
INTERNATIONAL RAINY LAKE BOARD OF CONTROL

NEWSLETTER

REVIEW OF THE IJC ORDER FOR RAINY AND NAMAKAN LAKES

Number 2, April 1997

Introduction

The final plan of study for the review of the IJC order was approved by the International Joint Commission on January 17, 1996 by letter to the Chairmen of the International Rainy Lake Board of Control. The Board has the delegated responsibility for the review.

As part of the study plan, the Board developed a list of specific study components to be carried out, and a schedule for the completion of the work. The definition of the specific study components is unchanged and will be used for reporting purposes in this and subsequent newsletters. The completion of some of the study components has been delayed by approximately four months, and the Board now anticipates the study to be complete by mid-1998. The planned time for public review of both an interim Status Report and the Board Draft Report to the IJC are incorporated into the revised schedule.

Fisheries Review

The final combined consensus report of the two fisheries experts retained to carry out an independent review of existing information on Rainy and Namakan lakes was submitted to the Board in August, 1996. The major findings and conclusions of that report were summarized in Newsletter No. 1. The experts have completed their contract obligations, but remain available for consultation with the Board at future evaluation stages in the Study.

Hydrologic Modelling

The "REGUSE" Model, developed by Environment Canada, has been used previously in other transboundary basins under study by the IJC. The model was modified for use in the Rainy-Namakan basin, and calibrated using the data base for the period 1958 to 1992. In view of the high water experienced in 1996, the data base has been expanded to cover the time period 1958 to 1996 inclusive. Use of the model has pointed out a number of discrepancies in basic discharge ratings, inflow and outflow data, and in model calibration for short time periods. The data sets have been corrected and improvements to the calibration continue, but this study component is now behind schedule by approximately four months. A number of other components of the study, such as the flood damage segment of the Economics Data Summary and Downstream Effects, are dependent on results from the Hydrologic Model and have been delayed as well.

Independent of the REGUSE model, procedures have been developed to compute natural levels and outflows for Rainy and Namakan lakes. REGUSE is being used to compare operations with alternate

rule curves, while the natural flow calculations are important to check the assumptions of timing of refill and range of levels.

Inflow Forecasting

Initial contacts have been made with the Stakeholders Advisory Committee and other interested parties with the technical expertise to be able to participate. A detailed work plan has been partially drafted and when complete will be circulated to the Inflow Forecasting Group for comment, approval and acceptance of shared tasks.

Environmental Data Summary

A draft report has been prepared by the U.S. Army Corps of Engineers and is currently under review by the Board and external experts. The report covers water quality and plankton, benthic macro-invertebrates including mussels, aquatic plant community, amphibians and reptiles, aquatic mammals (muskrats, beavers and otters), grebes, loons and marsh birds, predatory birds and cultural resources. For each category of environmental resource the information is summarized, and the effects under the current IJC rule curves and International Steering Committee (ISC) proposed rule curves are described. A synopsis and critique of the literature used is contained in Appendices bound with the report. *The report's major conclusion is that the ISC proposed rule curves would enhance the ecological resources of Rainy and Namakan lakes.* All the proposed changes to the regulation plan would be required to realize the predicted benefits, with the most important change to the current rule curves being the reduction of winter drawdown on Namakan Lake. This latter statement must be interpreted within the context of the ecological resources, as the fisheries resources are not covered in the report. The findings of the Fisheries Experts were summarized in Newsletter Number 1. The Environmental Data Summary authors also suggest that the IJC occasionally allow operation outside the rule curve bands to reap the ecological benefits of infrequent extreme events. The report concludes that no additional environmental studies should be necessary to make a decision on rule curve change.

Economics Data Summary

A preliminary draft report using what information is available now has been prepared by the U.S. Army Corps of Engineers, and is currently under review by the Board. This draft report summarizes and evaluates the existing economic data under the seven potential damage categories of hydropower, flood damage, recreation, commercial enterprises, shoreline erosion, Native American transportation, and commercial fishing and domestic water supply. The report is awaiting the results of the hydrologic and hydraulic analysis before proceeding to the subsequent steps of comparison of effects under existing and proposed rule curves, assessment of significance of effects and recommendations for additional data collection and analysis. As additional information becomes available, gaps in the report will be filled in or sections will be expanded.

Status Report

As noted in the first Newsletter, the Board intends to prepare and release a Status Report when the initial study components have been completed. The Status Report will summarise all activities to date and be released to the public. This will be a key point in the study, and an excellent opportunity for input by stakeholders. Technical reports that the Board has received will also be made available at the same time. In view of the delays in the Hydrologic Modelling and other study components, the Status Report will be

delayed to the summer of 1997. It is expected that the content of the report can be enhanced by including some preliminary analysis in addition to the compilation of all study data that was originally envisioned.

Other Activities

The Board will be carefully monitoring the operation of control structures by the Companies during the spring refill period and will be providing advice or direction as required. The Board will report to the Commission as appropriate.

The Board's usual late winter-early spring public meeting in the watershed has been deferred to later in the year. The Board intends to hold its public meeting in conjunction with the release of the Status Report, so that it can obtain feedback on the report and also deal first hand with any questions or concerns regarding lake levels. In the interim, any questions or concerns related to water levels can be directed to the Engineering Advisors by telephone or in writing at the contact points listed below.

The Board will be using the Newsletter as one of the mechanisms to keep agencies and the public informed on study progress. If you wish to be added to the mailing list, or have comments or questions, please contact the Board's Engineering Advisors:

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