

MINUTES

International Osoyoos Lake Board of Control Public Meeting

Holiday Inn Sunspree Resort
7906 Main Street
Osoyoos, British Columbia

September 9, 2003
7:30 to 9:30 PM

Attendance

	Canada	United States
Chairs	Kirk Johnstone (host)	Dr. Cynthia Barton
Members	Glen Davidson for James Mattison Brian Symonds	Col. Debra Lewis Kris Kauffman
Secretaries	Daniel Millar	Robert Kimbrough
Guests	Commissioners: Irene B. Brooks, Allen I. Olson, The Rt. Hon. Herb Gray Murray Clamen (Secretary, Canadian Section, IJC), James Chandler (A/Secretary, US Section, IJC), Tom McAuley (IJC), Lisa Bourget (IJC), Larry Merkle (Corps), Marian Valentine (Corps), Nick Heisler (IJC), Ray Newkirk (Washington Dept. of Ecology) Greg Mulvihill & Janice Trevisan (Langley/ Osoyoos), Lionel Dallas (Osoyoos), Ralph & Margaret Keuler (Oroville), Walter Ullrich (Oroville), Wilbur Hallauer (Oroville), Ray Wilson (Oroville), Colin & Karen White (Osoyoos), Sherry Linn (Osoyoos – RDOS Area A Alternate Director); Eike Scheffler (Osoyoos – RDOS Area A Director), Don & Marg Forsyth (Osoyoos)	

Agenda

1. Welcome and introductions Kirk Johnstone

Mr. Johnstone introduced his US counterpart, Dr. Barton, and then invited round table introductions by Board members and Commissioners.
2. Review of the agenda Kirk Johnstone

Members adopted the agenda as tabled.
3. IJC and the Osoyoos Lake Orders - context Robert Kimbrough

Mr. Kimbrough gave guests a presentation on the Commission and its involvement with Osoyoos Lake, including the following: International Joint Commission background; Osoyoos Lake and Zosel Dam; Osoyoos Lake Board of Control and IJC Orders; drought criteria for Osoyoos Lake; and related information links on Internet. Specific to Osoyoos Lake, he covered the history of Zosel Dam and the IJC Orders. Due to past interest in Osoyoos drought conditions, he offered a summary of drought conditions since the initiation of the Osoyoos Order. Drought has been declared eight times in the past 17 years, but twice rescinded. In the other six years (35%), drought conditions were in effect for the entire summer. In four of those six years, all three criteria were met, and in the other two, only Similkameen River criterion was met. Mr. Kimbrough provided Internet links to the Osoyoos Board information, including <http://www.ijc.org>.
4. 2002 – 2003 Hydrologic Conditions Brian Symonds

Mr. Symonds described the hydrology in the Okanagan and Similkameen valleys over the past year, focusing on the generally dry conditions, low snowpack and the current drought. He reported that the Similkameen River is flowing at one-third of normal for this time of year, and that Okanagan Lake is currently 40 cm below target levels. These circumstances have lessened the ability of water managers to optimally manage the system. However, under the Board's declaration of drought and with the cooperation of BC and Washington, Osoyoos Lake has been held near 912.5 feet (i.e. within limits of the Order) over most of the summer. Reversing the dry trend will require a period of above-normal precipitation. Mr. Symonds' complete statement is appended to these minutes.

5. Washington Department of Ecology management of Osoyoos Lake levels in 2003 Ray Newkirk

Mr. Newkirk reviewed the operation of Zosel Dam during the year, noting the current drought conditions. Over the winter, the lake dropped below 909.3 feet, approaching the lower limit stated in the Order. By April 1, levels were back up over 911 feet, meeting the normal conditions summer criterion. Drought was declared by the Board on April 8. This allowed water levels to be managed up to near 913 feet by May 3. This water level served to support flows at the dam to meet operational spring fisheries needs to flush sockeye smolts. On May 5, the province and state agreed on a cooperative mechanism to hold Osoyoos Lake below 912.5 feet, a level that, in the past, has been more acceptable to lakeside residents than the 913 foot level allowed under the Order's drought conditions. Mr. Newkirk noted that the current lake level was 912.46 feet.

6. Order renewal – public input Dr. Cynthia Barton

In response to a request from the Commission, the Board has begun to consider a plan of study in anticipation of the renewal of the Osoyoos Order in 2013. Dr. Barton gave a presentation to introduce the renewal process, stimulate public dialogue on the studies that may be necessary prior to the renewal, and invite comments about public participation in the process. She described the process steps as follows: identify the applicant; develop a draft Plan of Study; obtain input from the public; finalize the Plan of Study; conduct the studies; hold Commission consultations; then renew or approve a new Order.

The Board's initial concept is that a small team of experts would draft the plan in consultation with primary basin contacts. They would assess the adequacy of the current Orders for managing lake levels, and identify interested stakeholders. Further, they would identify the needs of the various beneficial uses affected by lake levels (e.g., fish, recreation, agriculture, First Nations, cultural, domestic, commercial, industrial water use), identify the risks caused by various lake levels, and identify and describe the studies that would be needed, including costs and timelines.

Dr. Barton continued by describing a scope to the study plan proposed by the Board. It should assume that the Boundary Waters Treaty and other bilateral agreements will remain unchanged, and that there will be no changes to the Zosel Dam structure. The current study proposal considered only issues related to water level management, as the study would be aimed at investigating potential improvements to the Osoyoos Orders. The study team should also consider future changes to climate, basin demographics, land use, and water use as they may impact the Order.

Based on correspondence received by the Board from area residents, the warranted studies might include the following: a review of the effects of maximum permissible water levels for drought years; a review of drought criteria; a review of the range and timing of water levels allowed under the current Order; and confirmation of the lake's incapacity to mitigate high runoff in

the Okanagan River. Additionally, the studies might be expected to include the effect of lake levels on anadromous and resident fish, and on the cultural use of the water.

Public consultation is critical for developing the Plan of Study and for evaluating proposed changes to the Orders. It should include local citizens, interest groups, First Nation/ Tribes, government agencies, and elected officials among others.

At present, the Board would like to see the public commenting on a draft plan of study by 2005. Studies should be conducted over the period 2007 to 2010, based on a final plan. After IJC review and consultation, the Orders would be renewed, rewritten or terminated by 2013. In the near term, a study team should be selected by January 2004, with a draft study plan available for review late that year.

7. Questions and comments from the public Kirk Johnstone

Mr. Johnstone invited comments on the Board's proposed approach to the renewal, necessary studies, and public participation in the process. The paraphrased comments of the participants follow. (Note that many of the posed questions were not answered, as they were taken as suggestions for studies.)

Walter Ullrich Water levels at 912.5 feet are too high as they leave no beaches. This impact is aggravated by wave action from boats. Levels at 913 would cause serious public unrest.

Eike Scheffler Zosel Dam is causing a biological disaster. What is the Canadian benefit of the dam? Isn't there alternate ways to manage the system more suitable to the issues of this day and age? There is concern about pollution moving downstream in the Okanagan system. If not for channelization, wetlands might have helped to clean the system and ameliorate drought.

Lionel Dallas The quality of the lake's water is a major concern. Would Order renewal include consideration of quality? Further, the review needs to consider the irrigation on both sides of the border, as it is becoming excessive. [Mr Johnstone replied that the Commission has considered water quality issues in other basins. It could conceivably be included as a factor in the renewal of this Order.]

Ralph Keuler Management of the lake under the Order will affect water quality. Can the Board deal with water quality, or are they limited to levels? Also, who has ultimate responsibility for determining what is in the Plan of Study.

[Commissioner Gray advised that the Commission may include or exclude anything they wish in a plan of study.]

Ray Newkirk The Commission's Osoyoos Order deals solely with the operation of Zosel Dam, but the dam doesn't directly influence water quality. Thus, how could water quality be part of the Order?

Eike Scheffler Zosel Dam acts as a plug that, when pulled, would flush Osoyoos Lake.

Ray Newkirk How could the Commission order, for example, flushing flows?

[Mr. Gray replied that the content of the Order would depend on the content of the Application and on related advice/requests received by the Commission from governments.]

Eike Scheffler People are worried about substances like mercury, arsenic and coliform in the lake. In addition, there is concern that water from the Similkameen River is getting stored in the lake.

[One of the Board members asked if data demonstrating the presence of these substances were available, and where residents draw their drinking water.]

Lionel Dallas There has been many studies done, and the data are available. Osoyoos draws its water from deep wells, but some rural areas pump drinking water from the lake.

Eike Scheffler There are some sewage outfalls in the lake.

Eike Scheffler The purpose of Zosel Dam should be studied in terms of its benefit to Canada. With respect to irrigation, apparently Agriculture Canada has hired a consultant to investigate ways to improve irrigation. One of their suggestions is rumoured to be a diversion to the Okanagan from Shuswap.

Ralph Keuler Consider the timing of raising the lake to 913 feet (in drought years). Irrigation doesn't usually commence until June or July. Perhaps the water level should be brought up more slowly and later in the season.

Ray Newkirk The irrigation districts fear that, if raising the water level was delayed, there might not be sufficient inflow to achieve the necessary levels.

Walter Ullrich The lake should be managed for recreation and other uses, and not just irrigation. For example, water levels should be managed in consideration of the use of docks along the lakeshore. In addition, the public should be informed of when the level of the lake will peak each year.

Eike Scheffler A dam upstream on the Similkameen could prevent Osoyoos Lake flooding.
[Mr. Symonds replied that the question of a dam on the Similkameen has been investigated. Those studies demonstrated that in high flow years, a dam would not be able to store sufficient water to prevent downstream flooding.]

Eike Scheffler But such a dam could improve fisheries by controlling water temperatures and flows.

Lionel Dallas Consider the issue of climate change. What happens if Canada cannot provide minimum flows to the US Okanagan?
[Board members and others replied that there is no minimum flow agreement between the two countries on the Okanagan.]

Walter Ullrich The Commission/Board should consider Wilbur Hallauer's suggestion (at the 2002 meeting) to divert water from the Similkameen to Osoyoos.
[Mr. Johnstone replied that the Board had discussed Mr. Hallauer's suggestion during their earlier meeting and concluded that the issue is out of its purview.]

Eike Scheffler Rural areas use septic systems that can impact the lake. They have been unable to utilize federal infrastructure resources for improvements due to unfavourable priority considerations at the provincial level.

The audience gave suggestions for public participation in the renewal process: the Okanagan Water Board; lakeside landowners (although there may not be a representative group); irrigators; the Okanagan Basin Technical Work Group; the Okanagan Nation Alliance; other transboundary groups; and the Okanagan County Public Utility District. They also suggested submitting relevant articles to newspapers, in addition to the usual notices, to generate interest. The Board's web site could be enabled with e-mail access/registration so that the Board could send announcements directly to interested people.

8. Adjourn

Mr. Johnstone thanked the Board, Commissioners and guests, and then adjourned the meeting.

Appendix 1

Review of 2002/2003 Hydrologic Conditions in the Okanagan and Similkameen Watersheds

A Report to the International Osoyoos Lake Board of Control
by

Brian Symonds, P. Eng.
Ministry of Water, Land and Air Protection
September 9, 2003

The period between September 1, 2002 and August 31, 2003 has been drier and warmer than normal in both the Similkameen and Okanagan watersheds. As a result many streams and lakes in the region are currently at or near historic low levels for this time of year.

Hydrologic conditions in the watersheds in September 2002 were at or near normal seasonal levels. This included the levels of Okanagan and Osoyoos Lakes, and flows in Okanagan and Similkameen Rivers.

Precipitation for the period September to December 2002 was consistently well below normal. Although Okanagan Lake releases for the last three calendar months of the 2002 were maintained at seasonal minimums, the level of Okanagan Lake steadily declined at a greater rate than normal during this period. On January 1, 2003 the lake was approximately 20 cm below its year end target level. Natural streamflows in the region were also generally below normal during this period.

The low precipitation combined with mild weather during the months of November and December produced much less snow accumulation than usual during the early part of the snow season. The January 1 snow water indices for the Okanagan-Kettle and Similkameen basins were reported to be only 68% and 47% of normal, respectively. By April 1 snow conditions had improved somewhat although there continued to be a high degree of spatial variability, particularly in the Okanagan where snow water equivalents ranged from less than 60% of normal to slightly above normal. Generally low elevation snow courses continued to be well below normal due to the slower start to the season and the mild winter temperatures, while higher elevations snowpacks were closer to normal. In the Similkameen the April 1 snow water index was near 70% of normal, largely due to much higher than normal precipitation during the month of March.

Mild winter temperatures also produced somewhat higher than normal winter inflows to Okanagan Lake. These higher inflows combined with minimum outflow releases were sufficient to return the level of the lake to the seasonal norm prior to freshet. The elevation of Osoyoos Lake remained within the allowable range throughout the winter and on April 1 was at 911.08 feet.

Condition 8 of the International Joint Commission "Order of Approval", dated 9 December 1982, provides the criteria for determining whether or not a drought should be declared for the operational period April 1 to October 31. The drought criteria, 2003 April 1 forecasts and 2003 observed values are:

IJC Drought Criteria	Drought Threshold	Forecast (April 2003)	Observed (2003)
April – July Volume of Similkameen River (million acre-feet)	1.00	0.950	0.781
April – July Inflow to Okanagan Lake (1000 acre-feet)	195	243	138
Maximum Level of Okanagan Lake (feet GSC datum)	< 1122.8	~1123.2	1122.46

A drought was declared for 2003 Osoyoos Lake operations based on the April 1, 2003 April to July volume forecast for Similkameen River. The declaration authorized the Washington State Department of Ecology to raise the lake to a maximum of 913.0 feet.

Previous experience has shown that during drought years if the level of Osoyoos Lake is maintained below 912.5 feet, the negative impacts on properties around the lake are significantly reduced. Following the drought declaration and after consideration of the potential impacts Washington State Department of Ecology and BC Ministry of Water, Land and Air Protection reached an informal agreement in which Ecology agreed to maintain Osoyoos Lake levels at or below elevation 912.5 feet in exchange for the province agreeing to release the equivalent volume of 0.5 feet on Osoyoos Lake from upstream reservoirs to supplement the minimum instream freshet flow requirements. Since mid May the lake has been held between elevations 912.0 and 912.5 feet.

It is interesting to note that although the April 1 forecast inflow volume and maximum level for Okanagan Lake were both above the specified drought thresholds, the observed values for both were less than the thresholds. Therefore all three drought criteria were met in 2003.

The summer of 2003 was exceptionally dry in both the Okanagan and Similkameen watersheds. July-August precipitation amounts in both Penticton and Kelowna were the lowest in 67 and 35 years of record, respectively. Princeton precipitation for the same period was the second lowest in 67 years of record. In addition the June to August temperatures were approximately 2°C above normal.

A consequence of the below normal winter snowpacks, low summer precipitation and above normal summer temperatures is that many of the streams and lakes in the area are currently at or near historic seasonal lows. Flow in Similkameen River near Nighthawk is the lowest at this time of year in 74 years of records. Okanagan Lake is approximately 0.4 metres below target, the lowest level for this time of year since lake level records began in 1921. It is only with releases from storage that Okanagan River near Oliver flows were able to be maintained at levels slightly above the minimum fishery targets specified in the "British Columbia Washington State Cooperation Plan for Osoyoos Lake Levels and Trans-Border" (1980) throughout the summer. Osoyoos Lake is currently at elevation 912.46 feet.