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

## **NEWSLETTER**

3<sup>rd</sup> Quarter 2012

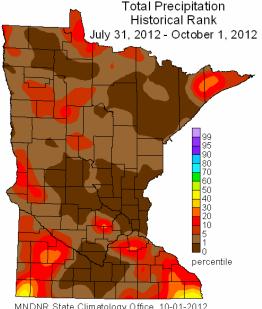
This newsletter provides a summary of the activities of the International Rainy Lake Board of Control (IRLBC) and the International Rainy River Water Pollution Board (IRRWPB) during the Third Quarter (July to September) of 2012.

### **Basin Conditions and Regulation**

Following the well above-average inflows that developed across the Rainy River basin in late June, inflow declined through the end of September to the 30<sup>th</sup> percentile for Namakan Lake and to the 10<sup>th</sup> percentile for Rainy Lake. This steady drop was the result of well-below normal rainfall during August and September, in addition to above-average temperatures and associated evaporation.

Despite the dry conditions, the overall 3rd quarter inflow ranged from near upper quartile (a one-in-four year high on average) in the Lac La Croix and Namakan Lake basins, to median in the Rainy Lake basin. At the end of the quarter, the Minnesota Drought Monitor classified nearly all US-portions of the basin as abnormally dry or under moderate drought.

With the persistent drop in inflow, Rainy Lake level declined within the Rule Curve band throughout the quarter. In response, the companies reduced Rainy Lake outflow to the minimum permitted by the IJC 2000 Consolidated Order, 100 m³/s, from September 8<sup>th</sup> until the end the month. Namakan Lake also underwent a slow but steady decline in level through September. With the lake level approaching the IJC Lower Rule Curve, all sluices had a full complement of stop logs installed in the last week of September. Water levels, inflows and outflows for both Namakan Lake and Rainy Lake are shown on the attached graphs.



MNDNR State Climatology Office, 10-01-2012

### Implementation of IJC 2000 Rule Curve Assessment Workgroup Recommended Studies

The Boards approved proposals or scopes of work (SOW) for several more studies which will be used during the review of the 2000 Rule Curves. These included a study on detailed bathymetry of selected littoral zones of Rainy and Namakan Reservoirs and a study which will use this information to model changes in available habitat for fish and other biota in the reservoirs. Other studies include the impact of the rule curves on water treatment plants and fish hatcheries and a study examining changes in the fish community in the Rainy River.



White pelicans on Kabetogama Lake, VNP (Lee Grim)

Many of the studies to support the 2000 Rule Curve review had successful field seasons in the basin during the summer of 2012. Surveys for benthic invertebrates and research on Northern pike and walleye spawning and nursery habitat took place in Rainy and Namakan Lakes. Work on fish spawning and nursery habitat was also conducted in the Rainy River. The final report for the project to assess the impact of water level fluctuations on common loons in Voyageurs National Park has been completed and is currently in review.

### Annual Basin Meetings and Tour-August 14th to 16th

The Rainy Boards held their annual basin meeting in Fort Frances Ontario from August 14<sup>th</sup> to 16<sup>th</sup>. They were joined by IJC staff and Commissioner Richard Moy of the IJC. At their annual meeting the Boards met to discuss the IJCs' report on governance in the Lake of the Woods Rainy River basin, data archiving and a proposal on the impacts of water level regulation on wild rice. Drew Stajkowski of the Ontario Ministry of the Environment presented an overview of regulations for mining and mining effluent. The Boards also held a meeting with the operators of the dam at Fort Frances and International Falls to discuss water level regulations and dam maintenance.

On the evening of the 14<sup>th</sup>, the Boards held their annual public meeting at the Hotel Rendez-vous in Fort Frances. The meeting was well attended by members of the public, industry, NGOs and resource agencies. Several people commended the dam operators on water level regulations in the past year.

On August 15<sup>th</sup>, Mike Ward and Voyageurs National Park staff hosted a tour of Rainy Lake and the Kettle Falls dam with the Rainy Boards and members of the community including NGOs, industry representatives and resource agency staff. The tour included a demonstration of the operations of log moving equipment at the Kettle Falls dam and a meeting with National Park Teen Ambassadors. It was a fantastic opportunity for everyone to network and become better acquainted in an informal setting.



Tour of Rainy Lake and Kettle Falls Dam (Lee Grim)

The Boards met with resource agency representatives to discuss agency activities in the basin. Following this meeting, several researchers presented the results of their findings on studies in support of the IJC 2000 rule curves assessment. Rainy River Resources also made a presentation to the Boards on their proposed Rainy River Gold Project northwest of Fort Frances.



### Other Meetings:

On July 23<sup>rd</sup>, the Boards convened a conference call to discuss proposed projects on the impacts of water level regulation on wild rice in the basin and discuss the upcoming public meeting. On September 7<sup>th</sup>, the Boards hosted a teleconference with Rainy River First Nations, OMNR, MDNR and the power companies to discuss ways to mitigate the impacts of dam operations on sturgeon spawning. They also convened a teleconference on September 28<sup>th</sup> to discuss potential changes to the role of the Boards.

National Park Teen Ambassadors at Kettle Falls Dam (Lee Grim)

### New Additions to the Boards:

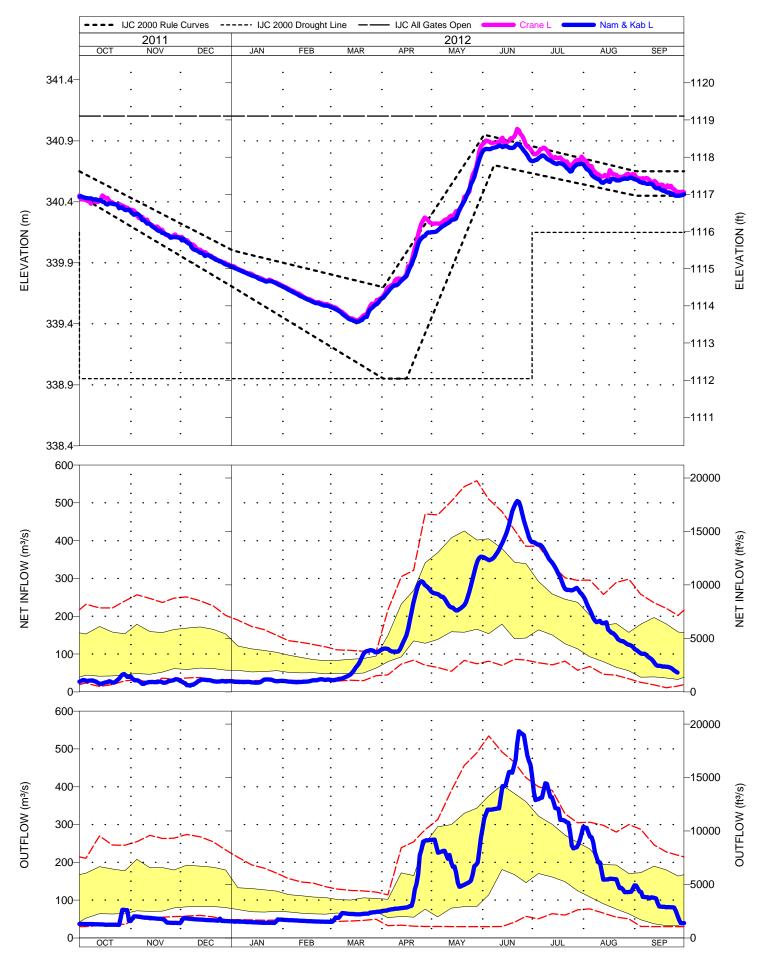
The Boards welcomed Kari Hauck as the US secretary for the IRLBC and IRRWPB. Kari works for the United States Army Corps of Engineers and has acted as secretary and assistant engineering advisor to the Boards in the past.



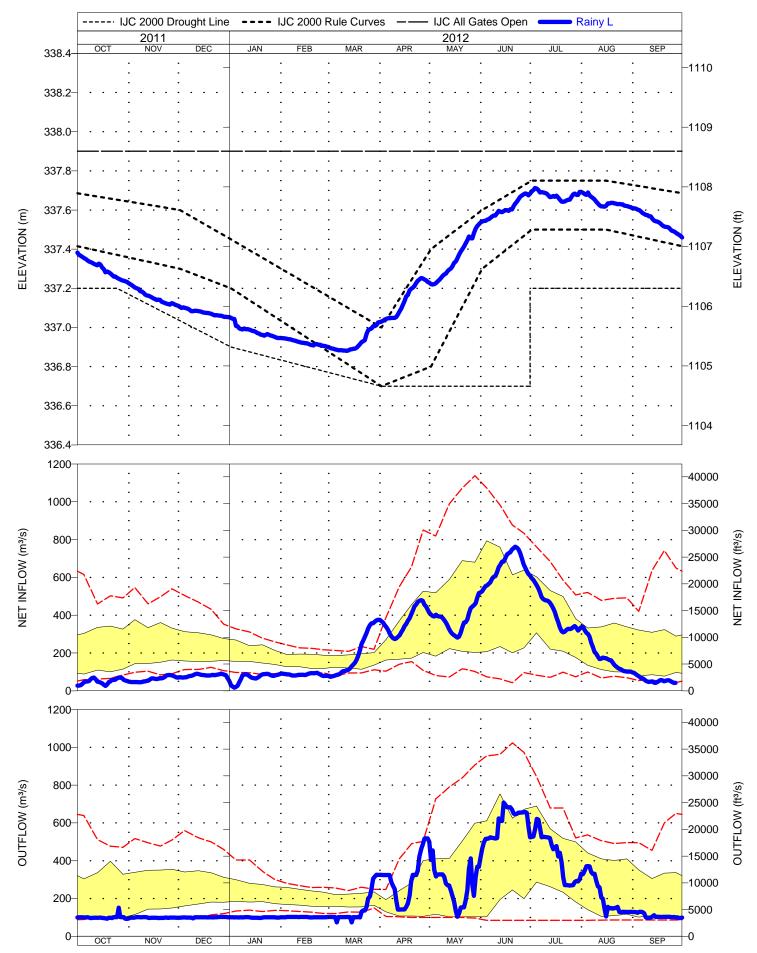
Bald Eagle at Skipper Rock Island territory, Rainy Lake (Lee Grim).

Questions or Comments? Contact the Boards' Secretary:

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# IRLBC RAINY LAKE



## **LEGEND - LEVEL AND FLOW GRAPHS**

### WATER LEVELS AND FLOWS

### **Actual Data**



Actual data for the dates shown

- levels are 1-day means plotted daily
- inflows are 7-day means plotted daily
- outflows are daily values

### Rule Curves (Namakan & Rainy Lakes)



IJC Upper & Lower Rule Curves

\_\_\_i\_\_\_ IJC 2000 Drought Line

IJC "All Gates Open" Level

### Statistical Data



Level/flow has been above this line 10% of time



Normal level/flow range:

Level/flow has been above this range 25% of time Level/flow has been within this range 50% of time Level/flow has been below this range 25% of time



Level/flow has been below this line 10% of time

All statistical levels are based on 3-day means at month quarter points.

All statistical flows are based on quarter-monthly means.

Period of record for all percent data is 1976-2005.

Datums for water levels are:

- Namakan Lake US Coast & Geodetic Survey (1912)
- Rainy Lake US Coast & Geodetic Survey (1912)