

Meeting Minutes

Annual Public Meeting, International Osoyoos Lake Board of Control (IOLBC)

Wednesday October 26, 2022

6:30 – 8:00 PM (PDT)

In-Person (Oroville High School, 1016 Ironwood Street, Oroville, Washington)

Virtual Attendance (GoToWebinar)

ACRONYMS

IJC	International Joint Commission
IOLBC	International Osoyoos Lake Board of Control
OBWB	Okanagan Basin Water Board
OLWSF	Osoyoos Lake Water Science Forum
IWI	International Watershed Initiative

BOARD MEMBERS

Dave Hutchinson	Co-Chair, Canadian Section
Cindi Barton	Co-Chair, U.S. Section
Ted White	Board Member, Canadian Section
Sue McKortoff	Board Member, Canadian Section
Brian Symonds	Board Member, Canadian Section
Anna Warwick Sears	Board Member, Canadian Section
John Arterburn	Board Member, U.S. Section
Col. Xander Bullock	Board Member, U.S. Section
Kris Kauffman	Board Member, U.S. Section
Arnie Marchand	Board Member, U.S. Section

BOARD STAFF and BOARD MEMBER ASSISTANTS

Andy Gendaszek	Secretary, U.S. Section
Martin Suchy	Secretary, Canadian Section
Sonja Michelsen	Technical Assistant to Colonel Xander Bullock
Cameron Wyndham	Assistant to Martin Suchy

IJC REPRESENTATIVES

Lance Yohe	Commissioner, U.S. Section
Adam Greely	Senior Advisor, U.S. Section
John Allis	US Engineering advisor)
Rob Caldwell	Engineering Advisor, Canadian Section
Paul Allen	Canadian Communications advisor

Guests

Derek Mendoza	Oroville-Tonasket Irrigation District Manager
Felicia Minotti	Global Affairs Canada

Welcome, Introductions, and Review of Agenda

The meeting was opened at 6:30 p.m. by Dr. Cindi Barton (Board Chair, U.S. Section) with welcoming remarks and introductions of the Board members and IJC Commissioners who were in attendance. Dr. Barton then reviewed the protocols and the agenda for the Public Meeting. The meeting followed a hybrid model with participants both in-person at the Oroville High School library and online using GoToWebinar. Four people were present in-person, while two public members participated online.

IJC Order of Approval

US Section chair Cindi Barton presented an overview of the IJC, IOLBC, and the IJC Orders of Approval for Osoyoos Lake. She 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 in 1946. She reviewed the history of Zosel Dam from its initial construction in 1927 to construction of the present control structure in 1988, and the history of its regulation of Osoyoos Lake levels under the IJC Orders that were initially established in 1946 and subsequently revised in 1978, 1982, 1985, and most recently in 2013 under IJC Supplementary Orders of Approval. The 2013 Supplementary Orders of Approval redefined the rule curve of allowable lake levels for Osoyoos Lake, updated drought criteria, considered ramping rates, and directed the Board to consider adaptive management with flexibility in renewing the orders that must be revisited every 25 years. She described the activities of the IOLBC including ensuring compliance of the Applicant with the Orders, monitoring drought criteria outlined within the Orders, meeting quarterly for Board conference calls, communicating hydrologic conditions and Zosel Dam operations to the IJC and the public, and developing special projects to develop technical understanding of the Okanagan/Okanogan and Similkameen watersheds and communicate Board activities.

Hydrologic Conditions and Lake Levels in 2022

Ted White (Board Member, Canadian Section) presented a review of the hydrologic conditions of Osoyoos Lake, the Okanagan/Okanogan River, and the Similkameen River during 2022. Temperatures were near normal for most of the winter period but changed to much below normal for April. Temperatures then increased from below normal in May to slightly below normal in June and above normal by July. Precipitation was much below normal from February to May and increased to below normal for June and July. The snowpack in the Similkameen Basin was near normal for most of the winter but began melting later than average due to the lower temperatures. The Okanagan Basin snowpack was below normal for the winter but peaked and melted later as well. The Similkameen freshet peak occurred in early June and the cumulative runoff exceeded the drought criteria of 1,000,000 acre-feet for April through July. Lake Okanagan elevation was below normal at the beginning of the year but peaked at above average levels during the summer months, around the same time as when weekly net inflows were greater than the historical average. Lake Okanagan elevation exceeded the drought criteria level of 1,122.6 feet in June and July and the lake's cumulative net inflow exceeded the drought criteria of 195,000 acre-feet for the April to July period. As none of the three drought criteria for the IJC Orders for Osoyoos Lake were met, no drought was declared for 2022. Osoyoos Lake elevation was in exceedance of the IJC Order Condition 7 and 8 allowable ranges in both June and July, though the applicant remained in compliance as Zosel Dam was in free fall during this time. There were no backwater conditions from the Similkameen River in 2022 and Osoyoos Lake levels peaked at 912.99

feet on June 22, at which time the flow through the Okanogan River at Oroville was 3,120 cfs. This technically fell short of the 913 feet elevation required to assess the conveyance of the Okanogan River (2,500 cfs with no backwater), however, for the purposes of the Order the discharge capacity was able to be demonstrated.

Zosel Dam Operations

Derek Mendoza (Oroville-Tonasket Irrigation District) presented an update on the operation of Zosel Dam on behalf of the Washington Department of Ecology, who is the owner of the dam, and the “Applicant” to the IJC Order of Approval. Zosel Dam was managed to maintain Osoyoos Lake levels within the IJC rule curve successfully in 2022. OTID maintains a good working relationship with Canadian operators and is in constant communications about changes in releases within the Okanogan system. OTID maintains a maintenance program and regular inspections.

Special Projects Updates

Martin Suchy (Board Secretary, Canadian Section) presented on the integration of the Similkameen hydrologic model with the Okanogan hydrologic model. In recent years the hydrologic regime of the basin has been that of either high runoff with flooding or low runoff with drought concerns. The Applicant has requested the Condition 10 variance to adopt the drought criteria rule curve three times since 2015, two of which have been granted. In response, numerical hydrologic and hydraulic models were to be developed to assess the impact of climate change on the IJC Orders for Osoyoos Lake with respect to the frequency and timing of deviations from the rule curve, and the frequency with which the drought criteria are met. These would rely in part on bathymetric mapping efforts recently completed throughout the basin and on both sides of the border. An Okanogan hydrologic model was previously completed through by the OBWB while the IJC-funded Similkameen model project was completed in 2021, and now a second phase integrating the two models and evaluating the Order against climate impacts is expected to be completed by March 2024. This will include updates to the models based on low flow conditions, climate projections and bathymetric mapping results, the development of a new channel hydraulic model on the U.S. side, the integration of all the models, subsequent analysis of the integrated model, and an evaluation of the IJC Order of Approval. Initial findings from Phase 1 show that the basin will experience a significant shift in its hydrologic regime by 2100, with the current snowmelt-dominated system being replaced by a mixed snowmelt/rainfall system in which there will be a diminished freshet, higher winter flows and lower late summer flows. Additionally, the 1 million acre-foot freshet threshold is expected to be triggered more and more often as this change takes place. Recommendations have been made to update options for seasonal forecasting and lake operations to potentially leverage the increase in winter flows.

Anna Warwick Sears (Board Member, Canadian Section) presented on the Osoyoos Lake Water Science Forum (OLWSF) being held from October 27-29, 2022 at the Sonora center in Osoyoos, BC. The event has been co-organized with the OBWB and will be hosted in partnership with the Osoyoos Indian Band and the Okanogan Nation Alliance. The event’s theme is “Bridging Indigenous and Western Approaches to Knowledge, Science and Management”. Topics will include climate change, Osoyoos Lake management, watershed influences, fisheries restoration, water quality and modernization of the Okanogan Lake regulation system. The event will also include a field trip to k̓l̓il̓x̓w (Spotted Lake) and the Nk’Mip Desert Cultural Centre. The forum provides an opportunity to learn about the water

management and ecological health issues of importance to Osoyoos Lake and the greater transboundary watershed. It also provides a resource for managers and stakeholders to share concerns and identify common goals and challenges to promote stewardship of the lake and its ecosystem.

Andy Gendaszek (Board Secretary, U.S. Section) presented on the IJC-IWI Ice Jam Study. The project was conceptualized due to the potential for the formation of ice jams at the southern margin of Osoyoos Lake. Ice jam formation can lead to reduced lake outflow during the winter months potentially endangering incubating salmon eggs. A proposal for the project has been accepted and a scope of work outlining a formal analysis of the history, frequency, and physical processes that contribute to ice jams has been submitted. The results of the study will be used to evaluate options for engineering solutions.

Public Comments

There were no questions from the public. The meeting was adjourned at 7:35 pm.