
INTERNATIONAL RAINY LAKE BOARD OF CONTROL (IRLBC) INTERNATIONAL RAINY RIVER WATER POLLUTION BOARD (IRRWPB)

NEWSLETTER

4th Quarter 2010

This newsletter provides a summary of the activities of the International Rainy Lake Board of Control (IRLBC) and the International Rainy River Water Pollution Board (IRRWPB) during the 4th Quarter (October to December) of 2010.

Basin Conditions and Regulation

Namakan and Rainy Lakes began the last quarter of 2010 high in their respective rule curve bands due to heavy rainfall the last week of September. Outflow increases from both lakes prevented them from exceeding their upper rule curves, and set the trend for generally declining levels through the fall. Average inflows for the fourth quarter were 36th percentile for Namakan and 43rd percentile for Rainy. Namakan and Rainy Lakes ended the year at 84% of band and 29% of band, respectively. Water levels, inflows and outflows for both lakes are shown on the attached graphs. A legend follows the graphs.

The year overall for the basin was relatively dry, with average annual inflow to both lakes at only about 20th percentile. It is worth noting that the Lac la Croix basin upstream had an average inflow for the year of only 8th percentile. Precipitation for the year was 23rd percentile in the Lac la Croix basin while it was 70th percentile in the Rainy-Namakan basin. Although dry conditions predominated during the year, inflow was certainly not uniform throughout, leading to regulation challenges during very dry conditions in the spring and heavy rainfall events in July and September. During 2010, Namakan Lake was below its rule curve band for 47 days and above it for nine days. Rainy Lake was below the rule curve band for 59 days but did not exceed the upper rule curve, although levels near the top of the band were experienced in mid-July and again in late September.

Board Meetings and Activities

The Boards held a joint meeting in Ottawa on October 20 to review projects and to prepare for their appearance before the International Joint Commission at the fall semi-annual meeting. Important items discussed included planning of projects for the 2015 rule curve review, support of the annual International Lake of the Woods Water Quality Forum, the upcoming IJC International Watersheds Initiative (IWI) modeling workshop and proposals to the IWI for project funding.



Kettle Falls Dam in Winter (Photo: Lee Grim)

On the afternoon of October 20, the Boards appeared before the IJC to present a summary of the Boards' fall report. A copy of the report can be viewed on the Boards' websites under "Publications". (To access the Boards' respective websites, go to www.ijc.org and follow the links under "Boards".)

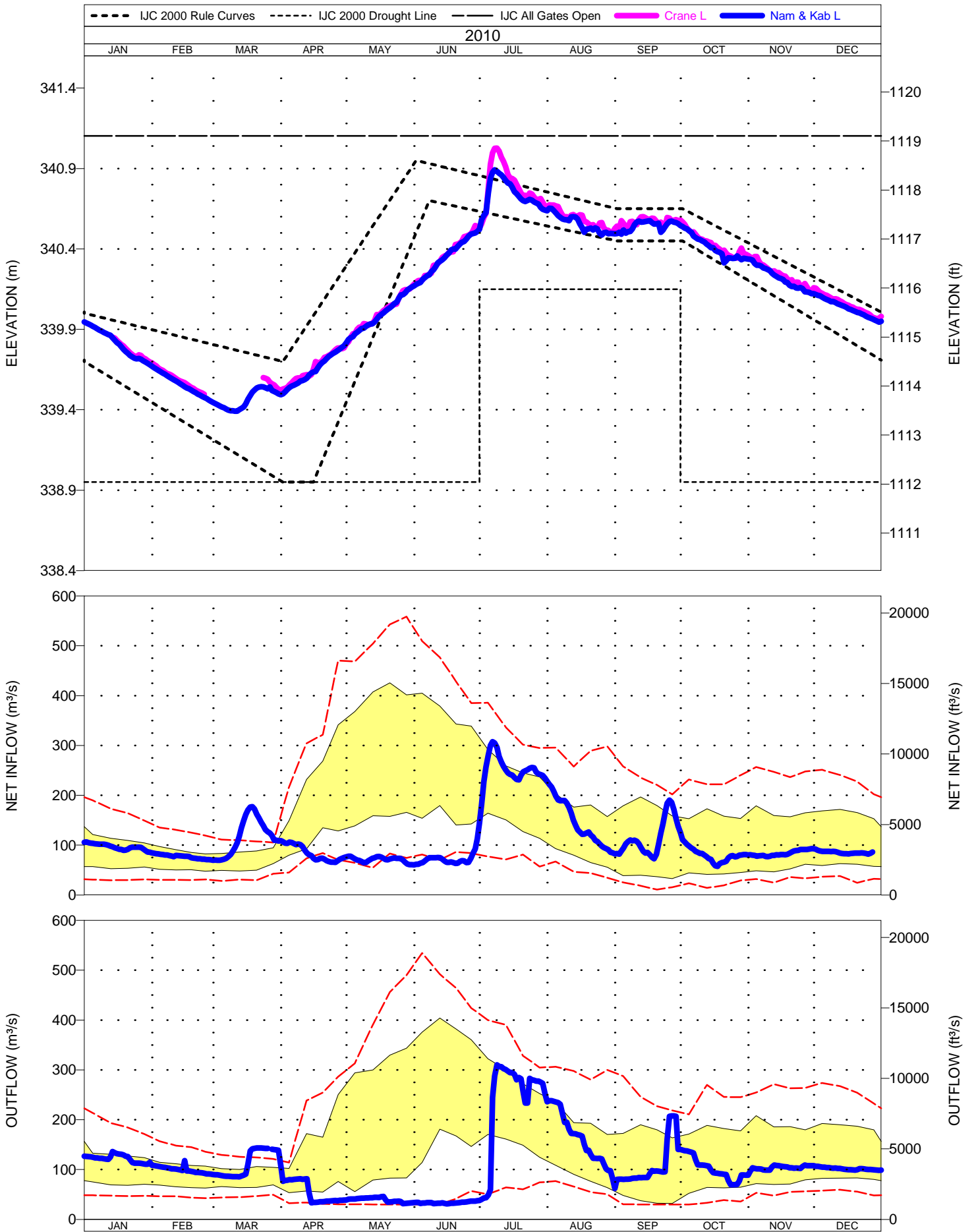
The Boards held two conference calls during the quarter. The first was on November 8 to discuss their representation and input for the IJC's IWI modeling workshop being held in mid-November. The second call, on December 6, was with the International Lake of the Woods and Rainy River Watershed Task Force, to provide the Boards' input for the reference.

From November 15-17, one Member and one support staff attended the IJC's IWI Modeling Workshop in Chicago. This was the second of three planned workshops, funded by the IWI Modeling Initiative, with the aim of assessing numerical models of importance to IJC Boards. The workshop was focused on data requirements in support of modeling and hydrological analysis.

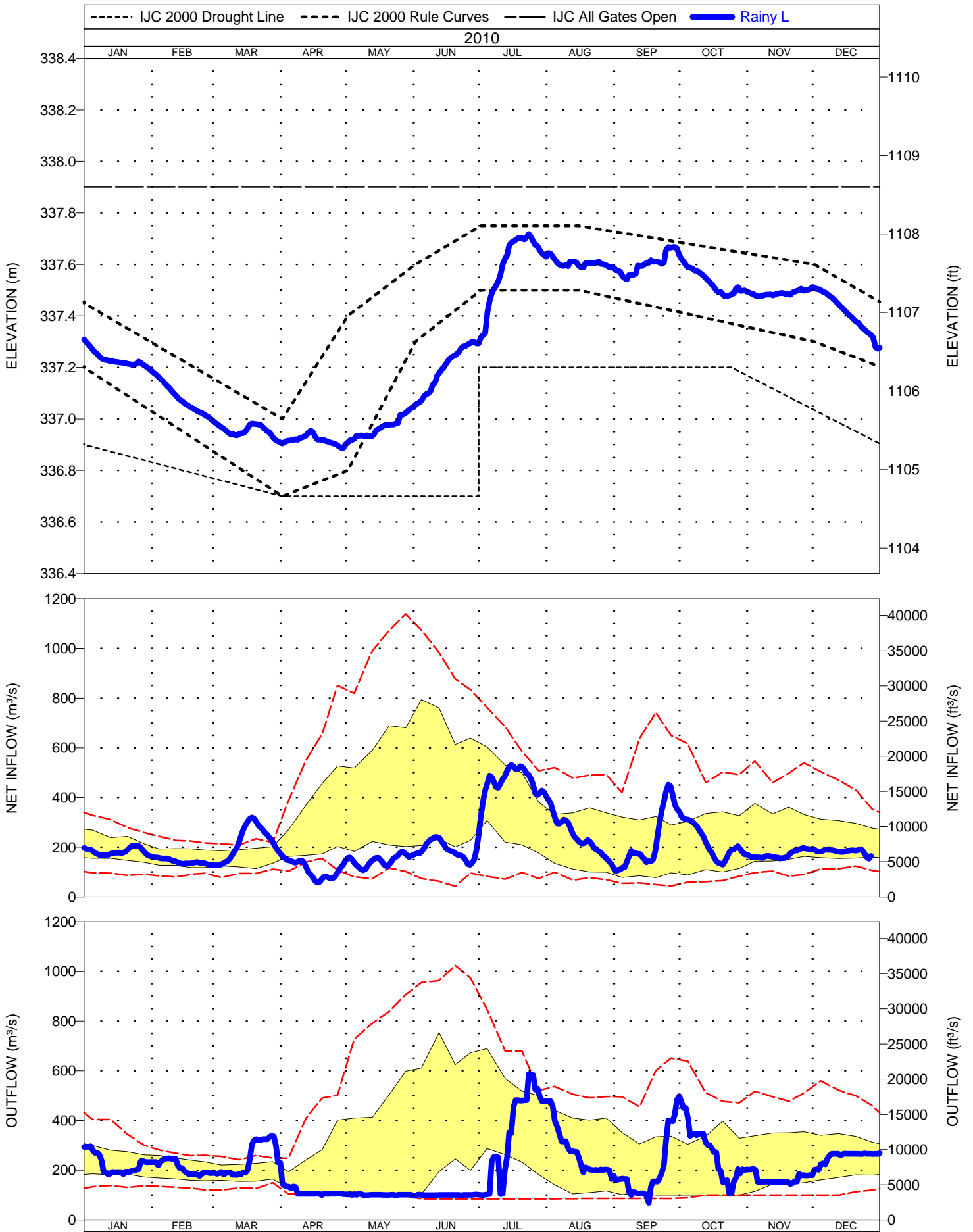
Other items of note during the quarter included the following:

- As noted in previous newsletters, the governments of the United States and Canada have issued a reference to the International Joint Commission to examine and make recommendations regarding bi-national management in the Lake of the Woods and Rainy River watersheds and the IJC's potential role in this management. The IJC established a task force to assist it with the reference. The Task Force held four public meetings in the basin in late October 2010 to introduce their mandate and hear input from the public. The meetings were well attended and allowed members of the public to voice their concerns to the Task Force and have them respond to their questions. In conjunction with the public meetings, the Task Force also held meetings with its Citizens' Advisory Group (CAG). For more information on the Task Force, please visit their website (http://www.ijc.org/conseil_board/rainy_river_watershed/).
- In October, the IJC received the final report of a study entitled "Rainy River 2D Hydrodynamic Model Conveyance Study" by the Canadian Hydraulics Centre. Following IJC approval, it was posted on the IRLBC website. The study looked at the hydraulic characteristics of the upper Rainy River from the outlet of Rainy Lake to the dam at International Falls / Fort Frances, as well as the impact of dam operations on the river. A Phase II study is underway to use the model to look at some of the flow/operational issues in more detail. This study should be complete in the spring of 2011.
- The IJC (US State Department) has committed funding for the U.S. Geological Survey to install and operate a new streamflow gauge in a low-gradient reach of the Rainy River below International Falls / Fort Frances using an Acoustic Doppler Velocity Meter. The gauge will provide enhanced information on flow through the dam and powerhouses and will be useful for future river hydraulic model input. Gauge planning has been by correspondence with people knowledgeable of Rainy River flow issues below International Falls. More site-specific reconnaissance of suitable gage locations, including site-specific instrumentation analysis and ordering, will be completed soon after ice melt. Gauge installation is anticipated to be completed in mid-summer 2011.
- Representative Board members and staff continued discussions with the IJC and resource agencies towards engaging a project manager to oversee scoping and implementation of studies identified in a report by the IJC's 2000 Rule Curve Assessment Workgroup. This report entitled, "Plan of Study for the Evaluation of the IJC 2000 Order for Rainy and Namakan Lakes and Rainy River" was submitted by the Workgroup to the IJC in June 2009 and is posted on the IRLBC website. A project manager has now been identified and the IJC is in the final stages of engaging these services, which will include writing, or coordinating the writing, of scopes of work for eleven studies from the June 2009 Plan of Study, and assisting researchers in designing these studies. Seven studies are scheduled to begin in U.S. and Canadian Fiscal Year 2012 with four more beginning in U.S. and Canadian Fiscal Year 2013. Future newsletters will provide further details concerning the studies being undertaken.

NAMAKAN LAKE



RAINY LAKE



LEGEND - LEVEL AND FLOW GRAPHS

