INTERNATIONAL OSOYOOS LAKE BOARD OF CONTROL (IOLBC)

Annual Public Meeting Minutes

Thursday October 3, 2024
6:30 – 8:00 PM (PDT)

In-Person (Oroville High School Library, Oroville, WA)
Virtual Attendance (Zoom Webinar)

BOARD MEMBERS

Scott VanderKooi	Co-Chair, U.S. Section
Dave Hutchinson	Co-Chair, Canadian Section
John Arterburn	Board Member, U.S. Section
Col. Kathryn Sanborn	Board Member, U.S. Section
Kris Kauffman (virtual)	Board Member, U.S. Section
Arnie Marchand	Board Member, U.S. Section
Connie Chapman	Board Member, Canadian Section
Sue McKortoff	Board Member, Canadian Section
Brian Symonds	Board Member, Canadian Section
Anna Warwick Sears (absent)	Board Member, Canadian Section

BOARD STAFF and ASSISTANTS

Sarah Dunn	Secretary, U.S. Section
Martin Suchy	Secretary, Canadian Section
Sonja Michelsen	Technical Advisor to Col. Kathryn Sanborn
Jamie Kolodinsky	Assistant to Martin Suchy
Katie Slimmon (virtual)	Assistant to Martin Suchy

IJC REPRESENTATIVES

Lance Yohe (virtual)	Commissioner, U.S. Section
John Allis	Senior Engineering Advisor, U.S. Section
Rob Caldwell	Senior Engineering Advisor, Canadian Section
Catherine Lee-Johnston (virtual)	Environmental Advisor, Canadian Section
David Hermann (virtual)	Senior Policy Advisor, U.S. Section
Jeff Kart (virtual)	Communications Advisor, U.S. Section
Christina Chiasson (virtual)	Communications Advisor, Canadian Section

GUESTS

James Littley	OBWB Deputy Administrator to board member Anna Warwick Sears
Felicia Minotti	Global Affairs Canada

ACRONYMS

IJC	International Joint Commission
IOLBC	International Osoyoos Lake Board of Control
OBWB	Okanagan Basin Water Board
IWB	International Watershed Board
IWI	International Watershed Initiative
NHC	Northwest Hydraulic Consultants
USGS	U.S. Geological Survey
cfs	Cubic Foot per second
cms	Cubic Meter per second

Welcome, Introductions, and Review of Agenda

The meeting was opened at 6:30 p.m. by Mr. Scott VanderKooi (Board Co-Chair, U.S. Section) with welcoming remarks, land acknowledgment, and introductions of the board members and IJC Commissioners. He then reviewed public meeting protocols and the agenda for the meeting. The meeting followed a hybrid model with participants both in-person at the Oroville High School library and online using Zoom. Five (5) people were present in-person, while seven (7) public members participated online.

IJC and the Osoyoos Lake Order of Approval

Mr. VanderKooi presented an overview of the IJC, IOLBC, and the IJC Orders of Approval for Osoyoos Lake. He provided a summary of changes to IJC and IOLBC membership. He summarized the history and purpose of the IJC beginning with the Boundary Waters Treaty and the subsequent IJC Orders for Osoyoos Lake and the establishment of the International Osoyoos Lake Board of Control. The Board's mandate is to monitor compliance of Osoyoos Lake and Zosel Dam operations with the terms of the IJC Orders. The Board also monitors drought criteria outlined within the Orders, and communicates with the IJC, Tribes, First Nations, and the public. Mr. VanderKooi presented the rule curve of allowable lake levels for Osoyoos Lake from the 2013 Supplementary Orders of Approval. He discussed the impacts of backwater from the Similkameen River on Osoyoos Lake levels and the allowance for reasonable ramping rates.

Osoyoos Lake Levels and Order Compliance

Ms. Sarah Dunn (Board Secretary, U.S. Section) provided an overview of Osoyoos Lake as a transboundary body of water. She summarized the hydrologic conditions from the past year. Snowpack remained low in both the Similkameen and Okanagan basins at multiple elevations, at times reaching historical lows. In the summer, air temperatures fluctuated from cooler than normal conditions in June to warmer than normal in July and parts of August and September.

The Board monitored hydrologic conditions to determine whether specific drought criteria had been met for the operation of Osoyoos Lake. Three criteria, outlined in the IJC Orders, were used: the flow volume of the Similkameen River, the net inflow to Okanagan Lake, and the Okanagan Lake level. In 2024, the first criterion for determining drought was met because the volume of flow in the Similkameen River at Nighthawk, WA for the period April through July was 753,000 ac-ft (929 million m^3) which is less than the 1 million ac-ft (1233 million m^3) threshold. The second criterion was effectively met because the net inflow to Okanagan Lake for the period April through July was 198,000 ac-ft, which is less than 2% above the 195,000 ac-ft (241 million m^3) threshold and therefore considered to be within the range of uncertainty for the measurement. The third criterion was not met because the Okanagan Lake level surpassed the 1122.6 ft (342.2 m) threshold in June. In April 2024, the low winter snowpack and early season forecasting indicated that drought criteria would likely be met, so the Board notified the Washington State Department of Ecology (the Applicant) of the preliminary drought declaration. The drought declaration allowed Ecology to operate Osoyoos Lake within a wider range of allowable levels. Ecology remained in compliance with the IJC Orders in 2024.

Ms. Dunn noted that the outlet of Osoyoos Lake experienced an ice jam event in January 2024 that briefly decreased flows in the Okanogan River downstream of Osoyoos Lake. Flows in the Okanogan River were low through the spring, with a small freshet. Reservoir Operators coordinated an increase in releases in late August – early September to facilitate fish passage past Zosel Dam. The IJC Orders specify that Zosel Dam's control gates must have the capacity to pass at least 2,500 cfs (70.8 cms) of water when Osoyoos Lake is at or above 913 ft (278.3 m) and there is no backwater effect from the Similkameen River. In 2024, Osoyoos Lake did not reach 913 ft, so the channel conveyance could not be verified.

Ms. Dunn summarized seasonal forecasts for the upcoming year provided by U.S. and Canadian agencies. The forecasts were not in agreement regarding the probability of above or below average temperature and precipitation in the next three months. However, there was a 71% chance of a weak La Nina developing, which typically corresponds to cooler temperatures and increased precipitation as snow in the Okanagan region.

Special Projects and Initiatives

Phase II Model Integration

Ms. Dunn presented slides provided by the NHC team completing a special project for the Board. The objective of the project is to assess the vulnerability of Osoyoos Lake to climate change. The first phase of the project focused on the Similkameen Basin and was completed in 2021. Modeling efforts indicated that warmer temperatures and increased fall and winter precipitation were likely under future climate scenarios. Modelling also indicated that peak snow melt (freshet) likely will shift earlier and become smaller. The seasonal Similkameen River flow volume is likely to decrease, meaning that the Similkameen portion of the drought criterion will be met more often, depending on the timeframe in the future.

The second phase of the project integrates the modeling of the Similkameen Basin with new modeling efforts for the Okanagan Basin and Osoyoos Lake. The NHC is using data from a range of global climate models and emission scenarios to evaluate potential variability. They have downscaled climate models which are now available on the Okanagan Basin Water Board website.

Within the Okanagan Basin, climate change projections showed a trend of rising temperatures throughout all months of the year, with the period below freezing (32°F / 0°C) shortening from November – March to December – February in the most extreme scenario.

Annual precipitation is forecast to be more variable with time but generally increased in winter months and decreased in the summer. This effect combined with shorter freezing periods means less precipitation falling as snow. Under future climate scenarios, the average snowpack is expected to decrease, with melt beginning earlier. As a result, the pattern of the inflow hydrograph to Okanagan Lake is expected to change. The freshet, which historically occurred in May or June, likely will shift earlier and decrease in magnitude.

The NHC is combining two hydrologic models to better understand the interactions between the Okanagan Basin and Osoyoos Lake, and the Similkameen River. They are incorporating information about lake operations and will be able to simulate the backwater effect and long-term lake levels. The project is nearing completion.

Ice Jam Project

Ms. Dunn presented slides provided by USGS scientists who are investigating ice jams on Osoyoos Lake as a special board project. In recent years, ice jams have formed at the southern outlet of Osoyoos Lake. The jams prevent downstream flow in the Okanagan River, and the abrupt decrease in flow may have negative impacts on aquatic communities, including salmon. Given these concerns, the Board proposed to study the occurrence and frequency of ice jams on Osoyoos Lake and determine the meteorological variables most strongly associated with ice jam events. The USGS has shared a draft report with the board and expects the final report to be made available to the public in early 2025.

IJC International Watershed Board Initiative

Ms. Catherine Lee-Johnston (IJC Environmental Advisor, Canadian Section) and Mr. David Hermann (IJC Senior Policy Advisor, U.S. Section) spoke about the IJC's International Watershed Initiative (IWI) and International Watershed Boards (IWBs). Both efforts aim to address international water management challenges by taking a holistic approach, inviting local membership and indigenous participation, and expanding the mandate and types of projects that may be completed. Watershed boards may undertake a broader array of activities than control boards, such as water quality and ecosystem health. The IJC is conducting a feasibility study to determine if the Osoyoos Board might be converted from a control board to a watershed board. The study will likely involve meetings with interested parties in the basin, including the public. There may also be opportunities for members of the public to serve on the

feasibility study team; those interested were encouraged to contact Mr. Hermann and Ms. Lee-Johnston.

Osoyoos Board Communications

Ms. Dunn reminded attendees that they could sign up to receive notifications of Board news by visiting the Board's website.

Questions and Comments

Q1: What is the end game of the ice jam study? What are you trying to figure out?

A1: Mr. VanderKooi responded that the study aims to find out why ice jams occur, given that it appears they are becoming more frequent. The first part of the study is focused on understanding the cause. The Board is also interested in determining whether there are ways to mitigate ice jams. Mr. John Arterburn (Board member, U.S. Section) added that from a fisheries perspective, the downstream impact on fish is most concerning, though the Board is also concerned with lake level elevations. There are solutions and the board is looking into what might be feasible for mitigation.

Q2: I was at the meeting last year, there were questions about water quality becoming a part of this study, is that still in the works?

A2: Mr. VanderKooi responded that the current scope of the Board remains focused on water level management, but the IJC is still considering the merits of an IWB. Converting the Board to the IWB structure would open avenues for incorporating water quality.

Q3: Would the board of control be part of the watershed board?

A3: Mr. VanderKooi responded that the structure of an IWB is flexible and would be determined during the feasibility study. One possibility is that the current board of control might be incorporated into a watershed board. Mr. VanderKooi noted the previous discussion of how the current board already resembles a watershed board due to its larger size, public board membership, and breadth of special projects. Mr. Hermann added that the conversion would almost certainly require an update to the IJC's mandate to the Board and that this is an involved process that moves slowly, but the IWB feasibility study is the next step.

Meeting Adjournment

The 2024 IOLBC Public Meeting ended at 7:40 pm PDT