

## AGENDA

### International Kootenay Lake Board of Control Public Meeting

Kootenai River Inn  
7169 Plaza Street  
Bonners Ferry, Idaho

Thursday September 14, 2006  
7:30 - 9:30 PM

#### Attendance

	United States	Canada
Chair	Col. Mike McCormick (host)	Glen Davidson (acting for Kirk Johnstone)
Members	Kathy Peter	Glen Davidson
Secretary	Larry Merkle	Daniel Millar
Guests	Commissioners: None  Dr. Mark Colosimo (US Section IJC), Tom McAuley (Canadian Section, IJC), Marian Valentine (USACE), Dan Egolf (FortisBC), Marc-André Beaucher (Wynndel), Charlie Sutherland (Trail), Garry Jackman (Boswell), Jim Holland (Kaslo), Eric Gale (Crawford Bay), Verna Mayers-McKenzie (Boswell), Ramona Mattix (Nelson), Dan Dinning (Bonners Ferry), John Drysdale (Creston), Andy Shadrack (Kaslo), Patty Perry (Bonners Ferry), Ed Atkin (Bonners Ferry), Vladimir Plesa (Vancouver), Gary Birch (Castlegar), Llewellyn Matthews (Castlegar), Dwain Boyer (Nelson), John Kettle (Creston), Darrell Kerby (Bonners Ferry)	

#### Minutes

1. Welcome and introductions – *Mike McCormick*

Col. McCormick introduced Board members and led a round of introductions of guests.

2. Review of the agenda – *Mike McCormick*

Col. McCormick presented the agenda to the guests. No modifications were made.

3. IJC and the Kootenay Lake Orders - context – *Larry Merkle*

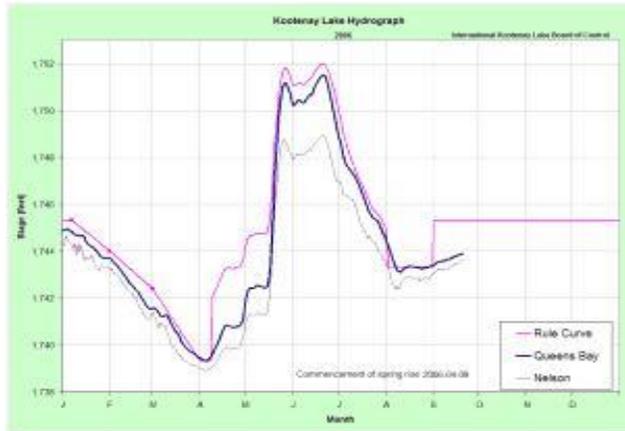
Mr. Merkle gave a short presentation describing the International Joint Commission its Kootenay Lake Board of Control and the Kootenay Order.

o 3.1

Kootenay Lake levels 2006 – *Daniel Millar*

Mr. Millar presented hydrographs that depicted water levels on Kootenay Lake during the year. He reviewed the Commission's maximum water level criteria for the lake

and noted that FortisBC had successfully maintained levels below the maximum during 2006.



o 3.2

Questions from the public concerning the Kootenay Order and operation of Kootenay Lake in 2006 – *Mike McCormick*

The Board received written submissions from each Ms. Mattix, Mr. Drysdale, and Mr. Shadrack.

[Questions are paraphrased. For clarity, answers may be reported here with more detail than offered at the meeting.]

John Drysdale: Is it democratic to appoint (rather than elect) IJC Commissioners? *A: This allows the President and Prime Minister to select people eminently qualified for the job.* Do Board members live on the lake? *A: No, but they have significant experience related to both Kootenay Lake and water issues.* If Kootenay Lake has a Board of Control, why doesn't Lake Pend Oreille? *A: Unlike Lake Pend Oreille, Kootenay Lake levels are overseen by an international Board because Kootenay Lake levels can impact the levels of Kootenai River in Idaho.* Who is responsible for paying for high water damages? Is it the IJC? *A: Neither the IJC nor its Board of Control are responsible for flood events. Rather, they are responsible for overseeing the management of FortisBC's Corra Linn Dam in the context of its effect on Kootenay Lake levels according to the directive outlined in the 1938 Order of Approval.*

Darrell Kerby: Explain how the control of Kootenay Lake shifts from Corra Linn dam upstream to Grohman narrows. *A: Grohman narrows is a natural constriction at the outlet of Kootenay Lake upstream of Corra Linn Dam. During periods when storage is allowed (September 1 to January 7), the dam has the capability to back water up through the narrows and into the lake several vertical feet. However, during the freshet, the dam is operated such that the forebay is drawn down. As a result, the dam offers less resistance to flow than the constriction at Grohman, and Grohman Narrows becomes the controlling factor for lake levels. Consider that the top of the gates (if closed) on Corra Linn Dam is 1748 feet, whereas the maximum lake elevation in 1961 was 1762 feet.*

Charlie Southerland: Grohman Narrows needs to be dredged. *A: From the perspective of the IJC's Order of Approval, Grohman Narrows, to this day, remains capable of passing flows necessary to keep maximum lake levels several feet below what would be expected had the 1939-40 dredging not taken place.*

Dan Dinning: Is there information that will tell the public the discharge at Grohman Narrows? *A: The discharge through Grohman Narrows is equal to the combined discharge through Corra Linn Dam and BC Hydro's Kootenay Canal Plant. FortisBC uses a set of mathematical curves to determine this flow. The Board is not aware of the discharge being published on a real-time basis on the Internet; however the company can provide these values from time to time if contacted.*

Garry Jackman: The lake stage is based on inflow to the lake. This inflow used to be natural. Now, with Libby and Duncan Dams upstream, it is much more complicated. The jurisdiction and oversight of the Board should include these upstream dams. *A: Both Duncan and Libby Dams are managed by their respective countries in accordance with the Columbia River Treaty. Various international boards and committees under the treaty cooperate on the management of these projects in both long and short terms. Further, to meet treaty flood control objectives, the upstream dams are managed in compliance with the IJC's 1938 Kootenay Lake Order. While the order limits the mandate of the Kootenay Board, various Board members and their home agencies are well informed about the management of the larger Kootenay-Columbia river system.*

Andy Shadrack: Is it time to renew the order? *A: The 1950 and 1956 Duck Lake Orders were opened a few years ago in response to public concerns. In that case, the IJC decided to rescind its orders. With sufficient impetus, the Commission might consider opening an order. Should that happen, Commissioners would hear, consider and balance all interested party's views in the formulation of a decision. It is up to each individual or agency to contrast the perceived faults of the existing order with the potential risks and benefits of a new order when evaluating their option to petition the Commission.*

Charlie Sutherland: We need more publicity about the condition of Grohman Narrows. *A: Noted. There is concern about the lake level in August. The 1743.32 restriction should be raised by one foot to 1744.32. This would be of great benefit to marinas and dock owners who see the water level rise to optimal levels on September 1...only after the end of the recreation season. The IJC should try this for one year to ascertain benefits and impacts. A: By way of the minutes of this meeting and through the IJC's two Engineering Advisors present, this request will be passed to the Commission. Note, however, that the limits to water levels in the order are maximum limits. There is nothing in the order that obliges FortisBC to raise the lake to 1943.32 feet in August. Even if this limit was raised, there would be no obligation on FortisBC to match that level.*

Garry Jackman: Residents are concerned that VarQ will lead to higher water levels in the lake. There has been little communication about VarQ with residents. Residents on both sides of the border are forced to accept a higher risk of flooding under VarQ than previous. The Board and Commission need to be broader minded, overseeing the management of the whole basin, including VarQ, rather than just the lake. *A: [See response to Mr. Jackman's previous question.]*

John Drysdale: During the high water this spring, my breakwater was inundated for over a month and was damaged. Inundation of the shoreline resulted in a mosquito infestation with the risk of the West Nile virus. Silting has become a problem, and the

kokanee are nearly extirpated from the south end of the lake. *A: These conditions are noted. The events at Libby Dam that contributed to this year's high water are being investigated by the US government. The Board notes, however, that in spite of the upstream reservoirs, the system has a great deal of uncontrolled inflow and in that sense is still capable of reaching flood or drought levels of historic proportions. The dams, upstream or down, simply reduce the risk.*

Ramona Mattix: The Regional District is struggling with the impacts of flooding and has three questions. Is someone (per rumor) considering raising the flood level around the lake to 1755 feet? How will the US Army Corps of Engineers maintain their obligation to ameliorate the risk of flooding through the management of Libby Dam? Is endangered fish recovery a sufficient reason for increasing the risk of flooding on Kootenay Lake? *A: The United States uses a different system to determine flood levels than Canada (BC). In its analysis in advance of instituting VarQ, the Corps of Engineers estimated that the flood level for Kootenay Lake was 1755 feet. Recent high water evidence suggests that in reality, flood damage begins to occur at about 1751 feet. While this may influence the way VarQ is implemented, these levels do not apply in BC flood risk evaluation. Instead, the province determines the flood construction level around water bodies as equivalent to the 1:200 year probability flood. In the case of Kootenay Lake, this safe level for building construction is determined to be around 1760 feet. The province recommends that structures susceptible to flood damage not be build lower than this elevation. The Board advises that the final two questions be taken up directly with the US Army Corps of Engineers or other suitable agency.*

Andy Shadrack: The year 1997 saw the highest lake levels in recent memory. Levels in 2006 were only about a foot lower, and some businesses were destroyed. There is a feeling that Libby Dam is responsible. Surveyors are accreting land around the lake by situating property lines below high water levels. The 1938 Kootenay Lake order is out of date. *A: Observations noted. [Also, see response to Mr. Shadrack's previous question.]*

Verna Mayers-McKenzie: While there is a real need to deal with extreme high water, there is also a problem with low water, for example, possible grounding of the Kootenay Lake ferry. *A: Since low water levels have no transboundary impact on Kootenay Lake and Kootenai River, the Kootenay Lake order does not address minimum water levels. The Board recommends that the Regional District of Central Kootenay address this matter with the province or FortisBC.*

Darrell Kerby: Can Canadians create a flood level above which there would be, say, federal action? *A: Such formalized flood level determinations are not used in Canada.*

Garry Jackman: Are we effectively balancing the risk of flooding with power generation? Is Canada willing to accept the risk of VarQ? *A: In the Kootenay Basin, the Columbia River Treaty is a key factor used to balance flood control with power generation. The Board is aware that several Canadian companies and agencies have expressed concern about risks associated with VarQ and that the Corps of Engineers is endeavoring to effectively manage that risk.*

Andy Shadrack: Residents and businesses want compensation from the Corps of Engineers when the mismanagement of VarQ causes flooding and damage around Kootenay Lake. *A: Such matters are outside the purview of the Board of Control. The Board recommends that the matter be raised with appropriate agencies.*

Tom McAuley: Was an error implementing VarQ the cause of the peak level on Kootenay Lake? A: *Only partially, as there is considerable natural inflow below Libby Dam. However, the second peak on Kootenay Lake is coincident with the Libby spill.*

Garry Jackman: Has Libby ever spilled more water than this year? A: *No. Therefore this was an exceptionally unusual year and risk was on the edge of what was acceptable by society. A: (Col. McCormick) An appreciation of the risk of VarQ was not fully considered this spring. The Corps of Engineers is analyzing the spill event to determine what went wrong and how to prevent such an event from reoccurring.*

Dan Egolf: It would be very helpful if each year the Corps would provide a retrospective comparison of standard flood control versus VarQ flood control at Libby Dam.

Llewellyn Matthews: Canadian agencies and residents request that meetings be held in Canada to explain the spill event once the Corp's analysis is complete.

Darrell Kerby: Such a meeting should be unified with Canadian and US resident/agency participation so that all stakeholders can be privy to the concerns and explanations presented. A: *The Corps will consider holding such a meeting.*

#### 4. Adjourn

Col McCormick thanked guests and adjourned the meeting.