

ONE VALLEY
One Water



ONE VALLEY *One Water*

The waters of the Okanagan Valley are all connected. Upper valley reservoirs are connected to streams; the streams are connected to the lakes and the groundwater is connected to the streams. We swim in the water that we drink. During dry years and wet years we worry about the lake levels—too low, or too high? Salmon spawn in the creeks that carry water from the reservoir lakes down to orchards on the benchlands. The decisions that we make about water use and water management have effects that flow far beyond each moment and location. Climate change, bringing more extreme weather—droughts, floods and forest fires—makes it especially important to consider water as an interconnected system.

We can't operate in separate siloes when we are working on water—from water conservation to water quality improvement, source protection, flood and drought planning—each affects the others. Every year that goes by, we collaborate more and more, bringing in new partners and new perspectives. As a valley, and across all communities and sectors, we are working together, sharing resources and ideas to improve how water is managed, raising awareness about water issues, and protecting our water sources. When water is connected, the people who work on water have to be connected too.

This year, collaboration drove the development of flood maps for the Okanagan mainstem (valley-bottom) lake system. There was historic collaboration between the province and the Okanagan Nation Alliance to develop environmental stream flows for Okanagan fish-bearing streams. Our Okanagan WaterWise campaigns for Make Water Work and Don't Move a Mussel continue to expand with new partnerships. The Okanagan Water Stewardship Council, now established for 13 years as a broad collaboration of experts in the Okanagan water sector, continues to grow and thrive and undertake new projects.

While we look forward to an exciting year ahead, we know that our success will depend on partnerships and collaboration. This is the reason the OBWB was established, and this is the core of our work. We are one big community, in one valley, with one water.

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One Valley. One Water.

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Message from the Chair



There are many different water challenges in the Okanagan, but all of them are better managed if people work together. The OBWB collaborates with other local governments and groups, creating partnerships across the valley. With a resident population of about 350,000 people in the Okanagan, and millions more visitors, there are many others out there who can make a difference for Okanagan water. This is why it's so important to reach out to all communities, educate the public, and bring them into the partnership.

As the Mayor of Osoyoos, as well as OBWB Chair, I've become passionate about the OBWB campaigns for water conservation (Make Water Work) and about preventing zebra and quagga mussels (Don't Move a Mussel). Osoyoos Lake is the collection point of everything that happens upstream in the Okanagan Basin. As the hottest and driest part of the valley, drought can have big impacts as well as flooding. Osoyoos is a resort municipality so a large portion of our local economy depends on protecting the lake water quality, and water quality is, likewise, important to the rest of the valley.

To reduce the impacts of drought, we can all make a huge difference by using water sensibly, indoors and out. The Make Water Work campaign reinforces positive messages and good public behaviour, so that we can use water efficiently. Invasive mussels will degrade our swimming beaches and cost millions of dollars a year to manage. The Don't Move a Mussel campaign engages Okanagan residents, water recreationists, and their friends, neighbours and relatives—letting them know what is at risk, and how to prevent the mussels from getting here.

The theme of this annual report is "One Valley-One Water." When we bring resources and people together, we can educate our residents and visitors, and advocate to our local, provincial and federal governments to be strong allies for water management.

Sue McKortoff, Chair

Message from the Executive Director

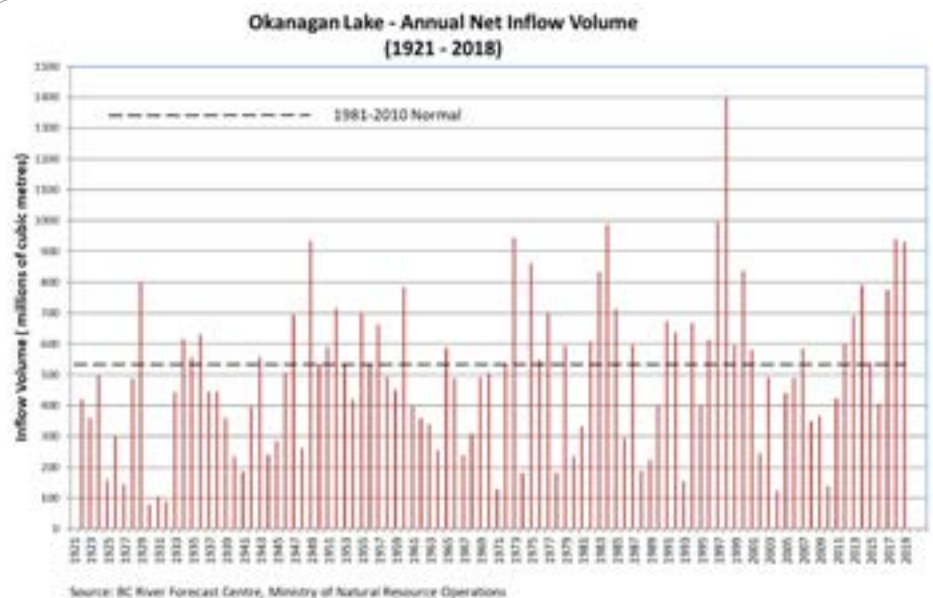


The Okanagan has an unpredictable, erratic water supply, driven by erratic weather. After two years of wet weather and flooding, with local government staff working overtime in their Emergency Operations Centres, the weather has shifted to drier conditions. This year, we had a dry winter and spring, Okanagan Lake did not make full pool, and southern B.C. was briefly in Level 3 drought conditions. So far only some of the water suppliers have been affected. We are working with local governments to help tune up drought plans, and get the word out to the public, while still carrying on with flood mapping, initiated in 2018.

The first Okanagan climate studies began 20 years ago, and just as they projected, climate change has increased natural weather extremes. Wet years are wetter, dry years are drier. The snow is melting earlier, leaving less water storage in the upper watershed. Our work at the OBWB is influenced by the weather—as we respond to the year-to-year conditions—and our long-term objective, through projects and programs, is to help Okanagan communities adapt to these changes in climate. As a valley, we need to become more resilient to weather fluctuations, so that we are proactive rather than reactive.

Reacting to emergencies will always be more costly and exhausting than having a plan and preparing in advance. The floods in 2017 and 2018 cost millions of dollars in property damage to residents (as well as public infrastructure), millions in emergency response, and millions in recovery. Unfortunately, funds for mitigation (having plans, policy and infrastructure to minimize future damage) are much harder to come by. We become resilient by pooling our resources, and determining what we can do together to prepare for extreme weather. Experience and results are proving that working together is more efficient, effective and smarter than working alone.

Anna Warwick Sears,
Executive Director



This graph shows the total water entering Okanagan Lake each year. This 'One Water' must be managed and shared in our 'One Valley,' and each year the water changes

Organizational Overview

The Okanagan Basin Water Board was formed as a collaboration of the three Okanagan regional districts to provide leadership on water issues that span the entire valley: sustainable water supplies, clean water for drinking, and healthy lakes and streams. The Board is a unique form of local government, established under provincial legislation with taxation authority to support its actions. The three Okanagan regional districts appoint three directors each, and the Board also includes one representative from the Okanagan Nation Alliance, one from the Water Supply Association of BC, and one from the Okanagan Water Stewardship Council.

BOARD OF DIRECTORS



Sue McKortoff, Chair, RDOS
Mayor, Town of Osoyoos



Cindy Fortin, Vice-Chair, RDCO
Mayor, District of Peachland



Rick Fairbairn, RDNO
Director, Electoral Area "D"



Bob Fleming, RDNO
Director, Electoral Area "C"



Victor Cumming, RDNO
Mayor, City of Vernon



James Baker, RDCO
Mayor, District of Lake Country



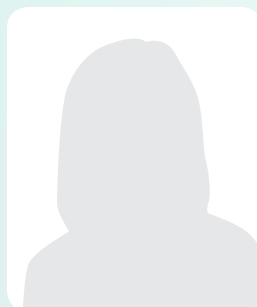
Colin Basran, RDCO
Mayor, City of Kelowna



Toni Boot, RDOS
Mayor, District of Summerland



Rick Knodel, RDOS
Director, Electoral Area "C"



TBD, Okanagan Nation Alliance



Robert Hrasco,
Water Supply Association of BC



Denise Neilsen, Chair, Okanagan
Water Stewardship Council

STAFF



Anna Warwick Sears,
Executive Director



Nelson Jatel,
Water Stewardship Director



Corinne Jackson,
Communications Director



James Littley,
Operations & Grants Manager



Kellie Garcia,
Policy & Planning Specialist



Pat Field,
Milfoil Field Supervisor



David Hoogendoorn,
Milfoil Operator



Morgan Douglas,
Milfoil Operator

REPORT ON *Services*

The Okanagan Basin Water Board provides three core services: Water Management, Milfoil Control and Sewerage Facilities Assistance Grants. Work in each of these programs is summarized in the three corresponding sections of this Annual Report, followed by a section on Looking Forward, and finally, the OBWB's financial statements for 2019.



Water Management Program

The Water Management Program includes Communications and Outreach, the Water Stewardship Council, Water Conservation and Quality Improvement Grants, and OBWB's Science and Information projects, as well as work on floods and droughts.



Okanagan Lake from
above Peachland

Communications and Outreach

OKANAGAN WATERWISE

The Okanagan is known as Canada's most water-stressed region. There is less water available here per person than anywhere in Canada. Yet, we use more than the average Canadian. Okanagan WaterWise, the OBWB's outreach and education program, was launched in 2010 to draw attention to our water issues and build community, recognizing we are all part of 'One valley. One water.' Its purpose is to inspire and offer solutions, noting we all have a role in protecting this most precious resource—the source of all life.

Since its launch, OkWaterWise has grown to offer a website (www.OkWaterWise.ca) with information and a growing number of resources for residents and visitors, businesses, educators and students, and for those with a general interest in water. It also organizes annual community events to celebrate water (e.g. Canada Water Week-UN World Water Day), participates in events put on by others, provides presentations to community groups, and more.



Kids visit the OkWaterWise booth at the Fat Cat Children's Festival

Highlights in 2018-19 include the sold-out screening of *Beyond Climate* with a follow-up panel and reception, featuring the film's narrator David Suzuki, director Ian Mauro, Syilx Okanagan knowledge keeper Jeanette Armstrong, and the Water Board's Anna Warwick Sears. With climate change affecting the Okanagan in various ways—from flooding, to repeated droughts, to fires—we held an Okanagan WaterWise Youth Challenge with the theme “Be a Climate Hero!” Young people from across the valley participated in wetland clean-ups and more, taking action for water and our planet.

Also in 2018, we partnered for a second year with UN Association of Canada's Green Corps, extending outreach efforts from four to eight months, allowing us to attend 37 events and deliver six classroom presentations, reaching a total of 2,671 people.



LEFT: (L to R) Ian Mauro, David Suzuki, Anna Warwick Sears, Jeanette Armstrong and Corinne Jackson share a smile during the screening of “Beyond Climate”

RIGHT: Winners of the Okanagan WaterWise Youth Challenge get a lesson on water

Stay WaterWise     YouTube

“Like” us on Facebook at www.facebook.com/OkWaterWise.

Follow us on Twitter at www.twitter.com/OkWaterWise

and Instagram at www.instagram.com/okanagan_waterwise/.

Plus, check out our YouTube channel at www.youtube.com/user/OKBasinWaterBoard.

MAKE WATER WORK

Make Water Work is an initiative of the OBWB's Okanagan WaterWise program delivered in partnership with local government partners and utilities throughout the valley, and aimed at tackling the second largest use of our water—outdoor residential watering. The program began in 2011 and since then has grown to include a *Make Water Work (MWW)* Plant Collection, promoting plants suitable to the Okanagan's climate. Residents are also invited to pledge to conserve and be entered to win WaterWise yard prizes, such as MWW plant material, drought-tolerant lawn seed or turf, and irrigation material, thanks to several business partners. Each year, we also announce a Make Water Work Community Champion based on the most pledges collected per capita.

In early 2018, OBWB refreshed the campaign. Make Water Work re-launched in May 2018 where Mayors pledged to adopt at least one of six WaterWise outdoor watering behaviours, challenged their residents to do the same, and then received a xeriscape gardening lesson from our partners



LEFT: Past OBWB Chairs Tracy Gray and Doug Findlater plant WaterWise plants at the Make Water Work launch

MIDDLE: Families come together to Make Water Work

RIGHT: Summerland Utility Manager Devon van der Meulen (left) and Grasslands Nursery's Lauren Forsyth (right) with Make Water Work South Okanagan contest winners Holly Dunlop and Melissa Johnson

at the Okanagan Xeriscape Association's UnH2O garden. Momentum for the campaign was bolstered throughout the summer with bus, bus shelter, radio, and social media ads, driving people to the [MakeWaterWork.ca](https://www.makewaterwork.ca) website to find water conservation tips, watering restrictions for their neighbourhood, MWW Plant Collection information, and the pledge. The Okanagan WaterWise Outreach Coordinator also promoted the campaign at events throughout the valley from May to September.

With the campaign cut one month short, it still resulted in a 33% increase in pledges over the previous year.

In January 2019, we held focus groups to review the campaign with feedback suggesting the program is largely impactful and effective. The focus group also provided insights to make improvements before a spring 2019 re-launch.



MWW garden at Summerland Ornamental Gardens

DON'T MOVE A MUSSEL

The OBWB's Okanagan WaterWise program launched Don't Move A Mussel (DMM) in 2013, to raise awareness among residents and help prevent invasive zebra and quagga mussels from reaching our waters. Based on water sampling as recently as spring 2019, we are believed to be mussel-free, and the campaign has helped maintain a high level of public awareness about the threat.

As with the Make Water Work (MWW) campaign, the OBWB initiated a refresh of DMM in 2018. The campaign re-launched and ran May to September 2018, at the height of water recreation season, and included updates to www.DontMoveAMussel.ca with background on the mussels, information on the risks to the Okanagan, prevention tips, inspection stations, and more. Local photos showing what is at risk (water quality, fish, sandy beaches, and water tourism) were used on billboards, bus and social media ads, as well as postcards for locals to send to visiting friends and relatives who are bringing water toys with them to the valley. The postcards included a message "Sending love from the Okanagan," encouraging people to stop at inspection stations before launching their watercraft in our waters. We also



LEFT: The Okanagan WaterWise Communications and Outreach Coordinator, and partners, attended events throughout the valley with postcards and more to help raise invasive mussel awareness

RIGHT: The DMM muscle-mussel shirts continue to be a popular item in helping spread the message

had radio ads, and attended numerous events, handing out the postcards, our popular mussel-muscle shirts, phone wallets, and floating keychains, helping 'Spread the message. Not the mussels.' We also partnered with Bell Media's outreach program in the valley and provided funds to the Okanagan and Similkameen Invasive Species Society (OASISS) to help extend outreach efforts. Funds to OASISS also went to water monitoring for the mussels.

Between the Okanagan WaterWise outreach coordinator and OASISS, the DMM message was delivered at 60 events, 18 boat launches and nine campgrounds, and reached 5,372 people. Bell attended another 32 events, reaching many more people. DMM also attracted 2,827 unique visitors to its website.

In January 2019, we held focus groups to review the DMM campaign. Feedback suggested the program is impactful and effective, and also provided insights for improvements before a re-launch in the spring.



LEFT: OASISS conducting a DMM outreach event. Photo courtesy of OASISS



RIGHT: DMM boat launch sign in Kelowna. Photo courtesy City of Kelowna

Water Conservation and Quality Improvement Grants

Each year, organizations throughout the valley take direct action to address water conservation and water quality improvement. Projects range from restoring streams and wetlands, to improving municipal irrigation systems in parks, and providing public education on planting more water-efficient residential landscapes. The Okanagan Basin Water Board provides small grants—up to \$30,000 per project per year—to support these actions through our Water Conservation and Quality Improvement (WCQI) grant program.

In Focus OKANAGAN SIMILKAMEEN STEWARDSHIP SOCIETY (OSSS)

Engaging Private Landowners in Source Water Protection and Water Quality Improvement

This project engaged creek-side landowners to enhance their near-stream (riparian) areas for the health of the water. OSSS contacted more than 350 landowners, developed information brochures, negotiated written stewardship agreements, enhanced riparian areas through invasive plant removal, and planted more than 330 native trees and shrubs. This project also complemented other OSSS work, like their Okanagan Crush Pad restoration project, involving more than 60 students from four kindergarten classes and 25 parent and student volunteers.



Water Stewardship

OKANAGAN WATER STEWARDSHIP COUNCIL

The OBWB's Water Stewardship Council plays a unique role in enhancing collaboration between local and senior governments as well as water leaders from a broad range of backgrounds. The Council is a technical advisory body of the Okanagan Basin Water Board, developed to enhance the communication between local water experts, decision makers, and senior levels of government. Monthly Council meetings provide the opportunity to share experiences, discuss emerging water issues, and develop recommendations for improved water policy and governance.

A number of Okanagan water topics were discussed and addressed in 2018 including:

- State-of-the-art applications for LiDAR data
- Groundwater protection
- Drought and flood planning, mapping and coordination
- Source protection
- Climate change impacts on the Okanagan watershed
- Further regulatory changes implied by the 2016 B.C. Water Sustainability Act



The Okanagan Water Stewardship Council meets in a strategic planning session

SUSTAINABLE WATER STRATEGY

Work continued this year to update the Okanagan Sustainable Water Strategy, which was originally released by the Council in 2008. The modernized strategy will help guide Board and Council priorities and projects for the next decade. Among other updates, the modernized strategy incorporates changes in water legislation and regulations, and better addresses issues that have risen to the forefront since the last strategy was released, such as climate change and invasive zebra and quagga mussels. It brings together technical information about the valley and showcases current projects and case studies. The strategy includes actions designed to protect water at its source, share water in times of shortages, plan for flooding, manage water demand, collect and share data, and collaborate and build partnerships.

Water Science & Information

HYDROLOGY MODELING

Hydrology studies the movement, distribution, and quality of water. Hydrologic computer models are simplified, conceptual representations of a part of the water cycle. Improving Okanagan hydrologic models increases our knowledge about stream flows, and informs integrated watershed management. Two separate process-based hydrology models were initiated in 2018 with funding support from senior government through the Disaster Mitigation Program and the Gas Tax Strategic Priorities Fund.



The *Okanagan Mainstem Floodplain Hydrologic Model* supports the floodplain mapping effort (see page 16), and is built on the Raven modeling platform. The second hydrologic model builds on previous supply-demand modelling efforts and focuses on 19 Okanagan sub-basins using spatially-distributed, high-resolution computer accounting models, also on the Raven software, that considers balancing water supply and demand. This project supports water allocation and infrastructure planning at the sub-basin level (e.g. Mission Creek). Some of the considerations in this modelling include: climate data, upland reservoir operations, surface return flows including municipal wastewater discharge, groundwater, environmental flows, updated agriculture use data, water extraction, and groundwater.

Hydrologic modeling on sub-basins, like Mission Creek here, will help ensure more robust water management

Flood

FLOODPLAIN MAPPING

In 2018, the OBWB and the Okanagan's three regional districts embarked on an ambitious plan to create flood maps for the entire Okanagan mainstem lakeshore—including Okanagan, Kalamalka, Wood, Ellison, Skaha, Vaseux and Osoyoos Lakes, and the Okanagan River channel. This partnership was made possible through significant funding support from Emergency Management B.C., the National Disaster Mitigation Program, and the Union of B.C. Municipalities.

The first major effort was to obtain LiDAR (Light Detection and Ranging) data for the Okanagan watershed, a technology that provides 3-dimensional digital image of the landscape. Using the LiDAR, we can see where the low-lying areas are in the valley, and estimate the risk of flooding there. The LiDAR is also useful for a variety of planning and infrastructure projects—anything where it helps to know the height of land and the direction of water flow. Although the LiDAR capture was hampered by smoky skies and a tragic plane crash, the data has now been distributed to communities throughout the valley.

With the LiDAR on the way, the next task was to issue contracts for a channel survey of the Okanagan River, and its ability to move water downstream. This was completed in the spring of 2019, with the help of the Okanagan Nation Alliance's fisheries department, who were on hand to ensure that the surveyors could avoid the areas where salmon eggs were buried in the gravel.

With all this information providing the lay of the landscape, our flood mapping consultants are adding in hydrologic modeling (see page 15), and climate change scenarios to generate digital maps for 20-, 100-, 200- and 500-year return periods, as well as map the 2017 flood event and understand where it falls on the return-period scale. They will incorporate the effect of waves, which brought the flood waters up as much as a metre higher in 2017. The mapping is scheduled to be completed by the end of March 2020.

With flood maps in hand, local communities will be in a far better position to develop robust plans to design more flood-resilient communities, and flood-proof existing homes and infrastructure before the next flood.



A sandbag wall protects local homes from flooding at Twin Lakes in the South Okanagan. Photo courtesy RDOS

Drought

DROUGHT RESPONSE COORDINATION

In 2018, we had record snowpacks that filled Okanagan reservoirs in the spring, followed by an extremely hot and dry summer. In August 2018, the province moved the Okanagan to drought Level 2 because a few important fish-bearing streams in the valley were experiencing low flows. This triggered the OBWB's Okanagan Drought Response Strategy. The goals of the strategy are to facilitate timely communication with local water purveyors and the province and to bring a consistent and cooperative valley-wide response to drought. As part of this, in 2018 the OBWB released two drought bulletins to notify water purveyors, elected officials, and others about the provincial drought level, clarify water conservation expectations, and provide information about the local water supply situation.

The OBWB continues its participation on the province's Thompson Okanagan Regional Drought Response Team. The team includes: B.C. Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) aquatic ecologists, ecosystem officers, hydrogeologists, hydrologists, and water officers; technical advisors from B.C.'s Ministry of Environment and Ministry of Agriculture, and Fisheries and Oceans Canada; First Nation advisors; and local government liaisons. We meet by conference call every two weeks in the summer, or more as needed, to receive updates on streamflows and aquifer levels, fisheries conditions, drought response measures underway or needed, and recommended drought levels. Being part of this team has allowed the OBWB to support the province in its decision-making process by providing information about local water supply conditions and water restriction stages. We have also been able to coordinate the timing and content of our communications with the province, so water suppliers better understand why the province is moving to a higher level and what responses are expected.

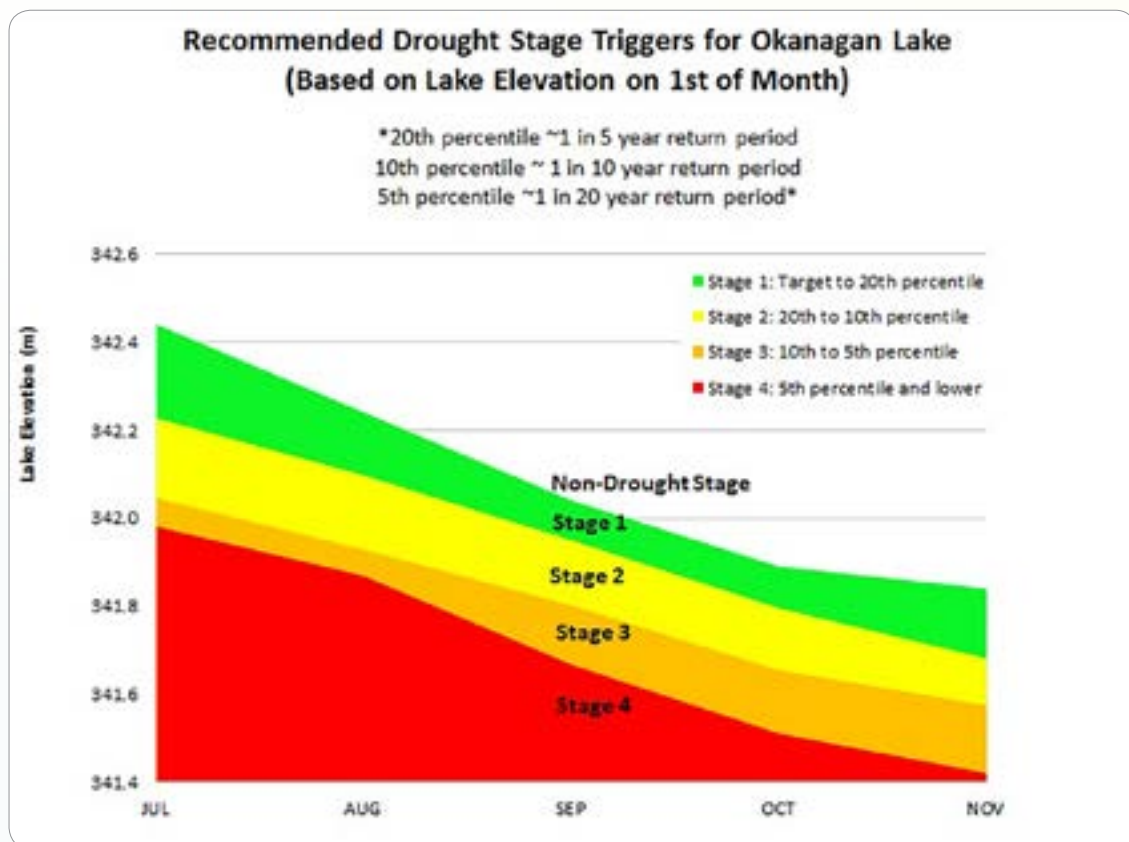
Drought bulletin from
August 2018



MAINSTEM DROUGHT STAGE TRIGGERS PROJECT

In September 2018, the OBWB released recommended drought stage triggers for those water suppliers that withdraw water from valley lakes and the Okanagan River. The triggers were developed by a team of lake management, hydrology, water supply, and fisheries experts. Okanagan water suppliers provided considerable input throughout the project, resulting in substantial revision and refinement of the triggers before settling on the final version.

The triggers use elevations of Okanagan Lake and Kalamalka Lake between July and November to indicate potential water shortages, based on historic lake elevation data for the 30-year period, 1986-2015. The goal is to achieve better alignment and consistency across the valley in an effort to improve clarity and support communication efforts during drought. Water suppliers also received guidance on how to use the triggers, recommended responses for each stage, an example drought communications plan, and key messages about the triggers. The OBWB is currently working with water suppliers to incorporate the triggers into their drought management plans.



Okanagan Lake Drought Triggers graph

WATER SUPPLY STATUS OUTREACH TO AGRICULTURE

In October 2018, the OBWB expanded the scope of the agricultural water communication project, which will be completed over the next three years. The project provides water suppliers with customized communications materials and mechanisms, including a key messages document, water supply status graphics, and access to an e-alert system centrally hosted by the OBWB. Eight water suppliers are participating in the project this year: Regional District of Okanagan-Similkameen, Kaleden Irrigation District, City of Penticton, District of Summerland, City of West Kelowna, City of Kelowna, Glenmore Ellison Irrigation District, and Greater Vernon Water. Water suppliers have been sending messages centred on local water restriction stages and water supply status, tips for water conservation, and broader information about drought, weather forecasts and more. The project is a joint effort between the OBWB and the BC Agriculture & Food Climate Action Initiative, and is still considered a “pilot,” developing the methods that best work for farmers and water suppliers.

**Are you a
FARMER or RANCHER?**

WHAT
Water suppliers throughout the Okanagan Valley are aiming to provide better water supply information to their agricultural customers. Do you want to receive email and/or text alerts from your water supplier?
SIGN UP!

MESSAGES TO EXPECT


- Early season updates on the snowpack and summer weather forecasts
- Water supply updates
- Changes in water restriction stages and responses
- Turn on/turn off dates


**SIGN UP to receive
important information
from your water supplier**

HOW TO SIGN UP

- 1 Visit www.obwb.ca/alerts
- 2 Select the water supplier* you would like to receive notifications from
- 3 Enter your email address and/or cell phone number
- 4 Receive water supply status and drought stage alerts!

Funding for this project has been provided in part by the Okanagan Basin Water Board and in part by the governments of Canada and British Columbia, and the Investment Agriculture Foundation of BC, under the Canadian Agriculture Partnership, a federal-provincial-territorial initiative. The Regional Adaptation Enhancement Program/Parm Adaptation Innovator Program is delivered by the BC Agriculture & Food Climate Action Initiative.





www.obwb.ca/alerts

* A list of participating water suppliers can be found at www.obwb.ca/alerts

Flyer sent to local farmers inviting them to register for water supply updates and alerts

WETLAND STRATEGY

Wetlands are vital to the health of our ecosystems. They clean water, recharge groundwater, and help protect us from flooding and drought, buffering the effects of climate change. In the Okanagan, wetlands support many rare and endangered species, act as ‘wet islands’ in an otherwise dry environment, and provide critical habitat to wildlife and fish.

Wetlands have been and continue to be under pressure from land development, pollution, invasive species, and most recently climate change. As part of the Okanagan Wetland Strategy, the OBWB worked with a team of wetland experts throughout the valley to develop two new tools to enhance the protection and creation of new wetlands. *Constructed wetlands for stormwater management: An Okanagan Guidebook* was completed in 2018. The objective of the guidebook is to help local governments design and build wetlands for stormwater retention and water quality improvement. A copy of the guidebook is available online at www.obwb.ca/wetlands. Also under development in 2018 was a local government wetland toolkit for local governments and communities to build on, or start new, wetland strategies and conservation programs. This toolkit provides guiding principles and a coordinating framework to inform wetland conservation and restoration initiatives across the Okanagan Basin. The intent of this toolkit is to provide local governments and communities a common vision and path forward.



Yellow-headed blackbird at an Okanagan wetland

ENVIRONMENTAL FLOW NEEDS PROJECT

Environmental Flow Needs (EFNs) are scientifically-determined estimates of how much water a stream needs to support healthy aquatic life. The concept of EFNs is not new; however, their application in water management decisions has recently increased throughout North America, along with greater recognition of the importance of ecological, cultural, and social values of rivers, as demand on water resources has increased.

Since the 1970s, there has been considerable effort to determine EFNs in the Okanagan. The EFN recommendations, however, have generally been unattainable for water managers due to a lack of data. According to the 2016 B.C. Water Sustainability Act, water managers must now consider EFNs in non-domestic water licensing decisions for surface and groundwater. The goal of the Okanagan EFN Project is to produce defensible, transparent and robust EFN values for Okanagan streams. This project aims to determine EFNs, and to study the relationship between flows and habitat function more closely.



Participants provide ideas to address EFNs

Methods for establishing Okanagan EFNs were developed through collaboration with stakeholders and experts, as well as a thorough literature review of approaches used locally and elsewhere in North America. Two primary methods were identified: an office-based exercise referred to as the “Okanagan Tennant method,” and a field-based, stream-specific method requiring hydrometric and fish habitat data, called the ‘Okanagan Weighted Useable Width method.’ Once the methods were established, the OBWB undertook a rigorous field study, in partnership with the Okanagan Nation and provincial fisheries staff to determine feasible Okanagan EFNs. The completed Okanagan EFN project is scheduled for public release in the fall of 2019.

In October of 2018, in partnership with the Canadian Water Resources Association and the Okanagan Nation Alliance Fisheries Department, the OBWB hosted an international EFN conference titled: siwłk (Water) for all—Our responsibility. The conference brought together representatives from national and international organizations engaged in water management and research. Full conference resources including presented papers and conference proceedings are available online at <https://www.obwb.ca/efnconference/>.

Milfoil Control

As one of the OBWB's oldest programs, invasive milfoil control continues to be a major part of our valley-wide operations. This invasive aquatic plant degrades water quality, and has the potential to cost the local economy millions in lost recreation and tourism revenue each year. Being part of 'One Valley. One Water.' we recognize the efficiency of controlling milfoil at a valley-wide level instead of leaving it up to individual local governments to clear their beaches. Under the OBWB program, three staff conduct year-round operations covering more than 50 linear kilometers of milfoil beds on five major lakes. Most major public beaches in the valley are kept milfoil-free because of the efforts of the OBWB's milfoil control staff.

Milfoil control is an important way to improve water quality and protect native habitat, while also enhancing the quality of recreational activity in our water. In 2018, we introduced on-board electronics to track milfoil control activities, and to provide real-time updates to environmental work windows and permit information. This system improves the operator's ability to navigate the weed beds and target areas with the greatest growth, while also allowing us to track long-term milfoil growth and any areas of new infestation.



Milfoil control harvester works through smoky conditions

Sewerage Facilities Assistance Grants

In 2018, the OBWB surpassed \$65 million in grant funding to Okanagan communities for sewer system improvements. These grants, first awarded in the 1970's, provide funding to move neighbourhoods off of failing septic systems and onto modern tertiary treatment systems, managed by local governments. This program has led to a direct reduction of harmful nutrients like phosphorus and nitrogen entering Okanagan lakes. Through this program, OBWB acknowledges that 'One Valley. One Water.' also means one wastewater. Improvements in one part of our valley prevent that pollution from spreading into other areas. This is why it makes sense to share resources to make sure that when a neighbourhood is ready to move to new sewer technology, funding is available.

While most of the major urban areas in the valley are already connected to tertiary sewer plants, major projects remain. This year, the board approved in principle funding for a major new sewer project in the North Okanagan which will connect large areas of multiple jurisdictions to a single treatment system. This new sewer system will provide economic development opportunities while reducing harmful releases into freshwater in the valley.

In 2018 the OBWB also initiated a major review of the SFA grant program to study which areas of the valley will still be eligible for funding in the future. Results from the review are expected in 2020.



City of Kelowna waste water treatment

LOOKING *Forward*

The coming year is filled with bold new initiatives. For example, we are co-hosting the B.C. AquaHacking Challenge—the first time this national program has come to the west. The OBWB will be the local “co-host,” along with its founder, Montreal-based Aqua Forum. This new partnership will link the water community, post-secondary institutions, and the emerging B.C. tech community and will raise the profile of water issues to new audiences.

We are also excited about the further development and completion of the Okanagan Lakeshores Flood Mapping this year. The maps will be made available for the public, and digital versions will be incorporated into all local government planning systems. They will be used to develop mitigation strategies—what we need to build higher, or move out of the floodway, and what bylaws need to be updated to reduce our risks. This work is breaking new ground in B.C.

The flood maps will inform new initiatives like the Okanagan Lake Protection Strategy and Source Protection Plans by water suppliers. There is strong interest among local governments with drinking water intakes on the mainstem lakes to develop formal ways to protect water, and all of these projects work together and complement one another.

The Board of Directors would like OBWB to take a leadership role with climate adaptation in the valley, and better understand how we can support climate mitigation. We hope, over the coming year, to better incorporate climate education into our Okanagan WaterWise public outreach program. The Okanagan public is keenly interested in learning how, as individuals, they can help protect Okanagan water. Climate change affects not just how often we have droughts and floods, but also can increase water pollution. Working together and thinking ahead, we can overcome the challenges of the future.

FINANCIAL Overview

Having access to sufficient funding isn't everything one needs for creating healthy watersheds. The most important assets are having a committed, caring public and engaged partnerships. However, having funding available to match external grants can make a huge difference in the capacity of any organization—and can help initiatives move faster. The OBWB uses a variety of approaches to bring more resources into the valley.

In 2018-19, the OBWB received more than \$2,068,000 in grants - the most we have ever received in one year. The largest of these was \$1.45 mill. from Emergency Management B.C., to cover the costs of providing data for flood mapping. Among other grants, we received funding from the B.C. Investment Agriculture Foundation, for our agricultural drought communications project, and more than \$73,000 from a group of nine sponsors for our Environmental Flow Needs conference. The "Make Water Work" and "Don't Move a Mussel" campaigns attracted contributions from media and other partners together totalling more than \$66,400.

As a grantmaker, in 2018-19 the OBWB awarded more than \$1.56 mill. in infrastructure grants to improve wastewater treatment, and \$300,000 in Water Conservation and Quality Improvement Grants to local governments and community groups. Another aspect to our grantmaking role is to be active participants in both the Canadian Environmental Grantmakers Network, and the B.C. Water Funders Collaborative. By building relationships with other funders, we can raise awareness about Okanagan water issues, and perform a matchmaking role with grantees in the valley.

Many university researchers have their own funding, and simply need a community partner to support their work. The OBWB helps by providing access to data, and making introductions to establish community-based research programs. In this way, we can leverage the talents and resources of our post-secondary institutions to take on water issues—often with no need for local funds. As an example, this coming year we are working with a group of groundwater scientists to set up a project to study the effects of drought on aquifers.

This was the seventh year in a row that OBWB did not have a budget increase. We are slowly spending down accumulated reserve funds in the Sewerage Facilities Assistance Grants Program. It's a balancing act, maintaining or expanding projects and programs, and maintaining equipment, while keeping costs down. We are able to continue our high productivity and excellent service delivery because of our strong partnerships and ability to stretch and leverage every dollar.



Okanagan Basin Water Board
Financial Statements
For the year ended March 31, 2019

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Management's Responsibility for Financial Reporting

The accompanying financial statements of the Okanagan Basin Water Board are the responsibility of management and have been approved by the Chairperson on behalf of the Board.

The financial statements have been prepared by management in accordance with Canadian public sector accounting standards. Certain amounts used in the preparation of the financial statements are based on management's best estimates and judgements. Actual results could differ as additional information becomes available in the future. When alternative accounting methods exist, management has chosen those it deems most appropriate in the circumstances, in order to ensure that the financial statements are presented fairly, in all material respects.

The Okanagan Basin Water Board maintains systems of internal accounting and administrative controls of high quality, consistent with reasonable cost. Such systems are designed to provide reasonable assurance that the financial information is relevant, reliable and accurate and the Board's assets are appropriately accounted for and adequately safeguarded.

The Board is responsible for ensuring that management fulfills its responsibilities for financial reporting and is ultimately responsible for reviewing and approving the financial statements.

The Board meets periodically with management, as well as the external auditors, to discuss internal controls over the financial reporting process, auditing matters and financial reporting issues, to satisfy themselves that each party is properly discharging their responsibilities, and to review the annual report, the financial statements and the external auditor's report.

The financial statements have been audited by BDO Canada LLP Chartered Professional Accountants in accordance with Canadian generally accepted auditing standards on behalf of the Board. The independent auditor's report expresses their opinion on these financial statements. The auditors have full and free access to the accounting records and to the Board of the Okanagan Basin Water Board.


Board of Directors Chairperson


Executive Director
June 4, 2019



Tel: 250 763 6700
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BDO Canada LLP
1631 Dickson Avenue, Suite 400
Kelowna BC V1Y 0B5 Canada

Independent Auditor's Report

To the Directors of Okanagan Basin Water Board

Opinion

We have audited the financial statements of the Okanagan Basin Water Board (the "Board"), which comprise the statement of financial position as at March 31, 2019, and the statements of financial operations, change in net financial assets and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Okanagan Basin Water Board as at March 31, 2019, and its financial operations, change in net financial assets and cash flows for the year then ended in accordance with public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Board in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Unaudited Information

We have not audited, reviewed or otherwise attempted to verify the accuracy or completeness of the information included elsewhere in the annual report.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Board's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Board or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Board's financial reporting process.



Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

BDO Canada LLP

Chartered Professional Accountants

Vernon, British Columbia
June 4, 2019

Okanagan Basin Water Board Statement of Financial Position

March 31	2019	2018
Financial assets		
Cash (Note 1)	\$ 289,260	\$ 2,842,963
Portfolio investments (Note 2)	2,915,874	-
Accounts receivable	793,396	26,538
	<u>3,978,530</u>	<u>2,869,501</u>
Financial liabilities		
Accounts payable and accrued liabilities	411,337	265,736
Grants payable (Note 3)	485,104	286,848
Holdback payable	139,480	-
	<u>955,921</u>	<u>552,584</u>
Net financial assets	<u>3,022,609</u>	<u>2,316,917</u>
Non-financial assets		
Tangible capital assets (Note 4)	<u>462,412</u>	<u>309,488</u>
Accumulated Surplus (Note 5)	<u>\$ 3,485,021</u>	<u>\$ 2,626,405</u>

Approved on behalf of the Board:

 Chairperson

The accompanying summary of significant accounting policies and notes are an integral part of these financial statements

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Okanagan Basin Water Board Statement of Financial Operations

For the year ended March 31	2019 Actual	2019 Budget	2018 Actual
Revenue (Note 11)			
Levies from member Regional Districts (Note 6)	\$ 3,450,733	\$ 3,450,733	\$ 3,451,500
Grants	2,068,075	-	509,255
Interest and other income	82,762	27,000	46,422
	5,601,570	3,477,733	4,007,177
Expenses (Note 11)			
Aquatic weed control	696,848	893,756	694,586
Sewerage facilities assistance	1,600,375	1,610,727	1,593,733
Water management	2,445,731	1,193,250	1,535,105
	4,742,954	3,697,733	3,823,424
Annual Surplus (Deficit) (Note 11)	858,616	(220,000)	183,753
Accumulated Surplus, beginning of year	2,626,405	2,626,405	2,442,652
Accumulated Surplus, end of year	\$ 3,485,021	\$ 2,406,405	\$ 2,626,405

The accompanying summary of significant accounting policies and notes are an integral part of these financial statements

Okanagan Basin Water Board Statement of Change in Net Financial Assets

For the year ended March 31	2019	2019	2018
	Actual	Budget	Actual
Annual surplus (deficit)	\$ 858,616	\$ (220,000)	\$ 183,753
Acquisition of tangible capital assets	(232,833)	-	(120,984)
Amortization of tangible capital assets	79,909	-	48,889
Change in prepaid expenses	-	-	8,505
Net change in net financial assets	705,692	(220,000)	120,163
Net financial assets, beginning of year	2,316,917	2,316,917	2,196,754
Net financial assets, end of year	\$ 3,022,609	\$ 2,096,917	\$ 2,316,917

The accompanying summary of significant accounting policies and notes are an integral part of these financial statements

Okanagan Basin Water Board

Statement of Cash Flows

For the year ended March 31	2019	2018
Operating activities		
Annual surplus (deficit)	\$ 858,616	\$ 183,753
Items not involving cash:		
Amortization	79,909	48,889
	938,525	232,642
Changes in working capital:		
Account receivable	(766,858)	7,235
Accounts payable and accrued liabilities	145,601	10,124
Grants payable	118,256	2,876
Holdback payable	139,480	-
Prepaid expenses	-	8,505
	(363,521)	28,740
Cash from operations	575,004	261,382
Investing Activities		
Net change in investments	(2,900,000)	2,350,000
Accrued interest	(15,874)	15,330
	(2,915,874)	2,365,330
Capital Activities		
Purchase of tangible capital assets	(232,833)	(120,984)
Change in cash during the year	(2,573,703)	2,505,728
Cash, beginning of year	2,842,963	337,235
Cash, end of year	\$ 269,260	\$ 2,842,963

The accompanying summary of significant accounting policies and notes are an integral part of these financial statements

Okanagan Basin Water Board

Summary of Significant Accounting Policies

March 31, 2019

Nature of Business	The Okanagan Basin Water Board ("The Board") is established under Section 138 of the Municipalities Enabling and Validating Act (Province of British Columbia) and administers and operates the aquatic weed control program, the sewerage facilities assistance fund, and a water management program as an agent of the three participating regional districts. The participating regional districts are: Regional District of Central Okanagan (R.D.C.O.); Regional District of Okanagan-Similkameen (R.D.O.S.); and Regional District of North Okanagan (R.D.N.O.).
Basis of Presentation	It is the Board's policy to follow accounting principles generally accepted for municipalities in the Province of British Columbia and to apply such principles consistently. The financial statements include the account of all funds for the Board. All interfund transfers have been eliminated. They have been prepared using guidelines issued by the Public Sector Accounting Board (PSAB) of the Chartered Professional Accountants of Canada.
Use of Estimates	The preparation of financial statements in conformity with generally accepted accounting principles for British Columbia Regional Districts require management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the year. Actual results could differ from those estimates.
Portfolio Investments	Portfolio investments are recorded at the lower of cost and market value.
Financial Instruments	The Board's financial instruments consist of cash, portfolio investments, accounts receivable, accounts payable and accrued liabilities. Unless otherwise noted, it is management's opinion that the Board is not exposed to significant interest, currency, or credit risks arising from these financial instruments. The fair values of these financial instruments approximate their carrying values, unless otherwise noted.

Okanagan Basin Water Board

Summary of Significant Accounting Policies

March 31, 2019

Tangible Capital Assets

Tangible capital assets are recorded at cost less accumulated amortization. Cost includes all costs directly attributable to acquisition or construction of the tangible capital asset including transportation costs, installation costs, design and engineering fees, legal fees, and site preparation costs. Contributed tangible capital assets are recorded at fair value at the time of the donation, with a corresponding amount recorded as revenue. Amortization is recorded on a straight-line basis over the estimated life of the tangible capital asset commencing once the asset is available for productive use as follows:

Buildings	25 years
Equipment	10 years
Vehicles	7 years
Office Furniture & Equipment	10 years
Computers	4 years

Revenue Recognition

The levies from member Regional Districts are recognized when the levies for the fiscal year are approved by the Board and requisitioned.

Grants, interest and other income are recognized in the period in which they are earned.

Government Transfers

Government transfers, which include grants and funding agreements are recognized in the financial statements in the period in which events giving rise to the transfers occur, providing the transfers are authorized, any eligibility criteria have been met, and reasonable estimate of the amount can be made.

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

1. Cash

The Board's bank account is held at one financial institution. The bank account earns interest at bank prime minus 1.8%.

2. Temporary Investments

	2019	2018
Bank of Montreal GIC, bearing interest at 1.8% maturing December 10, 2019	\$ 2,900,000	\$ -
Accrued Interest	15,874	
	<u>\$ 2,915,874</u>	<u>\$ -</u>

3. Grants Payable

The sewerage facilities grants program provides funds for municipalities to upgrade their waste water treatment system, the Board's grants provide partial funding for debt repayment on 20 - 25 year MFA notes. The process for the sewerage facilities grants program involves municipalities requesting an approximate grant amount early in their funding process, then verifying the final grant amount once municipalities have secured MFA notes and begin making payments. Once the grants are awarded, the Board will only issue the grants based on the proper documentation submitted by individual municipalities, such as formal invoice to the Board.

The Water Conservation and Quality Improvement grant program provides funds to Okanagan local governments, improvement districts, and non-government organizations to support innovative, tangible, on the ground, water initiatives. The program takes a collaborative approach to water management issues and promotes more uniform standards and best practices throughout the valley. Up to \$300,000 per year is made available for Okanagan projects. Grants will be expensed in the year of approval as per the budget.

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

4. Tangible Capital Assets

	Buildings	Equipment	Vehicles	Office Furniture & Equipment	Computers	Work In Progress	2019 Total
Cost							
Balance, beginning of year	\$ 118,352	\$ 893,792	\$ 166,022	\$ 3,773	\$ 25,467	\$ 108,290	\$ 1,315,696
Additions	-	231,119	-	-	1,714	-	232,833
Reallocation of assets	-	108,290	-	-	-	(108,290)	-
Balance, end of year	118,352	1,233,201	166,022	3,773	27,181	-	1,548,529
Accumulated amortization							
Balance, beginning of year	51,954	830,223	102,793	2,554	18,684	-	1,006,208
Amortization	4,743	53,035	18,235	153	3,743	-	79,909
Disposals	-	-	-	-	-	-	-
Balance, end of year	56,697	883,258	121,028	2,707	22,427	-	1,086,117
Net book value	\$ 61,655	\$ 349,943	\$ 44,994	\$ 1,066	\$ 4,754	\$ -	\$ 462,412

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2018

4. Tangible Capital Assets (continued)

Prior year comparative information:

	Buildings	Equipment	Vehicles	Office Furniture & Equipment	Computers	Work In Progress	2018 Total
Cost							
Balance, beginning of year	\$ 118,352	\$ 883,874	\$ 166,022	\$ 3,773	\$ 24,128	\$ -	\$ 1,196,149
Additions	-	9,918	-	-	2,776	108,290	120,984
Disposals	-	-	-	-	(1,437)	-	(1,437)
Balance, end of year	118,352	893,792	166,022	3,773	25,467	108,290	1,315,696
Accumulated amortization							
Balance, beginning of year	47,212	808,187	84,557	2,402	16,398	-	958,756
Amortization	4,742	22,036	18,236	152	3,723	-	48,889
Disposals	-	-	-	-	(1,437)	-	(1,437)
Balance, end of year	51,954	830,223	102,793	2,554	18,684	-	1,006,208
Net book value	\$ 66,398	\$ 63,569	\$ 63,229	\$ 1,219	\$ 6,783	\$ 108,290	\$ 309,488

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

5. Accumulated Surplus

The Board maintains a reserve for future expenditures. Canadian public sector accounting standards require that non-statutory reserves be included with operating surplus. The reserve and changes therein are included in the operating surplus as follows:

	2019	2018
Aquatic Weed Control Equipment Reserve		
Balance, beginning of year	\$ 357,364	\$ 270,817
Net surplus	219,062	162,644
Transfer of amortization	72,162	42,111
Transfer for acquisition of tangible capital assets	(231,120)	(118,208)
Balance, end of year	417,468	357,364
Invested in Tangible Capital Assets		
Balance, beginning of year	309,488	237,393
Transfer for acquisition of tangible capital assets	232,833	120,984
Transfer of amortization	(79,909)	(48,889)
Balance, end of year	462,412	309,488
Sewerage Facilities Assistance Reserve Fund		
Balance, beginning of year	1,445,581	1,504,515
Net deficit	(180,615)	(58,934)
Balance, end of year	1,264,966	1,445,581
Water Management Accumulated Surplus		
Balance, beginning of year	513,972	429,927
Net surplus	820,169	80,043
Transfer of amortization	7,747	6,778
Transfer for acquisition of tangible capital assets	(1,713)	(2,776)
Balance, end of year	1,340,175	513,972
	\$ 3,485,021	\$ 2,626,405

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

6. Levies from Member Regional Districts

	2019		2019		2018
	Actual		Budget		Actual
North Okanagan	\$ 622,503	\$	622,503	\$	641,834
Central Okanagan	2,133,036		2,133,036		2,102,847
Okanagan Similkameen	695,194		695,194		706,819
	\$ 3,450,733	\$	3,450,733	\$	3,451,500

7. Sewerage Facility Grants to Member Local Governments

Included in Sewerage Facilities Assistance are the following grants to member local governments:

	2019		2018
City of Kelowna	\$ 186,597	\$	186,341
City of Penticton	215,822		215,822
City of Vernon	93,784		92,636
City of West Kelowna	42,788		42,788
District of Coldstream	12,008		12,008
District of Lake Country	287,269		287,269
District of Peachland	174,089		174,089
District of Summerland	367,080		361,842
Town of Osoyoos	11,278		11,278
Regional District of North Okanagan	4,679		4,679
Regional District of Okanagan Similkameen	119,665		119,665
Westbank First Nation	45,316		45,316
	\$ 1,560,375	\$	1,553,733

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

8. Budget Information

The budget adopted by the Board was not prepared on a basis consistent with that used to report actual results based on current Canadian public sector accounting standards ("PSAB"). The budget was prepared on a modified accrual basis while PSAB now require a full accrual basis. The following reconciles the difference.

	<u>2019</u>
Budget surplus (deficit) for the year as per board budget	\$ -
Less:	
Transfer from previous years surplus in revenues	<u>(220,000)</u>
Budget deficit per statement of financial operations	<u>\$ (220,000)</u>

9. Commitments

The Board has exercised its right to renew their lease with the Regional District of North Okanagan for another five year term, which will end March 31, 2024 for the lease of land, on which the Board's machine shop building resides. The original agreement provided for an annual lease payment of \$12,800, with increases in 2014 and 2019 indexed to the annual CPA for British Columbia. At the conclusion of the lease term, ownership of the Board's building will be transferred to the Regional District of North Okanagan.

The Board is also currently in a five year lease agreement, which expires December 31, 2023, with the option to renew for one additional term of five years, with the Regional District of Central Okanagan for office rent and operating and overhead costs as well as financial, administrative and technology services. The agreement provides for a monthly payment of \$9,303.

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

10. Employee Benefits

Retirement Benefits

The Board and its employees contribute to the Municipal Pension Plan (a jointly trustee pension plan). The board of trustees, representing plan members and employers, is responsible for administering the plan, including investment of assets and administration of benefits. The plan is a multi-employer defined benefit pension plan. Basic pension benefits are based on a formula. As at December 31, 2017, the plan has about 197,000 active members and approximately 95,000 retired members. Active members include approximately 39,000 contributors from local governments.

Every three years, an actuarial valuation is performed to assess the financial position of the plan and adequacy of plan funding. The actuary determines an appropriate combined employer and member contribution rate to fund the plan. The actuary's calculated contribution rate is based on the entry-age normal cost method, which produces the long-term rate of member and employer contributions sufficient to provide benefits for average future entrants to the plan. This rate may be adjusted for the amortization of any actuarial funding surplus and will be adjusted for the amortization of any unfunded actuarial liability.

The most recent valuation for the Municipal Pension Plan as at December 31, 2015, indicated a \$2,224 million funding surplus for basic pension benefits on a going concern basis. As a result of the 2015 basic account actuarial valuation surplus and pursuant to the joint trustee agreement, \$1,927 million was transferred to the rate stabilization account and \$297 million of the surplus ensured the required contribution rates remained unchanged.

The Board paid \$59,626 (2018 - \$56,783) for employer contributions to the plan in fiscal 2018.

The next valuation will be as at December 31, 2018, with results available in 2019.

Employers participating in the plan record their pension expense as the amount of employer contributions made during the fiscal year (defined contribution pension plan accounting). This is because the plan records accrued liabilities and accrued assets for the plan in aggregate, resulting in no consistent and reliable basis for allocating the obligation, assets and cost to individual employers participating in the plan.

Okanagan Basin Water Board

Notes to Financial Statements

March 31, 2019

11. Segment Disclosures

Aquatic Weed Control

This program controls the growth of Eurasian watermilfoil in the shallow waters around Okanagan beaches and boating areas. This is a year-round program managing weed growth with rototillers in the winter and harvesters in the summer. The goal of the program is to keep public areas clear of weed, but when time allows operators and equipment will also contract work on a cost-recovery basis.

Sewerage Facilities Assistance

This program reduces the discharge of polluted water to Okanagan lakes and streams by supporting upgrades of sewage treatment plants and community sewers. Grants go to Okanagan municipalities as a local match for senior government infrastructure funding. It is one of the Board's longest-running programs, and has led to great improvements in water quality.

Water Management

This initiative undertakes projects and programs that support water sustainability in the Okanagan. It supports the original mandate of the board, providing leadership and coordinating water management activities in the interests of Okanagan citizens. The initiative includes the Water Conservation and Quality Improvement grant program, water education and outreach, advocacy to senior government for Okanagan water concerns, and establishing the science and monitoring systems required for informed decision making. Many of the projects are conducted as multi-year partnerships with other funding agencies, and operating surplus balances are specifically designated for project commitments through funding agreements with senior government, or targeted to planned projects in development. The Water Management Accumulated Surplus includes \$1,254,856 (2018 - \$436,382) for previously committed projects.

Okanagan Basin Water Board

Notes to Financial Statements

For the year ended March 31, 2019

11. Segment Disclosures and Expense by Object (continued)

	Aquatic Weed Control	Sewerage Facilities Assistance	Water Management	2019 Total
Revenues				
Levies	\$ 889,757	\$ 1,372,726	\$ 1,188,250	\$ 3,450,733
Grant income	7,148	-	2,060,927	2,068,075
Interest income	18,205	47,034	16,723	81,962
Gain on disposal of assets	800	-	-	800
	915,910	1,419,760	3,265,900	5,601,570
Expenses				
Assistance grants	-	1,560,375	294,965	1,855,340
Amortization	72,162	-	7,747	79,909
Contract services	7,824	-	1,343,695	1,351,519
Director's remuneration and expenses	11,105	-	11,105	22,210
Equipment costs	88,028	-	1,469	89,497
Insurance	29,671	-	1,563	31,234
Interest charge	15	-	59	74
Office	12,744	-	32,247	44,991
Outreach and publicity	46	-	143,632	143,678
Overhead allocation	(20,000)	40,000	(20,000)	-
Professional fees	39,365	-	36,757	76,122
Rental costs	36,520	-	10,843	47,363
Safety	8,570	-	-	8,570
Stewardship council expenses	-	-	8,194	8,194
Travel, conferences and meetings	4,017	-	82,802	86,819
Utilities, yard supplies and maintenance	16,208	-	-	16,208
Wages and benefits	390,573	-	490,653	881,226
	696,848	1,600,375	2,445,731	4,742,954
Annual surplus (deficit)	\$ 219,062	\$ (180,615)	\$ 820,169	\$ 858,616

Okanagan Basin Water Board

Notes to Financial Statements

For the year ended March 31, 2018 (Prior year comparative information)

11. Segment Disclosures and Expense by Object (continued)

	Aquatic Weed Control	Sewerage Facilities Assistance	Water Management	2018 Total
Revenues				
Levies	\$ 849,326	\$ 1,506,054	\$ 1,096,120	\$ 3,451,500
Grant income	-	-	509,255	509,255
Interest income	7,904	28,745	9,773	46,422
	857,230	1,534,799	1,615,148	4,007,177
Expenses				
Assistance grants	-	1,553,733	300,000	1,853,733
Amortization	42,111	-	6,778	48,889
Contract services	5,000	-	542,930	547,930
Director's remuneration and expenses	11,410	-	10,651	22,061
Equipment costs	115,647	-	517	116,164
Insurance	26,610	-	4,000	30,610
Interest charge	100	-	476	576
Office	10,203	-	26,452	36,655
Outreach and publicity	-	-	131,651	131,651
Overhead allocation	(20,000)	40,000	(20,000)	-
Professional fees	39,821	-	36,323	76,144
Rental costs	8,556	-	9,988	18,544
Safety	5,675	-	123	5,798
Stewardship council expenses	-	-	13,529	13,529
Travel, conferences and meetings	4,030	-	32,284	36,314
Utilities, yard supplies and maintenance	18,656	-	557	19,213
Wages and benefits	426,767	-	438,846	865,613
	694,586	1,593,733	1,535,105	3,823,424
Annual surplus (deficit)	\$ 162,644	\$ (58,934)	\$ 80,043	\$ 183,753

Kids play in the newly re-opened splash park in Kelowna's City Park. The old splash park was destroyed in 2017 when severe flooding damaged the infrastructure used for the water delivery and drainage system. After a year of renovations, the splash park re-opened this summer, and the kids went back to playing.



