

MINUTES

International Osoyoos Lake Board of Control (IOLBC) of the International Joint Commission (IJC) Public Meeting

Walnut Beach Resort
Vista Room
Osoyoos, BC

Tuesday, September 10, 2013
7:00-9:00 PM

Attendance

United States

Canada

Chairs

Bruno Tassone

Members

Col. Bruce Estok

Brian Symonds
Glen Davidson

Secretary

Marijke van Heeswijk

Gwyn Graham

Guests

Rich Moy (IJC Commissioner, U.S. Section), Dr. Mark Colosimo (IJC Engineering Advisor, U.S. Section), Ted Yuzyk (IJC Engineering Advisor, Canadian Section), Al Josephy (WA Dept. of Ecology), Amy Reese (U.S. Army Corps of Engineers)

Regrets

Dr. Cynthia Barton (IOLBC Chair, U.S. Section), Kris Kauffman (IOLBC member, U.S. Section)

15 public guests. Total of about 26 (public + officials).

Minutes

1. Welcome and Introductions

Bruno Tassone welcomed and led introduction of the Board members and guests.

2. Review of the Agenda

Bruno Tassone led a review of the agenda which was adopted without change.

3. IJC and Osoyoos Order context

Bruno Tassone provided a brief overview presentation describing the IJC and the IOLBC, including their membership and functions, as well as key changes to the IJC Order and Osoyoos Lake rule curve as a result of the 2013 IJC Supplementary Order of Approval. Additional information was provided on lake level status and trends through the IOLBC website.

4. Osoyoos Lake Levels 2013

Brian Symonds gave a presentation describing the hydrological factors that affect water level changes to Osoyoos Lake during the freshet period, focusing on the backwater effect caused by high flows (e.g. >10,000 cfs) in the Similkameen River at the confluence with the Okanogan River downstream from the lake and the inflows to the lake originating upstream from regulated parts of the Okanogan River system and unregulated tributaries. There were two peak water level periods in Osoyoos Lake in 2013. The period with the highest water level occurred in mid-May (914.17 ft on May 15th) and was largely due to snowmelt driven runoff. The next period occurred in late June (912.72 ft on June 29th) and was due to rainfall associated with the same weather system responsible for intense rainfall and flooding in the Calgary area of Alberta during that time. Brian also explained that hydrologic conditions in 2013 did not trigger IJC's drought declaration criteria for Osoyoos Lake.

A presentation of the Osoyoos Lake hydrograph for 2013 through early September showed that operations at Zosel Dam have been in compliance with the new rule curve described in the 2013 Supplementary Order of Approval for Osoyoos Lake.

5. Questions and comments from the public

Stu Wells (Mayor, Town of Osoyoos) would like both the IJC and IOLBC to have more local community input for improved transparency and greater involvement of the Osoyoos and Oroville communities. Mr. Wells suggests that this may be accomplished through expanded Board membership or through some other structure. In general, he believes the IJC and IOLBC should find a way for residents of the basin to be more involved.

Ivo Tyl – identified himself as a 27-year resident of Osoyoos who has been critical over the years of the lake management process.

Regarding the 1909 Boundary Water Treaty - Article VIII, 6th Paragraph provides for suitable and adequate provisions for protection and indemnity for all affected. He is of the opinion that the new Supplementary Order doesn't honour this Article, particularly with regard to high-water conditions and flooding issues that he has experienced due to failure to implement mitigation measures with regard to Similkameen River backwater effects. Mr. Tyl feels that there are inexpensive engineering solutions to mitigate effects from the Similkameen River.

Regarding Zosel Dam, Mr. Tyl views the dam as serving to retain flash flooding and provide a reservoir for other uses. He warns that climate change will result in greater flash flooding concerns and that these situations are problematic for those living on the shore of Osoyoos Lake who have to pump water from their basement and think this should be managed better.

Regarding the Supplementary Order, Mr. Tyl feels that it has removed retention capacity from Osoyoos Lake and increases the chance of flooding, placing properties at risk with regard to sewerage and drainage. He also believes that the new lake level criteria were not properly surveyed and that property owners have not been properly compensated as per the Indian Band.

He has communicated in writing to Health Canada following the issue of e.coli detection in the potable water supply to Bayview #3, requiring special flushing. Increased lake levels have other negative impacts, including on sewage and domestic water lines and underground water. Mr. Tyl feels that water contamination in the town has increased with increased lake levels, as per the editorial in the Osoyoos Times re. the Solana Bay blue-green algae problem.

Mr. Tyl asks that the 2013 IJC Supplementary Order of Approval be rescinded and a full technical study of Osoyoos Lake be conducted to evaluate the risk of higher lake levels. He points to the 2011 Osoyoos Lake Water Forum presentations and issues related to increased incidence of waves and erosion which he feels are still an issue.

Mr. Tyl pointed out that these comments have already gone to the IOLBC by e-mail and he believes that the changes to lake level management were not properly managed.

Bruno Tassone responds to Mr. Tyl: The Board has previously responded to Mr. Tyl's concerns, and also noted that some of these issues are beyond the authority of the Board. Some of the issues might be within the jurisdiction of other agencies. Mr. Tassone also noted that the board is balancing many different interests (tourism, recreation, water supply, fish habitat, etc.) and that the new rule curve seeks to accommodate a wide range of interests.

David Smith: Where did the 911.5 ft level come from?

Bruno Tassone responds to Mr. Smith: Mr. Tassone believes the 911.5 ft level may have gone back to the 1946 Order (Mr. Tyl says it's the 1985 Order, the reference point at Osoyoos Lake). The mill pond just upstream of Zosel Dam used to be the reference point but this changed with construction of the new dam in the late 1980s. **Gwyn Graham adds** that lake levels are typically set to balance the natural inputs, outflows and consumptive uses, with the goal to generate optimal levels that work for a range of priorities. **Brian Symonds reads:** 1948-1981 lake level analysis for April 1 – October 31 lake levels were above 911.0 ft 80% of the time, between 911.0 and 911.5 ft 32% of the time, above 912.5 ft 11% of the time and above 913 ft 6% of the time. This points to a statistical rationale for a 911.5 ft operating level. **Mr Symonds adds** that original engineering studies considered 911.0 ft as a minimum elevation for the old millpond and downstream flow conditions.

Rose-Marie Voakes: Asked for clarification of the rule curve. States that every year, we get extra water between May and July. Why did we have to raise the water level May-July? Ms. Voakes does not like the fact that we allow the water level to come up in the early spring, before the freshet, because then flooding is worse when the freshet comes.

Brian Symonds responds to Ms. Voakes: We cannot release more water in the winter to make room for high spring flows, because additional winter flows would impact fish habitat. Also, if lake levels are too low, irrigation pumps would not be submerged.

Anna Warwick-Sears: What Rose-Marie is asking is why don't we keep the lake level lower before the freshet?

Al Josephy responds to Ms. Warwick-Sears: The issue is management of a small lake with a small storage capacity. If the water levels are kept low and insufficient runoff occurs in mid-late spring, then there's a problem of not enough water to maintain desired summer levels. Also, there are many fish returning below the dam (endangered steelhead in spring); there's a need to keep steelhead redds submerged, yet we cannot wash them out with flows that are too high. It's an issue of managing risk at that time of year (~March). **Mr. Symonds adds** that next year, he will present the inflow/outflow balance of Osoyoos Lake to highlight the storage effect. Given the small area of the lake, he does not think that you could gain much additional storage capacity by lowering the lake level.

Lee McFadyen: What flood years have there been and how often has backwater from the Similkameen River affected outflow from Osoyoos Lake? Secondly, how did the backwater affect the outflow?

Brian Symonds responds to Ms. McFadyen: There are both "backwater" and "backflow" effects. (In the case of backflow, water flows from south to north up the Okanogan River from the confluence with the Similkameen River; backflow conditions are rarer than backwater conditions.) The backwater effect is a hydraulic effect restricting discharge of Osoyoos Lake through the Okanogan River. This year, we saw backwater effects due to high flows in the Similkameen River.

Anna Warwick-Sears: Expressed concern over zebra mussels (invasive species). Would like support from IJC and IOLBC in communicating the issue, e.g., boat inspections at border crossings and getting Canada's Department of Fisheries and Oceans and BC Ministry of Forest, Lands and Natural Resource

Operations interested. This is an issue that affects both the U.S. and Canada with potential serious repercussions to Osoyoos Lake quality, Sockeye salmon runs, etc. She is concerned that federal legislation is slow to happen and would like help from the IJC and IOLBC in speeding it up.

Bruno Tassone responds to Ms. Warwick-Sears: He will take her suggestion and communicate it to senior decision makers in government.

Anna Warwick-Sears: Asks that if there is a dam that goes in on the Similkameen River at Princeton, can this dam incorporate a flood protection element to help prevent/reduce flooding at Osoyoos? She also would like to suggest another Osoyoos Lake Water Science Forum meeting next year, to discuss all the changes in the revised order, other issues, etc. Suggests a joint conference with the IJC and IOBLC.

Bruno Tassone responds to Ms. Warwick-Sears: He is uncertain about the proposed dam's storage capacity. A new dam may not be able to avoid all flooding; studies would be needed to assess the impact of the proposed dam on the backwater issue. **Mr. Symonds added** that Princeton is high up in the basin and a dam there would not affect water entering the system between Princeton and Nighthawk. The purpose of the dam is power generation, not flood control of Osoyoos Lake.

Lee McFadyen: Fortis is a business and they will build dam to generate power, i.e., they are not likely to be interested in preventing flooding per se. She does not think that the BC Water Act applies to enforce reservoir operations for flood management benefits.

Glenn Davidson responds to Ms. McFadyen: There would likely be some benefits from the dam for flood management, but the dam would likely have little impact on large flood events.

Stu Wells comments: We talk about what we know or have experienced, i.e., flooding. We also need to discuss/think about drought and consider climate change impacts to reservoirs further south in the U.S. Someday there will be a major drought year.

Ivo Tyl: In 1982 a proposal for a small dam was blocked (Similkameen/Okanagan uplands). It would be good to revisit the idea. It could reduce the backwater issue/change the channel.

Bruno Tassone responds to Mr. Tyl: The IOLBC will review/consider if the dam proposal can be looked at again, but this may be hard.

Bruno Tassone asked question of audience: How well are we doing on getting information out? Regarding water levels, etc.

Anna Warwick-Sears: Is volunteering the services of the Okanagan Basin Water Board to help with communication.

Stu Wells: The town of Osoyoos website has a lot of info.

Bruno Tassone asked for a show of hands about website usage by the audience: Web sites by the town of Osoyoos, IJC, and USGS are mostly used.

Comment from audience: USGS graph is great, but it would be helpful if we added explanatory text on the graph itself. Also, it would be helpful to include notices, such as "everything is working normally."

Bruno Tassone responds: The public could look at the IJC website for explanations.

David Smith: He is new to the area, and finds this meeting very informative. He learned about competing issues/interests, fish, boating, shorelines, etc.

Bruno Tassone responds to an earlier question by Ms. McFadyen: The flood of record occurred in 1894. If such a flood happened again, under natural (unregulated) conditions the Osoyoos Lake level would be about 918 ft. In 1972, the lake level was about 917 ft.

6. Adjourn

Bruno Tassone thanked the audience for attending and participating and declared the official Board Meeting adjourned.

OsoyoosPublicMtgMinutes2013.docx

DRAFT