

25th Anniversary of the International Watersheds Initiative International Joint Commission

Summary of the April 2023 Workshop
Washington, D.C.





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Context

The International Watersheds Initiative (IWI) emerged 25 years ago in 1998. Its goal is to help prevent or resolve transboundary water issues, grounded in the belief that local communities, given appropriate assistance, are best placed to achieve solutions. The IWI has provided a holistic approach to water management that, through IWI-supported projects, enables IJC boards to gain a better scientific understanding of problems and communicate findings to binational resource managers, and communities in the basin thereby providing a progressive means by which the IJC and its boards can deliver on their individual mandates.

Under the conflict prevention and resolution goal of the IWI as agreed to by governments in 1998, the IWI has three objectives:

1. Contributing to the prevention and resolution of watershed issues by building a shared scientific understanding of watershed issues by harmonizing data and information, developing shared tools, knowledge and expertise, and expanding outreach to and cooperation among stakeholders and Indigenous communities.
2. Contributing to the prevention and resolution of watershed issues by communicating transboundary water issues at the local, regional, and national levels, including First Nations, Métis and Tribes, to increase awareness and understanding of these important issues.
3. Contributing to the prevention and resolution of watershed issues by facilitating discussions, participating in development of shared solutions, creating decision-making tools, fostering common ground, brokering resolutions, and bringing unresolved issues to the attention of the IJC, including by engaging with broader communities that are affected by these issues more directly.



The IWI framework, or problem-solving approach, is the result of extensive IJC efforts reaching back to 2008. IJC boards participated in a workshop in March 2008 and agreed on IWI operating principles in October of that year. Those principles are:

1. An integrated ecosystem approach to transboundary water issues;
2. Binational collaboration;
3. Involvement of local expertise;
4. Public engagement;

5. Balanced and inclusive board representation;
6. Open and respectful dialogue; and,
7. An adaptive management perspective.

IWI objectives and operating principles are pillars through which the IWI program does its work and supports Commission boards in their responsibilities.

In addition to supporting board projects, the IWI has also led to the creation of IJC watershed boards which have responsibilities aligned with the holistic approach of the IWI (water quality, quantity and aquatic ecosystem health) and also have local membership and Indigenous participation. Watershed boards are able to implement the benefits of this approach as they help the Commission to prevent and resolve disputes.

The Workshop

Nearly 50 people, representing past and present International Joint Commission (IJC) Commissioners, IJC staff, and IJC Board members, came together on April 27, 2023, in Washington, D.C. to reflect on the past, present, and future of the IWI (see Appendix A for List of Participants and Appendix B for the Workshop Agenda).

The intent of the workshop was to reflect on the origins, accomplishments, and lessons learned over the past 25 years of the IWI, and to initiate a process to hear from board members and other collaborators to identify the most significant needs, opportunities, and challenges facing the IWI over the next 3-5 years.

The workshop began with opening remarks by the IJC Commissioners Robert Sisson and Henry Lickers. The two coordinators of the IWI, Glenn Benoy and Mark Colosimo, also provided opening remarks.



Figure 1: Commissioners Henry Lickers and Rob Sisson provide opening remarks for the April 2023 IWI workshop.

Historical Reflections

Following the opening remarks, Ms. Irene Brooks (former IJC Commissioner from the United States), Dr. Murray Clamen (former Canadian Section Secretary for IJC), Dr. Gerry Galloway (former US Section Secretary for IJC) and Mr. Todd Sellers (longtime International Rainy-Lake of the Woods Watershed Board member) provided historical reflections on the IWI including watershed boards as an important aspect of the program. The speakers' PowerPoint presentations (in English) can be obtained upon request from the IJC, and the following narrative synthesizes common themes and lessons learned.

Building on the core objective of the 1909 Boundary Waters Treaty to “prevent and resolve disputes,” the IWI emerged in 1998 at the request of Canada and the United States as a framework to “meet the



Figure 2: Dr. Gerry Galloway presents to workshop participants at the April 2023 IWI workshop.

environmental challenges of the 21st century.” In response to this mandate, the IJC developed a framework for the IWI borrowing principles and lessons from the Boundary Waters Treaty, the Great Lakes Water Quality Agreement, and the “ecosystem” approach to natural resource conservation and management (see IJC website). The framework emphasized the following key elements or principles for developing institutional arrangements across transboundary watersheds:

International Watershed Boards:

- Organize around watersheds and ecosystems, regardless of political and jurisdictional boundaries;
- Adopt an integrated, holistic approach to watershed systems along with local and national governments;
- Empower local individuals, organizations, and governments to provide leadership in defining problems and developing and implementing solutions; and
- Enable watershed boards by providing funding, scientific and technical information, and other support via the IJC.



Figure 3: Dr. Gerry Galloway, Dr. Murray Clamen and former Commissioner Irene Brooks speak to workshop participants.

Dr. Clamen and Dr. Galloway noted several excellent publications and reports that explain the IWI framework, including but not limited to *The IJC and the 21st Century* (1997), available [here](#). The cover of this report illustrates the ripples created by a small stone tossed into a lake and how the ripples slowly encompass the entire lake. According to Dr. Clamen, this image (which was conceived by then IJC Commissioner Leonard Legault) provides a metaphor for how the IWI approach can and should work – i.e., how the work of IWI boards can evolve and expand over time to encompass the entire watershed in a holistic, integrated manner. In addition to this foundational report, the history of the IWI can be found

[here](#), and the principles of IWI can be found [here](#). The five Reports to Governments, produced every five years, can be found [here](#).

Todd Sellers reflected on his experience with the International Rainy-Lake of the Woods Watershed Board to highlight several themes and lessons learned. This Board was created in January 2013, from an amalgamation of the International Rainy Lake Board of Control and the International Rainy River Water Pollution Board. [More information on the Rainy – Lake of the Woods Watershed Board is available [here](#).] Specific water quality responsibilities for the broader Rainy-Lake of the Woods watershed were added to the board’s responsibilities at that time. The Board was formed to assist with binational coordination of water quality efforts for the entire transboundary watershed and to ensure compliance with the IJC’s order on the regulation of water levels on Rainy Lake and the Namakan Reservoir.

Mr. Sellers emphasized two important lessons from his experience. First, the ability for an IWI watershed board to emerge requires a local champion (a facilitative leader), someone who can create a sense of legitimacy and credibility, mobilize and engage the right people and jurisdictions, and to help build a sense of direction and momentum into a network to prevent and resolve problems. Second, the most effective role for the IJC is to enhance the capacity of the local watershed board by providing funding for priority project as well as providing knowledge, expertise, and backbone support. Mr. Sellers also reflected on the value of shifting to an ecosystem approach; broadening efforts on monitoring, assessing, and reporting on issues; and increasing the board’s capacity and resourcing to address issues. He also stated that it is important to manage the expectations of new board members.



What Catalyzes and What Enables?

The speakers identified three key variables that explain what catalyzes international watershed boards and what enables them to be effective:

- Transboundary problems are best addressed and resolved by the people living and working in particular watersheds.
- The IWI framework empowers local individuals, organizations, and jurisdictions to provide leadership in addressing water and related issues in transboundary watersheds. As emphasized by Todd Sellers, the success of IWI boards requires a local champion or what might be considered a facilitative leader – someone that can mobilize and engage the right people with the best available information to develop homegrown solutions for the watershed.
- The local international watershed boards are supported by national governments in the form of funding, knowledge and expertise, and backbone support.


What Constrains?

The speakers explained that during the early years local people agreed with the IWI vision in principle but struggled to imagine how to put this theory into practice. Murray emphasized that the IWI concept really got traction when Irene Brooks and her Canadian counterpart, Jack Blaney, shifted the dialog from IJC imposing international watershed boards to a focus on local leadership (as emphasized by Todd Sellers).

While only three permanent international watershed boards have emerged over the past 25 years, the participants in the workshop noted that several other transboundary initiatives outside the IJC employ the IWI principles. This observation suggests that the IWI principles and framework have had a much larger ripple effect than the simple metric of how many IWI boards exist (once again, think about the cover of the report mentioned by Dr. Clamen).

At least in some cases, the emergence and functioning of international watershed boards over the past 25 years was constrained by:

- Local questions about how the two national governments will provide funding, expertise, and backbone support (What does this look like in practice?)
- Ambiguity over roles, responsibilities, and supervision (Who is the boss? How should local, subnational, and national jurisdictions coordinate and collaborate? What type of system should be put in place for decision-making and ongoing governance of an IWI board?)

- 
- The complex, multi-faceted nature of transboundary watersheds and the challenge of building a common understanding of the place and the problems (How big should the watershed be defined? How should data and information be shared and harmonized? What type of funding and backbone support is needed to address these and related issues?)
 - The difficulty of mobilizing and engaging the right people at the local level (How to build and maintain legitimacy, credibility, and political support? Who represents whom? How to mitigate burnout among participants?)

What Sustains?

Despite these constraints, the speakers emphasized that the IWI has been a success by any measure (see PowerPoint presentations for a detailed summary of accomplishments), and will continue to grow and be relevant as needed. Several participants noted throughout the workshop that IWI is a well-established binational institutional framework available to address transboundary water and related issues along the 49th parallel. By definition, transboundary issues go beyond the authority of any local, regional, or national jurisdiction, and therefore some type of collaboration is required to bring together the right people with the best available information to generate solutions that work. IWI provides a well-established collaborative framework.

As highlighted by several Indigenous participants in the workshop, IWI provides a framework to respect all the inhabitants of a watershed, to honor and respect people and nature, and to recognize the spiritual values of water and nature. It compels people to “see the whole watershed,” a simple vision that requires a massive undertaking. Nevertheless, the speakers and participants emphasized that it is the right approach (maybe the only approach) to address number of issues in transboundary watersheds, including but not limited to growth and development, climate change, energy development, environmental issues, water supply and demand, habitat loss and invasive species, and infrastructure needs.

The IWI and the international watershed boards that emerged over the past 25 years have been successful and sustainable because they empower local people with the support of national governments; integrate land, water, and related issues at the scale of a watershed; create an opportunity for all relevant jurisdictions, Indigenous people, and stakeholders to participate in collaborative problem solving. In addition to relying on local champions and mobilizing around an identifiable problem, threat, or opportunity (see key lessons from Case Studies below), it is essential to employ the KISS principle (“Keep It Simple Sir”) - this principle was stressed in Dr. Galloway’s presentation. Highlighting and learning from international watershed board successes in solving specific problems can be an important guide to others looking to the IWI in the future.



Successes and Key Lessons from Case Studies

Following the historical reflections, three speakers highlighted IWI project successes and lessons learned from four different IJC boards' projects. The materials used for these presentations are available from the IJC upon request.

St. Croix River

The International St. Croix River Watershed Board was the first international watershed board designated by the IJC in April 2007. The Watershed Board was created through the amalgamation of the International St. Croix River Board of Control and the International Advisory Board on Pollution Control – St. Croix River in 2000 and following a new directive issued by the Commission in 2007. The Board helps to prevent and resolve disputes over the boundary waters of the St. Croix River, monitors water quality and the ecological health of these waters and ensures that four dams comply with the Commission's Orders of Approval. It was catalyzed by the need for harmonized transboundary datasets and hydraulic modeling efforts to understand issues such as efforts to restore alewife, a common sea-run fish, and water quality concerns linked to combined sewer overflows.


This case study illustrates one of the most unique features of the IWI – the ability to integrate local needs and interests and leverage the resources provided via the IJC and the two national governments (in particular, facilitate leadership, scientific and technical capacity). Working together, the local watershed board and the IJC demonstrated the ability to engage Indigenous people, local stakeholders and organizations, use the best available science, and collaboration to seek consensus on strategies to restore alewife and to then implement, monitor, and adapt those strategies.

For more information on the Board, visit their website [here](#). More information on the success of alewife restoration can be found [here](#).

Red River

The Red River basin has had a long history of IJC involvement beginning in 1948 and evolving over time to address both water apportionment and pollution. In 2001, the IJC combined two boards, the International Souris-Red Rivers Engineering Board and the International Red River Pollution Board into the International Red River Board. Following a pilot watershed board project started in 2005, the International Red River Watershed Board was officially designated as a watershed board in August 2021. The catalyst for this board was a series of threats to the aquatic ecosystem, including but not limited to flooding, algal bloom/water quality, and associated land use.

This case study illustrates two of the key elements of IWI. First, the value of taking an ecosystem perspective on the issue of water quality. The participants learned early on that the only way to address the transboundary algal bloom was to work together, and the IWI framework provided an ideal platform



for various jurisdictions and stakeholders to come together. Second, the participants developed a joint fact-finding, collaborative strategy to fill data gaps and develop and implement a nutrient management plan to address the algal bloom.

This case study is also a good example of resource leveraging and giving the needed time to establish water quality standards (in this case it took 11 years to move from developing the first nutrient related water quality project to the governments' acceptance of nutrient standards).

More information on this case study is available [here](#).

Osoyoos Lake

The International Osoyoos Lake Board of Control was established by the IJC in September 1946, before the emergence of the IWI. The purpose of this Board is to address social, economic, and environmental issues associated with the operation of Zosel Dam, built in 1927 on the Okanogan River below Osoyoos Lake. Zosel Dam was rebuilt in its current form in 1988. The IJC updated its Orders of Approval for the dam in 1982 and most recently in 2013.

Unlike the other case studies, this Board is not an international watershed board. Through board public meetings and local discussions, such as the IWI supported Osoyoos Lake Water Science Forums, the board and local communities have identified interconnected, ecosystem concerns in the basin that could benefit from a watershed board construct. These concerns are compounded by drought and flooding, both caused or enhanced by climate change, which the Board has been focusing on by modeling climate change scenarios and impacts related to the operation of the dam.

Two key lessons emerge from this case study. First, the IWI framework is the only platform to facilitate binational transboundary cooperation and collaborative problem-solving on transboundary watersheds along the Canadian/United States border. No other entity has the responsibility, authority, or legitimacy to bring together the right people with the best available information to address transboundary issues. The speaker noted, if the IJC board does not do it, nobody will. The IWI framework is a very flexible, adaptive model that empowers local individuals and groups to engage in an inclusive, collaborative process. Second, the willingness and ability of the two national governments to invest funding for scientific and technical studies (joint fact finding), including climate change modeling and scenario building, is absolutely essential.

More information on this case study is available [here](#).

Most Significant Needs, Opportunities, and Challenges

After the historical reflections and case studies, the participants organized into six small groups (five in-person and one online) to address the question – “What is the most significant need, opportunity, and/or challenge facing the IWI over the next five years?” The participants moved through a process that allowed time for personal reflections followed by a round-robin sharing of ideas. After that, each small group engaged in a facilitated dialogue to build consensus on three significant needs, opportunities, and/or challenges. Finally, each small group shared their conclusions with all of the other participants followed by an open discussion.



Figure 4: Breakout groups discuss the IWI.

Based on this process, several common themes emerged [please note that these ideas are not presented in any order of priority; they are listed by number for ease of reference].

1. Adapt climate change models and scenarios to local watersheds.
 - Use this as an opportunity to demonstrate how to integrate western science and Indigenous knowledge.
 - Consider the option of creating some type of climate change consultant team to support this type of effort (see, for example, the consulting group in the St. Croix watershed).
 - Encourage international watershed boards to establish some type of climate change committee and to integrate resilience strategies into work plans.
 - Provide international watershed boards a template or guidance document to support the process of adapting climate change models and scenarios to local watersheds.
2. Support the meaningful engagement of Indigenous peoples in watershed efforts.
 - Identify opportunities to move from simply engaging Indigenous people to shared decision-making and co-management.
 - Explore the possibility of jointly developing a strategy or policy to support meaningful engagement of Indigenous people as part of the permanent structure of the IWI.

- Provide resources to enhance the capacity of Indigenous people to meaningfully participate.
- Clarify how IWI boards are relevant and value-added to Indigenous communities.
- Provide training, with Indigenous leaders, on how best to mobilize and engage Indigenous individuals, organizations, and communities into watershed efforts.
- Identify opportunities to blend traditional ecological knowledge with western science.



Figure 5: Breakout groups present the takeaways from their discussion.

3. Explore the merits of recognizing and supporting well-established transboundary watershed initiatives along the international border that operate outside IJC but employ IWI principles and practices.
 - Create opportunities for well-established, high-functioning transboundary watershed groups to have access to IWI resources without official “references” from the two national governments.
 - Develop a policy framework that would create an option to integrate these efforts into the IWI portfolio and offer support similar to that provided to international watershed boards in terms of funding, collaboration, scientific and technical expertise, and backbone support.
 - Among other benefits, this opportunity would acknowledge the influence of IWI principles beyond officially established international watershed boards.
4. Develop and/or refine a multi-objective communications plan.
 - One objective could be to raise awareness, understanding, and support for IWI by explaining the purpose, scope, philosophy, and benefits of IWI. The target audience for this information could be decision-makers and the general public, as well as watersheds that have not yet developed a transboundary watershed group. Use simple language and avoid scientific and technical jargon. The intent here, at least in part, is to demystify IWI and to build political and cultural support for the theory and practice of IWI.
 - Another objective is to use appropriate communication materials and tools as a way to inform, inspire, and recruit future IWI board members (including Indigenous members). This type of tool could be used to help address the issue of IWI board capacity and burnout.
 - A third objective of a communications plan could be to make scientific and technical information more accessible and understandable, and to use this as one tool to harmonize data across the international border.
 - A fourth objective could be to facilitate information sharing across international watershed boards.

5. Enhance the capacity of IWI and international watershed boards.

- Address ongoing needs and opportunities related to financial capacity, human capacity (leadership, board members, and staff), and knowledge capacity.
- Continue to provide funding to support board members as well as the IWI in general. Explore opportunities to leverage funding from other IJC sources, government agencies, and philanthropy.
- Ensure that IWI is ready to move when a local champion emerges and is ready to build a “coalition for change” in a transboundary watershed. Be mindful of the capacity and bandwidth of individuals participating on international watershed boards, and develop strategies to avoid burnout (e.g., create awards recognizing people’s contributions, support mini-sabbaticals to allow board members to renew and recharge, and so on).
- Take advantage of diverse sources of knowledge, but don’t assume that more and better data will necessarily lead to more robust participation and collaborative problem-solving. Strike a balance between investing in data, engagement, and collaborative action, while maintaining an expectation of ongoing learning and adaptive management.



Figure 6: Breakout groups present the takeaways from their discussion

Conclusions and Next Steps

Throughout the workshop, the sense of the participants was that the sun is still rising on the IWI (not setting), and that international watershed boards will emerge and evolve to address the needs, interests, and priorities of transboundary watersheds. There was general consensus that IWI is essential because it provides a social and institutional structure to enable transboundary cooperation that does not otherwise exist. It is an adaptive framework that allows local individuals and groups to prevent and resolve transboundary water and related issues.

The outcomes of this workshop, particularly the most significant needs, opportunities, and challenges identified above, will continue to be developed and refined over the coming months. As part of this future planning for the IWI, this information will be used to help frame the fall 2023 IWI workshop in Ottawa, and will be integrated into the 25th anniversary showcase report celebrating the IWI.

Appendix A: List of Participants

Name	Organization Acronym
IN-PERSON	
Richard Aisaican	Cowesses First Nation
Col. John Atilano	USACE
Glenn Benoy	IJC
Barbara Blumeris	ISCRWB
Irene Brooks	Guest speaker - former US Commissioner/Chair
Kevin Bunch	IJC
Rob Caldwell	IJC
Karen Cederwell	IRLWWB
Patrick Cherneski	IRRWB
Murray Clamen	former IJC secretary - CDN
Patricia Clavet	GLAM/LOSLRB
Mark Colosimo	IJC
Desiree Estephan-Saliba	IJC
Frank Ettawageshik	GLWQ Board
Alexandria Farrell	IJC
Jesse Feyen	NOAA
Gerry Galloway	former IJC secretary - US
Adam Greeley	IJC
Heather Hardcastle	Salmon Beyond Borders
Theresa Haugen	MPCA
Melissa Kropfreiter	USACE
Michael Laitta	IJC
Catherine Lee-Johnston	IJC
Wendy Leger	GLAM Committee
Brian Maloney	IJC
Cameron Marshall	USGS
Dena McMartin	ISMMRSB
Semra Mesulam	IJC
Sonja Michelson	USACE
Abigail Moore	USACE
Nicole O'Brien	ECCC
Ted Priester	RRBC
Megan Royal	USACE
Girma Sahu	IRRWB
Rebecca Seal-Soileau	USACE / IRRWB
Todd Sellers	IRLWWB
Avni Solanki	IJC
Martin Suchy	ECCC
Col. Eric Swenson	IRRWB/USACE



Jeremy Trombley	IJC
Breanna Walker	Salmon Beyond Borders
April Walker	IRRWB
Chris Warren	USACE
Anna Warwick Sears	IOLBC
Shawn Young	Kootenai Tribe of Idaho

VIRTUAL

Tim Calappi	USACE / ILSBC
Brian Caruso	USFWS
David Fay	IJC
Doug Franchot	IRLWWB
Marc Hudon	LOSLR
Elizabeth Jameison	IRLWWB
Maria Jawaid	ECCC
Theresa Kuklinski	EPA
Serge Lepage	LCRR
Teika Newton	IRLWWB
Jim Stark	IRLWWB

Appendix B: Workshop Agenda

April 2023 IWI Workshop Agenda –

The International Watersheds Initiative – 25 years and beyond

Date: Thursday April 27, 2023

Time: 9:00am-12:30pm (eastern)

TEAMS link: [Click here to join the meeting](#)

Location:

Westin DC City Center - Downtown Washington D.C. Hotels | The Westin Washington D.C. City Center (marriott.com)

1400 M St. NW

Washington, D.C. 20005

Monticello Room (downstairs Monticello level)

Goal: To reflect on the International Watersheds Initiative and consider future opportunities


Objectives:

1. To identify potential future initiatives for the IWI program
2. To enable information sharing between boards (e.g., opportunities for different board types, types of projects which can be supported by IWI, IWI partners, etc.)
3. To provide discussion and reflection on the IWI’s mission, successes and results, and future opportunities and challenges for the program

Facilitator: Matt McKinney

Time	Topic	Lead
0900-0905	1. Welcome and Introductions from IJC Commissioners	Current Commissioners
0905-0915	2. The International Watersheds Initiative – 25 years – the program, history, and key aspects	IWI Coordinators Mark Colosimo and Glenn Benoy

0915-1015	<p>3. Establishing the IWI: from inception to implementation <i>A discussion with IJC Commissioners, staff and board members who developed, created and contributed to the IWI on their intent for the program, how the IWI was operationalized over the past 25 years, its role and thoughts and considerations for the next 25 years</i></p>	<p>Invited Speakers, Staff, and board members, featuring:</p> <ul style="list-style-type: none"> • <i>Ms. Irene Brooks (former IJC Commissioner)</i> • <i>Dr. Murray Clamen (former Canadian Section Secretary for IJC)</i> • <i>Dr. Gerry Galloway (former US Section Secretary for IJC)</i> • <i>Mr. Todd Sellers (current IRLWWB member)</i>
1015-1045	<p>4. Case studies</p> <ol style="list-style-type: none"> <i>a. St. Croix River – alewife restoration projects (Ms. Barbara Blumeris)</i> <i>b. Red River – water quality projects (Mr. Patrick Cherneski & Col. Eric Swenson)</i> <i>c. Osoyoos Lake – climate change impacts assessment (Dr. Anna Warwick Sears)</i> 	Boards and partners
1045-1100	Break	
1100-1215	<p>5. Discussion of challenges and opportunities for the IWI as a program over the next 25 years:</p> <ol style="list-style-type: none"> a. bi-national water management challenges that could be an opportunity for the IWI to address; b. opportunities for boards (e.g., potential project partners, project types); c. Institutional challenges for the IWI (e.g., increasing impacts of climate change; funding and time constraints for agencies staffing IJC boards); d. opportunities for IWI (e.g., strategic initiatives, partnerships, etc.); 	Facilitated and Breakout table discussion



1215-1225	6. Summary of the day – what we heard, key learnings and next steps	Facilitator
1225-1230	7. Closing	IWI Coordinators Mark Colosimo and Glenn Benoy