to conduct a detailed baseline biophysical inventory (BBI) along Mission Creek from Gordon Drive to Casorso Road. Information gathered will guide the preparation of an ecological resources management plan before dike setback and habitat restoration commence at a recently acquired property adjacent to Mission Creek (3830 Swamp Road).

Staff Notes: This portion of the project will help ensure that the restoration is done in an environmentally safe manner. This will help protect the ecological resources currently offered by the creek, while restoring other resources such as flood mitigation, water filtration and fish habitat.

Project Budget: \$40,000                      Amount Requested: \$30,000                      Recommended Funding: \$15,790

Project Title: **Road Drainage Assessment for Vernon Creek Watershed**  
 Organization: **District of Lake Country**  
 Project Goals: To address the priority Risk Management Actions identified in the Source Water Assessment. Traverse the Beaver Lake Main Road and other non-status roads upstream of the intake and below Beaver Lake to inspect drainage features and to provide an assessment of potential hydrologic connection to downslope landslide features. The condition of existing culverts and road maintenance recommendations would be provided. Traverse the top of ravine bank above the north side (right bank) of Vernon Creek upstream of the DLC intake using GPS to accurately map and to correlate with potential drainage concerns originating upslope. Incorporate GPS data, including spatially accurate photographs, into a GIS based database; and complete a summary report of the findings, including spatially accurate mapping.  
 Staff Notes: This project builds on previous watershed assessment and landslide mitigation work in this watershed.  
 Project Budget: \$10,398                      Amount Requested: \$10,398                      Recommended Funding: \$10,000

Project Title: **Okanagan Habitat Connectivity**  
 Organization: **Okanagan Collaborative Conservation Program**  
 Project Goals: Improving Okanagan Habitat Connectivity "How do we get from here to there" is an educational outreach initiative that will provide the tools to understand and take action on the results and recommendations from the Biodiversity Conservation Strategy project and also to help the general public to understand why connected ecosystems and wildlife habitat corridors are an essential part of maintaining biodiversity and ecosystem services such as water in the Okanagan region. Both the SOSCP and the OCCP are working on a Biodiversity Conservation Strategy for the Okanagan region. The strategy promotes a "big-picture" landscape view of the region and provides a framework for considering conservation options for entire ecosystems and watersheds that go beyond municipal or rural boundaries and includes all land-tenures. The two year project we are presenting here is part of the implementation of the Biodiversity Conservation Strategy. Year 1 will take place in the Central Okanagan and Years 2 in the North and South Okanagan Regional Districts.  
 Staff Notes: This multi-year project has done much to improve collaboration and information gathering for conservation values throughout the valley. It is one of the programs with the most basin-wide focus.  
 Project Budget: \$172,380                      Amount Requested: \$10,000                      Recommended Funding: \$10,000

**Regional District of Okanagan Similkameen**

Available funds: \$64,050 Total Requested: \$191,350 Recommended funding: \$64,050

Project Title: **Ground Source Water Assessment and Protection Plan**  
 Organization: **Town of Oliver**  
 Project Goals: Oliver operates the second-largest supply of groundwater in the Okanagan Valley. Many of the wells are relatively shallow and located in developed areas. Development of a long-term groundwater protection strategy has been a goal for the community for many years and preliminary steps to realizing this goal began several years ago. Interior Health supports development of protection plans following the "Comprehensive Source to Tap Assessment Guideline" and it is the objective of this project to use community engagement combined with science to complete Modules 1, 2, 7 and 8 of the Guide.  
 Staff Notes: This project will directly improve the ability to protect ground source drinking water. This is similar to many Source-to-tap assessments that have been funded.  
 Project Budget: \$35,000                      Amount Requested: \$25,000                      Recommended Funding: \$15,000

Project Title: **Regional Water Use and Conservation Bylaw**  
 Organization: **Regional District of Okanagan Similkameen**  
 Project Goals: The creation of a Region-Wide Water Use and Conservation Regulation Bylaw is intended to unify water use standards within the Regional District operated water systems, helping ensure that there is a sufficient quantity of clean and healthy quality water available now and in the future for all user sectors and environmental needs within the Regional District of Okanagan-Similkameen, which will support healthy communities and a robust economy. This will protect and enhance the quality of life for our residents through water conservation/efficiency and sustainable water management, integration of drought management recommendations, inclusion of Cross Connection Control (CCC) requirements and consistent interpretation of the regulations.  
 Staff Notes: This project has the potential to be a leap forward in water protection in the Okanagan. It is timely given the

Water Sustainability Act, and may assist in the development of a valley-wide Water Sustainability Plan in the future. It is innovative, and could inform other local governments wishing to adopt similar policies.

Project Budget:	\$40,000	Amount Requested:	\$15,000	Recommended Funding:	\$10,525
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Project Title: **Water Ambassador Program**  
Organization: **Regional District of Okanagan Similkameen**

Project Goals: The Water Ambassador program that the RDOS has developed over the past several years has been a huge success benefiting communities within the Okanagan Basin Watershed. The program focuses on water conservation using a community-based education oriented model, addressing residents on the local sprinkling restrictions, engaging the agricultural sector in discussing water use, augmenting and participating in workshops with partners such as the Friends of Summerland Gardens and the Naramata Community Association and addressing emerging conservation and quality issues with water sources. In the communities, with 'on the ground patrolling', the Water Ambassador has been able to observe first hand behaviors, assist in modifying behaviors and look at what steps could be taken in the future to continue water conservation habits. In 2014 the RDOS would like to continue and expand upon the momentum already gathered by this extremely successful program within the regional communities of the Okanagan Basin Watershed.

Staff Notes: This successful multi-year program shows a high degree of collaboration, and has complemented OBWB programs such as MakeWaterWork and OKWaterWise.

Project Budget:	\$30,000	Amount Requested:	\$15,000	Recommended Funding:	\$10,525
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Project Title: **Source Assessment of Skaha Lake KID Intake**  
Organization: **Kaleden Irrigation District**

Project Goals: To complete a comprehensive Source Water Assessment and Protection Plan of the KID's intake on Skaha Lake, to meet requirements of Interior Health Authority that mandates the assessment of risks and recommends protective measures for the water system source.

Staff Notes: This project will directly improve lake-source drinking water. This is similar to many source-to-tap assessments that have been funded.

Project Budget:	\$20,000	Amount Requested:	\$10,000	Recommended Funding:	\$10,000
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Project Title: **Okanagan River Restoration Initiative – Water Quality Assurance**  
Organization: **Okanagan Nation Alliance**

Project Goals: The overall goal of the ORRI restoration work is to regain some of the Okanagan River habitat quality and quantity that has been lost, returning channelized river portions back to more natural conditions. ORRI works involve relocating the dikes, lengthening the channel, re-establishing meanders and pool/riffle sequences, creating nature-like features, reconnecting historic floodplains and replanting riparian vegetation. The ORRI long term purpose is to improve water quality; to create self-sustainable, complex and diverse habitat for fish and wildlife; and to enhance the human relation with the river ecosystem. ORRI-Penticton Channel spawning. This fourth Phase of ORRI focuses on the creation of naturally-like fish spawning features in the Penticton channel area because fish spawning habitat is very limited in this portion of the Okanagan Basin. This project aims the construction of two spawning platforms which will create high quality fish habitat; provide public viewing opportunities of salmon and trout spawning; and reduce the abundance of introduced exotic species, such as the Eurasian watermilfoil.

Water Quality Assurance during Construction Work (portion of the project involving potential OBWB funding): During construction, the project aims to limit as much as possible the risks for potential immediate negative perturbations on water quality and the surrounding environment. The goal is to assure the preservation of water quality in the Okanagan River and Skaha Lake during all works.

Staff Notes: This very important multi-year project focusses on direct action to restore large sections of the Okanagan River. Funding from the OBWB will be used to leverage funding from the U.S. bringing new money into the Okanagan.

Project Budget:	\$362,220	Amount Requested:	\$11,000	Recommended Funding:	\$10,000
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Project Title: **Park Rill Riparian and Aquatic Assessment**  
Organization: **Okanagan Similkameen Stewardship Society**

Project Goals: The proposed project will increase an understanding and build community support for habitat-based ecological values along the Park Rill watercourse near Oliver, BC. Immediate and long-term results of this project include identification and mitigation of threats to riparian and aquatic species, water quality concerns will be identified

and addressed, restoration opportunities are identified, prioritized and some addressed immediately, threats to riparian and aquatic species and/or their habitat are identified, ceased, removed or mitigated and the Friends of Park Rill are engaged and conserving habitats and water in their community.

Staff Notes: The Friends of Park Rill and OSSS are community based organizations that have been successful in the past at improving the source protection around their waterway. This type of project demonstrate the ability of community groups to enhance the quality of water in the valley.

Project Budget: \$44,150                      Amount Requested: \$10,250                      Recommended Funding: \$8,000

Project Title: **Water Conservation Landscaping Leadership**

Organization: **Friends of Summerland Ornamental Gardens**

Project Goals: Building on the momentum and success of our 2012, 2013 projects, the Friends are requesting \$12,500 for our educational water conservation outreach and demonstration programs incorporating models dealing with use of water efficient plants, effective irrigation, storm water management, the use of mulches, limitation on traditional turf and appropriate landscape maintenance to raise awareness of sustainable water conservation landscaping. Program activities will include: a traditional lawn to be replaced with eco-lawn; top dressing traditional lawns with compost; metering water usage; educational lectures; hands-on workshops and community planting events; interpretive tours and the demonstration of stormwater management systems using our rainwater garden and the use of passive drip irrigation.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.

Project Budget: \$36,640                      Amount Requested: \$12,500                      Recommended Funding: \$0

Project Title: **Shuttleworth Diversion and Well Phase 2**

Organization: **Okanagan Nation Alliance**

Project Goals: The Allendale Water Users' Community (WUC) irrigates from Shuttleworth Creek, greatly affects the presence of water in the last 5.5km of the creek and therefore controls fish passage and survival and the condition of water quality and habitat in this section. The project involves moving this WUC from surface water supply to groundwater supply in order to provide an efficient and reliable source of water for the WUC and restore the creek's natural flow allowing fish migration and rearing. The WUC's stream license will be converted into a conservation license ensuring that the creek maintains its natural flows.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.

Project Budget: \$725,894                      Amount Requested: \$25,600                      Recommended Funding: \$0

Project Title: **Drinking Water Source Protection for Naramata**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: The community of Naramata relies on Okanagan Lake for its source of drinking water. Many activities within the Okanagan Lake catchment area can impact the quality or quantity of the available lake water. The proper protection and management of source water is therefore vital to ensuring the long term sustainability of Naramata. This study will focus on identifying and evaluating the potential risks for the Naramata water system in the local area. Recommendations to manage threats including potential impacts of climate change would be included in the protection study. Completion of this study will support the OBWB's desired outcomes of securing a sustainable water supply for human and environmental needs and supporting a healthy community. The key to ensuring that there is a sufficient quantity of clean and healthy water available now and in the future is understanding a system from its source to the consumer's tap.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.

Project Budget: \$50,000                      Amount Requested: \$25,000                      Recommended Funding: \$0

Project Title: **Drought Tournament Module Development for High Schools**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: Even though we enjoy healthy water in the Okanagan Valley, we also experience water problems from pollution and shortages, to variable flooding and drought, we must help correct and plan for these. The proposed development of a Drought Tournament (DT) module made specifically for high schools will help students to understand one of the serious weather related events that occur in Okanagan Water Basin. The classroom module and inter-regional school challenges, will teach the value of water and the process and work that is required to plan for and manage a drought. It will instill an understanding of the reasons for water conservation, water quality and the importance of planning for future events. The DT is a simulation game where the students

play the roles of water actors; to identify the gaps and vulnerabilities in past and current drought preparedness and response strategies. The students will also engage in understanding and learning how to assess policies, programs and management strategies.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.  
Project Budget: \$12,000                      Amount Requested: \$6,000                      Recommended Funding: \$0

Project Title: **Kaleden Lakeshore and Skaha Estates Sewering Assessment**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: Skaha Lake is susceptible to high nutrient loads from ageing septic tanks that surround the lake. There is an opportunity to bring in sewerage to the communities of Kaleden and Skaha Estates to connect with the Okanagan Falls wastewater treatment plant. This assessment would help the preliminary sewer design determine where the sewer mains should be located in the communities by identifying at risk areas, sketching sewer design layout and providing rough cost estimates. The ultimate aim of the project is to improve the water quality of Skaha Lake by removing the nutrient loading from septic tanks surrounding the lake.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.  
Project Budget: \$45,000                      Amount Requested: \$20,000                      Recommended Funding: \$0

Project Title: **Willowbrook Water System Assessment**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: The Willowbrook Utility has requested the RDOS take full ownership and operation of the water system. Since the system extracts water from a productive but vulnerable aquifer it is imperative for the RDOS to have a plan in place to ensure quality and conservation measures are in place at the inception for ensuring cooperation of the users. The system assessment will include a simple water balance study for examining sustainability and quality of the aquifer with the current demands and affects of climate change. Conservation and sustainability of the water supply and quality will be the primary objective for this study as well as assessing the condition of the water system infrastructure.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.  
Project Budget: \$12,000                      Amount Requested: \$10,000                      Recommended Funding: \$0

Project Title: **Workshops on water Conservation for Industry**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: The proposed series of trainings and demonstrations will focus on educating local landscapers, irrigation installers and designers on best practices and advancements in water conservation, source protection, and water re-use, and run-off mitigation in landscape design and maintenance. These workshops from industry experts will highlight advancements in residential/commercial irrigation, xeriscaping and rain-garden design specific to the South Okanagan. The workshops will include creation of a high-profile demonstration garden for hands on training and experience. Participants can take the experience and apply the knowledge for their role in creating a sustainable water system now and for the future to support healthy communities and a robust economy. Workshop participants will be encouraged to help change industry behavior, leading to measurable results of reduced potable water use, reduced runoff, and reduced water pollution as well as set an example for our residents on the value of water, water conservation and sustainable water management.

Staff Notes: Although this is a worthy project, it is not recommended due to limited funding.  
Project Budget: \$12,000                      Amount Requested: \$6,000                      Recommended Funding: \$0

## **Water Conservation and Quality Improvement Grant Program Guide:**

### **2.3 Eligible projects**

Eligible projects must:

- Demonstrate water savings or improvements to water quality
- Be supported by local government through a board or council resolution (see section 3.4)
- Be consistent with water management planning objectives in their respective jurisdictions

Priority will be given to projects that:

- Have a measureable outcome and clearly demonstrate how goals will be met
- Have matching funding in place or applied for
- Demonstrate a collaborative approach with other jurisdictions and stakeholders
- Address issues of basin-wide significance and/or can be used as a model for other organizations
- Complement existing OBWB programs, including drought response planning and education and outreach activities
- Demonstrate an innovative approach to water management

Multi-year programs are eligible for grants, but must be re-submitted annually. They are not ensured of continued funding and will be assessed as part of the each year's competition.

## BRIEFING NOTE

Okanagan Basin Water Board  
Regular meeting  
April 1, 2014  
Agenda No: 7.2

To: Premier Clark and Okanagan MLA Caucus  
From: Anna Warwick Sears, Executive Director, Okanagan Basin Water Board  
Date: March 20, 2014  
Subject: **Invasive Mussel Prevention in the Okanagan**

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**Overview:** In December, we spoke to the Okanagan Caucus about the risk of invasive mussels and our efforts to prevent them. I have since been in contact with Matthias Herborg, the B.C. MOE lead on aquatic invasive species, and Lisa Scott of the Okanagan-Similkameen Invasive Species Society (OASISS). This briefing note is an update on current plans and programs, and what is needed from the OBWB perspective. The introduction of invasive mussels into the Okanagan will impact the economy and quality of life afforded by the region's waters.

Oregon, California and Idaho have taken this threat very seriously requiring watercraft owners to match their right to enjoy public waters with the need to be responsible for its protection. The cost of an invasive mussel introduction to Okanagan waters would be very high. MOE damage estimates of \$21 million/year B.C.-wide are a bare minimum. This figure includes only hydropower infrastructure, some water utility intakes, recreational boating and golf courses. Their estimate does not include impacts to fisheries, tourism, agriculture, private water intakes (hundreds on Okanagan Lake alone), increased maintenance on Kelowna's floating bridge, docks, and boat lifts. There are yet more costs to refit drinking water intakes and wastewater and stormwater outfalls to keep mussels out.

The biggest stumbling blocks for responding to the mussel threat are: (1) an urgent need for federal regulations banning importation to support boat inspections; (2) significant funding gaps; and (3) human capacity for outreach, inspection, and decontamination on the ground. It will be essential to have our MPs and MLAs working together as strong advocates within their respective governments. Prevention is expensive, but far less costly than mitigation.

**A New Urgency:** On March 12, 2014, a trailered boat with visible attached mussels was stopped at the border in Osoyoos. The transport company voluntarily allowed it to be detained at the border (there are not yet laws to forbid entry of a contaminated vessel). B.C. conservation officers were contacted and decontaminated it the next day. Earlier this month, another invasive species, Asian Clam, was found south of us in the U.S. Okanogan. Like invasive mussels, Asian clams clog water systems and harm the environment. And last week, a mussel-infested house boat was detained in Washington State, arriving from Arizona; and another boat was detained in Idaho. ***For a limited time, we can still protect B.C. from aquatic invasive species. We need your leadership to move forward.***

(1) *The OBWB asks that the B.C. Government identify treasury funds and direct M.O.E. staff to finalize and implement their plan (that we understand is already developed) to protect B.C. waters from aquatic invasive species. The plan should include how best to decontaminate boats, resources needed to inspect boats coming into the Province across the U.S. and Alberta borders, allocate appropriate C.O. time to support inspections, and increase funding for public awareness and boater education.*

(2) *And further, that the B.C. Ministry of Environment invest up to \$30,000 to support the development of a business plan looking at a user-pay (sticker-supported) boat inspection program*

*(similar to those developed in western U.S. jurisdictions) to increase awareness and enforcement in order to deter invasive mussels from entering B.C. As time is of the essence, the business plan should be completed in time for the 2014 boating season.*

**Federal Regulations:** Enforcement at the U.S. border requires having federal regulations in place, banning importation of invasive aquatic species, under the Fisheries Act. A federal ban would mean that CBSA could watch for contaminated boats, have the authority to detain suspect craft and could bring in provincial inspection and decontamination crews when they find a high risk vessel. While current B.C. law bans possession, transport and release of mussels, it cannot ban importation. CBSA must have the federal ban in place to stop fouled boats. The regulations are under review in Ottawa.

**Boat Inspections:** A boat inspection program would be most effective if it was deployed along provincial boundaries, with strong central leadership. The program must target the main flow of boats, in the right place, at the right time of year. The inspections must be mandatory and need the support of trained Conservation Officers (COs). Idaho and Montana have mandatory boat inspections along all major highways entering those states, manned by two-person crews with decontamination units. These have helped protect us, but don't catch all boats.

Now that Lake Winnipeg has zebra mussels, eastern entry points to B.C. are a major concern. Red River tributaries (which lead to the mussel-infested Lake Winnipeg) start at the base of the Rockies. Visitors from the prairies who bring boats to B.C. are a serious threat. To make inspections mandatory under the B.C. Wildlife Act would require inspection crews to include COs or wildlife officers. A CO must be on call, because only CO's can issue decontamination orders.

**Funding and Capacity:** Capacity is very limited at the local level, with unreliable funding sources. In 2014, the Invasive Species Council of BC will provide training, webinars, and outreach materials to willing regional committees, industry, and stewardship groups in B.C. They invite partners to talk with boaters and distribute outreach materials, with the message: "Clean, Drain, Dry." However, they are not providing financial support and there is no provincial funding for on-the-ground staff at Okanagan boat launches. The Okanagan's regional committee, OASISS, applied to four different funders this year, and received only one grant (\$24,000 from OBWB), and has stated that, as a result, **"our boater outreach will be half the extent it was in 2013."** For its part, the OBWB will continue the locally-funded "Don't Move a Mussel" media campaign.

An effective inspection program would have substantial costs (estimated at \$60,000-\$160,000 per crew each year), but would be far less than dealing with future mussel damage. We can save funds by focusing efforts on high-traffic routes and highways where there are few inspections outside B.C.

**Business Case for Sticker Program:** It makes sense for the solution to be user-pay, supported by fees to watercraft who are the most likely carriers of the mussels and other invasive aquatic species. They are also the ones who will most benefit by avoiding damage by the mussels to their boat engines. In Idaho and Montana, boat inspection programs are entirely supported through the sale of inspection stickers. In Massachusetts, each boat owner must register their boat and trailer each year, online, answer a questionnaire, and pay a fee to purchase a sticker that supports an inspection program.

We encourage the B.C. government to work with the government of Canada to develop a revenue-neutral system of sticker sales for every boat and/or boat trailer in B.C., potentially aligned with the existing ICBC registration process. Funds from these stickers can support inspection stations at the B.C./U.S. border and the B.C./Alberta border. Local rates for stickers could be lower than visitor rates or rates for imported vessels. Highway patrol and Conservation Officers could issue tickets and fines for people who have not purchased the stickers. Visitors to B.C. could be reminded with road signs to purchase stickers. There are many options to explore with a business case.