

Okanagan Basin Water Board Meeting Agenda



Okanagan Basin
WATER BOARD

DATE: Tuesday, May 2, 2023

TIME: 9 a.m. to 10 a.m.

PLACE: Manteo Resort
3762 Lakeshore Rd.
Kelowna, B.C.

1. CALL MEETING TO ORDER

1.1 Acknowledgement of First Nations Traditional Territory

We acknowledge that we are holding this meeting on the unceded territory of the Syilx Okanagan Nation.

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 April 4, 2023 held at Regional District of North Okanagan in Coldstream. (page 1)

5. STAFF REPORTS

5.1 Executive Director Report (page 6)

5.1.1 OBWB letter to B.C. Government re: B.C. Watershed Security Strategy and Fund

5.2 Water Stewardship Director Report (page 10)

5.3 Communications Director Report (page 15)

6. IN-CAMERA

6.1 In-camera session (under sec. 90(1)(k) and 90(2)(b) of the Community Charter and sec. 21 of the Freedom of Information and Protection of Privacy Act)

7. RISE & REPORT FROM IN-CAMERA

8. NEXT MEETING

8.1 The next meeting of the Okanagan Basin Water Board will be Tuesday, June 6, 2023 at 10 a.m. at Regional District of Okanagan-Similkameen in Penticton.

9. ADJOURNMENT

Regular OBWB meeting to be followed by joint OBWB – Okanagan Water Stewardship Council meeting.

*** NOTE:** Meetings of the Okanagan Basin Water Board are open to the public, and only closed for in-camera sessions as set out in the B.C. Community Charter. From time-to-time, the board will be holding its meeting online. If you are interested in attending this online meeting, please contact our Communications Director Corinne Jackson at corinne.jackson@obwb.ca for further details. Thank you for your patience and understanding.

**MINUTES OF A REGULAR MEETING OF THE OKANAGAN BASIN WATER BOARD
HELD APRIL 4, 2023, AT REGIONAL DISTRICT OF NORTH OKANAGAN
9848 ABERDEEN RD., COLDSTREAM, B.C.**

PRESENT

Chair Sue McKortoff	Regional District Okanagan-Similkameen
Director Victor Cumming	Regional District North Okanagan
Director Rick Fairbairn	Regional District North Okanagan
Director Wayne Carson	Regional District Central Okanagan
Director Doug Holmes	Regional District Okanagan-Similkameen
Alt. Director Subrina Monteith	Regional District Okanagan-Similkameen
Director Bob Hrasko	Water Supply Association of B.C.
Director Jeremy Fyke	Okanagan Water Stewardship Council (OWSC)

REGRETS

Vice-Chair Blair Ireland	Regional District Central Okanagan
Director Christine Fraser	Regional District North Okanagan
Director Charlie Hodge	Regional District Central Okanagan
Director Tim Lezard	Okanagan Nation Alliance (ONA)

GUESTS

Simone Runyan	District of Coldstream
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STAFF

Anna Warwick Sears	Executive Director
Nelson Jatel	Water Stewardship Director
Carolina Restrepo-Tamayo	Office and Grants Manager
James Littlely	Deputy Administrator

1. CALL MEETING TO ORDER

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

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

2. INTRODUCTION OF LATE ITEMS

No late items.

3. APPROVAL OF AGENDA

"THAT the agenda of the regular meeting of the Okanagan Basin Water Board of April 4, 2023 be approved."

CARRIED

4. ADOPTION OF MINUTES

4.1 Minutes of the Regular Meeting of the Okanagan Basin Water Board of March 7, 2023, held online.

“THAT the minutes of the regular meeting of the Okanagan Basin Water Board on March 7, 2023, held online, be approved.”

CARRIED

5. STAFF REPORTS

5.1 Executive Director Report

Dr. Sears briefed directors on the province’s recently released Watershed Security Strategy and Fund Intentions Paper, noting First Nations consultation is very intentionally woven into the document. The province is asking for feedback on the paper by April 17. Dr. Sears added that recommendations will be brought to the board for consideration and invited directors to provide input in advance.

There was discussion regarding what is required to deliver on the strategy, including improved staffing levels at the province and the need for a much larger investment than the \$100 mill. committed. Dir. Cumming referred to the much larger funding provided in the past through Forest Renewal BC. There was further discussion with questions regarding how the fund will be set up. Chair McKortoff suggested the OBWB put out a news release once the OBWB sent its response to the province.

Dr. Sears reported on the International Joint Commission’s interest in establishing an International Watershed Board (IWB) for Osoyoos Lake. The current International Osoyoos Lake Board of Control (IOLBC) mainly deals with the management of lake level storage for drought. An IWB would have a broader mandate to oversee management for adequate fish flows, water quality, public communications, and other issues. The current board is made up mainly of senior government staff from both sides of the border. In 2015, the board was expanded to include local representatives. Having an IWB would expand the potential for funding and increase collaboration, providing enhanced resources for water in the South Okanagan, Dr. Sears added.

The board was also provided an update on the OBWB’s flood mapping project and told that a workshop is being developed for local governments on how to create bylaws and policy changes for flood policy.

Finally, Dr. Sears noted that she has applied to appear before the B.C. Select Standing Committee on Finance and Government Services and is open to suggestions for priorities from the board.

“THAT the Executive Director’s Report, dated March 29, 2023, be received.”

CARRIED

5.2 Deputy Administer Report

Mr. Littley presented on the Invasive Mussel Infrastructure Vulnerability Assessment Toolkit. The toolkit is intended to help water utility managers plan and budget for infrastructure improvements to address invasive mussels. The guide could be useful to communities in and outside the Okanagan. It will look at the ecological, social, and economic impacts of mussel invasions, the range of costs, the vulnerability of different water bodies depending on their chemistry, and how to protect systems and operations. It is being prepared by a consultant out of Ontario who is the leading expert on mussel’s affects on infrastructure.

It was noted that as the mussels continue to spread in Manitoba and then with a false alarm last fall, it became clear that action was needed to prepare.

Mr. Littley also updated the board on the RFP process to source a new amphibious milfoil

harvester. The RFP is complete, and negotiations are ongoing with the highest ranked bidder. It's expected that a recommendation will be brought to the board at the May meeting.

The board was further updated on the Sewage Facilities Assistance (SFA) Grant Program review, and told that work is underway to compare existing local government bylaws to the existing program's Terms of Reference, and to review the last five years of development variances. Directors related troubles with failing septic systems in their communities. In the case of Vernon, Dir. Cumming said some residents find the cost of sewer hook-up too high and some are said to be choosing instead to sell their lots. Chair McKortoff suggested if OBWB changes its one-hectare bylaw, there should be other systems in place to avoid pollution issues.

The technical advisory committee looking at the SFA program includes provincial and local government staff.

"THAT the Deputy Administrator's Report, dated March 23, 2023, be received."

CARRIED

5.3 Policy and Planning Director Report

Dr. Sears delivered the report for the Policy and Planning Director, Ms. Garcia, highlighting her work on drought communication planning with the Thompson-Okanagan Regional Drought Team and local partners.

Ms. Garcia is also project manager for the Okanagan Lake Regulation System (OLRS) Plan of Study. Dr. Sears noted that the OBWB was unsuccessful in its application to the Gas Tax Fund for the project.

"THAT the Policy and Planning Director's Report, dated March 27, 2023, be received."

CARRIED

5.4 Water Stewardship Director Report

Dr. Jatel updated the board on a presentation from B.C. Ministry of Forests District Manager Ray Crampton to the Okanagan Water Stewardship Council (OWSC) in March on the difference and connection between three B.C. ministries involved in water issues.

As noted at the meeting, the B.C. Ministry of Environment and Climate Change Strategy is responsible for preparing a strategy to adapt to climate change and meet greenhouse gas reduction targets, as well as safeguarding and managing B.C.'s natural resources, including water, land, air, and living resources. The new B.C. Ministry of Water, Land, and Resource Stewardship was established to develop water allocation policies and implement new water governance and watershed planning tools. Their focus is on creating a secure watershed strategy and funding it. Finally, the Ministry of Forests is responsible for making statutory decisions related to the Water Sustainability Act (WSA), managing provincial Crown land, and ensuring the sustainable management of forests, wildlife, water, and other land-based resources. The regional and district operations of the Ministry of Forests include water licensing, responding to fire, flood, and drought, as well as mitigation and recovery efforts.

Next month, Gwen Bridge will be presenting on Indigenous governance and decision-making.

The council is also working on providing recommendations to the OBWB in its submission to B.C.'s Watershed Security Strategy and Fund Intentions Paper.

Dr. Jatel updated the board about water quality testing through the Okanagan Lake Collaborative Monitoring Agreement, coordinated through OBWB. Three local governments participate, as required by the province, because of their wastewater discharges. Latest testing shows Okanagan Lake water quality is relatively stable, but the affect of forest fires polluting run-off is beginning to show. This year, the consultants will be doing a webinar for the partner local governments.

The OBWB was successful with a recent Mitacs application, co-funded with other partners, to look at the economics of agricultural water. This will provide a benchmark to better understand irrigation demand trade-offs.

“THAT the Water Stewardship Director’s Report, dated March 29, 2023, be received.”
CARRIED

5.5 Communications Director Report

Dr. Sears presented Ms. Jackson’s staff report. She updated the board on the success of the online film screening of *DamNation* and panel discussion on March 21st, celebrating UN World Water Day. This was a jumping off point for discussions about the modernization of the Okanagan Lake Regulation System. Dir Fairbairn indicated that Wellesley dam in RDNO will be decommissioned soon, and the film was helpful in understanding the process. Dir. Cumming indicated City of Vernon has received permission to make changes to Vernon and BX Creek if they include fish habitat restoration. Vernon will be doing significant improvements to fish habitat, he said.

Meetings are being held with partners to begin planning for the OBWB-Okanagan WaterWise’s two outreach and education campaigns, Make Water Work, and Don’t Move A Mussel. Both run May to October, coinciding with residential outdoor watering and water recreation.

“THAT the Communications Director’s Report, dated March 29, 2023, be received.”
CARRIED

Meeting adjourned for lunch at 11:57 a.m.

6. IN-CAMERA

6.1 In-camera session (under sec. 90(1)(m) of the Community Charter)

7. RISE & REPORT FROM IN-CAMERA

“THAT the OBWB approve the 2023 Water Conservation and Quality Improvement Grant funding as presented. AND THAT the OBWB Rise and Report the 2023 grant funding as approved.”

CARRIED

8. NEXT MEETING

8.1 The next meeting of the Okanagan Basin Water Board will be an abbreviated session, held Tuesday, May 2, 2023 at 9 a.m. at Manteo Resort, Kelowna, B.C., followed by a joint meeting of the board and OWSC.

9. ADJOURNMENT

“THAT there being no further business, the regular meeting of the Okanagan Basin Water Board of April 4, 2023 be adjourned at 1:07 p.m.”

CARRIED

Certified Correct:		
Chair		Executive Director

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
May 2, 2023
Agenda No: 5.1

To: OBWB Directors
From: Anna Warwick Sears
Date: April 25, 2023
Subject: **Executive Director Report**

Joint Board and Council Meeting

Every year, the OBWB and the Okanagan Water Stewardship Council hold a joint meeting, to share priorities and build relationships. Council members will be giving short presentations on committee activities, and board directors are encouraged to come prepared with their thoughts about top water issues in their jurisdictions. As this is a large gathering, and a special event, we will be holding the meeting at the Manteo Resort in Kelowna.

Annual Audit and Fiscal Year End

This month, I've been working with the finance department on our fiscal year-end, and completing grant reporting. The OBWB's annual audit will soon be underway. We anticipate that the draft audited financial statements will be prepared and distributed prior to our regular June meeting, for the board to approve and adopt. Our auditors from BDO will be at the June meeting to present the financial statements and answer any questions.

Agricultural Land Use Inventory

The OBWB is entering into an MOU with the RDCO, the City of Kelowna, the BC Ministry of Agriculture, and the Partnership for Water Sustainability BC, to update the Agricultural Land Use Inventory (ALUI) for the Central Okanagan. This inventory data is a set of map layers, identifying all crops grown in the region, and the type of irrigation system on each parcel or sub-parcel. It's prepared by professional agrologists who tour the area and visually note crops and systems. The ALUI is an essential part of the Okanagan Water Demand Model, that we use to calculate potential water requirements.

While most of the funding will be provided by the Government of Canada, the OBWB will be making a contribution (exact amount still to be determined) to ensure that parks and golf courses are also included. The original Okanagan ALUI was created in 2006, and then updated in 2014. I understand that the North Okanagan and Okanagan-Similkameen ALUI will be updated in summer 2024. I hope also to work with the IJC to do a similar inventory for the agricultural lands in Okanogan County, around the U.S. portion of Osoyoos Lake, so that we can better estimate the agricultural water needs of the Oroville-Tonasket Irrigation District that draws on the lake.

International Joint Committee Semi-Annual Meeting in Washington D.C.

For the week of April 24, I am in Washington D.C., participating in the IJC's spring meeting. All the watershed boards and boards of control are updating the commission on their activities. The boards range in size from the tiny Columbia River board (two members), to the very large and sophisticated boards involved in Great Lakes water management. As a way to respond to climate change, the IJC is interested in converting it's "Control" boards into watershed boards – maintaining their original mandates to oversee lake level or flow management, and also taking on other, more complicated issues that aren't easily controlled (like extreme weather events), in more of a cross-boundary problem-solving capacity. I believe that the International Osoyoos Lake Board of Control will need to become more involved with things like the review and update of the Okanagan Lake Regulation System, because flows over the border may be affected, and having a broader mandate could be helpful. I'll provide more of an update at the May 2 board meeting. There may be significant new resources available if the Osoyoos board becomes an International Watershed Board. An International Osoyoos Watershed Board would complement, not overlap with Okanagan Basin Water Board responsibility.

CWRA Article

The OBWB has been invited to submit an article for the Canadian Water Resources Association quarterly magazine. This is a national publication, with articles translated into French and English. I will be writing a profile of the organization, and describing the activities we are doing to prepare for droughts, floods, and other aspects of extreme weather events related to climate change. The article is expected to be published this summer.

To: B.C. Watershed Security Strategy Team

From: Anna Warwick Sears, Executive Director, Okanagan Basin Water Board

Date: April 17, 2023

Subject: OBWB Response to the Watershed Security Strategy and Fund Intentions Paper

Thank you for incorporating many of the Okanagan Basin Water Board's (OBWB's) suggestions on the initial Watershed Security Strategy and Fund (WSSF) Discussion Paper. This current response to the WSSF Intentions Paper is based on contributions from OBWB directors and members of its technical advisory body, the Okanagan Water Stewardship Council. In general, we applaud the vision of the document, but we believe it over-promises without recognizing inherent conflicts among water needs and watershed uses, and the lack of capacity at all levels of government and society (i.e. within government, First Nations, and local communities). Further, we believe the proposed fund is severely under-sized, and should be at least 10 times larger to implement the vision.

The role of local governments must be supported

The Intentions Paper does not adequately recognize local governments for their current and potential role in watershed security. B.C. local governments contribute to watershed science and knowledge, convene watershed stakeholders in collaborative processes, educate residents about the value of water, provide safe drinking water, and support food security by supplying water to agriculture. They play an increasing role in water management in urban watersheds. The WSSF states that "the final Strategy will not download governance and management responsibilities without providing support or understanding existing local initiatives." What new governance and management responsibilities might become available to local governments through the Strategy, and how would they be supported?

Water quality must be a priority in watersheds

The Province must clearly acknowledge its role in permitting and regulating polluting industries like forestry, mining, range, and recreation, and commit to protecting water quality as the top priority. This will require legislative change to remove conflicting ministerial mandates. It is not reasonable for water suppliers to be responsible for delivering potable water when they have no control over polluting watershed activities. If local governments are tasked with carrying out more of the Province's roles and responsibilities for source water protection, they must have the funds and provincial support necessary to do the job. Watershed users and resource extractors must be *required* to work with water suppliers to protect water quality.

Water supply conflicts must be faced directly and openly

We acknowledge that First Nations are B.C.'s first water users and that the First In Time, First In Right rules of the Water Sustainability Act must be amended to accommodate Indigenous priority rights. As this is being implemented, there must be open discussions about water allocations and how to share limited water supplies among users in times of scarcity. To base these conversations in reality, there must be a reconciliation of water allocations with what is actually available in streams, lakes and aquifers. Climate change has caused some water sources to become effectively over-allocated, even if they were not in the past, and conflicting objectives (e.g. for development, forestry, agriculture, environment) make the problems more difficult to resolve. There are likely to be inherent conflicts

apportioning water for communities, for fish, and for agriculture, and these must be faced directly and openly – involving all relevant ministries, user groups, rights holders, and communities.

Implementation requires more capacity at every level

The Intentions Paper seems to promise something for everybody and does not acknowledge the conflicts and stagnation in decision-making that will arise if priorities are not clearly established. It does not explain how the provincial government will ensure the capacity (internal to government) to deliver the strategy and fund in a timely manner. First Nations, local communities, and resource users may also have limited capacity. Local governments should play a central role given their mandate to provide safe drinking water, but struggle with limited funding and authority. A draft implementation plan that addresses these issues should be developed and released for review and comment as soon as possible. A detailed implementation plan with timelines and committed resources should accompany the strategy when it is released in winter of 2023/24.

Watershed Security Fund is insufficient to implement proposed strategy

The WSSF Intentions Paper lays out a bold vision for water sustainability in B.C. It has a sweeping scope, with commitments ranging from implementing the central principles of B.C.'s Declaration on the Rights of Indigenous Peoples Act, to watershed restoration, fisheries recovery, and drinking water protection. It will cost substantial amounts of money to even begin to implement this strategy, so it is good that a Watershed Security Fund (the fund) is included. However, we are concerned both with the size of the fund, and the way it will be administrated and distributed.

We understand that the fund will be an endowment, where the principal is invested, and the earnings are distributed. From a \$100 million fund, perhaps \$5 million will be available for watershed security projects in B.C. each year. This is significantly undersized given the scope of the WSSF vision, and the scale of the problems to be addressed. Between 1994 and 2002, under the Forest Renewal BC program, the province distributed an average of \$66 million a year (\$110 million in 2023 dollars) for watershed restoration projects alone. While we understand that the intention is to have the initial \$100 million matched by federal and philanthropic dollars, the fund must be 10 times larger – at a minimum – to have a meaningful impact. If watersheds are indeed a priority to this government, they must be funded at a level that matches their importance.

We understand that the fund will be located outside of government. Regardless of which entity holds the fund, we expect that the province will be closely involved in establishing the basic funding criteria, and the terms of reference for the fund advisory body. We strongly recommend that the province include local government representatives in this advisory body, as well as Indigenous advisors, and experts with practical experience in watershed restoration, governance, and fund granting/distribution best practices. We recommend having full transparency for how the advisory body is established, and how decisions are made, and that the funding entity have experienced, professional staff.

With respect to the distribution of funding, it will be most useful if money can be made available over multi-year timeframes. It is very difficult to do meaningful work in watersheds with project-based, limited-term grant funding. We ask that you consider a structure similar to how Gas Tax funds are distributed by the Union of BC Municipalities, with a mixture of transfer funds and grants that provide both reliability and flexibility for communities and groups undertaking watershed security work.

Thank you for allowing us the opportunity to provide comment.

MEMORANDUM

Okanagan Basin Water Board
Regular meeting
May 2, 2023
Agenda No: 5.2

To: OBWB Directors
From: Nelson R. Jatel
Date: April 25, 2023
Subject: Water Stewardship Director's Report

Okanagan Water Stewardship Council (OWSC)

At the council meeting on April 13th, Gwen Bridge delivered a comprehensive presentation titled "*Ethical Space: Science and Indigenous Knowledge, Authority and Reconciliation*," which examined the implications of B.C.'s Declaration on the Rights of Indigenous Peoples Act (DRIPA). Bridge emphasized the importance of fostering collaboration between scientific and Indigenous knowledge practitioners while understanding key aspects such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and reconciliation worldviews.

During her presentation, Ms. Bridge outlined the three phases of establishing ethical space-based relationships: 1) building core knowledge and understanding the history and philosophical concepts of Indigenous peoples, 2) planning engagement by knowing the partners and their preferences, and 3) considering the concept of ethical space. She referenced the 2015 Canada Truth and Reconciliation Commission, stressing that reconciliation requires healing the relationship between Indigenous people and their land and entails sharing a common vision with indigenous and non-indigenous parties fully engaged.

Ms. Bridge further explained how Ethical Space fosters cultural safety by bridging the gap between Western and Indigenous cultures. To effectively pursue reconciliation, it is crucial to comprehend the critical elements of Indigenous culture (e.g., traditional ecological knowledge, stories, protocols, chiefs, values, governance, spirituality, community) and identify their differences from Western culture (e.g. politicians, science, religion, patriarchy, democratic governance). During the reconciliation process, it is essential to pinpoint the aspects that require harmonization and work toward a shared understanding. A discussion summary is attached as part of the monthly council report.

Council Committees

A crucial aspect of the council's role is the formation of stewardship council committees, which serve as platforms for regional water leaders to engage in detailed discussions on vital issues and address the needs brought forward by the water board. These committees facilitate the exchange of ideas and information and enhance the council's ability to provide well-informed technical advice. As outlined in the 2021-23 work plan, several sub-committees have been established to support and respond to OBWB board requests and needs while advancing council priorities.

The council had seven committees during the previous term (Term 10): Policy, Water and Climate, Alluvial Fans, Wetlands, Agriculture Water, Water Quality, and Source Protection (a permanent

standing committee). The chairs of these committees meet regularly or on an as-needed basis, depending on the urgency of the issues at hand, to review progress, explore cross-cutting issues, inform the guest speaker selection process, and discuss council leadership and membership dynamics.

Upcoming Water Stewardship Council meetings

Our annual joint board-council meeting will be held on May 2, 10 a.m. to 1 p.m., following the board's (shortened) regular monthly meeting. The joint session will feature OWSC Chair Dr. Jeremy Fyke and several council committee chairs presenting a summary of the past two years of committee activities (Term 10). To further enhance communication and foster one-on-one discussions, the committee chairs will host a poster session between 12:30 p.m. and 1 p.m., providing board members an opportunity to interact directly with council members.

The committee chairs will present their insights and updates during the joint meeting. This session will further strengthen collaboration, ensure effective communication among regional water leaders, and highlight the crucial role of council committees in addressing pressing water-related concerns.

Looking ahead to the June council meeting, the council will develop their two-year work plan for term 11, and I will present my recently completed doctoral dissertation research, which focuses on analyzing 50 years of OBWB social networks from the board, examining how they change over time and contribute to various new indicators for Canadian network watershed organizations. We encourage board directors to attend council meetings.

Okanagan Water Supply Webinar

The Okanagan Water Supply Webinar, scheduled for May 9th from 11 a.m. to 12 p.m., will address the region's vulnerability to extreme weather events, such as floods and droughts, significantly affecting the local economy and quality of life. Building on 15 years of experience in organizing these state of the watershed meetings, this annual one-hour webinar aims to provide crucial information to support water management decisions in the Okanagan. Covering various aspects such as snowpack, groundwater, and weather, the webinar offers up-to-date data to help make informed regional decisions. The webinar fosters collaboration within the Okanagan community to ensure a sustainable water supply, and we encourage everyone to attend this vital discussion. A poster with webinar details is included at the end of this memo.

Okanagan Flood Risk Project Completion

OBWB retained IBI Group and Northwest Hydraulic Consultants (NHC) to perform a flood risk assessment (FRA) and mapping of the significant flood hazards considered by the Okanagan Mainstem Floodplain Mapping project (NHC 2020). FRAs are essential tools for understanding risk and supporting decisions to manage and adapt to reduce risk. The project was developed with Okanagan local governments, the Okanagan Nation Alliance (ONA), and others. The main objectives were to broaden and deepen the understanding of flood risk in the Okanagan watershed and support risk-based decision-making for broader flood management strategies.

Okanagan Hydrometric (stream flow) Monitoring

This month, the Okanagan hydrometric service team is gearing up to conduct several high-flow measurements in streams throughout the Okanagan region. These measurements are crucial for constructing rating curves for our hydrometric station data, protecting in-stream flows for fish, and tracking changes in streamflow, water temperature, and other indicators concerning population growth and climate change. The responsibilities of the OBWB-coordinated hydrometric information program include:

1. Establishing new hydrometric monitoring stations;
2. Managing hydrometric information; and
3. Coordinating hydrometric resources and publication of data for ready access.

To develop and manage an adequate hydrometric network in the basin, this OBWB-led initiative involves collaboration with the ONA, senior governments, and Okanagan water purveyors. This collaborative approach ensures comprehensive data collection and effective management of our precious water resources.

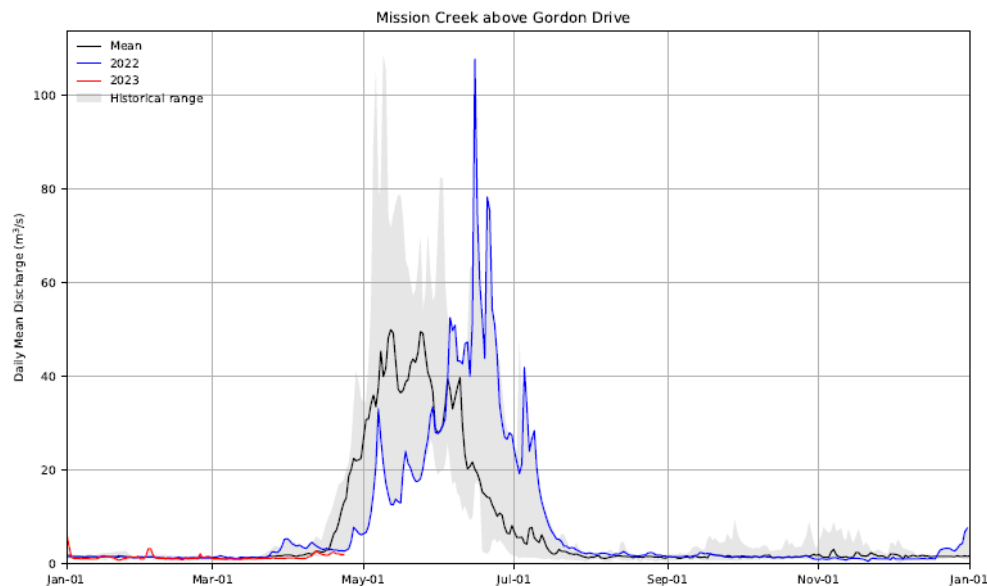


Figure 1. OBWB Hydrometric station readings for April 24, 2023 (red), on Mission Creek.

Okanagan Water Stewardship Council

Technical advisory committee to the OBWB



April 2023

Council Members (Term 11, April 2023-March 2025)

Appointed representatives | alternates

- **AAFC, Research Branch**
Kirsten Hannam | Jesse MacDonald
- **BC Agriculture Council**
Hans Buchler
- **BC Cattlemen's Association**
Lee Hesketh | Keith Manders
- **BC Fruit Growers Association**
Katie Sardinha | Glen Lucas
- **Ministry of Forests**
Research: Sheena Spencer | Kristen King
RM: Kelly Chiatto | Ray Crampton
- **BC Ground Water Association**
Marta Green
- **BC Water Supply Association**
Patti Meger | Bob Hrasko | Shawn Grundy
- **BC Wildlife Federation – Region 8**
Lorne Davies | Bill Bosch
- **Canadian Water Resources Association**
Brian Guy (past chair) |
- **City of Kelowna**
Rod MacLean | Ed Hoppe
- **City of Penticton**
Alistair Wardlaw | Jonathan Chu
- **City of Vernon**
TBD
- **Fisheries and Oceans Canada**
Lynda Ritchie | Sue Lemke | Teri Ridley
- **Environment and Climate Change Canada**
Jeremy Fyke (Chair) | Dave Hutchinson | Alyssa Charbonneau
- **Emerita**
Denise Neilsen (past chair)
- **Engineers & Geoscientists BC**
TBD
- **Interior Health**
Rob Birtles | Judi Ekkert
- **Irrigation Industry Association of BC (IIABC)**
Bruce Naka | Ted van der Gulik (past vice-chair)
- **Ministry of Agriculture**
Stephanie Tam | Lindsay King
- **Ministry of Environment and CC Strategy**
Kym Keogh | Dennis Einarson
- **Ministry of Land, Water & Resource Stewardship**
TBD
- **Okanagan Collaborative Conservation Program**
Scott Boswell (past Chair)
- **Okanagan College**
Allison O'Neill | Rob St Onge
- **Okanagan Indian Band**
Patrick Riley | Dan Wilson | Tim Isaac
- **RD Central Okanagan**
Jing Niu | Brittany Nichols
- **RD North Okanagan**
Zee Marcolin | Tricia Brett
- **RD Okanagan –Similkameen**
Shelley Fiorito
- **Shuswap Okanagan Forestry Association**
Matt Scott | Bryan Darroch
- **Thompson - Okanagan Tourism Association**
Ellen Walker – Matthews |
- **University of British Columbia - Okanagan**
TBD
- **Chamber of Commerce – Kelowna**
Derek Gratz

Council Meeting Highlights

Presentation on “Ethical Space: Science and Indigenous Knowledge, Authority and Reconciliation”

Gwen Bridge delivered a presentation on Ethical Space and Reconciliation, emphasizing the groundswell of interest in Indigenous rights following B.C.'s Declaration on the Rights of Indigenous Peoples Act (DRIPA) and its impact on the province's landscape. She highlighted the importance of fostering collaboration between scientific and Indigenous knowledge practitioners, understanding key aspects such as UNDRIP and reconciliation worldviews, and recognizing the implications of this knowledge.

Gwen outlined the three phases of establishing ethical space-based relationships: 1) building core knowledge and understanding history and philosophical concepts, 2) planning engagement by knowing the partners and their preferences, and 3) considering the concept of ethical space. She referenced the 2015 Canada Truth and Reconciliation Commission, stressing that reconciliation requires healing the relationship between Indigenous people and their land. True reconciliation entails sharing a common vision with indigenous and non-indigenous parties fully engaged.

Ethical Space fosters cultural safety, bridging the gap between Western and Indigenous cultures. To effectively pursue reconciliation, it's crucial to comprehend the key elements of Indigenous culture (e.g., traditional ecological knowledge, stories, protocols, chiefs, values, governance, spirituality, community) and identify their differences from Western culture (e.g., politicians, science, religion, patriarchy, democratic governance). During the reconciliation process, it's essential to pinpoint the aspects that require harmonization.

Other news

- Jeremy Fyke (ECCC) was elected as the new Chair for the OWSC for Term 11 (April 2023 – March 2025).
- OBWB circulated a draft response to the B.C. Watershed Security Strategy and Fund Intentions Paper among council members for their feedback and sent the letter by the April 17th deadline.
- B.C. Wildlife Federation's 67th Annual AGM & Convention will be held on April 20 - 22, 2023, in Nanaimo, B.C. (<https://bcwf.bc.ca/2023agm/>)
- The OBWB will host the 2023 Okanagan Water Supply Webinar on May 9th from 11:00 am – 12:00pm. Everyone is welcome to attend. (<https://us02web.zoom.us/j/83746136359>)

For more information contact:

Nelson Jatel, Water Stewardship Director
Okanagan Basin Water board

nelson.jatel@obwb.ca

(250) 469-6295

The Council provides technical advice to the Board & connects the broader Okanagan community.

2023 Okanagan Water Supply Webinar

Tuesday, May 9th 11:00 am – 12:00 pm

**Join us for this year's water webinar
exploring water supply in the Okanagan:**

- reservoir levels
- snowpack
- groundwater
- weather forecast
- salmon returns

**Past participants have included: Local government,
agricultural community, water managers, general public,
business owners, and water professionals.**

Zoom webinar link:

<https://us02web.zoom.us/j/83746136359>

For more info contact Nelson at:
nelson.jatel@obwb.ca | (250) 469.6295



MEMORANDUM

Okanagan Basin Water Board
Regular meeting
May 2, 2023
Agenda No: 5.3

To: OBWB Directors
From: Corinne Jackson
Date: April 25, 2023
Subject: Communications Director Report

Make Water Work & Don't Move A Mussel 2023

Work is continuing on the roll-out of this year's Make Water Work (MWW) and Don't Move A Mussel (DMM) campaigns, which run mid-May – mid-October. Our marketing contractor, Habit Creations, has now delivered strategy recommendations to me. These will now be reviewed with partners before moving to the design and launch stage.

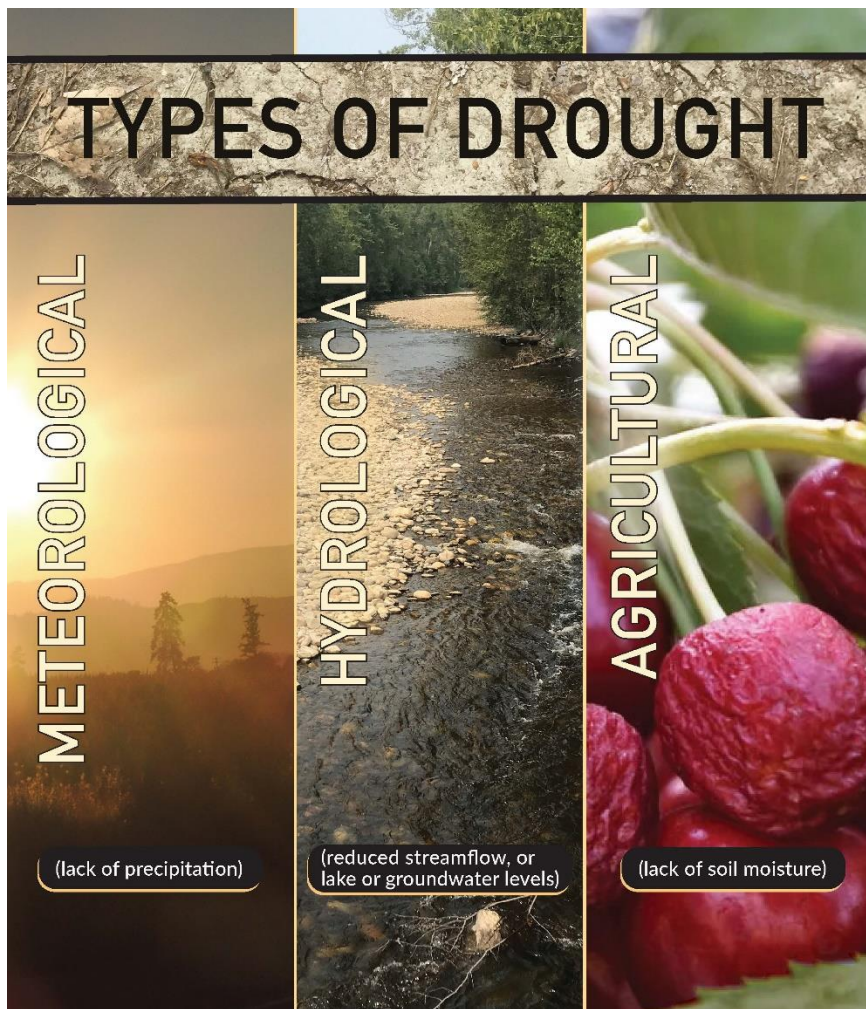
Last week, I met with the Make Water Work local government partners regarding this year's launch and there is interest in doing an in-person event in mid-May, followed by partners creating and posting Make Water Work videos online. I will have more information at next week's meeting.

A contract is now in place with the Okanagan Xeriscape Association to help with the delivery of the MWW campaign and to conduct additional xeriscape outreach in the valley. I have also met with the Okanagan and Similkameen Invasive Species Society regarding DMM outreach and I hope to have an agreement in place soon.

Other communication initiatives

A recent drought report released to media by Agriculture Canada, noting that Vernon and Kelowna is in a "severe drought," has prompted some concern and discussion in the community about the potential for drought this summer. Dr. Sears was invited to do a follow-up interview with CBC Kelowna's Daybreak South. You can find the clip at <https://bit.ly/41rHLXG>. The clip begins at 1:18:37.

Ms. Garcia has also been in touch with both Ag Canada and B.C. provincial staff regarding coordination of drought communication efforts between the three agencies. This has been an issue in the past due to the different drought classification systems used by local water utilities, the province, and Ag Canada. Last winter, we worked with federal and provincial counterparts to develop a drought primer to explain these differences. I've attached the primer to this memo and it is posted on the OBWB website's drought page at <https://www.obwb.ca/drought/>. Finally, we developed a graphic that illustrates three types of drought and their differences: meteorological, hydrological, and agricultural, which I've shared below.



There were a number of Earth Week events in the valley last week. I was asked by a number of groups to help promote their events through our social media channels, which I did.

Finally, our search for a permanent part-time **Communications Assistant** is continuing.

Summary of OBWB-Related News Coverage

March 29	"Column - Gardening with nature: It's officially spring, so it's time to plant," <i>Castanet.net</i>
April 1	" Okanagan Basin Water Board supportive of new national water agency ," <i>Vernon Morning Star</i> , <i>Penticton Western News</i> , <i>Lake Country Calendar</i> , <i>Kelowna Capital News</i> , <i>West K News</i> , <i>Summerland Review</i>
April 1	"Water briefs: Juggling Okanagan Lake conflicts," <i>Vernon Morning Star</i>
April 12	"Column - Gardening with nature: Scary precipitation stats from Environment Canada," <i>Castanet.net</i>
April 20	" Okanagan extreme weather events - how the Okanagan Basin Water Board is helping communities prepare ," <i>CBC Kelowna Daybreak South</i> (clip begins at 1:18:37)
April 20	" Grants totalling \$350k issued by Water Board to deserving projects around Okanagan ," <i>AM1150</i>
April 21	"Okanagan Water Board asking province for larger contribution to BC Watershed Security Fund," <i>AM1150</i>

- April 21 ["B.C.'s watershed protection plan needs more funding says Okanagan water board,"](#) *Global Okanagan*
- April 21 ["Okanagan water board urging BC government to 'be bolder',"](#) *KelownaNow.com*
- April 21 ["Okanagan Water Board announces grant awards to address valley water challenges,"](#) *WaterCanada.net*
- April 24 "Okanagan Basin Water Board wants provincial watershed fund to be 10 times larger," *Castanet.net*
- April 24 ["Public access to waterfront, marina expected in Kelowna Tolko redevelopment plan,"](#) *InfoNews.ca*
- April 24 ["Winnipeg selected as HQ for Canada Water Agency as stakeholders await official mandate,"](#) *Environmental Science & Engineering Magazine*
- April 25 "Sutherland Bay marina plan to be studied; Water quality a key issue around marina proposal for former Tolko mill site," *Kelowna Daily Courier*

Recent Presentations

- March 30 "OBWB's Role in Source Protection & Watershed Security Governance" to Water Supply Association of B.C. – Anna Warwick Sears and Kellie Garcia
- April 20 "OBWB Update & Board Training" to RDNO board and staff – Anna Warwick Sears
- April 20 "Climate change & the future of Okanagan water," to Okanagan Climate Hub – James Littlely
- April 25 "Climate change & the future of Okanagan water," to Southern Interior Local Government Assoc. – James Littlely

Upcoming Presentations

- April 27 "Hydrology modeling in the Okanagan and Similkameen" to International Joint Commission and Boards of Control – Anna Warwick Sears

DROUGHT CLASSIFICATION SYSTEMS USED IN B.C.

This primer was developed to address potential miscommunication and misunderstanding around drought levels in British Columbia. This is intended to explain the differences between federal, provincial, and local drought declarations in B.C.

Drought is a recurring feature of climate involving a deficiency of precipitation over an extended period, resulting in a water shortage for activities, communities, or aquatic ecosystems. In B.C., drought can be caused by a combination of several factors, including insufficient snow accumulation, hot and dry weather, or a delay in rainfall.

No universally applicable tool is available for measuring drought. Instead, various agencies have created definitions and indicators to measure and define the extent and severity of drought based on criteria significant to the agency's mandate. Three classification systems are used in B.C.:

- A. LOCAL DROUGHT STAGES** enacted by local water suppliers,
- B. PROVINCIAL DROUGHT LEVELS** put in place by the B.C. Government, and
- C. FEDERAL DROUGHT RATINGS** declared by the Canadian Drought Monitor. Geographical areas can have overlapping drought classifications at the same time.

A. LOCAL DROUGHT STAGES

Local water suppliers use water regulation bylaws and drought/water shortage plans with restriction stages to manage their water supplies and water distribution conditions in times of drought or emergency water shortage. **Stages vary between purveyors and are based on local conditions, including infrastructure capacity, customer demand, weather and moisture conditions, and current water storage.** Typical stages and descriptions are shown in Table 1.

Local decisions on appropriate water restriction stages are not required to match the "Provincial Drought Levels," which are determined at a regional scale. That said, water restriction stages and provincial drought levels will tend to both increase as drought worsens.

Table 1. Typical stages and descriptions used by water suppliers

STAGE	DESCRIPTION
Normal	Defined by the ability to meet or exceed the average storage condition.
1 - Dry	Mild drought or minor limitations on supply. First indication of potential water shortage.
2 - Very dry	Major infrastructure limitations on supply or a moderate drought resulting from prolonged periods of no rain and hot, dry weather and/or below-average snowpack conditions. Water supply is becoming stressed.
3 - Extremely dry	Severe drought, when water supplies are at a critical shortage level, or upland fire, or failure of key infrastructure.
4 - Emergency	Loss of supply via loss of storage or due to contamination or loss of critical infrastructure.

Current watering restriction stages are usually posted on water supplier websites. Watering restriction stages in the Okanagan can be searched [here](#).

B. PROVINCIAL DROUGHT LEVELS

The [Government of B.C.](#) focuses on managing hydrological drought, typically defined as a reduction in lake levels, a decrease of streamflow, and/or a lowering of groundwater levels over large areas. They use four core indicators and several supplemental indicators to classify drought under a six-category system from Level 0 to 5 (see Table 2). The two core indicators for the early season forecast include basin snow measures and seasonal volume runoff forecasts, while the two core indicators used during the drought season include 30-day precipitation percentiles and 7-day average stream flow percentiles. Additional types of drought and details about drought levels can be found in the [B.C. Drought Response Plan](#).

Table 2. Levels used by the provincial government to define hydrological drought.

LEVEL	IMPACTS
0	There is sufficient water to meet socio-economic and ecosystem needs
1	Adverse impacts to socio-economic or ecosystem values are rare
2	Adverse impacts to socio-economic or ecosystem values are unlikely
3	Adverse impacts to socio-economic or ecosystem values are possible
4	Adverse impacts to socio-economic or ecosystem values are likely
5	Adverse impacts to socio-economic or ecosystem values are almost certain

The [B.C. Drought Information Portal](#) provides map-based information on provincial drought levels and is updated regularly during the drought season.

C. FEDERAL DROUGHT RATINGS

The [Canadian Drought Monitor](#) (CDM), led by Agriculture & Agri-Food Canada, combines multiple indicators and impacts (meteorological, agricultural, hydrological, and others) to assess the current drought risk across the country.

A five-category drought rating system from D0 to D4 is used by the CDM to communicate risk, with D0 indicating abnormally dry conditions, and D1 to D4 indicating moderate to exceptional drought (Table 3). The ratings are shared through monthly maps that show the extent and intensity of drought across Canada. The information is also fed into the North American Drought Monitor, a cooperative effort between drought experts in Canada, the United States, and Mexico.

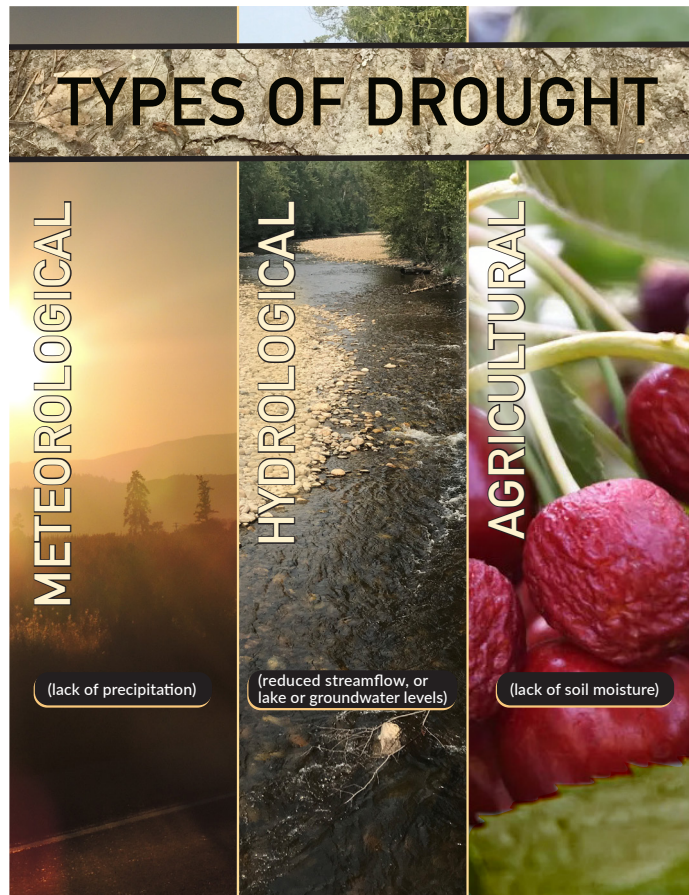
Table 3. Drought ratings used by the Canadian Drought Monitor

RATING	DESCRIPTION
D0	Abnormally dry
D1	Moderate drought
D2	Severe drought
D3	Extreme drought
D4	Exceptional drought

The [CDM website](#) includes a variety of products and information about current and historic drought conditions across the country. For additional information, please refer to the [About](#) section on the Canadian Drought Monitor page.

TYPES OF DROUGHT

Local water suppliers, and provincial and federal agencies determine drought levels, stages and ratings based on indicators that measure three types of drought: meteorological (lack of precipitation), hydrological (reduced streamflows, or lake or groundwater levels), and agricultural (lack of soil moisture). Please see graphic to the right for a visual representation of types of drought.



For more information about this primer, please contact:

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