

October 25, 2002

**RECORD OF MEETING OF THE
INTERNATIONAL KOOTENAY LAKE BOARD OF CONTROL
ANNUAL MEETING
AT BONNERS FERRY, IDAHO**

**September 26, 2002, 2:00 PM
KOOTENAI RIVER INN**

Attendance	Canada	United States
Chair:	Kirk Johnstone	Col Ralph Graves
Members:	Glen Davidson for James Mattison	Kathy Peter
Secretary:	Daniel Millar	Larry Merkle
Observers:	Dennis Schornack, Chair, U.S. Section, IJC, Robert Gourd, Member, Canadian Section IJC. Dr. Murray Clamen, Tom McAuley, staff, Canadian Section, IJC. Dr. Gerry Galloway, Lisa Bourget, staff, U.S. Section, IJC. Marian Valentine, Michael Shea, Greg Hoffman, U.S. Army Corps of Engineers. Wally Koschik, Dan Egolf, Aquila Networks, Canada.	

Meeting Record

- 1. Opening Remarks**
Col Graves called the meeting to order.
- 2. Introduction of Board Members**
All present did self introductions.
- 3. Approval of Agenda**
Agenda was approved without change.
- 4. Business From Previous Meeting**
 - a. Real time Gauge Readings at Queens Bay.** In the Board meeting last year, the Board asked the Canadian Section to furnish information to the U.S. Section required to obtain real-time access to Queens Bay data. On October 26, 2001, the Canadian Secretary forwarded to the U.S. Secretary the web address, user name and password necessary to gain access to real-time readings for the Queens Bay gauge on Kootenay Lake.

b. Duck Lake Operating Requirements. The Board, last year, confirmed an interpretation of the Duck Lake Order related to maximum water levels and asked that this interpretation be transmitted to the Creston Valley Wildlife Management Authority (the Applicant). This interpretation was provided verbally to Brian Stushnoff by Daniel Millar and later confirmed in writing by e-mail of July 2, 2002.

c. Dyke Erosion Study. Last year Col. Graves reported on a dyke erosion study by the Corps of Engineers on the Kootenai River upstream of the international boundary. The Board asked the Canadian Secretary to review and follow up on a dyke condition study conducted by Larry Adamache a few years previous.

Daniel Millar reported that he had reviewed Canadian Section files. Files indicate that most of the dykes between the international border and Kootenay Lake have experienced severe erosion and river channel widening during the past 20 years. Dyking districts undertake emergency repairs as necessary; however, erosion continues to be a serious concern. Much of the erosion is considered to be attributable to operation of Libby Dam. Reports in the files recognize that the KLBC has no formal responsibility for dykes under the 1938 Kootenay Lake Order.

d. Revision of the Computer Program for the Lowering Formula. During our discussion of the 1938 Kootenay Lake Order last year, the Board asked the Secretaries to look at the computer program used to calculate the lowering formula and to determine if any revisions were necessary.

Daniel Millar reported on the following investigation and work he has done since the Board meeting last year. Messrs. Patterson and Davenport devised the lowering formula in 1941 in a joint Canada/U.S. report. Their method has been closely scrutinized and their tables and calculations recalculated using a Microsoft Excel spreadsheet. Their method was well thought out, agreed to by both countries, and provided a workable solution to a difficult clause in the 1938 Order, i.e. lowering the lake levels during the freshet to assure lake levels during the freshet will be lower than natural condition lake levels prior to excavation at Grohman Narrows.

Mr. Millar found that the method being used by the Board today to monitor the Applicant's management of lake levels is essentially the same as the method described by Patterson and Davenport. However, the 1941 stage discharge curves have had to be extrapolated (lower) to account for lower lake levels that have been experienced at the commencement of spring rise. Further, the lake area used in the method was remeasured in 1969, perhaps to reflect the inauguration of Duncan Dam.

Mr. Millar stated that during the coming year, Board staff intends to electronically document the method for doing the lowering calculation for the benefit of future Board Members. Further, the current computation method used by both the Board and the Applicant will be reviewed to ensure consistency with the 1941 method and its subsequent Board-approved modifications.

5. New Business.

a. Current Year Management of Lake Levels for Kootenay and Duck Lakes.

Daniel Millar reported that so far this year Aquila Networks (Applicant) has operated Kootenay Lake in accordance with the Order. After consultation with the Applicant, the Board declared the commencement of the spring rise at 00:00 PST on April 14 signaling the use of the lowering formula. On recession, the lake did not fall to 1743.32 at Nelson, hence levels a Queens Bay have been used as the reference all year.

Only sparse water level data is presently available for Duck Lake; however, all indications are the Duck Lake is being operated in accordance with Orders.

b. Should Control of Duck Lake Revert to the Local Authorities and Mr.

Simmons' January 2002 letter. Mr. Johnstone reviewed developments on this issue during the past year. He noted that Mr. Norman Simmons and other residents of the Duck Lake area had appeared at the Board meeting last year and expressed concern about management of lake levels at Duck Lake and especially concern that low lake levels were adversely affecting bass fishing. Mr. Simmons hand delivered a letter to the Board on January 24, 2002 asking if control of Duck Lake might be placed with local authorities. That letter was forwarded to IJC. The Board and IJC have consulted on this issue during the past year and on July 10, 2002, IJC responded to Mr. Simmons' letter stating that IJC was taking steps to review the adequacy of the existing Orders under existing conditions.

Mr. Johnstone reviewed the contents of the Board's letter of September 10, 2002, to the Commission's Secretaries. Discussion followed concerning the technical justification for the existing Orders and whether or not those justifications continue to exist especially considering the change in Kootenay River and Lake conditions related to operation of Libby and Duncan projects. Two aspects were apparent: the minor backwater on the Kootenay River at the boundary during extreme high water on the Kootenay (likely less than once in 100 years) due to the presence of Duck Lake's perimeter dyke; and the management of lake levels within Duck Lake, which appear to have negligible connection to Kootenay water levels at the boundary but which may have other valid considerations for Commission involvement. Mr. Davidson stated that even if the IJC Orders were rescinded, Duck Lake operation would be subject to the water licencing restrictions of the Province of British Columbia. Conclusion of the discussion was that the Board will await guidance from IJC on whether or not action to review the Orders should be initiated.

c. Libby Project Operation for the Current Year. Marian Valentine described Libby project operation for the current year. She mentioned that a spill test was initiated in mid-June to assess the effect of Libby spillway operation on dissolved gas levels in the river downstream. Spilling does entrain dissolved gas but the effect extends downstream only as far as Kootenai Falls, just downstream of the town of Libby, Montana. The falls effectively reset dissolved gas levels to a level that is independent of the levels just upstream. Ms. Valentine explained how an unusual combination of meteorological conditions coincident with the spill test resulted in a second freshet peak. This peak essentially filled the reservoir forcing a Libby discharge of 39 KCFS, which was the highest project release since 1981.

d. Proposal to Change Libby Project Operation (VARQ). Larry Merkle made a presentation explaining the proposed VARQ operation. VARQ is a proposal to change the operation of Libby project with a goal of providing better flow conditions for several fish stocks in the Columbia River Basin that have been listed as either threatened or endangered under the U.S. Endangered Species Act. With VARQ operation, Libby reservoir (Lake Koocanusa) would be drawn down less in the fall and winter than with current operation. The reduced Libby reservoir drawdown will assure the availability of a volume of water to support higher discharge during the freshet and later in the summer and fall for augmentation of flow for listed species. However, higher Libby discharges would cause Kootenay Lake elevations to be approximately 1 foot higher during the freshet in most years than would be the case without VARQ operation. A constraint on the design of VARQ operation is that it not violate the 1938 IJC Order on Kootenay Lake. Mr. Johnstone noted that the 1938 Order specifies maximum lake levels for the period September through the end of March. However, the calculation of the maximum lake level after the declaration of the “spring rise” is dependent on inflow which depends on releases from Libby dam. So even if VARQ does not violate the Order, it can affect the lake levels after spring rise, which goes to the intent of the Order. IJC Commissioners stated that VARQ would be an agenda topic for an upcoming IJC meeting.

e. Aquila Networks Comments on Impact of VARQ on Management of Kootenay Lake Levels. Mr. Koschik stated that most of the information presented was new to Aquila and more information and time would be required to give a substantive response. His initial impression was concern about potential damage from higher lake levels and possible power losses to Aquila from VARQ operation.

f. Preview of Public Meeting Agenda and Meeting Expectations. Col Graves reviewed the Public Meeting Agenda with no additions or objections noted by the Board. The Board agreed to defer response to any public comment not directly related to the Orders until after the meeting, at which time they could respond in their professional capacity.

6. Adjournment. Col Graves adjourned the Board Meeting at about 5:10 PM.
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