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

NEWSLETTER

2nd Quarter 2011

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 2nd Quarter (April to June) of 2011.

Basin Conditions and Regulation

Namakan Lake began April, 2011 at 52% of its rule curve band. Spring freshet flows began in the second week of April, raising the lake level by 47 cm (18.5 in) over that week. The sluices at Namakan were promptly adjusted to balance outflow with the freshet inflow, tapering the lake level rise to keep the lake below the upper rule curve. The lake level remained within the rule curve band for the remainder of the quarter, as inflows declined to the normal range at the start of May.

Rainy Lake began the quarter at 43% of the rule curve band. Rainfall in the first week of April combined with warm temperatures to begin the snowmelt. Under these wet conditions, unseasonably heavy rainfall across the basin on April 10 drove a steep rise in inflow. The Companies (Boise, Inc in the United States and ACH LP in Canada) promptly brought outflow from the dams at Fort Frances-International Falls to the maximum possible. On April 14, the IRLBC was informed of concern by residents and the county sheriff at Little Fork, MN about flooding, as the Little Fork River stage had risen 4.9 m (16.1 ft) since April 1. By this time, however, the Fork Rivers and Rainy River had peaked so no action was taken by the Board to direct changes in Rainy Lake outflow. The level of Rainy Lake tracked near the Upper Rule Curve for the rest of April, exceeding it by about 1 cm (0.5 in) for three days. Inflow to Rainy Lake followed a general decline from the initial peak in April until the end of June. The lake level rise was more gradual than the slope of the rule curve, allowing the lake to fall to 51% of the band by June 30.



Board Meetings and Activities

1. The Peaking Work Group held a conference call on April 1 to set a window for the voluntary moratorium on Rainy River hydropower peaking during the spring spawn. Follow-up conference

calls were held on April 15, May 27 and June 24. The no-peaking window began April 26, with an end-date of July 1.

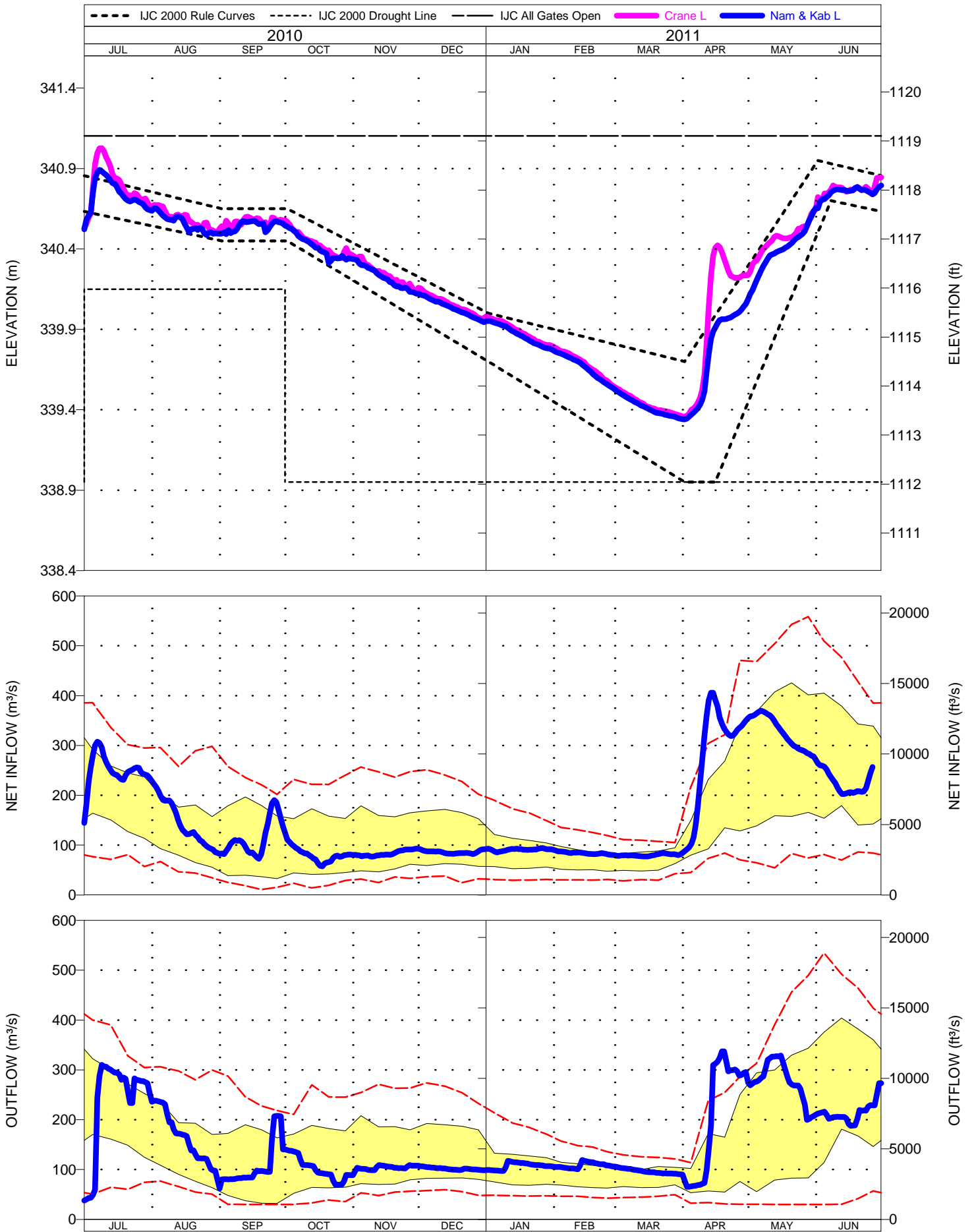
2. The Boards monitored effluent releases that could have an impact on Rainy River water quality. On April 10, the Town of Fort Frances reported a sewage bypass into the Rainy River. Boise reported the release of 75,000 gallons of paper mill process effluent into Rainy River on June 7.
3. On April 13, the Boards appeared before the IJC at its semi-annual meeting in Washington to present the Boards' spring report. Ahead of the meeting the Boards met to discuss a number of items, including proposed studies on the socio-economic and cultural implications of water level regulation on wild rice, updates on current projects funded through the International Watershed Initiative (IWI), the sale of ACH LP and its dam properties, budget planning for the IJC 2000 Rule Curve review, reporting of Rainy and Namakan Lake gate and sluice settings on the IRBLC website, and an update on the IWI Modeling Workshop. The Board also met with International Lake of the Woods and Rainy River Watershed Task Force members to discuss their interim report and recommendations.
4. The IJC released a list of new approved International Watershed Initiatives projects on May 17. New projects requested by the Rainy Boards that received IWI funding were:
 - a. *Seine River Temperature Project*. The purpose of this study is to help define the spring spawn for Seine River sturgeon through surrogate environmental indicators and note any effects of peaking on spawning.
 - b. *Hydrographic Surveys of Four Pinch Points (Namakan Narrows, Harrison Narrows, King William Narrows and little Vermillion Narrows) in the Namakan Reservoir System*. The goal of this project is to combine bathymetric and velocimetric survey data to develop a working water elevation model of the reservoir system. The model will improve understanding of the hydraulics in the Namakan Chain of Lakes.
 - c. *Rainy Lake North Arm Water Level Gauge (subject to an agreement with Water Survey of Canada that they will operate the gauge for at least five years)*. In response to concerns raised at the 2010 public meeting in Fort Frances regarding higher levels in the north arm of Rainy Lake at certain times of the year, the Board is pursuing the installation of a level gauge at Government Landing in Northwest Bay.
 - d. *Upper Rainy River Water Level Gauges (subject to an agreement with Water Survey of Canada that they will operate the gauge for at least five years)*. The installation of two additional water level gauges upstream of the dams on Rainy River is being planned to improve the understanding of the complex hydraulics in the constrictions in this area.
 - e. *Upper Rainy River HEC-RAS Model and Documentation*. In a previous study, the Canadian Hydraulics Centre (CHC) developed a two dimensional model of the upper Rainy River. In the current study, CHC will provide the Boards with a simpler HEC-RAS model of the upper Rainy River.
5. On May 20, the IRLBC added a new feature to its website. In addition to the regular updates on water levels and flows already available on the website, a new page allows the public to view current and recent settings for logs and sluices for the dams at the outlets of Rainy Lake and Namakan Lake.
6. The Boards held a joint conference call on June 2 to discuss studies identified in the Plan of Study for the 2015 Rainy-Namakan rule curve review. The Plan of Study is available on the Boards' website.

7. AbitibiBowater completed the sale of its majority share of ACH Limited Partnership, the owners of the control structures on the Canadian side at Fort Frances and at Kettle Falls on May 27. The management and operations of ACH Limited Partnership were not impacted by the sale.
8. The Boards reviewed and approved a list of researchers for carrying out a number of the studies identified in the Plan of Study for reviewing the IJC 2000 Rule Curves for Rainy and Namakan Lakes. The Plan of Study is available on the Boards' website. It is hoped that a number of these studies will be initiated in 2011.

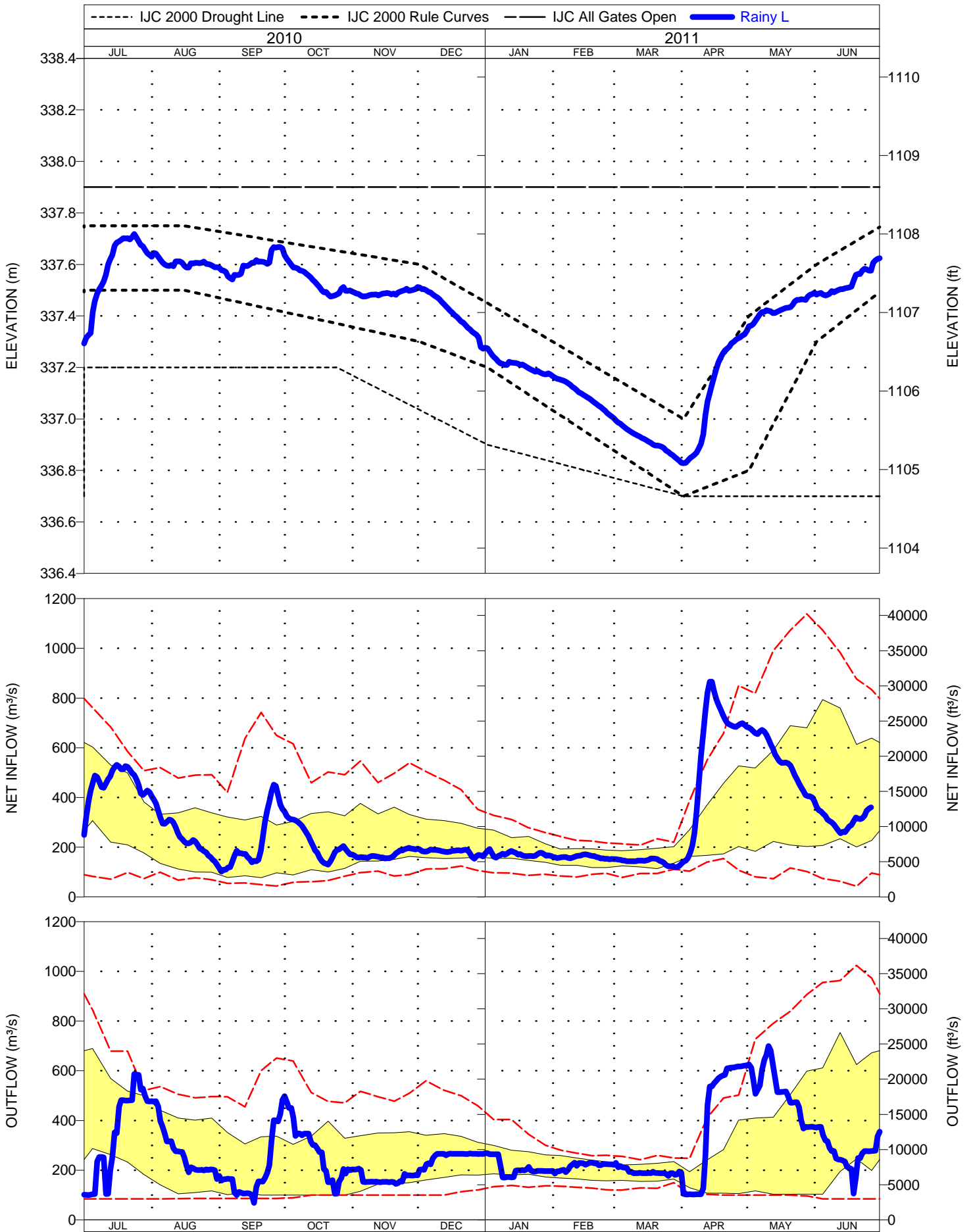
Other Information

1. Glenn Witherspoon completed his term as Canadian Member of the IRLBC on May 04.
2. On May 12 the International Lake of the Woods and Rainy River Watershed Task Force released their draft final report. The final report is expected by late July. The Task Force held follow-up public meetings in the basin at four locations from June 13-16.

NAMAKAN LAKE



RAINY LAKE



LEGEND - LEVEL AND FLOW GRAPHS

