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

NEWSLETTER

1st Quarter 2012

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 1st quarter (January through March) of 2012.

Basin Conditions and Regulation

Inflow to Rainy Lake and Namakan Lake was near 10th percentile for the first two months of the year, continuing a period of low inflow that began the previous summer. The U.S. Drought Monitor classified the entire portion of the basin within Minnesota as undergoing moderate to severe drought conditions during this period.

Namakan Lake level declined near the mid-point of the IJC's Rule Curve band from the beginning of January until mid-March, despite near minimum outflows for this period. Early, very warm, freshet conditions in the second week of March brought about a rise in the lake level through the rest of the month. At the end of March, Namakan Lake was at 88% of the Rule Curve band, 10 cm (4 in) below the Upper Rule Curve.



A shoreline on Rainy Lake, March 24, 17 days before record-early ice out. Photo: Lee Grim

Rainy Lake level at the beginning of 2012 was 15 cm (6 in) below the Lower Rule Curve. With the minimum outflow and the declining rule curve through this period, the lake re-entered the Rule Curve band in the third week of February. As with Namakan Lake, the second week of March brought early freshet conditions. This led the level of the lake to rise above the Upper Rule Curve level at the end of March (the minimum elevation for the Rule Curve band occurs on March 31).

Board Meetings and Activities

The Boards held a joint conference call on January 20th with the project management team for the Plan of Study in support of the upcoming review of the 2000 Rule Curves. Topics covered included progress in on-going studies and prioritization of future studies related to the review.



The 2012 Larry Kallemeyn Award. Photo: Rick Cousins

Several Board members/ advisors attended the 9th annual Lake of the Woods Water Quality Forum in International Falls, March 7-8. The forum gathers resource managers, policy makers, and researchers with a common interest in water-related issues in the Lake of the Woods and Rainy River watershed. IRLBC member Lee Grim was presented with the Larry Kallemeyn Award in recognition of his professional achievement in resource management and contributions to research in the basin.

Another joint conference call was convened on March 19th to consider several projects for funding proposals, as well as to plan for the April appearance before the IJC at the semi-annual meeting in Washington, D.C.

GIS Map Data Harmonization in the Rainy River Basin

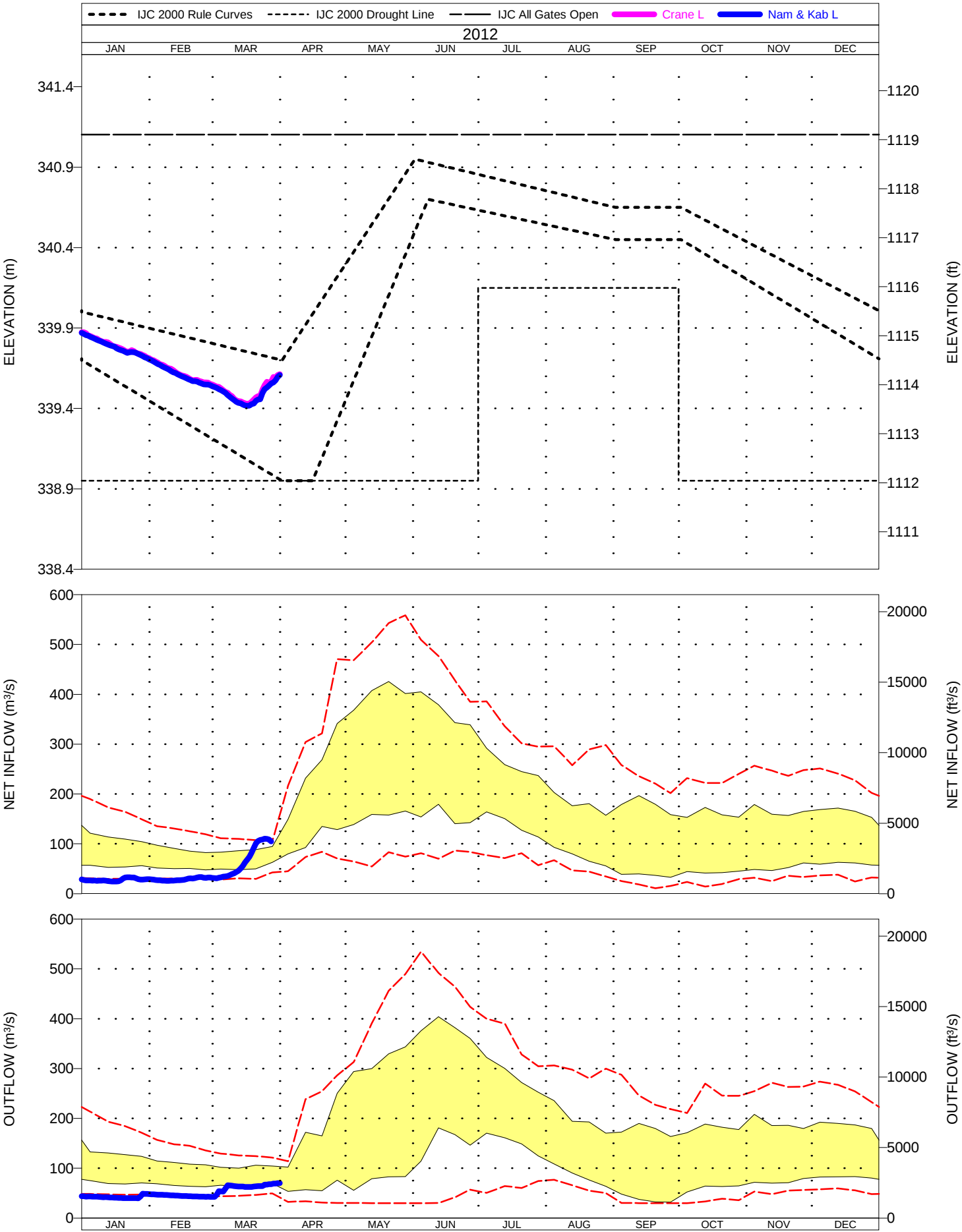
The IJC's Trans-boundary Hydrographic Data Harmonization Task Force held a data harmonization workshop in Saint Paul, MN from February 27th to March 1 with GIS professionals from Canada and the US. The goal of this workshop was to harmonize GIS hydrographic information for the Rainy River basin across the Canada-US border. Currently most GIS based hydrological maps stop at the international boundary. Having this seamless trans-boundary hydrological map data will allow for better modelling of water levels and flows and the effects of the 2000 rule curves.

More information on the Canada-US data harmonization efforts of the IJC can be found here: http://www.ijc.org/rel/boards/watershed/Canada-US_Hydro_Harmonization_e.pdf

Implementation of IJC 2000 Rule Curve Assessment Workgroup Recommended Studies

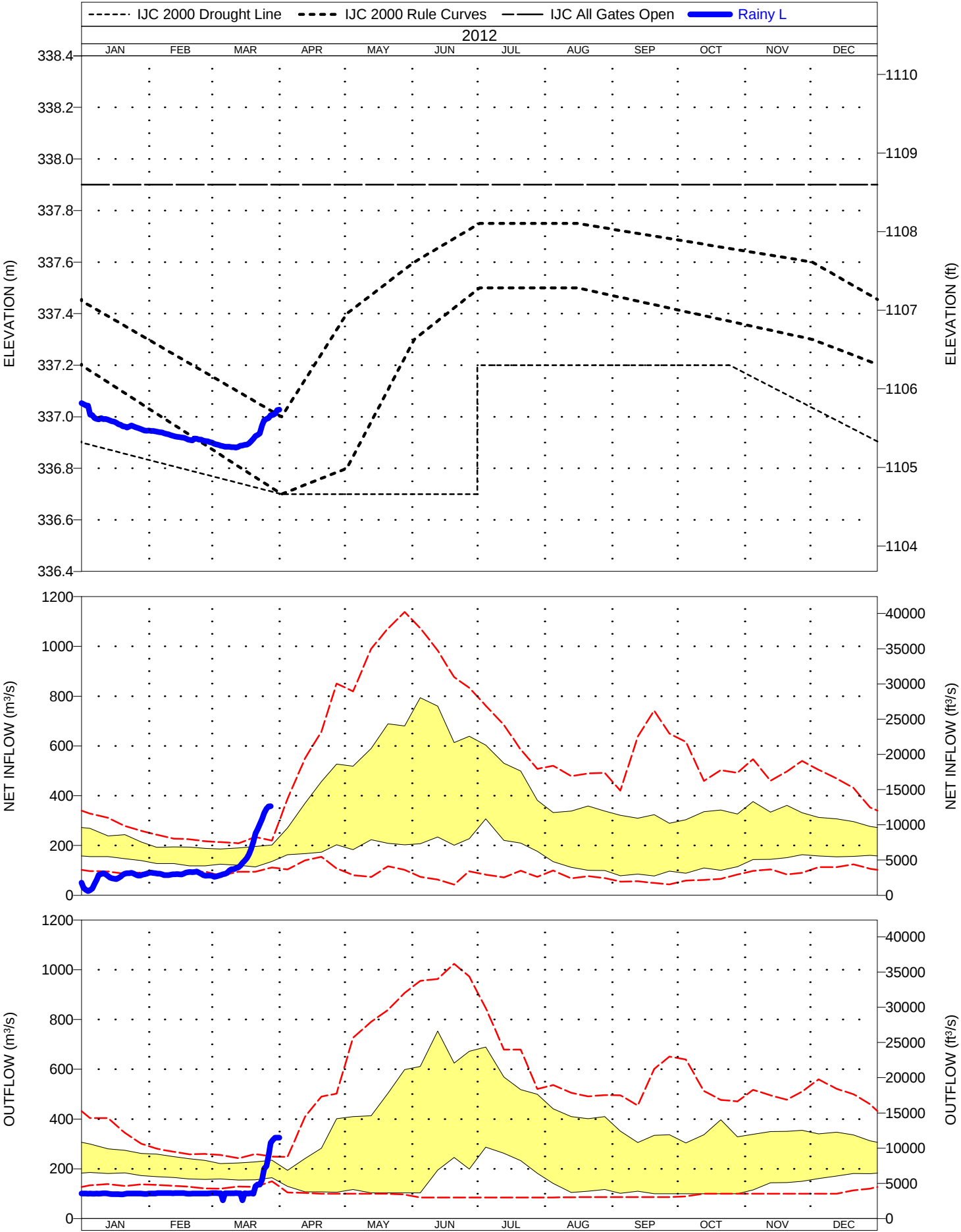
Project managers from Voyageurs National Park continue to work with the Rainy Boards to implement studies which will provide information for the 2015 review of the 2000 rule curves. The Boards approved studies on mussel diversity in the Rainy River, modelling of the hydrology of the Rainy River levels and flows from pre-dam and pre-2000 rule curve conditions, and a study to develop a reservoir hydrologic model for Rainy Lake and the Namakan Reservoir to help evaluate hydrodynamic changes of the reservoirs due to the 2000 rule curves. These local projects and others in support of the rule curve review are being funded by the IJC's International Watershed Initiative.

NAMAKAN LAKE



RAINY LAKE

Figure 2



LEGEND - LEVEL AND FLOW GRAPHS

