

# Okanagan Basin Water Board Meeting Agenda



**DATE:** Tuesday, April 5, 2015

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

**PLACE:** Regional District of 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 1, 2016 at Regional District of Okanagan-Similkameen ([page 1](#))
5. **STAFF REPORTS**
  - 5.1 Executive Director Report ([page 7](#)) (*resolutions requested*)
    - 5.1.1 Article on Columbia River Treaty
    - 5.1.2 Letter from OBWB to federal Minister of Foreign Affairs Stephane Dion
    - 5.1.3 Hullcar Inter-Ministry Action Plan
  - 5.2 Water Stewardship Director Report ([page 19](#))
  - 5.3 Operations and Grants Manager Report ([page 23](#))
  - 5.4 Communications Director Report ([page 25](#))
6. **NEW AND UNFINISHED BUSINESS**
  - 6.1 2016 Grant Awards ([page 29](#))
  - 6.2 Contracting Policy Memo ([page 40](#)) (*resolution requested*)
    - 6.2.1 2013 OBWB Contracting Policy
7. **IN-CAMERA SESSION**
8. **RISE AND REPORT**
9. **CORRESPONDENCE**
  - 9.1 Letter from Town of Oliver to B.C. Ministers of Environment and Finance re: invasive mussels ([page 45](#))
  - 9.2 Letter from federal Min. of Transport to OBWB re: invasive mussels ([page 46](#))
  - 9.3 Letter from federal Min. of Fisheries and Oceans to OBWB re: invasive mussels ([page 48](#))
  - 9.4 Letter from B.C. Min. of Environment to OBWB re: Hullcar aquifer ([page 50](#))
10. **NEXT MEETING**
  - 10.1 The next meeting of the Okanagan Basin Water Board will be on Tuesday, May 3, 2016 at Regional District of Central Okanagan in Kelowna.
11. **ADJOURNMENT**



**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD  
HELD MARCH 1, 2016, 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 Cindy Fortin	Regional District Central Okanagan
Director Tracy Gray	Regional District Central Okanagan
Director Andre Martin	Regional District Okanagan-Similkameen
Director Sue McKortoff	Regional District Okanagan-Similkameen
Director Peter Waterman	Regional District Okanagan-Similkameen
Alt. Director Brian Guy	Okanagan Water Stewardship Council

**REGRETS**

Director [Undesignated]	Okanagan Nation Alliance
Director Toby Pike	Water Supply Association of BC

**OBWB STAFF**

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

**1. CALL MEETING TO ORDER**

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

**2. INTRODUCTION OF LATE ITEMS**

7.2 Water Sustainability Act update

**3. APPROVAL OF AGENDA**

***"THAT the agenda of the regular meeting of the Okanagan Basin Water Board of March 1, 2016 be approved."***

**CARRIED**

**4. DELEGATION**

Ian McLellan, Ministry of Forests, Lands, and Natural Resource Operations (FLNRO) District Recreation Officer with Recreation Sites and Trails BC (RSTBC)

Mr. McLellan was invited to present based on the board's ongoing concerns about multiuse in watersheds and the impact on water supplies from some recreational users.

Mr. McLellan noted that his office manages Crown lands, other than BC Parks, and works with FLNRO's Range Branch, local governments and others. Their responsibility is with authorized recreation. They don't ticket, he added.

In all, RSTBC is responsible for more than 1,350 recreation sites and over 800 trails in the province. In the Okanagan alone, there are two staff who manage more than 190 sites, and more than 60 trails covering over 1400 km, from north of Enderby to Osoyoos.

While there are 350,000 residents in the Okanagan, the region attracts 4 mill. visitors per year. As a result, Mr. McLellan added, they work with partnership agreements (PAs) to help manage the area. PAs have been developed with naturalist clubs, First Nations, local government, and others.

Bear Creek is one example of a PA in action. The Bear Creek recreation area includes more than 30,000 ha and is B.C.'s largest site, established in 2007 by FLNRO. Initially there were problems with off-road vehicles (ORVs) damaging sensitive areas and affecting drinking water sources. So the ministry brought in experts to help develop a trail network, deactivate some roads and create others. At the same time, Mr. McLellan explained, efforts were made to help sensitive grasslands regenerate, and protect and improve source water areas. A PA was created with the Okanagan Trailriders who now collect a fee to help with maintenance and operation costs, added Mr. McLellan. Today, they are nearly self-sufficient, receiving only \$5,000 in tax dollars, he added. In response to questions from the board, he noted that the group doesn't want to lose the ability to use the area for recreation so they are pushing riders to use the trails.

There are still other sediment sources polluting water ways, Mr. McLellan said, with two gravel pits and logging in the area, but there have been improvements.

RSTBC is managing recreation improvements using education (through signage and trail patrols), engineering solutions (e.g. installing proper toilet facilities, trails, etc.), enforcement (paying overtime to Conservation Officers, RCMP and others to do trail patrols and enforce recreation regulations) and evaluation (through water quality and sediment monitoring, compliance monitoring, and more).

A similar management arrangement has been reached with the Regional District of North Okanagan (RDNO) in the Grizzly Lake area, Mr. McLellan added. There were concerns about inviting recreation into an area that is a source of drinking water but the recreation community is already there and it needs to be managed, he said. As such, plans were developed to have three campgrounds with 35 sites and picnic tables. There were concerns about ATVs on the area's dam and weakening it. Two pit toilets have been installed to prevent defecation around the water source.

The province is paying for a site host as a transition and will eventually enhance the site and charge a camping fee to help pay for operations, he added.

Mr. McLellan provided an update on upgrades to other sites around the Okanagan being used for recreation.

Chair Findlater noted the issues at Bear Creek and how there has been considerable success in addressing them.

## 5. **ADOPTION OF MINUTES**

5.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of February 2, 2016 at Regional District of Central Okanagan.

***"THAT the minutes of the regular meeting of the Okanagan Basin Water Board of Feb. 2, 2016 at Regional District of Central Okanagan be approved."***

**CARRIED**

## 6. STAFF REPORTS

### 6.1 Executive Director Report

#### Progress on Okanagan Nation Alliance (ONA) Partnerships and Protocol Agreement

Dr. Sears provided an update on the Protocol Agreement with ONA and noted discussions are underway to have a presentation from ONA at June's joint board/council meeting.

#### Drought Response Project, Phase II

A half-time staff person will be hired to assist with implementation of the Drought Response Plan recommendations, working with local governments and integrating efforts with the OBWB's Okanagan WaterWise program and its Make Water Work campaign.

#### Weather Projections – Drought &/or Flood

Dr. Sears updated the board on current weather forecasts, noting that the snowpack is healthy but there is concern that a warm spring could bring an early melt and the potential for flooding. If water levels get too high, water managers will need to release some of it to prevent flooding, in which case utilities will need to manage for the potential of low rainfall in the following months.

There was some discussion and a recognition by directors that a healthy snowpack and warm spring can still bring flood and drought in the same year. It was noted that the need for caution still exists.

The board was reminded of the annual Okanagan Water Supply Webinar which will be held April 15 from 11 am to noon. The meeting will provide an update on reservoir levels, snowpack, groundwater and weather forecast and is of interest to water managers, local government, those in agriculture and water professionals.

***“THAT the Executive Director's Report, dated Feb. 24, 2016, be received.”***

**CARRIED**

### 6.2 Water Stewardship Director's Report

#### Environmental Flow Needs (EFN) Project

Mr. Jatel noted that the EFN project team is now working to create a methodology to determine EFNs specific to 18 priority streams and will look at current and future demand for water on them.

#### Okanagan Wetlands Project

The board was told that the wetland project team has been talking with the District of Summerland about a possible partnership on a wetland project at a local school.

***“THAT the Water Stewardship Director's Report, dated Feb. 24, 2016, be received.”***

**CARRIED**

### 6.3 Operations and Grants Manager Report

#### Water Conservation & Quality Improvement (WCQI) Grant Program

Mr. Littley provided an update on the WCQI program, stating there were 27 applications for a total ask worth about \$495,500 with \$300,000 available. The applications will now be reviewed and recommendations will come forward to the board in April.

### Milfoil Control Program

Mr. Littley noted that winter rototilling is now complete in parts of the valley and finishing up elsewhere. It is hoped that the extra hours that were put in this winter will help should it be another strong growth year for milfoil.

***“THAT the Operations and Grants Manager’s Report, dated Feb. 23, 2016, be received.”***  
**CARRIED**

## 6.4 Communications Director Report

### Make Water Work (MWW)

Ms. Jackson provided the board with a final report on the Make Water Work 2015 pledge survey of residents who went to the [MakeWaterWork.ca](http://MakeWaterWork.ca) website and took the pledge to conserve. The survey was intended to determine how many followed through on their pledges and if not, why not, and to identify barriers to behavior change. About 550 surveys were delivered and 215 completed, which is said to be accurate within +/- 5.2%.

Survey results suggest the majority followed through with all the pledges they made. Only 5% indicated they did not, and most of these indicated that, for example, instead of following through on watering during certain times, they just didn’t water at all. Among those who followed through with their pledges, 75% made additional changes to conserve. Some 95% indicated they participated to save water and help the environment (vs the chance to win prizes, etc.). Those pledges most difficult to follow through on were “Change lawn to drought-tolerant turf &/or low water plants” and “Aerate my lawn and top dress with compost.” The top reasons given for difficulty were cost and time.

The board was also provided survey results regarding: how much cost motivates conservation, appetite to pay for irrigation and landscape improvements, awareness around last summer’s drought and more.

There was lengthy discussion about the survey results.

Ms. Jackson added that the results will help inform the MWW 2016 campaign and may be useful to local governments in assisting additional water conservation efforts.

### Rain Barrel Sale Pilot Project

The board was told about a pilot project to sell rain barrels in partnership with RDCO’s Waste Reduction Office and their sale of composters. The pilot is in response to ongoing public interest expressed to the OBWB as well as RDCO, and will be limited to the presale of 100 barrels. The barrels will be sold at-cost but a bulk buy will allow residents cost-savings.

### UN World Water Day/Canada Water Week

Each year the Water Board holds an annual panel discussion during Canada Water Week. This year staff are partnering with UBCO’s Biodiversity, Resilience and Ecosystem Services (BRAES) Institute to hold the event March 22 at the Laurel Packinghouse in Kelowna. The event will begin with a keynote address by international water champion Margaret Catley-Carlson.

Details can be found on [www.OkWaterWise.ca](http://www.OkWaterWise.ca) and [www.OBWB.ca](http://www.OBWB.ca).

### Other communication initiatives

Ms. Jackson reported on the EFN news conference held Feb. 12. Although the event was pulled together quickly and included several partners, including ONA, provincial ministers, our local

Kelowna MP and UBCM, creating some organizational hurdles, the event went very well. Both UBCM and the federal government followed up to say they were pleased with the event and the coverage that followed.

***“THAT the Communications Director’s Report, dated Feb. 24, 2016, be received.”***  
**CARRIED**

## **7. NEW & UNFINISHED BUSINESS**

### **7.1 Mission Creek Groundwater Memo**

Dr. Sears provided an overview of her memo and the reasons for moving ahead with a Kelowna groundwater study in partnership with Kelowna Joint Water Committee (KJWC) member utilities, Okanagan Nation Alliance (ONA), B.C. Ministry of Forests, Lands and Natural Resource Operations and the University of B.C. – Okanagan (UBCO).

The project, she added, will help answer some of the KJWC’s concerns around groundwater, based on recent research results by UBCO, funded through the OBWB. It is also a logical extension of the EFN work being done on Mission Creek with ONA and FLNRO.

The partners have agreed to help design and fund the research, and the intention is for it to begin before freshet begins.

The board was asked to approve the project.

***“THAT the OBWB lead the collaborative project to determine groundwater flows to Mission Creek, in partnership with the Kelowna area water utilities, UBCO, B.C. Ministry of Forests, Lands and Natural Resource Operations, and the Okanagan Nation Alliance.”***  
**CARRIED**

### **7.2 Water Sustainability Act (WSA) update**

Directors were updated on B.C.’s WSA and the fact that it is now in force. Of particular interest is the licencing of groundwater for the first time, noted Dr. Sears. Up until now, anyone could drill a well and draw groundwater and not report their use. At the same time, the province could issue a surface water licence without understanding the implications to groundwater, even though the two are connected.

Dr. Sears added that it is important that people register their groundwater wells as a way to protect their water rights. Old wells will be grandfathered and given priority and added to the licence database, she explained. By getting a licence, the licensee is protected from industrial users or others who get a licence after them, ensuring that their water allocation cannot be impinged upon.

Mr. Jatel suggested that the Water Stewardship Council could review the OBWB’s own recommendations on the WSA and the actual act, and provide a report back to the board. Directors agreed.

***“THAT the Water Stewardship Council review the B.C. Water Sustainability Act based on the OBWB’s recommendations and report back to the board.”***  
**CARRIED**

8. **NEXT MEETING**

The next meeting of the Okanagan Basin Water Board will be April 5, 2016 at Regional District of North Okanagan in Coldstream.

9. **ADJOURNMENT**

*“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of March 1, 2016 be adjourned at 1:39 p.m.”*

**CARRIED**

Certified Correct:		
Chair		Executive Director



## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 5.1

File No. 0550.04

To: OBWB Directors  
From: Anna Warwick Sears  
Date: March 30, 2016  
Subject: Executive Director Report

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### **New staff member for Communications and Planning**

I'm pleased to announce that Kellie Garcia has returned to OBWB as our new Communication and Planning Specialist, filling the 0.5 FTE position approved by the board for the new fiscal year. As an independent consultant, Ms. Garcia was the technical writer for our Okanagan Sustainable Water Strategy in 2008. She filled our Communications Coordinator position for one year, in 2009, and has since worked on a number of small contract projects for us – most recently the Drought Planning Gap Analysis, and coordinating our Environmental Flow Needs – Phase 1 project through Associated Environmental Inc. In her new role, Ms. Garcia will be working closely with Corinne Jackson on local government communication partnerships (such as Make Water Work), and will be engaging with local government planning staff to assist with drought planning and water bylaws.

### **International Osoyoos Lake Board of Control**

There had been a possibility that the International Osoyoos Lake Board of Control (IOLBC) for water quality sampling would apply to the IJC for a grant for water quality sampling. However, after a review of the IOLBC's mandate, the IJC determined that the Osoyoos Board could only work on projects directly related to dam operations. A previous grant from the IJC, a video on the shared interests of Lake Osoyoos residents, agriculture, and fish on either side of the border, is moving forward.

### **Columbia River Treaty Letter and Federal Involvement**

The Canadian government has recently agreed to participate in negotiations on the Columbia River Treaty. Prior to their announcement in March, the B.C. government had been the lead level of government for Canadian negotiations. While the Okanagan and Similkameen are tributaries to the Columbia River, they are not part of the treaty area. However, the outcome of the negotiations could affect the Okanagan system in a number of ways, especially if new terms are added for fisheries restoration and First Nations concerns. I have attached a letter from some leading B.C. scientists from the Canadian Water Resources Association (including OBWB Alternate Director, Brian Guy), calling for the creation of a Canadian Science Advisory Panel, and the involvement of the International Joint Commission. The letter stemmed from a workshop held in Osoyoos in October, 2015, that the OBWB sponsored, and that was in conjunction with the Osoyoos Lake Water Science



Forum. They have requested a letter of support from the OBWB, and cc'd us on their letter to the Minister of Foreign Affairs, Stephane Dion.

***Recommended Resolution: That the OBWB write a letter to the Canadian Minister of Foreign Affairs, supporting the requests made by the scientists with the Canadian Water Resources Association.***

#### **Purchase of Aquarius Software upgrade**

In 2014, the OBWB purchased a \$15,000 Aquarius software package (with Gas Tax funds) to manage our hydrometric data. We are currently in the process of further integrating the Aquarius software into the BC Water Use Reporting Centre web-portal, and expanding our use of the program for the Environmental Flow Needs project. We now wish to purchase an expanded licensing agreement for \$38,000. The expanded agreement will allow us to have our contractors access the software from remote locations, and it will include new web-portal software.

Aquarius hydrometric data software by Aquatic Informatics is the leading software for water data management. It allows water resource managers to correct and quality-control time series data, and report on water information in real-time. The USGS chose Aquarius as its primary platform for all time-series data storage, processing, review, and dissemination. Water Survey of Canada selected Aquarius after an extensive evaluation and open tender process. Aquarius is used for the acquisition and management of data from over 2,400 stream gages, across 28 field offices, for over 200 hydrographers throughout Canada. BC Hydro selected Aquarius to help better manage water supply and forecasting data, by providing more frequent updates to its statistical water supply forecasts and by improving the traceability and tracking of forecast changes. Also, the BC Government chose Aquarius to manage groundwater data as well as a number of US state governments including South Dakota, Wyoming and Colorado.

***Recommended Resolution: That the OBWB approve the purchase of an expanded licensing agreement with Aquarius Informatics for a cost not to exceed \$38,000.***

#### **Osoyoos Lake Appreciation Day**

The Osoyoos Lake Water Quality Society along with the Town of Osoyoos will host the first Osoyoos Lake Appreciation Day on Saturday May 21, 2016 from 2 to 5pm. The event will happen at Gyro Park, with food vendors, speeches by dignitaries from either side of the border, and musical entertainment.

#### **Hullcar Aquifer Update**

The B.C. Ministry of Environment has provided a very strong and positive response to the OBWB's letter regarding the Hullcar aquifer. I received a telephone call from an assistant to the Deputy Minister, and an email from Christa Zacharias-Homer, the Deputy Director of the Regional Operations Branch, providing more information and the attached action plan. OBWB Director Rob Birtles is a member of the Core Team responding to this issue.

*The purpose of this email is to advise of key actions B.C. Government is taking with respect to water quality of Hullcar aquifer 103. There is a shared responsibility for addressing this complex issue and recognition that the solution will require coordination and cooperation between different ministries, other levels of government, agriculture industry and the community. I am the Ministry of Environment*

lead for the inter-ministry working group comprised of staff from the Ministries of Environment, Agriculture, Forests, Lands and Natural Resource Operations and the Interior Health Authority. We have developed an integrated action plan (attached) identifying key steps to resolve the issue.

Members of the working group will be hosting two meetings on Monday March 21 at Hullcar Community Hall. The first meeting is with representatives of Steele Springs Water District, Save Hullcar Aquifer Team, Township of Spallumcheen, and Splotsin First Nation for the purpose of sharing the inter-ministry action plan. The second meeting is with the agri-food industry located above the Hullcar aquifer for the purpose of understanding and developing integrated agri-food industry response to water quality issues affecting the Hullcar aquifer.

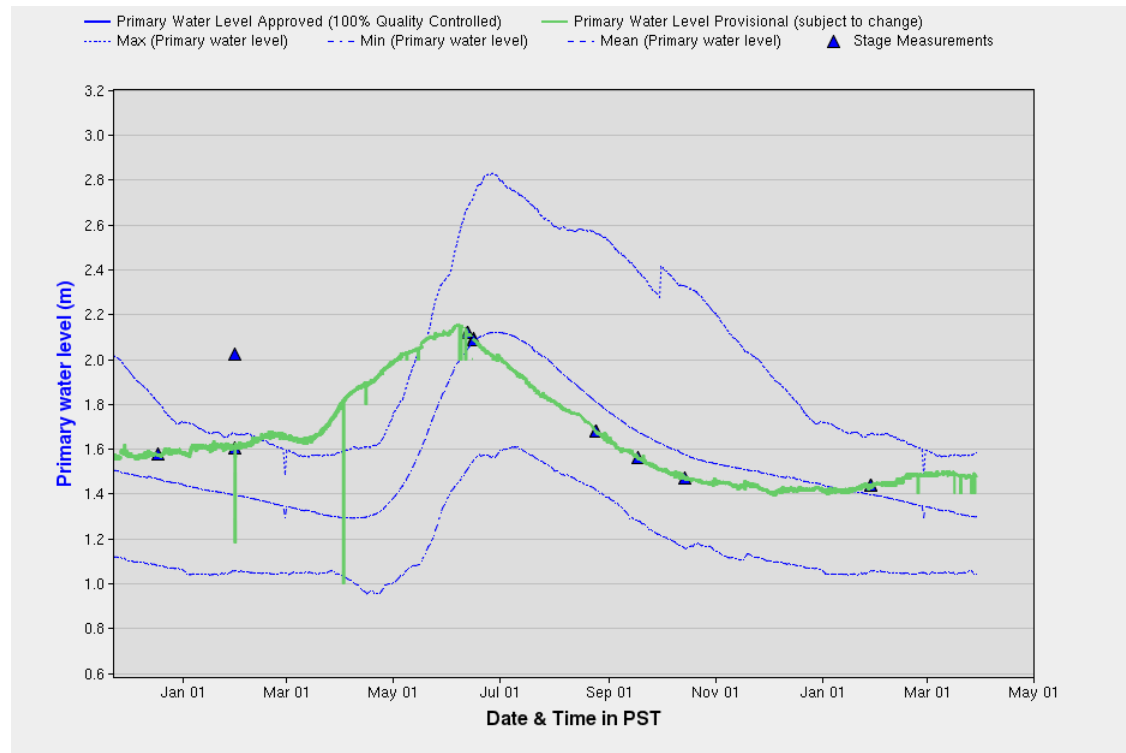
The Ministry of Environment has established a dedicated webpage to share information on the Hullcar Aquifer water quality issue. Information will be posted as it becomes available.

<http://www.env.gov.bc.ca/epd/regions/okanagan/envman/hullcar-aquifer.html>

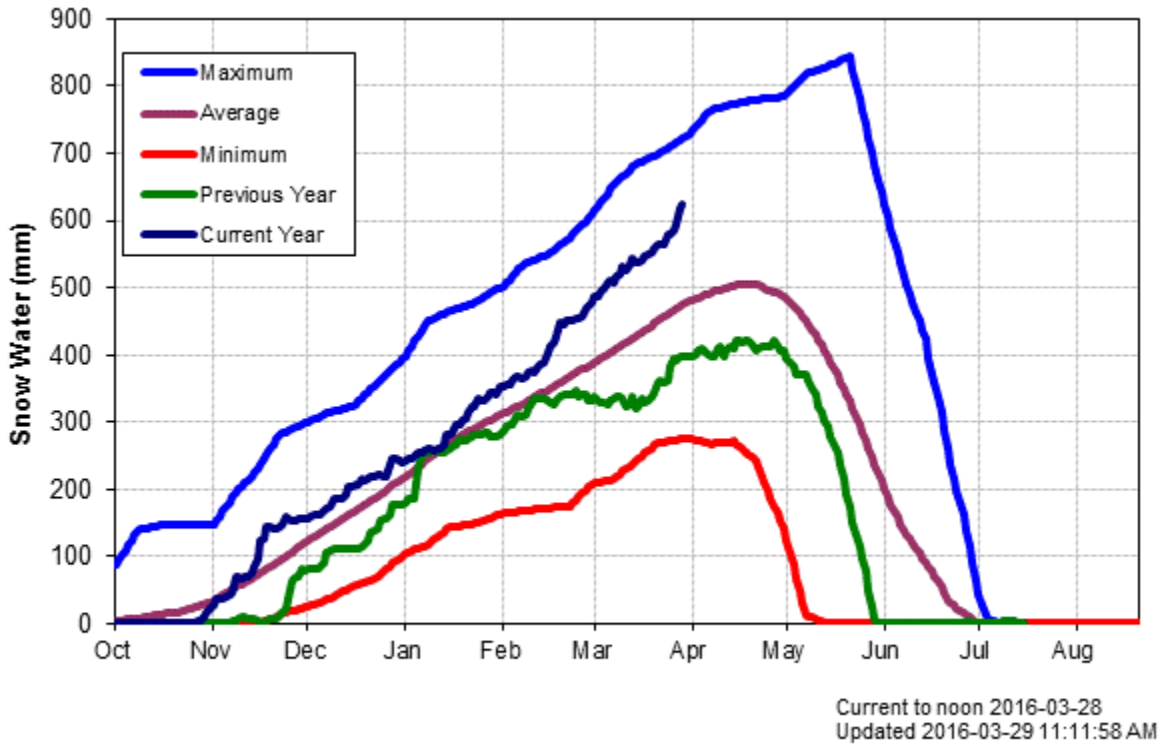
### **Outlook from the River Forecast Centre (March 1) – abbreviated**

Above average snow pack conditions are present, primarily at higher elevations, in the Southern Interior including the Okanagan, West Kootenay, Boundary, Thompson basins (100 to 130%). Late March is typically 92% of the way through the winter snow accumulation period. Temperatures are expected to be warmer than normal this spring. Snow accumulations may be near the peak for this winter, particularly at low elevations, though late season snow at high elevations is always possible. The next Snow Survey and Water Supply Bulletin is planned for release by end of day April 7th 2016.

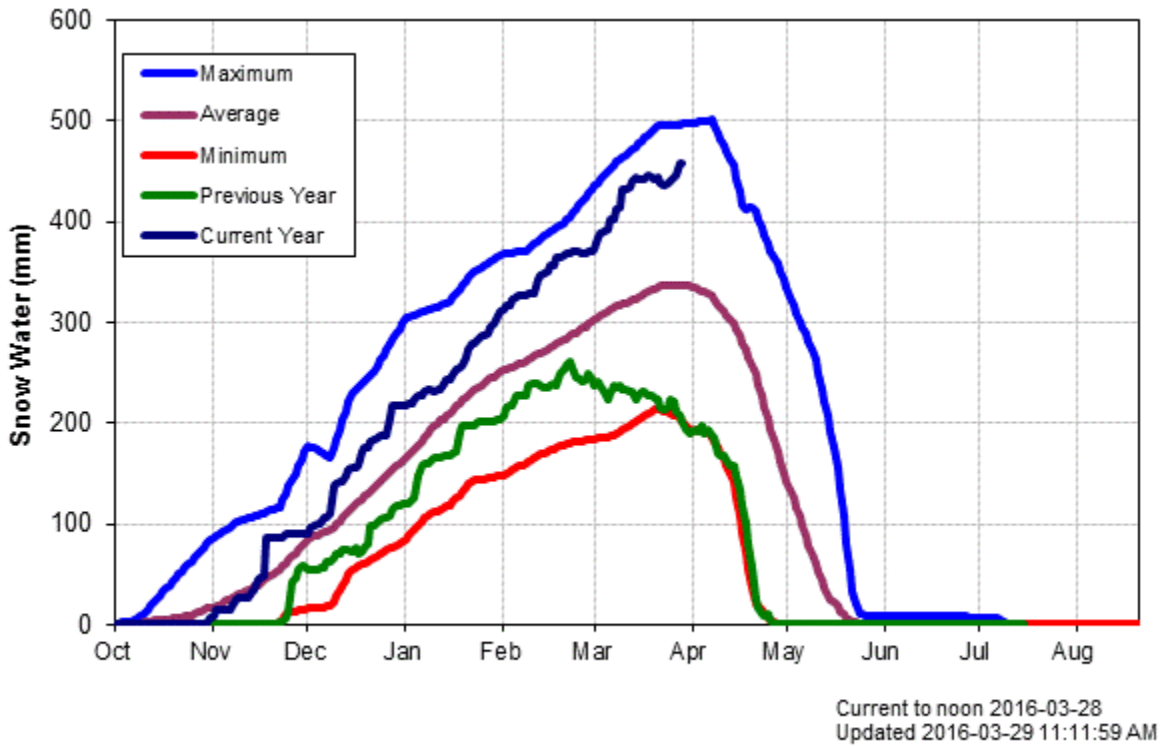
### **Okanagan Lake Levels March 29, 2016 – above average (managed by dam operator)**



**Mission Creek snow pillow, March 29, 2016 - above average.**



**Brenda Mines snow pillow, March 29, 2016 - well above average.**



## Federal government appointing Columbia River Treaty negotiator



By Cranbrook Daily Townsman

Published: March 15, 2016 08:55 AM

Updated: March 15, 2016 08:528 AM

Alex Cooper/Revelstoke Times Review

Prime Minister Justin Trudeau will be appointing a negotiator to lead talks on updating the Columbia River Treaty, according to a U.S. Senator from Washington State.

"Prime Minister Trudeau, Foreign Minister (Stephane) Dion, and I had a positive discussion today," said Senator Maria Cantwell in a news release last Thursday.

"The Canadian leaders agreed to move forward and appoint a chief negotiator to begin treaty talks. Modernizing this treaty would benefit Americans and Canadians along the Columbia River across the Pacific Northwest and British Columbia,."

A spokesperson for the Department of Foreign Affairs confirmed the news, writing in an e-mail that "progress towards establishing a negotiating team was made" during Trudeau's visit to Washington last week.

"The Government of Canada has been and will continue working closely with the Government of British Columbia to prepare for discussions with the United States on the future of the Treaty," wrote Joseph Pickerill.

The Columbia River Treaty was signed in 1964 in order to provide flood control in the United States. In exchange, Canada was given \$254 million to build three dams along the river, and granted a share of profits from extra U.S. power production that resulted from the treaty.

The treaty can be canceled or changed starting 2024, provided one side give 10 years notice to do so.

Both sides have expressed a desire to modify the treaty. In B.C., the province, local governments in the Columbia

Basin and First Nations have each submitted recommendations for improvements. In the U.S., legislators have been urging the White House to begin discussions.

Discussions so far have surrounded the compensation B.C. should receive for providing flood control and adding environmental considerations to the treaty. First Nations on both sides of the border are pushing to restore the Columbia River salmon run as part of the treaty.

So far, Ottawa has largely left negotiations in the hands of the B.C. government. Bill Bennett, the MLA for Kootenay East and the Minister of Energy & Mines, said they are still waiting to hear Ottawa's position on the treaty, as well as that of the American government.

"We actually have legal authority to be consulted by the federal government and they require our sign off on anything that is negotiated," he said. "That's the most important thing for people to understand is the Canadian government doesn't have the same unilateral authority the U.S. government has."

Bennett said he expects Ottawa to take the lead on negotiations, "with B.C. right at their elbow providing information and perspective."

"We certainly would welcome the opportunity to negotiate with the US on improving the treaty," he said. "We're not interested in opening up the treaty, but we're certainly interested in improving it."

Kootenay-Columbia MP Wayne Stetski, noted the work that has been done by the province, local governments and First Nations so far. He said the federal government's job should be to support the work that's been done.

"We certainly should not be starting to do it all over again," he said.

He said the report from Washington was the first news he'd heard about the treaty since being elected in October. "This was the first movement on it that I've seen."

Find this article at:

[http://www.dailytownsman.com/breaking\\_news/372119671.html](http://www.dailytownsman.com/breaking_news/372119671.html)

**Corresponding Address:**

**DR. BRUCE MACLOCK**

Okanagan Basin Water Board General meeting April 5, 2016 Agenda No: 5.1.2
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The Honourable Stéphane Dion, P.C., M.P.  
Minister of Foreign Affairs,  
Government of Canada,  
Ottawa, Ontario, K1A 0A6

March 18, 2016

Dear Minister Dion:

## RE: COLUMBIA RIVER TREATY RENEGOTIATIONS

The Columbia River, along with its tributaries the Okanagan and the Similkameen, form a major international watershed shared by Canada and the United States of America. As these rivers cross the international boundary, they are subject to significant federal jurisdiction. These waters are of great importance to all Canadians as well as residents of British Columbia. It is imperative that sound knowledge and the best available science are brought to bear by both the Province of British Columbia and the Government of Canada to competently manage the Canadian portion of this great watershed. The renegotiation of the Columbia River Treaty will establish governance and management patterns for the Columbia watershed that could set precedents for Canada's other transboundary waters.

The existing Treaty, which primarily addresses power generation and flood control, was ratified by Canada and the United States in 1964 and after fifty years is now up for renegotiation. The U.S. has appointed their negotiator for the Treaty, following a comprehensive 'Sovereign Review' conducted by U.S. federal and state agencies during the period 2011 to 2014. Since then, they have been moving forward with scientific and economic analyses in preparation for these important negotiations. The Province of British Columbia has been undertaking a parallel, but more limited review of the Treaty during the same time period.

The Treaty has generated considerable interest amongst First Nations, local communities and other engaged citizens in the Province of B.C. and beyond. A number of water resource professionals living in British Columbia have been following the progress of the provincially-led review for some time. In the interests of adding to public knowledge of the Treaty, a small group associated with the Canadian Water Resources Association and Simon Fraser University successfully ran a bi-national public workshop on October 7, 2015 in Osoyoos, B.C. A broad range of ideas and information were exchanged. These included some of the results of the U.S. 'Sovereign Review' which recommends consideration of a 'third leg' on water management for the purpose of sustaining ecological services within the Columbia River basin.

In the few months since the Workshop, the conference organizers have come to the following conclusions on the issue of renegotiating the Columbia River Treaty:

1. The Treaty as it now stands is too narrow a basis for managing one of the continent's most important international river basins. Currently, the Treaty is often characterized as a convenient, but anachronistic commercial arrangement of benefit mainly to hydro-power companies;

2. It is widely accepted that the Treaty is too narrow in scope and needs to be re-negotiated with a broader and more ecological viewpoint that includes the entire Canadian Columbia basin (including the Okanagan and Similkameen sub-basins), a built-in capacity to cope with climate change, plus an inherent flexibility that facilitates the inclusion of the views of local communities and especially First Nations. In particular, consulting with First Nations in a serious way, prior to the upcoming negotiations, would be beneficial to Canada's preparations for renegotiation; and would exemplify your government's recent commitment to establishing a new relationship with First Nations;
3. In our view, the Government of Canada needs to assume a more active role in protecting and managing Canada's interests in a modernized Treaty instead of continuing to leave that lead solely to British Columbia. We are encouraged by recent news reports that Canada will shortly appoint a lead negotiator. B.C. simply does not have the breadth of jurisdiction, such as management and restoration of salmon fisheries of Canadian origin, engagement with First Nations, nor the capacity to protect the wider national interest when it comes to both the substance of and precedents set by an updated Treaty;
4. From reports given at the Osoyoos workshop, it is apparent that the U.S. 'Sovereign Review' resulted in a report to the U.S. Department of State that contains a much broader scope, in environmental considerations alone, than we know are being assembled by officials of the B.C. government. Additionally, we learned that the U.S. federal environmental legislation is very powerful and has induced the Bonneville Power Administration to make federally-required on-going annual investments of some \$200-\$300 million on applied science focused on the restoration of anadromous salmon and their habitats. These restoration efforts plus the 'third leg' concept appear to us as evidence that the American approach to a possible new Treaty has been broadened to a philosophy inherent in modern day river basin management, as per the intent of the *Canada Water Act*;
5. Given the wider scope of the U.S. 'Sovereign Review', it is our view that a very large body of science investigation is missing on the Canadian side of the border, which leaves us less prepared for a U.S. push for a Columbia agreement that could set precedents for other trans-boundary basins. These gaps in knowledge should be filled to level the playing field prior to renewing the Treaty. It is also crucial that future analytical work include studies that enable Canada to negotiate fair compensation for down-stream hydro-power production and flood protection made possible by water storage in British Columbia;
6. Suggestions for filling these knowledge and science gaps include the establishment of, initially, a Canadian Science Advisory Panel, to be followed later by a bi-national Science Advisory Panel, both funded through government (and possibly by private foundation funds). This is an onerous task to take on for private citizens. We are prepared to take on part of this task, but we believe that now is the appropriate moment for the Government of Canada to take a leadership role by establishing the financial and institutional basis for a Canadian Science Advisory Panel. We are confident that the federal government has the means and capacity to take the lead through its Departments and the International Joint Commission. Grants to such national organizations as the Canadian Water Resources Association have in the past been made by Environment Canada and could be used to foster further scientific exchange. Alternatively, or possibly in addition to the above-noted Canadian Science Advisory Panel, some appropriate bi-national science advisory role in the current Treaty discussions could be developed by the International Joint Commission, with or without



resort to a formal reference from either nation. In this way, a neutral and well respected, bi-national body would consider the Columbia River Basin as an international watershed within which physical and ecological assets would be managed for the benefit of all citizens in both countries as well as the hydro-power companies and downstream U.S. flood-vulnerable development.

In summary, we believe that the Government of Canada, through its various ministries and departments, now needs to exert the full weight of its jurisdiction to protect the interests of all Canadians in these upcoming negotiations. A federal-provincial negotiating team needs to be formed and we are suggesting that Canada take the lead on that team. We are also suggesting that a Science Advisory Panel be created to assist Canada in effectively exercising this role.

Thank you for your consideration of this important matter. We would be happy to discuss it further by telephone or in person at your convenience.

Respectfully,

**Bruce MacLock, Ph.D.**

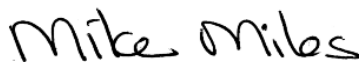


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**Michael Miles, M.Sc., P. Geo.**

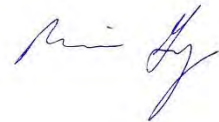


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cc: The Hon. Dr. Carolyn Bennett, Minister of Indigenous Affairs and Northern Affairs, Canada  
The Hon. James Gordon Carr, Minister of Natural Resources, Canada  
The Hon. Catherine McKenna, Minister of Environment and Climate Change, Canada  
The Hon. Hunter Tootoo, Minister of Fisheries, Oceans and the Canadian Coast Guard, Canada  
Dave Murray, P.Eng., President, Canadian Water Resources Association, [D.Murray@kwl.ca](mailto:D.Murray@kwl.ca)  
Pauline Terbasket, Executive Director, Okanagan Nation Alliance, [director@sylix.org](mailto:director@sylix.org)  
Gordon Walker, Q.C. Canadian Chair, International Joint Commission  
Okanagan Basin Water Board, Kelowna, B.C., [www.obwb.ca](http://www.obwb.ca)

The following water resource experts have read this document and requested to be added as signatories:

The Hon. David Anderson, P.C., O.C., former federal Minister of Environment,  
[david@anderson-victoria.com](mailto:david@anderson-victoria.com)

Jim Bruce, O.C., F.R.S.C., formerly ADM of Environment Canada, [jbruce@sympatico.com](mailto:jbruce@sympatico.com)

Ralph Pentland, P. Eng., Former Director, Water Planning and Management, Environment Canada,  
[ralbet@rogers.com](mailto:ralbet@rogers.com)

David Schindler, O.C., A.O.E., D.Phil., F.R.S., F.R.S.C., Killam Memorial Professor Emeritus, U. of A.,  
[d.schindler@ualberta.ca](mailto:d.schindler@ualberta.ca)

## HULLCAR AQUIFER INTER-MINISTRY ACTION PLAN

MARCH 11, 2016

**DIRECTOR LEAD:** CHRISTA ZACHARIAS-HOMER, (ENV), Deputy Director, Regional Operations Branch

**TECHNICAL TEAM LEAD:** ORLANDO SCHMIDT, (AGRI), Regional Manager, Coast and Interior

**CORE TEAM MEMBERS:**

David Poon (AGRI), Provincial Soil Specialist

Jason Bourgeois (ENV), Section Head, Environmental Management

Stephanie Little (ENV), Environmental Protection Officer

Skye Thomson (FLNRO), Regional Hydrogeologist

Rob Birtles (IHA), Team Leader, Environmental Health Officer

Brian Gregory (IHA), Environmental Health Officer

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 5.1.3

**ADDITIONAL SUPPORT**

Mark Raymond (AGRI) – Acting Manager, Resource Management Unit

Tom Droppo (AGRI) – Industry Specialist, Dairy

Dennis Einarson (MoE), Environmental Impact Biologist, Regional Operations Branch

**Vision**

Public recognition that government is working as an integrative team with industry, community and First Nations to protect drinking water quality and support sustainable agriculture sector in the Hullcar Aquifer area (Township of Spallumcheen, British Columbia).

**Goals:**

- Safe Drinking water for residents of Hullcar Aquifer and Steele Springs Water District, with nitrate levels consistently below 6 mg/L.
- Build public trust by demonstrating that multiple Ministries are collaborating for the citizens of BC.
- Determine as scientifically accurately as possible the sources of nitrate in the Hullcar Aquifer.
- Sustainable economic development for the local agrifood sector.

Activities	Lead (support in brackets)	Duration (start/end dates)	Status	Budget.
1. Deliver meeting of local agrifood sector (dairy, feedlots, chicken, etc.) located over Hullcar Aquifer and Steele Springs Water District to engage in a dialogue about agrifood sector adopting environmental farm plans to improve water quality. The best management practices within EFP program support environmentally sustainable agriculture sector and supports the sector towards compliance with the requirements of the Agriculture Waste Control Regulation.	Christa Zacharias-Homer/Orlando Schmidt (All Inter-Min WG members)	March 21, 2016		

Activities	Lead (support in brackets)	Duration (start/end dates)	Status	Budget.
2. Deliver public meeting for residents of Hullcar Aquifer and Steele Springs Water District to provide information on government's water quality monitoring and to persuade community members to ensure septic systems are working correctly as failures contribution to high nitrates in aquifer.	Christa Zacharias-Homer (All Inter-Min WG members)	TBC-Week of April 11, 2016		
3. Review of Environmental Management Act, Drinking Water Protection Act, Health Act instruments to encourage collective action for improvement of water quality.	Christa Zacharias-Homer, Rob Birtles (Stephanie Little, Brian Gregory)	Week of March 14, 2016		
4. Develop a communications plan that includes sharing of the following on MoE website <a href="http://www.env.gov.bc.ca/epd/regions/okanagan/envman/hullcar-aquifer.html">http://www.env.gov.bc.ca/epd/regions/okanagan/envman/hullcar-aquifer.html</a> (not limited to): <ul style="list-style-type: none"> <li>• Frequently asked questions</li> <li>• Maps identifying known domestic wells, aquifers, farm locations</li> <li>• Copy of IHA advisory</li> <li>• Water quality sampling data</li> <li>• Inter-ministry monitoring plan</li> <li>• Inter-ministry working group minutes with key actions.</li> </ul> Sampling data currently collected monthly by MoE at Steele Springs drinking water outfall will continue to be shared with Steel Springs Water Board via email within 7 days of receipt of analysis. If sample results exceeded Canadian Drinking Water Guidelines, the sample results will also provided to Ministry of Agriculture, Interior Health, and the Town of Spallumcheen.	Orlando Schmidt/ Christa Zacharias-Homer (All Inter-Min WG members)	March 9, 2016		
5. Conduct review of all water quality data available (i.e. IHA, FLNR, MoE – including Environmental Monitoring System info).	Dennis Einarson (Brian Gregory, Skye Thomson)	Starting March 1, 2016		
6. Develop an integrated cross ministry monitoring plan including identification of sampling points, by whom, schedule of samples, etc.	Dennis Einarson, Chris Russel, Skye Thomson	Completed by March 15, 2016		
7. Explore opportunities to partner with external parties such as the Okanagan Basin Water Board and/or the University of British Columbia-Okanagan	Skye Thomson, Dennis Einarson, Rob Birtles	March 21, 2016		
8. Ensure compliance with Agricultural Waste Control Regulation by: <ul style="list-style-type: none"> <li>• Continuing promotional compliance activities and promotional best practices including. <ul style="list-style-type: none"> <li>- BC Cattlemen's AGM, May 26-28 – Penticton</li> </ul> </li> </ul>	Stephanie Little, Clayton Botkin and Tom Droppo	Ongoing		

Activities	Lead (support in brackets)	Duration (start/end dates)	Status	Budget.
<ul style="list-style-type: none"> <li>- BC Chicken Growers Association</li> <li>- BC Dairy Association</li> <li>• Conduct Inspections of agricultural operations in the Hullcar area.</li> <li>• Address compliance issues as defined by the <a href="#">Ministry of Environment Compliance and Enforcement Policy and Procedures (May 2013)</a>.</li> <li>-</li> </ul>				
9. Explore alternative nutrient management approaches including technology options, geographic distribution options, etc.	Orlando Schmidt, Christa Zacharias-Homer (Marg Crowley and MAg)	March 29, 2016		

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No:

File No. 0550.04

To: Board of Directors  
From: Nelson R. Jatel  
Date: March 30, 2016  
**Subject: Water Stewardship Director Report**

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### Highlights of active OBWB projects

A number of water projects are managed by OBWB staff. Highlights of some active projects are summarized below.

### **Environmental Flow Needs (EFN): Collaborative development of operational environmental flow designations for Okanagan streams**

#### ***EFN Phase I. Developing stream specific Okanagan EFN Methodology***

In the new B.C. *Water Sustainability Act* (the Act) "**environmental flow needs**" (in relation to a stream) are defined as "the volume and timing of water flow required for the proper functioning of the aquatic ecosystem of the stream". The scope of the Phase I EFN project is to develop a recommendation for a **technical method for EFN-setting** in Okanagan tributaries.

A workshop was hosted by the OBWB on March 23<sup>rd</sup> bringing together the team members involved in the Phase I EFN project. Methods for determining site-specific EFNs were the focus of the discussion (see attached map for 19 sub-basins under review) and the proposed new Okanagan EFN methods were scrutinized by the participants. The draft Okanagan EFN methods report, presented at the workshop, summarized the advantages and disadvantages of potentially useful environmental flow needs (EFN)-setting methods; provide an outline of two preferred EFN-setting methods for Okanagan tributaries (a Desktop Method and a Field-based Method); and provided additional detail on the recommended methods. Feedback from the Okanagan Nation Alliance Fisheries Department (ONAFD) and BC Government FLNRO staff were documented during the workshop for inclusion and refinement of the final report.

The methods recommended during the March 23<sup>rd</sup> workshop focused on how to set values that meet the EFN definition, considering both habitat, and factors that may affect fish populations such as forage availability or timing of flow releases in regulated systems. Furthermore, Section 15 (1) of the Act **requires a decision-maker to consider the environmental flow needs** of a stream in deciding a water licence application. One of the primary and near-term uses of the present work will be to assist decision makers in rendering appropriate decisions. Recommendations were also made to allow for data acquisition and subsequent revision or refinement of the method over time. The proposed approach ensures that existing data is leveraged to the maximum extent possible, while still allowing for future refinements to the

method to ensure that EFNs are appropriately identified using appropriate data for "proper functioning of the aquatic system of the stream".

Resulting from the EFN workshop is a full workshop report as well as improvements to the draft working document that will be used to support phase II activities involving the collection of flow and biological data to determine stream specific Okanagan EFNs.

### **2016 Okanagan Water Supply: Spring Webinar**

A survey of Okanagan reservoir levels is underway and will be included as part of the content presented at this year's 5<sup>th</sup> annual Okanagan water supply webinar hosted on April 15<sup>th</sup> from 11:00am – 12:00pm. This webinar will provide a one hour discussion about status of our Okanagan water supply including: snow pack levels, weather forecasts, groundwater levels and storage reservoir levels. This virtual webinar has been well attended, with particular interest from local government planning and engineering staff, agriculture sector stakeholders, and fishery managers. For more details or to register contact [\*\*nelson.jatel@obwb.ca\*\*](mailto:nelson.jatel@obwb.ca).

## **Water Stewardship Council**

*Technical Advisory Committee of the OBWB*

March's council meeting was well attended and included a timely presentation from **Ted van der Gulik**; addressing improvements to water data management and discussing the new *Agriculture Water Use Reporting Tool* and *Agriculture Water License Calculator*.

Two of the Council committees met in February:

- Stormwater & Wetlands, and
- Drought management

The next Council meeting is scheduled for April 14<sup>th</sup>, from 12:30 p.m. – 4:30 p.m. at the Kelowna Regional Library boardroom and all Board members are invited and encouraged to attend. At this month's Council meeting we will be discussing Okanagan forestry and water implications.



*Water Stewardship Council at work.*

### **Council Members:**

*(May 2015 – Oct. 2016)*

*Appointed representatives*

- **AAFC – Research Branch**  
*Denise Neilsen/Scott Smith*
- **APEGBC**  
*Don Dobson/Ehren Lee*
- **BC Agriculture Council**  
*Hans Buchler*
- **BC Cattlemen's Association**  
*Lee Hesketh/Linda Allison*
- **BC Fruit Growers Association**  
*Denise MacDonald/Glen Lucas*
- **BC Ground Water Association**  
*Remi Allard/Marta Green*
- **BC Ministry of Agriculture**  
*Andrew Petersen/Stephanie Tam*
- **BC Water Supply Association**  
*Toby Pike/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 Ough*
- **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*
- **Ministry of FLNRO: Fish/Wildlife**  
*Grant Furness/Lora Nield*
- **Ministry of FLNRO: Resource Mgmt**  
*Robert Warner/Ray Crampton*
- **Okanagan Collaborative Conservation**  
*Carol Luttmmer*
- **Okanagan College**  
*Allison MacMillan/Leif Burge*
- **Okanagan Mainline Real Estate Board**  
*David O'Keefe/Howard Newfeld*
- **Okanagan Nation Alliance**  
*Natasha Lukey/Zoe Masters/Elinor McGrath*
- **RD of Central Okanagan**  
*Margaret Bakelaar/Chris Radford*
- **RD of North Okanagan**  
*Renee Clark/Anna Page*
- **RD of Okanagan –Similkameen**  
*Evelyn Riechert/Roger Huston*
- **Shuswap Okanagan Forestry Association**  
*Murray Wilson*
- **UBC Okanagan**  
*Bernard Bauer/John Janmaat*



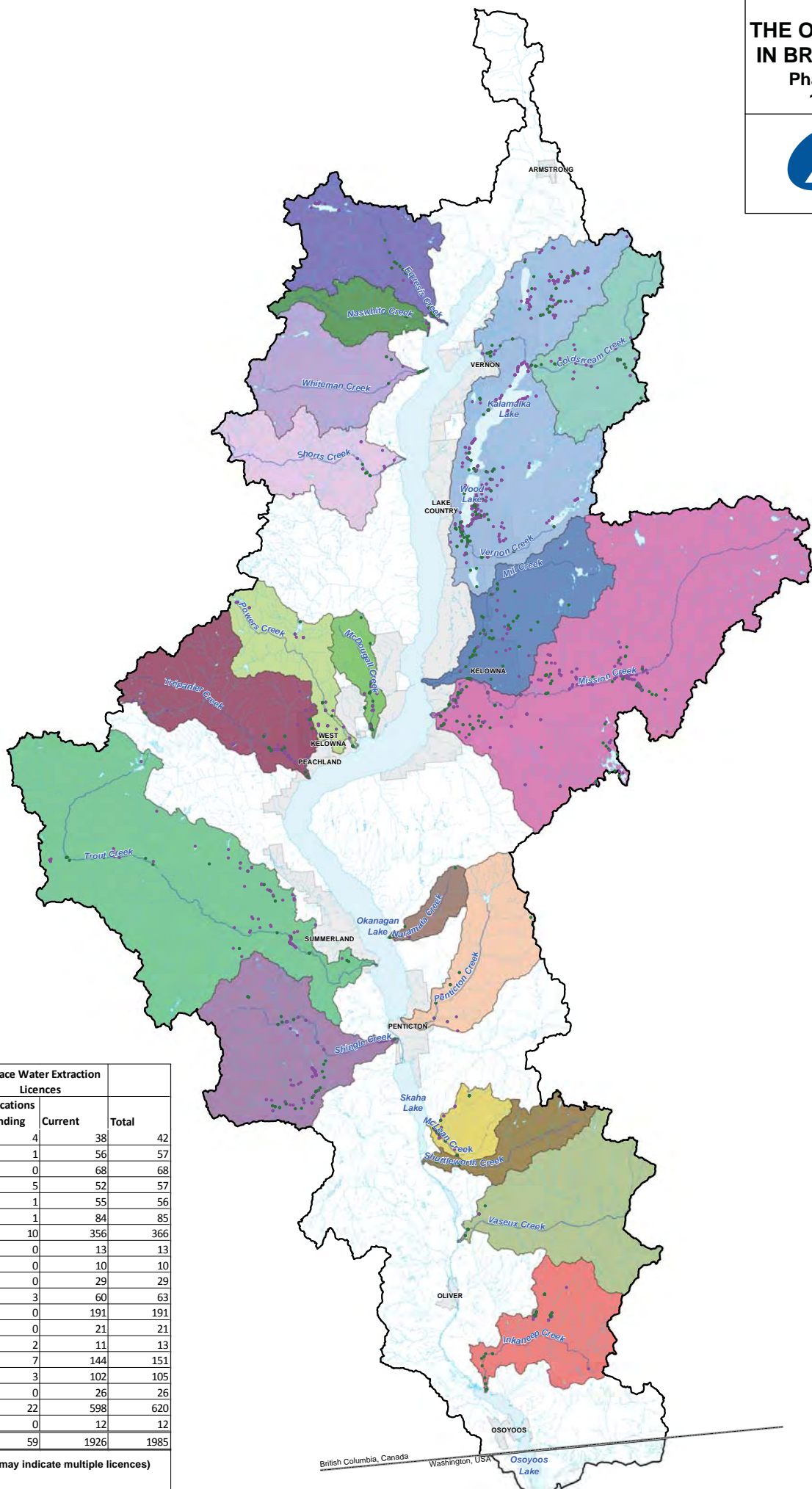


# MAP 1 THE OKANAGAN BASIN IN BRITISH COLUMBIA

Phase 1 EFN Study:  
19 Pilot Creeks



Map produced by: B&J  
March 2016



Subbasin	Surface Water Extraction Licences		
	Applications & Pending	Current	Total
Coldstream Creek	4	38	42
Equesis Creek	1	56	57
Inkaneep Creek	0	68	68
McDougall Creek	5	52	57
McLean Creek	1	55	56
Mill Creek	1	84	85
Mission Creek	10	356	366
Naramata Creek	0	13	13
Naswhito Creek	0	10	10
Penticton Creek	0	29	29
Powers Creek	3	60	63
Shingle Creek	0	191	191
Shorts Creek	0	21	21
Shuttleworth Creek	2	11	13
Trepanier Creek	7	144	151
Trout Creek	3	102	105
Vaseux Creek	0	26	26
Vernon Creek	22	598	620
Whiteman Creek	0	12	12
<b>Grand Total</b>	<b>59</b>	<b>1926</b>	<b>1985</b>

**Water licence points of diversion (may indicate multiple licences)**

- Irrigation Use
- Other Use

British Columbia, Canada Washington, USA

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 5.3

To: OBWB Staff  
From: James Littley  
Date: March 30, 2016  
Subject: **Operations and Grants Manager Report**

### Milfoil Control Program

Winter rototilling is complete in Okanagan Lake, and Kalamalka Lake. Environmental work windows allow us to keep treating in Osoyoos Lake and north Wood Lake past April 1<sup>st</sup>. Based on the expanded milfoil beds, and anticipating the next five-year permitting application in 2018, I have been in initial discussions with Ecoscape Environmental about improving our GIS mapping and tracking systems. These improvements should allow us to better anticipate and respond to calls for milfoil control. The project discussions are preliminary, and the work will likely be completed in several stages, prioritizing areas with high user volume, and untreated growth. In the short-term, this project will allow us to gauge the need for increased treatment, equipment or manpower, while in the long-term the tracking will allow us to demonstrate the effectiveness of our treatments.

### WWF Canada Watershed Report – Okanagan-Similkameen

On March 10<sup>th</sup>, I attended a webinar held by WWF-Canada presenting the results of their watershed report for the Okanagan-Similkameen. The staff also forwarded a draft copy of the report, which will be finalized for release this summer. The methodology for the assessment looks at five categories; hydrology; water quality; fish; benthics; and freshwater threats assessment. The results are that the basin is currently in very good overall health, but has insufficient data to assess water quality, and only moderately sufficient data to assess hydrology, and that it faces a high threat, including a very high threat from pollution. These data sufficiency findings support the work that OBWB is doing in improving data availability and accessibility in both water quality and hydrologic categories. Once the report is finalized, it will be forwarded to the board.

### Canadian Environmental Grantmakers Network

Over the next few months I will be participating in webinars and events hosted by the Canadian Environmental Grantmakers Network, and their BC and Canadian Water Funders groups. These groups work toward collective action on freshwater issues within the province, and nationally, including projects such as climate change adaptation, environmental flow needs measurement, regulatory changes, watershed governance, and public education. Through this group, OBWB staff are able to maintain a link with things that are happening outside the valley that have a direct or indirect impact on our basin. Some specific examples of work led by the water funders group are:

- developing legal opinion on the B.C. Water Act Modernization process;
- clarifying changes to the federal Fisheries Act under the previous government; and
- providing guidance to members regarding non-profit audit activities by the CRA under the previous federal government.

Membership has also led to the identification of increased funding opportunities for OBWB and other partners within the valley. I will provide status updates on these activities at the May board meeting, following events in April and at the July board meeting following events in June.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 5.4

File No. 0550.04

To: OBWB Directors  
From: Corinne Jackson  
Date: March 29, 2016  
Subject: **Communications Director Report**

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### **Make Water Work (MWW) & Don't Move a Mussel 2016**

A number of meetings have been held in recent weeks regarding the MWW and DMM initiatives. Staff are working with Bylands and Okanagan Xeriscape Assoc. to expand the MWW Plant Collection in response to garden centre partner feedback. We are also looking to expand the partnership to include garden centres in Oliver and Summerland, ensuring true valley-wide coverage.

Discussions are also ongoing with media partners and others on the two programs.

### **Rain Barrel Sale pilot project**

Our rain barrel pilot project went much better than expected. We sold our 100 rain barrels within the first week of a month-long presale. In response, we added an additional 50 barrels. These also sold within a week. We will be reviewing the pilot to see how to proceed next year but are very happy with this year's event.

### **UN World Water Day/Canada Water Week**

On March 22 we held our annual panel discussion, this year entitled: "exSTREAMS: The Okanagan water story and you." The event, presented in partnership with UBCO's Biodiversity, Resilience, and Ecosystem Services (BRAES) Institute, focused on our valley's droughts and floods from a historical First Nation's perspective, and how these extreme weather events are changing, even occurring within the same year. The event sold out!

The evening began with a keynote address from internationally-renowned water champion Margaret Catley-Carlson, providing an international perspective to what is a global issue, and went on to the panel discussion & Q&A. Panelists included: Sarah Alexis, Okanagan Nation Alliance (ONA) Natural Resources Project Coordinator & Richard Bussanich, ONA Fisheries Biologist – speaking on the history of water in the Okanagan, changes in the landscape and its impacts, efforts to restore and the importance of traditional knowledge in that work; the OBWB's Dr. Sears – sharing on drought, including last summer's extreme 'Level 4' drought in the Okanagan and what's being done to make communities more resilient; and Don Dobson, member (past-chair) of the Water Stewardship Council, representing Assoc. of Professional Engineers and Geoscientists of BC – sharing on his nearly 45 years as a professional engineer in flood protection efforts, what he's seeing and how Okanagan communities are preparing.

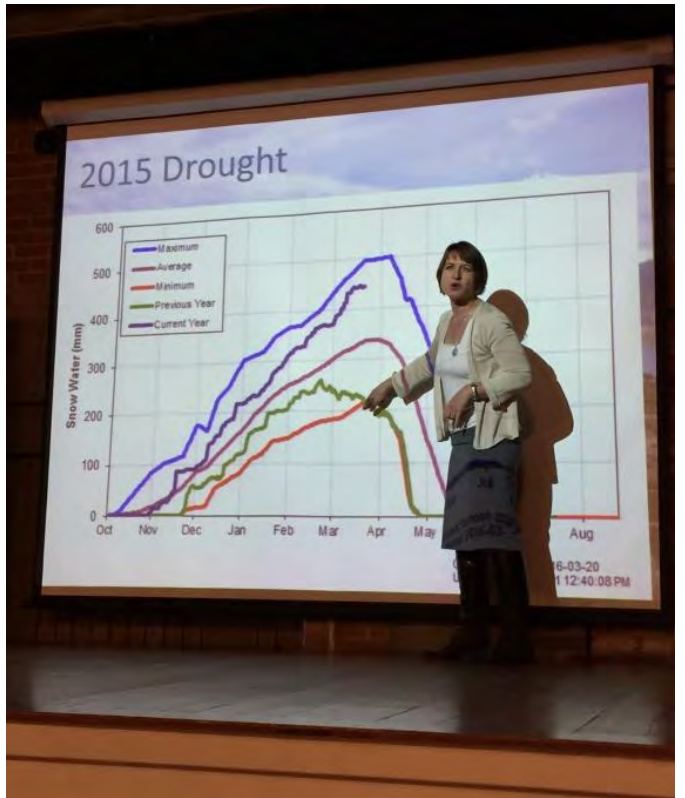
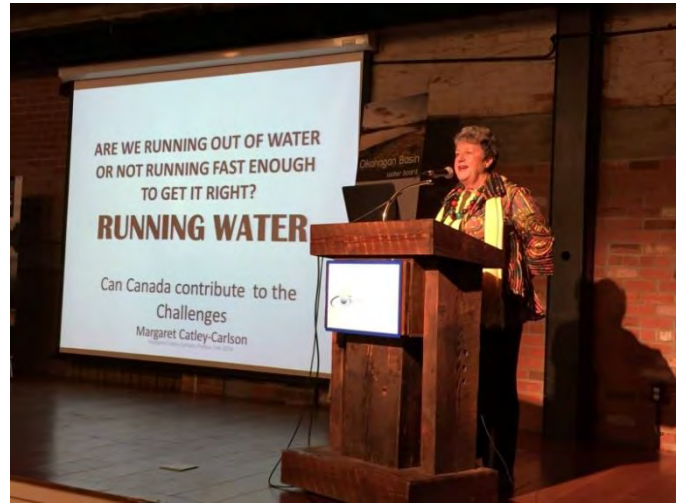
The presentations were geared to a public audience, showing what's being done on a water management level, but also what people can do in their own yard and neighbourhood – from low-water landscapes to



improved home irrigation and more. As such, we had staffed display tables from groups including the Okanagan Xeriscape Association and City of Kelowna contractor, Waterkind Irrigation Consulting.

Below are a few photos from the event. You can find more at:

<https://www.facebook.com/media/set/?set=a.1141473942550128.1073741832.135451886485677&type=3>.





**Summary of Recent Media**

- February 17 “Province considering permanent inspection stations against invasive mussels at B.C. border crossings,” *Osoyoos Times*
- February 23 [“Too early to predict a drought in the Okanagan this summer, but early snow melt a worry.”](#) *InfoTel News*
- March 1 “Yard cleanup time is here, composters and rain barrels,” *Castanet*
- March 2 “Changes are Planned for the 1998 Kelowna Agriculture Plan,” *Kelowna Now*
- March 3 [“Rules governing wells and groundwater come into effect across the province.”](#) *InfoTel News*
- March 8 “Creek water under scope,” *Castanet*
- March 11 “Property purchase allows wetlands project at Ok Falls waste water treatment plant to proceed,” *InfoTel News*
- March 13 “Extreme weather focus for March 22 panel discussion,” *Kelowna Daily Courier*
- March 13 “Letter to the Editor: Thanks to OBWB for dealing with milfoil problem,” *Kelowna Daily Courier*
- March 17 “Gwen Steele column: Spring brings out gardeners, Water Board's annual World Water Day forum returns,” *Kelowna Capital News*
- March 18 [“Think 2015 was hot and weird? Get ready for worse, experts say.”](#) *DeSmog Canada*
- March 18 “MP Fuhr Column: At work in Ottawa, OBWB funding announcement,” *Castanet*
- March 18 “MP Fuhr Column: Reaching out to constituents, OBWB funding announcement,” *Kelowna Capital News*
- March 21 “Lake, drought in focus,” *Castanet*



- March 21 "North Okanagan residents drinking tainted water have 'fraction of hope' after hearing gov't action plan," *InfoTel News*
- March 21 "Steps for tainted water," *Castanet*
- March 21 "UBCO BRAES - OBWB-OK WaterWise to hold World Water Day event," *Kelowna Now*
- March 22 ["Preview - exSTREAMS: The Okanagan water story and you - with Anna Warwick Sears and Margaret Catley-Carlson."](#) *AM1150's The Early Edition*
- March 22 "Okanagan Basin Water Board celebrates World Water Day," *Penticton Western News*
- March 22 "Water concerns in the valley," *Castanet*
- March 25 ["Water myths addressed at forum,"](#) *Kelowna Capital News*

**Recent Presentations**

- February 25 "Update on OBWB Initiatives," to RDOS Board - Anna Warwick Sears
- March 3 "Okanagan Drought Response 2015," to UBC Vancouver School of Community and Regional Planning - Anna Warwick Sears
- March 10 "Okanagan Drought Response 2015," to UVic Pacific Climate Impacts Consortium - Anna Warwick Sears
- March 22 "Okanagan drought" to exSTREAMS - World Water Day panel - Anna Warwick Sears

**Upcoming Presentations**

- April 22 "Water, drought and climate change," to Kootenay Lake residents, planners and electeds - Anna Warwick Sears



## M E M O R A N D U M

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 6.1

File No. 0550.04

**To:** OBWB Directors  
**From:** James Littley  
**Date:** March 29, 2016  
**Subject:** **Water Conservation and Quality Improvement Grant Program – 2016 Recommendations**

The intent of the WCQI grant program is to assist local governments, non-profits and Improvement Districts 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 2016 WCQI grant program was over-subscribed. The total amount applied for was \$495,523 for a total of \$300,000 available. The applications were split between the regional districts as follows:

	Number of Applications	Total Requested	Total Available
RDNO	5	\$114,000	\$56,820
RDCO	13	\$254,211	\$180,660
RDOS	9	\$127,312	\$62,520
<b>Totals</b>	<b>27</b>	<b>\$495,523</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>			
Deep Creek Improvement District	Deep Creek Sensitive Habitat Index Mapping (SHIM)	\$26,000	\$26,000
Society for the Protection of Kalamalka Lake	Coldstream Creek Water Quality and Land Use Assessment Project – Phase 2	\$20,000	\$15,820
City of Vernon	Stream Health Study of Vernon and BX Creeks Related to Stormwater Runoff	\$30,000	\$15,000
OCCP	Enhancing Water Stewardship through Outdoor Education Resources project	\$8,000	\$0

Greater Vernon Water	Watershed Vulnerability Mapping	\$30,000	\$0
<b>Total</b>		<b>\$114,000</b>	<b>\$56,820</b>
<b>Regional District Central Okanagan</b>			
City of Kelowna	Wetland Habitat Restoration for American Avocets	\$30,000	\$30,000
District of Peachland	Community Xeriscape and Water Conservation Pilot Project	\$29,500	\$25,749
RDCO	Regional Floodplain Management Project	\$25,000	\$25,000
RDCO	Updated Okanagan Lake Foreshore Inventory Mapping	\$20,000	\$20,000
BMID	Pearson Creek Hydrometric Station Re-establishment	\$24,000	\$19,000
MCRI	MCRI Demonstration Project Monitoring	\$25,000	\$15,000
OCCP	Boating Impact Assessment of Water Source Protection	\$15,000	\$15,000
UBCO	The Social Life of Water in the Okanagan Valley, Past, Present and Future	\$13,411	13,411
Oceola Fish and Game Club	Conservation App	\$10,000	\$10,000
RDCO	Westshore Estates Leak Detection	\$7,500	\$7,500
City of Kelowna	Assessing Impacts of Waterfowl Population on water Quality	\$10,000	\$0
UBCO	Reclaimed Greywater Use for Developing Drought Resilient Communities in the Okanagan	\$30,000	\$0
UBCO	Source Water Protection BMP Verification and Selection Workshop	\$14,800	\$0
<b>Total</b>		<b>\$254,211</b>	<b>\$180,660</b>
<b>Regional District Okanagan Similkameen</b>			
RDOS	Drought and Flood Risk Management and Mitigation Plan	\$20,000	\$20,000
City of Penticton	Drought Management Plan	\$12,500	\$12,500
Friends of Summerland Ornamental Gardens	Demonstration of Xeriscape Practices in the Okanagan	\$15,000	\$10,010
ONA	Shuttleworth Creek Diversion Removal and Well Implementation	\$17,320	\$10,010
Town of Oliver	Drought Management Plan	\$10,000	\$10,000
GTLASS & LNID	Watershed Management Plan for Twin Lakes	\$12,500	\$0
RDOS	Protecting Our Nature Assets – Waterways Stewardship and Protection	\$15,000	\$0
RDOS	Zebra/Quagga Mussel prevention – Mobile Operator	\$10,000	\$0
Summerland Sportsmen Association	Action Plan to reduce Sediment Input into Trout Creek from the Perpetual Slide	\$15,000	\$0
<b>Total</b>		<b>\$127,312</b>	<b>\$62,520</b>

### Regional District North Okanagan

Available funds: \$56,820 Total Requested: \$114,000 Recommended Funding: \$56,820

Project Title: **Deep Creek Sensitive Habitat Index Mapping (SHIM)**  
Organization: **Deep Creek Improvement District**  
Project Goals: The aim of this initiative is to collect baseline environmental and sensitive habitat information that will contribute to our overall understanding of Deep Creek and help guide management decisions and priorities with respect to habitat restoration and enhancement. The study will also provide a means of highlighting areas with channel stability, water quality, sedimentation, and flooding concerns. This study will assist in understanding the environmental values of Deep Creek and provide a basis for the development of a watershed management strategy that addresses the multijurisdictional and often complex land management issues.

Staff Notes: This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science

and data to plan for changing conditions in climate, economy, and population growth. It will add to a base of data that exists for much of the Okanagan, with multiple uses for water quality and quantity protection.

Project Budget: \$52,000                      Amount Requested: \$26,000                      Recommended Funding: \$26,000

Project Title: **Coldstream Creek Water Quality and Land Use Assessment Project – Phase 2**  
Organization: **Society for the Protection of Kalamalka Lake**  
Project Goals: The purpose of the study is to understand how land use along Coldstream Creek in the valley bottom is impacting the creek’s water quality and ultimately the quality of the community of Vernon’s drinking water. The objectives of the project are to provide regulators with information to support vulnerability mapping, map low, medium and highly impacted areas along the creek, to educate the public on land use impacts and provide work experience for volunteers.

Staff Notes: This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. This will enhance the understanding of land use – water quality interactions, and provide a concrete set of maps and information to support land use decisions by local government. It will also provide information that may be used to inform land management in other areas.

Project Budget: \$68,050                      Amount Requested: \$20,000                      Recommended Funding: \$15,820

Project Title: **Stream Health Study of Vernon and BX Creeks Related to Stormwater Runoff**  
Organization: **City of Vernon**  
Project Goals: The main goals of this study are to provide baseline water quality, sediment quality, and aquatic biology data in a scientifically defensible manner to allow the City to track improvements in stream health over time in two key streams that flow to Okanagan Lake as stormwater investments are being made; to develop a better understanding of the water quality in Lower Vernon Creek, a tributary to Okanagan Lake with a history of pollution problems; and to develop a better understanding of water quality during storms after prolonged drought conditions to help with drought management.

Staff Notes: This project addresses Strategic Plan goal 2.a., understanding risks to source waters and how to manage them. It will help inform infrastructure planning moving forward.

Project Budget: \$103,900                      Amount Requested: \$30,000                      Recommended Funding: \$15,000

Project Title: **Enhancing Water Stewardship through Outdoor Education Resources Project**  
Organization: **Okanagan Collaborative Conservation Program**  
Project Goals: The aim of this project is to enhance water stewardship in the Okanagan by building capacity for teachers to provide more outdoor environmental education. They aim to make outdoor education easier for teachers to deliver by developing a curriculum resource kit, and a guide to creating outdoor learning spaces on school grounds.

Staff Notes: This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. This is a worthwhile project, closely aligned with other OBWB work. Depending on discussions with the applicant, funds may be available through another OBWB program.

Project Budget: \$29,000                      Amount Requested: \$8,000                      Recommended Funding: \$0

Project Title: **Watershed Vulnerability Mapping**  
Organization: **Greater Vernon Water**  
Project Goals: The objective of this project is to develop GIS maps based on risks to water identified in the Duteau Creek watershed and the North Kalamalka Lake intake Assessments, GVW’s Drought Management Plan, Dam Safety Manuals and Emergency Response Plans. Bringing together the risk information from these documents will help in prioritizing risks and identifying the most critical areas to undertake management activities based on the cumulative impacts of

those risks.

Staff Notes: This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. While this is a worthwhile project, it is not recommended for a grant due to available funding.

Project Budget: \$41,000                      Amount Requested: \$30,000                      Recommended Funding: \$0

**Regional District Central Okanagan**

Available funds: \$180,660 Total Requested: \$254,211 Recommended funding: \$180,660

Project Title: **Wetland Habitat Restoration for American Avocets**  
Organization: **City of Kelowna**  
Project Goals: Restore and protect wetland water habitat and breeding grounds for the American Avocet in the area of the Glenmore Landfill. This grant would be applied to the first phase of the project which involves the review of existing plans, proposed options and the development of a conceptual plan to move forward. Future phases would include but not be limited to implementation, monitoring and public education.

Staff Notes: This project addresses Strategic Plan goal 3.a., that local governments have capacity to prepare and respond to population growth and climate change. The planning for restoration of wetlands complements the current OBWB Wetland Strategy project. The applicant will be required to consult with the OBWB Wetland Coordinator as a condition of funding to ensure that they have access to the information resources available through our program.

Project Budget: \$60,000                      Amount Requested: \$30,000                      Recommended Funding: \$30,000

Project Title: **Community Xeriscape and Water Conservation Pilot Project**  
Organization: **District of Peachland**  
Project Goals: The overall intent of this pilot project is to showcase the aesthetic appeal and measure the water conservation that can be achieved through a xeriscape resident landscape, to meet the future water needs of the District, and Okanagan. This project will be a valuable demonstration on xeriscape landscaping and drought management strategies.

Staff Notes: This project addresses Strategic Plan goal 1.d., water efficiency in all sectors. The plan builds on previous efforts in public engagement, focussing on high-traffic areas for the demonstration of water conservation landscapes. The applicant will be required to coordinate with the OBWB Communications Director on messaging and outreach strategy as a condition of funding.

Project Budget: \$37,500                      Amount Requested: \$29,500                      Recommended Funding: \$25,749

Project Title: **Regional Floodplain Management Project**  
Organization: **Regional District of Central Okanagan**  
Project Goals: The Floodplain Management Project is to provide a consistent, regional approach to addressing flood hazards to reduce the flood risk in the RDCO. Floodplain management will assist in protecting water resources from contamination and maintain or enhance water quality. The project will look to improve the understanding of the state of the RDCO water supply as it relates to flooding.

Staff Notes: This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. The project addresses both infrastructure planning, and water quality concerns, while protecting public and private property. It will also inform future floodplain management projects by other communities in the Okanagan.

Project Budget: \$150,000      Amount Requested: \$25,000      Recommended Funding: \$25,000

Project Title: **Updated Okanagan Lake foreshore Inventory Mapping**

Organization: **Regional District of Central Okanagan**

Project Goals: The aim of this project is to update foreshore inventory maps (FIM) for the northern part of Okanagan Lake to enable better decision making on future use and development on Okanagan Lake. In addition, the project will map water intakes and water protection zones to ensure water quality issues are incorporated in foreshore and riparian area planning.

Staff Notes: This project addresses Strategic Plan goal 2.a., understanding risks to source waters and how to manage them. Foreshore Inventory Mapping allows a comparison over time of specific changes made along the foreshore, and how those changes affect water and other environmental values. The information generated is important to water managers, and also to statutory decision makers.

Project Budget: \$55,000      Amount Requested: \$20,000      Recommended Funding: \$20,000

Project Title: **Pearson Creek Hydrometric Station Reestablishment**

Organization: **Black Mountain Irrigation District**

Project Goals: It is proposed to reinstate the original Water Survey of Canada (stn #08NM172) near the mouth of Pearson Creek, a sub-basin of Mission Creek. This includes the installation of a water level recorder, data logger and refurbishing the original concrete weir to determine the volume of water that flows down the channel. The value of this project is to build upon the already existing flow data at this location, which is the only large unregulated creek in the Mission Creek watershed. The information collected from this station can be used to inform the Mission Creek Water Use Plan and water availability/flow at other locations throughout the valley.

Staff Notes: This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. Hydrometric stations assist water managers to understand and regulate the timing and volume of water through a system. This information will be added to the historical record, and the utility will be required to add the data collected to the BC Water Use Reporting Centre Hydrometric Tool as a condition of funding.

Project Budget: \$26,000      Amount Requested: \$24,000      Recommended Funding: \$19,000

Project Title: **Mission Creek Restoration Initiative Demonstration Project Monitoring**

Organization: **Mission Creek Restoration Initiative**

Project Goals: The aim of this project is to restore habitat for a range of fish and wildlife species as a first step toward generating ecosystem, recreational, social and economic benefits for Mission Creek and local communities.

Staff Notes: This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. This multi-phase project is a leading demonstration of restoration with valley-wide benefit. It can assist with flood and drought mitigation, water quality and storage capacity, and development of best-practices. It is closely aligned with our own Mission Creek Groundwater Project, and these efforts will be complementary.

Project Budget: \$ 64,500      Amount Requested: \$25,000      Recommended Funding: \$15,000

**Project Title: Okanagan Collaborative Conservation Program**  
**Organization: A Boating Impact Assessment of Water Source Protection for Wood and Kalamalka Lake**  
**Project Goals:** The aim of this project is to investigate the long-term potential threats to lake water source protection for the municipal and domestic intakes on Wood Lake and Kalamalka Lake from boating activity. This project is driven by an increasing demand to develop lands on or near the lakes, and a demand for recreational boating and its infrastructure.

**Staff Notes:** This project addresses Strategic Plan goal 2.a., understanding risks to source waters and how to manage them. This multi-regional boating assessment will lead to an increased understanding of recreationally-caused impacts to source waters, especially around drinking water infrastructure.

Project Budget: \$33,000      Amount Requested: \$15,000      Recommended Funding: \$15,000

**Project Title: The Social Life of Water in the Okanagan Valley: Past, Present, Future**  
**Organization: UBCO Centre for Culture and Technology**  
**Project Goals:** The aim of this project is to develop and organize a multimedia exhibition and public lecture series called *The Social Life of Water in the Okanagan: Past, Present and Future*. This project will be a collaborative undertaking between researchers and artists at the University of British Columbia (Okanagan Campus) (UBCO), the Kelowna Museums Society (KMS) and the Okanagan Nation Alliance (ONA).

**Staff Notes:** This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. This collaborative project will increase public knowledge about water issues in the Okanagan using a unique social perspective, informed by artists, and incorporating Traditional Ecological Knowledge.

Project Budget: \$92,431      Amount Requested: \$13,411      Recommended Funding: \$13,411

**Project Title: Conservation App**  
**Organization: Ocoela Fish and Game Club**  
**Project Goals:** To raise social awareness surrounding the value of BC's natural resources, including water, through a mobile based app and website to document and report issues related to illegal use/abuse. The app and website will allow users to photograph potential environmental damage, poaching, polluting, etc; the photographs are time-stamped, and georeferenced. Photos will be stored on UBC-O's secure server and relayed to enforcement agencies.

**Staff Notes:** This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. The Conservation App will assist in the protection of, and enforcement around source waters, including reporting on activities that are contrary to source protection and best practices on drinking water reservoirs. The app is supported by the BC Wildlife Federation, and is an innovative approach to increase social awareness about watershed protection and values. Funding will be made conditional on securing external matching funds.

Project Budget: \$79,340      Amount Requested: \$10,000      Recommended Funding: \$10,000

**Project Title: Westshore Estates Leak Detection**  
**Organization: Regional District of Central Okanagan**



**Project Goals:** The goal of this project is to employ a Leak Detection professional contractor with specialized leak detection equipment and trained staff to identify and document the location of all leaks. We would receive detailed data within a report, identifying the coordinates of the various leaks within our system. Once we have these locations identified, we would then move forward to investigate and eliminate these leaks, re-establishing efficient water delivery to our Westshore customers. Following repair of the all the identified leaks, the RDCO targets that approximately 90% of the pumped water would be metered (i.e., 10% unaccounted).

**Staff Notes:** This project addresses Strategic Plan goal 1.d., water efficiency in all sectors. This project builds on a similar 2012 project that nearly halved the pumping costs of another RDCO water district, significantly reducing the volume of water lost to leakage. A similar project in West Kelowna has also led to a significant, direct reduction in water use.

**Project Budget:** \$15,000      **Amount Requested:** \$7,500      **Recommended Funding:** \$7,500

**Project Title:** **Assessing Impacts of Waterfowl Population on Water Quality**

**Organization:** **Okanagan Regional Goose Management Committee**

**Project Goals:** To address the concern coming from potential contamination of lake water due to wildlife (avian fecal pellets) throughout the Okanagan basin. Water quality within the Okanagan basin fluctuates throughout the year and this project aims to quantify how avian populations affect water quality. The final report will define recommendations for each municipality to implement in order to minimize contamination from waterfowl.

**Staff Notes:** This project addresses Strategic Plan goal 2.a., understanding risks to source waters and how to manage them. While this is a worthwhile project, It is not recommended for a grant due to available funding.

**Project Budget:** \$12,500      **Amount Requested:** \$10,000      **Recommended Funding:** \$0

**Project Title:** **Reclaimed Greywater Use for developing drought resilient communities in the Okanagan**

**Organization:** **UBCO**

**Project Goals:** The goal of the project is to develop a 'development guide' for the design and operation of fit-- for--purpose reclaimed greywater use in small and medium (SM) Neighbourhoods in the Okanagan region.

**Staff Notes:** This project addresses Strategic Plan goal 1.d., water efficiency in all sectors. While this is a worthwhile project, It is not recommended for a grant due to available funding, and because the regulations on greywater are currently under review.

**Project Budget:** \$30,000      **Amount Requested:** \$30,000      **Recommended Funding:** \$0

**Project Title:** **Source Water Protection BMP Verification and Selection workshop**

**Organization:** **UBCO**

**Project Goals:** We will share the results of our research that verified best management practices to minimize potential Cryptosporidium contamination in community drinking water systems with community watershed decision makers, cattle ranchers and environmental specialists.

**Staff Notes:** This project addresses Strategic Plan goal 2.a., understanding risks to source waters and how to manage them. While this is a worthwhile project, It is not recommended for a grant due to available funding.

**Project Budget:** \$19,800      **Amount Requested:** \$14,800      **Recommended Funding:** \$0



**Regional District of Okanagan Similkameen**

Available funds: \$62,520 Total Requested: \$127,312 Recommended funding: \$62,520

**Project Title: Drought and Flood Risk Management and Mitigation**  
**Organization: Regional District of Okanagan Similkameen**  
**Project Goals:** The overall project will gather information, structure working groups, develop a draft plan(s) and then finalize the plan(s) to be adopted throughout the South Okanagan and Similkameen. The management and mitigation plan will detail the steps that the Regional District needs to follow in order to mitigate the risks caused by drought and flood.

**Staff Notes:** This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. Last year's drought brought to light the need for increased flood and drought planning in many areas of the valley. This project, combined with those recommended for funding in Penticton and Oliver will fill a significant gap in the valley-wide planning for flood and drought mitigation and protection. We will work with the RDOS to ensure that their planning is closely aligned with other efforts in the valley.

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

**Project Title: Drought Management Plan**  
**Organization: City of Penticton**  
**Project Goals:** The City of Penticton will work with a consultant to gather historical data from within the organization and develop strategic plan along with a communication protocol to inform our customers how we are doing with storage, what the immediate future looks like, what we need to do to maintain water supply and how we intend to achieve those goals in regards to a drought declaration. The consultant will develop decision-making guidelines for each water source, for moving between drought stages.

**Staff Notes:** This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. Last year's drought brought to light the need for increased flood and drought planning in many areas of the valley. This project, combined with those recommended for funding in RDOS and Oliver will fill a significant gap in the valley-wide planning for drought mitigation and protection. We will work with the City of Penticton to ensure that their planning is closely aligned with other efforts in the valley.

**Project Budget:** \$25,000      **Amount Requested:** \$12,500      **Recommended Funding:** \$12,500

**Project Title: Demonstration of Xeriscape Practices in the Okanagan**  
**Organization: Friends of Summerland Ornamental Gardens**  
**Project Goals:** This project has two components. One is to demonstrate resilient landscapes that can withstand and thrive in drought conditions. This will be achieved by renovating and enhancing sections of the 23 year old Xeriscape Demonstration Gardens (2 acres) the first and largest in Canada. The second part is the environmental education component. Ten seminars/workshops and fifteen garden demonstration tours will be conducted covering topics such as: soil health for water reduction, xeriscape design and installation, xeriscape hands-on maintenance workshops, hands on in-line drip irrigation installation, rain gardens and storm water management, the selection and correct planting of native and drought tolerant plants.

**Staff Notes:** This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. The Friends of Summerland Ornamental Gardens have taken a multi-prong approach to educating the public in the Okanagan about techniques to conserve water in outdoor residential use. A leader in the valley, the ornamental gardens host thousands of visitors each year, and collaborate with other public education groups such as the Okanagan Xeriscape Assoc. to show what can be done using outdoor conservation best management practices.

Project Budget: \$44,800      Amount Requested: \$15,000      Recommended Funding: \$10,010

Project Title: **Shuttleworth Creek Diversion Removal and Well Implementation**

Organization: **Okanagan Nation Alliance**

Project Goals: The Allendale Water Users' (AWUC) uses a significant proportion of Shuttleworth Creek's stream flow annually from April to October and has an unscreened intake. The project involves moving the AWUC from surface water supply to groundwater supply in order to provide an efficient and reliable source of water for the AWUC and to restore the creek's natural flow regime allowing fish migration and spawning, creek dynamics to function effectively, a reduction of fish entrainment within the irrigation system and to promote water conservation and habitat improvement.

Staff Notes: This project addresses Strategic Plan goal 1.d., water efficiency in all sectors. This action-focused project will have a direct impact on water use in a major sub-basin in the valley. This multi-phase project benefits source water, water conservation, and water for environmental values in Shuttleworth Creek.

Project Budget: \$954,479      Amount Requested: \$17,312      Recommended Funding: \$10,010

Project Title: **Town of Oliver**

Organization: **Drought Management Plan**

Project Goals: To give the Town of Oliver a decision making framework and the ability to proactively respond to drought seasons appropriately, and provide input into a region-wide drought response plan, if one is developed.

Staff Notes: This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. Last year's drought brought to light the need for increased flood and drought planning in many areas of the valley. This project, combined with those recommended for funding in Penticton and RDOS will fill a significant gap in the valley-wide planning for drought mitigation and protection. We will work with the Town of Oliver to ensure that their planning is closely aligned with other efforts in the valley.

Project Budget: \$15,000      Amount Requested: \$10,000      Recommended Funding: \$10,000

Project Title: **A Watershed Management Plan to Mitigate Drought and Flood in the Twin Lakes Area**

Organization: **Lower Nipit Improvement District and Greater Twin Lakes Area Stewardship Society**

Project Goals: The aim of the project is to develop a watershed management plan to assist the local residents/businesses, the RDOS, Interior Health (IH) and FLNRO in managing floods and droughts in Twin Lakes.

Staff Notes: This project addresses Strategic Plan goal 1.a., that the Okanagan has sufficient, accessible water science and data to plan for changing conditions in climate, economy, and population growth. While this is a worthwhile project, it is not recommended for a grant due to available funding.

Project Budget: \$25,000      Amount Requested: \$12,500      Recommended Funding: \$0

Project Title: **Protecting Our Nature Assets – Waterways Stewardship and Protection**

Organization: **Regional District of Okanagan Similkameen**

Project Goals: The focus of this project is on water quality and restoration/stewardship along riparian zones on Okanagan waterways. The project will educate those living close to waterways about the importance of riparian habitat, regulations surrounding riparian set backs, riparian restoration, and flood and erosion monitoring. The aim of the project is to engage neighbourhoods along lakeshores, rivers, creeks and waterways in their environment with hands on learning about the riparian habitats. The goal is to develop neighbourhood champions who will continue to educate

their neighbours.

**Staff Notes:** This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. While this is a worthwhile project, it is not recommended for a grant due to available funding. Previous work in this area was done a number of years ago by a group in the Shuswap, and we will provide those contacts and resources to RDOS.

**Project Budget:** \$77,000                      **Amount Requested:** \$15,000                      **Recommended Funding:** \$0

**Project Title:** **Zebra/Quagga Mussel Prevention – Mobile Operator**

**Organization:** **Regional District of Okanagan Similkameen**

**Project Goals:** The RDOS aims to augment the 2015/16 RBC Blue Water Project funding provided to the RDOS for a Quagga and Zebra Mussel prevention programming. The RBC funding has enabled the RDOS to manufacture an educational mobile display unit. The grant funding from the OBWB will enable the hiring of an experienced summer staff person to haul the new mobile display trailer unit to events, boat launches, etc. and conduct program outreach.

**Staff Notes:** This project addresses Strategic Plan goal 3.c., a knowledgeable public with widespread commitment to science-based planning, water conservation and reducing pollution. While this is a worthwhile project, it is not recommended for a grant due to available funding. We have already provided \$25,000 directly to OASISS for public outreach on zebra mussels for this fiscal year.

**Project Budget:** \$12,500                      **Amount Requested:** \$10,000                      **Recommended Funding:** \$0

**Project Title:** **Action Plan to Reduce Sediment Input into Trout Creek from the Perpetual Slide**

**Organization:** **Summerland Sportsmen’s Association**

**Project Goals:** The aim of the project is to reduce the volume of water directed towards the perpetual slide and reduce the volume of water used for human activity in the Summerland perpetual slide watershed which will then help to reduce the volume of silt deposited in Trout Creek (by the perpetual slide).

**Staff Notes:** This project addresses Strategic Plan goal 2.a., understanding risks to source waters and how to manage them. We believe that this is a very significant project, but it requires serious engineering assessments.

**Project Budget:** \$60,188                      **Amount Requested:** \$15,000                      **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.

## MEMORANDUM

Okanagan Basin Water Board  
Regular meeting  
March 1, 2016  
Agenda No: 6.2

File No. 0550.04

To: OBWB Directors  
From: Anna Warwick Sears  
Date: March 30, 2016  
Subject: **Contracting Policy amendment**

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The OBWB approved our contracting policy in 2013, based on the purchasing policy structure of the RDCO. It is quite restrictive for when services or goods are sole-sourced, or provided without an RFP process. Many of our initiatives are very specialized, and they involve the ongoing provision of services from year to year, specialized equipment or software, or partnerships with other levels of government or agencies that do not fit the normal model of service provision.

The current policy provides little discretion for the OBWB directors to override the sole-source restrictions for contracts exceeding \$25,000. As the RFP process is expensive and labor-intensive both for staff and service providers, I recommend the following revision to our policy:

### 3.4

- a) Goods or services are urgently required and delay would be injurious to the public interest; or
- b) Only one party is available and capable of performing the service or supply; or
- c) In the absence of any qualifying bids to a public competitive process; or
- d) Legislation exempts the good or service from the competitive process; or
- e) Where the services sought are Professional Consulting Services, and the purchase is not expected to exceed \$25,000, and there is a clear benefit to the Water Board of sole sourcing due to the knowledge or experience of the Consultant; or

### Recommended Revision

- e) Where ~~the services sought are Professional Consulting Services, and the purchase is not expected to exceed \$25,000, and~~ there is a clear benefit to the Water Board of sole sourcing due to the knowledge or experience of the Consultant **or the specialized nature of the goods.**

**Recommended Resolution: That the OBWB amend the Contracting Policy as recommended.**

## OBWB Contracting Policy

The following contracting policy is based on the template of the Central Okanagan Regional District, and modified to fit the existing guidelines, as requested by the OBWB at the April regular board meeting.

*Approved May 7, 2013*

***“THAT the Okanagan Basin Water Board adopt a formal OBWB Contracting Policy as amended.”***  
**CARRIED**

### 1. GENERAL

1.1 The purpose of this Contracting Policy is to provide a process for the expenditure of Okanagan Basin Water Board funds with Third Party contractors, and to delegate certain authority with regard to the approval and execution of certain contracts and agreements.

1.2 In this policy, definitions are as follows;

“Water Board” means the Okanagan Basin Water Board

“The Board” means the Board of Directors of the Water Board

“RFP” means Request for Proposal

“Public RFP Process” means the process whereby tenders or proposals are solicited by the Water Board by means of advertising publicly, which may be opened and read at a fixed time and place.

“Third Party” means third party suppliers and contractors who provide goods and services to the Water Board. This does not include goods and services provided by public bodies.

“Sole Sourced” means the good or service is purchased from one supplier or contractor with no competitive process held.

“Professional Consulting Services” means services provided by a person or persons who are licensed and regulated in their professional capacity, and which services are provided pursuant to those regulations. Such services include, but are not necessarily limited to, engineering, and environmental consulting.



“Purchase Commitment” means a legally binding commitment by the Water Board to purchase Third Party goods or services. This may take the form of a written Contract or letter of engagement.

## **2. ROLE OF PURCHASING**

- 2.1 The Executive Director of the Water Board shall provide a centralised purchasing function at the Water Board, being responsible for the acquisition process covering all Third Party goods and services in accordance with this Contracting Policy.
- 2.2 The Executive Directors is responsible to ensure that staff follow this Contracting Policy.

## **3. COMPETITIVE PROCESS REQUIREMENTS**

- 3.1 The competitive process outlined in sections 3.2 to 3.4 of this Contracting Policy, and all awards made pursuant to it, shall be conducted under the direction of the Executive Director.
- 3.2 Where Third Party goods or services to be purchased are authorized in a current budget approved by the Board, the general practice with regard to competitive process and to the greatest extent possible as determined by the Executive Director shall be:
  - a) purchases not expected to exceed \$5,000 shall be decided by obtaining written quotations. Where possible, staff shall attempt to obtain more than one quotation.
  - b) purchases expected to exceed \$5,000 but not \$25,000 shall be decided by obtaining written quotations with approval by the Executive Director;
  - c) purchases expected to exceed \$25,000 shall be decided by RFP Process.
- 3.3 Preference shall be given to the supplier offering the best value to the Water Board or as per the evaluation criteria established during the competitive process.
- 3.4 Notwithstanding sections 3.2 to 3.3 above, a Third Party purchase may be Sole Sourced when:
  - a) Goods or services are urgently required and delay would be injurious to the public interest; or
  - b) Only one party is available and capable of performing the service or supply; or
  - c) In the absence of any qualifying bids to a public competitive process; or
  - d) Legislation exempts the good or service from the competitive process; or

- e) Where the services sought are Professional Consulting Services, and the purchase is not expected to exceed \$25,000, and there is a clear benefit to the Water Board of sole sourcing due to the knowledge or experience of the Consultant; or
- 3.5 The Water Board purchasing practice for sole sourced purchases shall employ such value analysis and negotiation methods as deemed appropriate for the occasion by the Executive Director.
- 3.6 No contract will be awarded to any contractor where a controlling stake is owned by any employee or close relative of an employee of the Water Board.

#### **4. PURCHASE COMMITMENT APPROVAL LIMITS**

- 4.1 Approvals for a Purchase Commitment shall be in the form of either a contract signature or a letter of engagement. Approvals shall be made in accordance with the following Approval Limits:
  - 4.1.1 For commitments not exceeding \$25,000 Executive Director shall approve. Note: the Executive Director may delegate Purchase Commitment approval authority of up to \$5,000 for purchases of a “one-time nature” to specific staff.
  - 4.1.2 For commitments exceeding \$25,000 the agreement shall be approved through resolution by the Board. If the contract is within an existing budget, pre-approved by the Board, and the Goods and Services are urgently required, and delay would be injurious to the public interest, approval may be obtained with the assent of the Board Chair.

## APPENDIX I

### Purchasing Policy – Competitive Process

Purchase Value	Process	Managed By
< \$5,000	<ul style="list-style-type: none"><li>Obtain verbal or written quotes, and approval by Executive Director</li></ul>	Staff
\$5,000 to \$25,000	<ul style="list-style-type: none"><li>Obtain written quotes, from multiple vendors where possible</li></ul>	Executive Director
> \$25,000	<ul style="list-style-type: none"><li>Public RFP Process</li><li>Board approval required</li></ul>	Executive Director/Board

February 23, 2016

Honourable Mary Polak  
Minister of Environment  
Room 112, Parliament Buildings  
Victoria, BC V8V 1X4

Honourable Michael de Jong  
Minister of Finance  
Room 153, Parliament Buildings  
Victoria, BC V8V 1X4

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 9.1

Dear Ministers Polak and de Jong:

Re: Support for Provincial Plan to Prevent the Spread of Invasive Mussels into British Columbia

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At the February 22, 2016 Regular Open Council meeting it was resolved to submit a letter of support to establish PERMANENT mandatory inspection stations in British Columbia.

Okanagan Lake, Skaha Lake, Osoyoos Lake and our many water sources throughout the Okanagan and British Columbia are threatened by these invasive mussels at all our provincial borders. The Province and local governments cannot afford the financial impact to our water systems if they become infected.

Both the Federal and Provincial government have taken positive steps towards improved legislation, prevention and detection plans, education and outreach to the public, and creating partnerships to enhance capacity.

Town of Oliver strongly encourages the investment in establishing permanent, mandatory inspection stations in British Columbia.

Yours truly,



Ron Hovanes  
Mayor

cc Council  
L. Larson, Boundary-Similkameen MLA  
D. Findlater, Okanagan Basin Water Board

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Minister of Transport



Ministre des Transports

Ottawa, Canada K1A 0N5

Okanagan Basin Water Board  
Regular meeting  
April 5, 2016  
Agenda No: 9.2

MAR 04 2016

Mr. Doug Findlater  
Chair  
Okanagan Basin Water Board  
1450 KLO Road  
Kelowna BC V1W 3Z4

Dear Mr. Findlater:

Thank you for your correspondence of January 11, 2016, regarding invasive zebra and quagga mussels.

In terms of preventing invasive species from entering Canada's waters, Transport Canada implements the Ballast Water Control and Management Regulations under the *Canada Shipping Act, 2001*. The regulations require vessels entering Canada to manage ballast water by undertaking any one of the following measures:

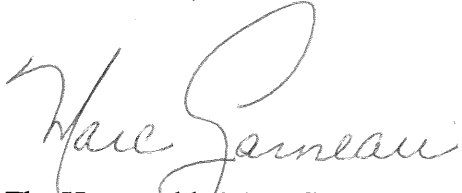
- exchanging it at sea in deep ocean waters;
- treating it on board to an internationally approved standard;
- pumping it ashore to a treatment facility; or
- retaining it on board and not discharging it in Canada.

The Government of Canada is in the process of developing new regulations to fully implement the *International Convention for the Control and Management of Ships' Ballast Water and Sediments*. This convention will require ships to limit the number of organisms in their ballast water, which is expected to be achieved by fitting treatment systems and to enter into force in the near future.

Transport Canada continues to work with science-based departments such as Fisheries, Oceans and the Canadian Coast Guard, and Environment and Climate Change Canada on preventing invasive species from entering Canadian waters.

Thank you for taking the time to express your concerns.

Yours sincerely,

A handwritten signature in cursive script that reads "Marc Garneau". The signature is written in dark ink and is positioned above the printed name.

The Honourable Marc Garneau, P.C., M.P.  
Minister of Transport

c.c. The Honourable Ralph Goodale, P.C., M.P.  
Minister of Public Safety and Emergency Preparedness

The Honourable Catherine McKenna, P.C., M.P.  
Minister of Environment and Climate Change

The Honourable Hunter Tootoo, P.C., M.P.  
Minister of Fisheries, Oceans and the Canadian Coast Guard





Ottawa, Canada K1A 0E6

Agenda No: 9.3



Regular:  In-Camera:

Date: April 5, 2016.

**OBWB**

**MAR 14 2016**

Mr. Doug Findlater  
Chair  
Okanagan Basin Water Board  
1450 KLO Road  
Kelowna BC V1W 3Z4

Dear Mr. Findlater:

Thank you for your correspondence of January 11, 2016, regarding zebra and quagga mussels.

Fisheries and Oceans Canada (DFO) takes seriously the threat posed by aquatic invasive species (AIS). To address this issue, DFO worked closely with provinces and territories on the development of the *Aquatic Invasive Species Regulations* (the Regulations), which came into effect on May 29, 2015.

These Regulations provide tools that can be used to prevent the introduction of new AIS and to manage the spread of already introduced ones. The Regulations prohibit the importation into Canada, and the transportation—as well as the possession and release of zebra and quagga mussels, dead or alive—into British Columbia, Alberta, Saskatchewan and Manitoba. These prohibitions are aimed at preventing the spread of these species further west.

With the coming into force of the Regulations, the Canada Border Services Agency (CBSA) Officers now have the authority to stop, inspect and refuse entry into Canada those watercrafts that are infested with zebra and/or quagga mussels. DFO is working in collaboration with the CBSA and Provinces to ensure that CBSA Officers have the training they need to enforce the Regulations.

.../2

As you already know, provincial and territorial governments also play an important role in administering and enforcing the regulatory provisions of the Regulations where they manage the fishery. In British Columbia, for example, this means that both DFO and the Province of British Columbia have a role to play in identifying and supporting species for inclusion in the Regulations, and in administering and enforcing the prohibitions, as well as conducting compliance promotion activities.

Thank you for writing.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Hunter Tootoo", written in a cursive style.

Hunter Tootoo, P.C., M.P.  
Minister of Fisheries, Oceans and the Canadian Coast Guard

c.c.: The Honourable Ralph Goodale, P.C., M.P.  
Minister of Public Safety and Emergency Preparedness  
The Honourable Marc Garneau, P.C., M.P.  
Minister of Transport  
The Honourable Catherine McKenna, P.C., M.P.  
Minister of Environment and Climate Change

Sent via e-mail

Reference: 296075

*March 29, 2016*

Doug Findlater, Chair  
Okanagan Basin Water Board  
c/o James Littley  
Email: [james.littley@obwb.ca](mailto:james.littley@obwb.ca)

Dear Mr. Findlater:

Thank you for your letter of February 3, 2016, regarding the Okanagan Basin Water Board's concerns about drinking water protection in the Hullcar aquifer.

The ministry shares the Board's view of responsible management of land activities to ensure water quality protection. In an effort to collaborate and coordinate agency actions to ensure responsible land management, staff from the Ministries of Environment, Agriculture, and Forests, Lands and Natural Resource Operations and the Interior Health Authority (IHA) are actively working to monitor, assess and take enforcement action, where appropriate. The Ministry of Environment conducts water sampling and inspections and works with Interior Health to ensure public health is not at risk. The ministry continues to sample water from the Hullcar aquifer on a monthly basis, in addition to sampling conducted by the water supplier. Sampling results are provided to IHA for informing public health decisions as well as identifying where agricultural activities may be attributing to degraded water quality. Currently, the large dairy operation above the aquifer is in compliance.

Ministry of Environment staff will continue to work with all agricultural operations that may impact the aquifers to ensure compliance with applicable agricultural waste management legislation, namely the Agricultural Waste Control Regulation and the *Environmental Management Act*. I have asked Ministry of Environment staff to expand their area of focus to all agricultural operations above the Hullcar aquifer with the intention of ensuring that all contributing sources of nitrates are managed to protect the environment and human health.

Once again, thank you for bringing this matter to my attention.

Sincerely,

Mary Polak  
Minister

cc: Honourable Terry Lake, Minister of Health  
Honourable Norm Letnick, Minister of Agriculture  
Honourable Steve Thomson, Minister of Forests, Lands and Natural Resource Operations