

In the Matter of Emergency Regulation of the Level
of Rainy Lake and of other Boundary Waters in the
Rainy Lake Watershed

OFFICIAL COMPILATION

of the

Order Prescribing Method of Regulating the Levels of

Boundary Waters, dated 8 June, 1949,

as amended by

Supplementary Order dated 1 October, 1957,

by

Supplementary Order dated 29 July, 1970,

by

Supplementary Order dated 5 January, 2000

then consolidated by

Consolidated Order dated 18 January 2001

and in turn amended by

Supplementary Order dated 1 March 2018.

This annotated compilation has been adopted by the Commission as the authoritative text of the Commission's Order of June 8, 1949, as amended. Further detail regarding the circumstances leading to the adoption of the Commission's orders can be found in their individual texts on the IJC website.

September 13, 2018

In the Matter of Emergency Regulation of the Level of
Rainy Lake and of other Boundary Waters in the Rainy Lake
Watershed

**ORDER PRESCRIBING METHOD OF REGULATING
THE LEVELS OF BOUNDARY WATERS**

Note:

- 1) This Order pertains to the Companies, their successors or assigns (hereinafter called the Companies) that own and operate the discharge facilities at the outlets of Rainy and Namakan Lakes. At the time of the original 1949 Order, these were the Minnesota and Ontario Paper Company, the Rainy River Improvement Company, and the Ontario-Minnesota pulp and Paper Company Limited. As of the signing of this Order, the Companies are H2O Power Corporation and Packaging Corporation of America.
- 2) All water level elevations referenced herein are relative to mean sea level, as defined by the United States Coast and Geodetic Survey datum, 1912 adjustment.

From the Original 1949 Order

WHEREAS by the terms of a Convention between the United States of America and Canada signed at Ottawa September 15, 1938, and ratified by His Majesty in respect of Canada on May 19, 1939, and by the President of the United States, with the advice and consent of the Senate, on September 10, 1940, and proclaimed by the President of the United States on October 18, 1940, the International Joint Commission is clothed with power to determine when emergency conditions exist in the Rainy Lake watershed, whether by reason of high or low water, and is empowered to adopt such measures of control as the Commission might deem proper with respect to the existing dams at Kettle Falls and International Falls, and with respect to any other existing or future dams or works in boundary waters of the Rainy Lake watershed, the language of Article 1 of said Convention being as follows:

“The International Joint Commission, established pursuant to the provisions of the treaty signed at Washington on the 11th day of January, 1909, relating to questions arising between the United States of America and Canada, is hereby clothed with power to determine when emergency conditions exist in the Rainy Lake Watershed, whether by reason of high or low water, and the Commission is hereby empowered to adopt such measures of control as to it may seem proper with respect to existing dams at Kettle Falls and International Falls, as well as with respect to any existing or future dams or works in boundary waters of the Rainy Lake watershed, in the event the Commission shall determine that such emergency conditions exist.”

and,

WHEREAS, the Companies operated and maintained the two existing Kettle Falls Dams across the principal outlets of Namakan Lake and the existing International Falls Dam across Rainy River, the outlet of Rainy Lake when the June 8, 1949 Order was adopted; the said Rainy Lake being at a lower level than Namakan Lake, and the said Namakan Lake being one of a

series of connecting lakes known as the Namakan Chain of Lakes; and,

WHEREAS, the several lakes comprising the Namakan Chain of Lakes, namely, Little Vermilion, Crane, Sand Point, Kabetogama, and Namakan Lakes, ordinarily stand at substantially the same level, the outflow therefrom and consequently their level being controlled principally by the Companies in operation of the existing Kettle Falls Dams; the said Kabetogama and Crane Lakes being entirely within the United States; and,

WHEREAS, the International Boundary passes through Rainy, Namakan, Sand Point, and Little Vermilion Lakes; and,

WHEREAS, the outflow from and the level of Rainy Lake are generally and customarily determined and controlled by the Companies in the operation of the existing International Falls Dam; and,

WHEREAS, the Companies have artificially regulated the level of Rainy Lake continuously since March 1909, and have artificially regulated the level of Namakan Lake continuously since March 1914; and,

WHEREAS, on the north rim of Namakan Lake a natural high-level outlet, known as the Bear Portage outlet, was in 1949 obstructed or partially obstructed by a crude timber and rock-fill barrier which apparently was constructed by the Companies or their predecessors without specific authorization, the effect of this barrier being to cause the Namakan Chain of Lakes occasionally to rise to a somewhat higher stage than would be reached if the barrier were not in existence; and,

WHEREAS, after due notice in each instance, the Commission held five public hearings on the questions raised by said Convention when considering its 1949 Order, in the course of

which evidence was adduced and all interested parties were given full opportunity to be heard, and those appearing and so desiring were heard; and,

WHEREAS, prior to adopting the 1949 Order, the Commission and its International Rainy Lake Board of Control made careful field investigations and technical studies of Rainy Lake and of the several lakes comprising the Namakan Chain of Lakes, and of other boundary waters of the Rainy Lake watershed, and of precipitation and runoff records of the drainage area tributary to Rainy Lake, and of the lands bordering and immediately adjacent to said lakes and boundary waters in both the United States and Canada, and gave extended consideration to the effects of both extremely high and extremely low lake levels upon the interests of the Companies, which utilized a large part of the flow of the Rainy River to produce power at their International Falls dam for use in their industrial operations at Fort Frances, Ontario and International Falls, Minnesota; and upon the interests of the State of Minnesota, the Province of Ontario, and riparian owners and proprietors; and it appeared to the Commission that:

During the 40-year period, 1909 to 1948 inclusive, the level of Rainy Lake has fluctuated between a minimum elevation of 1098.86 feet (334.93 meters) on April 11, 1909, and a maximum elevation of 1112.51 feet (339.09 meters) on June 8, 1916; and,

During the 37-year period, 1912 to 1948 inclusive, the level of Namakan Lake has fluctuated between a minimum elevation of 1106.18 feet (337.16 meters) on April 13-14, 1923, and a maximum elevation of 1122.86 feet (342.25 meters) on May 23, 1916; and,

Very high levels in Rainy Lake and the Namakan Chain of Lakes during the summer and early autumn of each year are desirable from the viewpoint of the Companies because under such conditions larger volumes of water may be held in storage to augment the production of power at the Companies' International Falls dam during the season of low runoff, and because the elevation of Rainy Lake is determinative, in part, of the power head available at the said International Falls dam; but under such conditions, with Rainy Lake and the Namakan Chain of Lakes at artificially high levels, riparian lands and the shore properties thereon are adversely affected due to erosion and caving banks, fallen

trees along the shore, flooding of shore improvements, and the disturbing of established shore lines with attendant unsightly conditions; and,

Very low lake levels result in unsightly and unsanitary conditions, and are otherwise objectionable; and they usually prevail for longer periods of time than do the very high lake levels; and,

High discharges at the Kettle Falls and the International Falls Dams are damaging to all interests affected thereby, including the Companies' power interests; and,

Both extremely high and extremely low levels in Rainy Lake and the Namakan Chain of Lakes are highly objectionable to the large segment of the general public concerned with recreational values in both the United States and Canada; and,

WHEREAS, with the object of securing to the peoples of Canada and the United States the most advantageous use of the waters of Rainy Lake and the Namakan Chain of Lakes for the combined purposes of navigation, sanitation, domestic water supply, power production, recreation, and other beneficial public purposes, it is desirable to formulate and put into effect a definite practicable method or rule for regulation of the levels of said lakes to prevent the occurrence of both extremely high and extremely low levels, and restrict lake fluctuations to a prescribed range, insofar as possible.

From the 1957 Supplementary Order

WHEREAS, following the floods of 1950 and 1954 the Commission directed its International Rainy Lake Board of Control to prepare a report on regulation practices, and after considering the Board's July 31, 1956 report, and holding a public hearing, the Commission, by Supplementary Order dated October 1, 1957, amended its Order of June 8, 1949 to permit greater flexibility in the regulation of the level of Namakan Lake, the amendment to terminate September 30, 1962 unless the Commission continued it in force beyond that date.

From the 1970 Supplementary Order

WHEREAS the Commission, after affording opportunity for the interested parties to be heard and deeming such action to be in the public interest, extended the termination date of the October 1, 1957 amendment on two occasions; and,

WHEREAS, following heavy rains that occurred at various times since 1957, and especially throughout the summer of 1968, which caused both Rainy and Namakan Lakes to rise considerably above the full pool elevations set forth in the Commission's Order then in force, and following low water conditions that occurred at various times since 1957, which caused both Rainy and Namakan lakes to fall below the minimum elevations set forth in the Order, the Commission directed its International Rainy Lake Board of Control to examine further measures of regulating the lakes and, after considering the Board's March 1969 report as well as an April 1970 report by its International Rainy River Water Pollution Board, which noted certain minimum flows to be maintained in the Rainy River to avoid exposing unsightly fibrous sludge and to prevent the occurrence of low dissolved oxygen levels, and after holding a public hearing, the Commission by Supplementary Order dated July 29, 1970, further amended its Order of June 8, 1949, based on experience which demonstrated the difficulties of operating the outlet works so as to ensure that lake levels will be at precise elevations on certain dates and to further qualify the Commission's determination of "emergency conditions" within the meaning of the Convention signed on September 15, 1938.

From the 2000 Supplementary Order

WHEREAS, after considering a November 1993 proposal by an ad-hoc group of American and Canadian citizens known as the Rainy-Namakan Water Level International Steering Committee, a February 1994 Statement in Response by the Companies to the 1993 International Steering Committee proposal, and April 28, 1999 draft and October 26, 1999 final

reports from its International Rainy Lake Board of Control, and after holding public hearings, the Commission revised its Order on January 5, 2000, to continue to carry out its responsibilities under the 1938 Convention for avoiding emergency conditions by instituting revised rule curves and other requirements which provide a careful balance between upstream and downstream concerns, and among the various interests, including environmental concerns, hydropower, flood risk, and boating. The January 5, 2000 Supplementary Order also took into account improvements to water quality in the Rainy River that allow lower discharges under low-flow conditions than were previously desirable; and,

WHEREAS the Commission determined in its January 5, 2000 Supplementary Order that some variation in the regulated levels may be desirable from year to year, within defined rule curve bands; and,

WHEREAS the Commission understood that monitoring programs would be implemented by the resource management agencies to enable the impacts of the January 5, 2000 rule curves on the biological and aquatic communities to be identified, and to provide an adequate source of information for future reviews.

From the 2018 Supplementary Order

WHEREAS the Commission issued an official Consolidated Order in January 2001, which was “adopted by the Commission as the authoritative text of the Commission’s Order of June 8, 1949, as amended, and replaces the individual Order and Supplementary Orders listed above;”

WHEREAS in 2010, the Commission convened an independent binational group of experts to carry out studies identified in the 2009 Plan of Study for the Evaluation of the 2000 Rainy and Namakan Lakes rule curves. These studies, in addition to ongoing monitoring activities carried out by resource agencies, were conducted over a five year period in order to understand the effects and changes of the 2000 Supplementary Order on conditions in the Rainy Lake basin;

WHEREAS the Commission also received a reference, dated June 17, 2010, under Article IX of the Boundary Waters Treaty from the Governments of Canada and the United States, to study and make recommendations regarding “the binational management of the international waters of the Lake of the Woods and Rainy River system”;

WHEREAS the Commission, after studying this issue and reporting to Governments, recommended the consolidation of the International Rainy River Pollution Board and the International Rainy Lake Board of Control into a single board, called the International Rainy Lake-Lake of the Woods Watershed Board. Following endorsement by the two governments the Commission established the Watershed Board to be supported by a Water Levels Committee (WLC), which was charged with ensuring compliance with its Orders of Approval and acting as a technical advisor to the Commission and the Watershed board;

WHEREAS the Commission established the International Rainy and Namakan Lakes Rule Curves Study Board in August 2015, and charged it “to evaluate options for regulating levels and flows in the Rainy-Namakan Lakes system in order to benefit affected interests and the system as a whole”;

WHEREAS the Study Board provided its final report to the Commission in June 2017, and recommended modified rule curves for Rainy and Namakan lakes, after careful consideration of the issues in the basin and extensive consultation with the public;

WHEREAS the Commission considered the recommendations of the Study Board before publishing draft changes to its Orders of Approval for the emergency regulation of Rainy and Namakan Lakes and inviting public comment in July 2017. The draft Supplementary Order was based on Rule Curve Alternative C, developed by the Study Board, which provided conditional spring flood reduction targets for Rainy Lake in years with high spring flood risk and reduces over-winter drawdown for broad ecological benefits in both lakes;

WHEREAS concerns were raised by stakeholders on Namakan Lake in the public comment

period about increased water levels on Namakan Lake from March 1 through 15 with Rule Curve Alternative C. The Commission consulted with members of the Study Board and experts about this concern and finds that there have been no floods in March on record in Namakan Lake and that minor raising of the upper rule curve band during this period would not add to the flood risk, and notes that the upper portion of the rule curve band will not be targeted in years where there is high snow pack or a forecasted wet spring;

WHEREAS the Commission is of the view that within a climate change context, it is hard to predict what future inflows may be between March 1 and 15. In light of this and concerns raised by Namakan Lake stakeholders about the potential for spring flooding, the Commission emphasizes the flexibility the WLC has within the rule curve for Namakan Lake, and the potential for the WLC to request a deviation from the Rule Curve for Namakan Lake if it deems it necessary due to the risk for spring flooding. Further, consultation with the public will be a critical component of WLC operations under the new order, including prior to the crucial spring freshet period;

WHEREAS the consistently high level of public engagement in the basin continues to impress the Commission, and is invaluable in contributing to the work of the Commission, the Watershed Board and the Water Levels Committee;

WHEREAS the Commission endorses the application of an adaptive management approach in order to monitor and objectively understand how the changes to the rule curves affect the Rainy and Namakan Lakes system, so the rule curves can be objectively reviewed in the future;

WHEREAS the Commission recognizes the long history of the Indigenous peoples in the Rainy-Lake of the Woods basin, and will endeavor to build on existing relationships with Indigenous peoples moving forward in the basin. The Commission recognizes that developing stronger relationships with Indigenous communities requires a sustained and committed approach to the Commission's work in the basin; and

WHEREAS after careful deliberation, the Commission is confident that the adoption of the rule curves contained in this Order will result in broad ecological benefits, and that the new inclusion of an alternative rule curve for Rainy Lake for high flood risk years will help to reduce flood peaks. Combined with further operational guidance for the Water Levels Committee, more flexibility for the Water Levels Committee in targeting levels within the rule curves, continued and improved engagement with Métis, Tribes, and First Nations, and the exploration of adaptive management, the rule curves will help to ensure that the boundary waters of the Rainy River basin are well managed for years to come.

WHEREFORE THIS COMMISSION DETERMINES THAT:*From the 1970 Supplementary Order*

- A. Emergency conditions exist in and along the shores of the Namakan Chain of Lakes when the level of Namakan Lake is higher than elevation 340.95 meters (1118.6 feet) above mean sea level, excluding the effect of wind and currents, and the inflow at that time is in excess of the total outflow capacity of the present structures at Kettle Falls; emergency conditions also exist when the level of Namakan Lake is lower than elevation 337.90 meters (1108.6 feet) above mean sea level and the outflow has been reduced to 28.3 m³/s (cubic meters per second), equivalent to 1000 cfs (cubic feet per second);

From the 1970 Supplementary Order

- B. Emergency conditions exist in and along the shores of Rainy Lake when its level is higher than elevation 337.75 meters (1108.1 feet) above mean sea level, excluding the effect of wind and currents, and the inflow at that time is in excess of the total outflow capacity of the present structure at International Falls-Fort Frances; emergency conditions also exist when the level of Rainy Lake is lower than elevation 336.68 meters (1104.6 feet) above mean sea level and the outflow has been reduced to the minimum allowable discharge prescribed by Order of this Commission; and

From the 1970 Supplementary Order

- C. In order to prevent the occurrence of such emergency conditions, it is necessary to anticipate high and low inflows to said lakes insofar as possible and so regulate the outflow at the Kettle Falls Dams and the International Falls-Fort Frances Dam as to avoid as far as possible the occurrence of such conditions.

NOW, THEREFORE THIS COMMISSION ORDERS AND DIRECTS THAT:Note:

The original 1949 Order directed the Companies, insofar as possible, to keep the level of Rainy and Namakan lakes precisely on a single rule curve (which varied seasonally) defined for each lake. The 1957 Supplementary Order made no change in rule curve on Rainy Lake, but defined both an upper and lower rule curve for most of the year on Namakan Lake, with the level to be maintained between these limits at the discretion of the Companies, and with a single rule curve remaining only for the summer months. The 1970 Supplementary Order defined an upper and lower rule curve for both lakes, with operation between these curves at the discretion of the Companies, and prescribed minimum outflows from the lakes. The 2000 Supplementary Order revised the 1970 rule curves for both lakes, required that the Companies target the middle portion of the rule curve band subject to other direction from the International Rainy Lake Board of Control, and revised the prescribed minimum outflows. The 2018 Supplementary Order made revisions to the rule curves for both lakes, removed the requirement that the Companies target the middle of the rule, and created an alternative rule curve for Rainy Lake for use in years where the Water Levels Committee determined there was a high flood risk.

Namakan Lake*From the 2018 Supplementary Order*

1.(a) The Companies, their successors or assigns shall operate the discharge facilities at the Kettle Falls Dam as authorized by the Water Levels Committee of the International Rainy Lake and Lake of the Woods Watershed Board, hereafter “Water Levels Committee”, in such manner that insofar as possible the level of Namakan Lake, unaffected by wind or currents, will be between the following minimum and maximum elevations on the dates shown or between elevations which can be interpolated therefrom between these dates, these elevations being above mean sea level. Furthermore, the companies, their successors, or assigns shall keep the Water Levels Committee informed in advance of their intended actions. The Water Levels Committee shall monitor hydrologic conditions and the Companies' actions and may provide the Companies with directions for the operation of their discharge facilities. The Companies shall carry out any instructions provided by the Water Levels Committee, which may include instructions to target specific levels within the band.

Namakan Lake Elevations

| Minimum | | | Maximum | | |
|---------|--------|---------|---------|--------|---------|
| Date | Meters | Feet | Date | Meters | Feet |
| 01-Jan | 339.66 | 1114.37 | 01-Jan | 339.93 | 1115.26 |
| 15-Mar | 339.56 | 1114.04 | 15-Mar | 339.9 | 1115.16 |
| 31-Mar | 338.95 | 1112.04 | | | |
| | | | 15-Apr | 339.99 | 1115.45 |
| 22-Apr | 338.95 | 1112.04 | | | |
| 31-May | 340.47 | 1117.03 | 31-May | 340.93 | 1118.54 |
| | | | 8-Jun | 340.94 | 1118.57 |
| 15-Jun | 340.68 | 1117.72 | | | |
| 30-Sept | 340.40 | 1116.8 | 30-Sept | 340.6 | 1117.45 |
| 15-Nov | 339.73 | 1114.6 | 15-Nov | 339.98 | 1115.42 |

From the 1970 Supplementary Order

1.(b) Whenever the level of Namakan Lake is in excess of 341.10 meters (1119.1 feet), as will occur occasionally when flood inflows are in excess of the outflow capacity of the present dams at Kettle Falls, all gates and fishways in those dams shall be fully open to ensure the most rapid possible return to the maximum elevation prescribed in sub-paragraph 1(a).

From the 2018 Supplementary Order

1.(c) Whenever the level of Namakan Lake is lower than the minimum elevations prescribed in sub-paragraph 1(a), the total outflow from the Namakan Chain of Lakes into Rainy Lake shall be reduced to 30 m³/s (1060 cfs) instantaneous; furthermore, whenever the level of Namakan Lake is lower than the drought line prescribed below, as may occur during periods of deficient inflow, the total outflow from Namakan Chain of Lakes may be further reduced, at the discretion of the Water Levels Committee following appropriate consultations with resource agencies and affected municipalities and others, to not less than 15 m³/s (530 cfs) instantaneous.

Namakan Drought Line

| Date | Elevation (m) | Elevation (ft) |
|---------|---------------|----------------|
| 1 Jan | 338.95 | 1112.0 |
| 30 June | 338.95 | 1112.0 |
| 1 July | 340.15 | 1116.0 |
| 30 Sept | 340.15 | 1116.0 |
| 1 Oct | 338.95 | 1112.0 |

Rainy Lake

From the 2018 Supplementary Order

2.(a) The Companies, their successors or assigns shall operate the discharge facilities at the International Falls-Fort Frances Dam as authorized by the Water Levels Committee, in such manner that insofar as possible the level of Rainy Lake, unaffected by wind or currents, will be between the following minimum and maximum elevations on the dates

shown or between elevations which can be interpolated therefrom between these dates, these elevations being above mean sea level. Furthermore, the companies, their successors or assigns shall keep the Water Levels Committee informed in advance of their intended actions. The Water Levels Committee shall monitor hydrologic conditions and the Companies' actions and may provide the Companies with directions for the operation of their discharge facilities. The Companies shall carry out any instructions provided by the Water Levels Committee, which may from time to time include instructions to target specific levels within the band.

Rainy Lake Elevations

| Minimum | | | Maximum | | |
|---------|--------|---------|---------|--------|---------|
| Date | Meters | Feet | Date | Meters | Feet |
| 01-Jan | 336.99 | 1105.61 | 01-Jan | 337.25 | 1106.46 |
| 15-Mar | 336.89 | 1105.28 | 15-Mar | 337.18 | 1106.23 |
| 01-Apr | 336.71 | 1104.69 | | | |
| | | | 15-Apr | 337.20 | 1106.30 |
| 01-May | 336.80 | 1104.99 | 01-May | 337.40 | 1106.96 |
| 01-Jun | 337.30 | 1106.63 | 01-Jun | 337.60 | 1107.61 |
| 01-Jul | 337.50 | 1107.28 | 01-Jul | 337.75 | 1108.10 |
| 15-Jul | 337.49 | 1107.25 | 15-Jul | 337.73 | 1108.04 |
| | | | 22-Sep | 337.64 | 1107.74 |
| 30-Sep | 337.31 | 1106.66 | | | |
| 22-Nov | 337.07 | 1105.84 | 22-Nov | 337.26 | 1106.50 |
| 30-Nov | 337.04 | 1105.77 | 30-Nov | 337.26 | 1106.50 |
| 22-Dec | 337.00 | 1105.64 | 22-Dec | 337.27 | 1106.53 |
| 31-Dec | 336.99 | 1105.61 | 31-Dec | 337.25 | 1106.46 |

- 2.(b) If forecasts show that the basin may experience high inputs that may cause flooding later in the season, the Water Levels Committee may direct that the Companies follow the below high flood risk rule curve for Rainy Lake. The determination to follow the high flood risk rule curve should be made by the Water Levels Committee no later than March 10. If, after the Water Levels Committee has made the determination to follow the high flood risk rule

curve, conditions change as the year progresses and the risk of flooding decreases, the Water Levels Committee may direct the Companies to return to following the standard rule curve for Rainy Lake contained in condition 2(a).

Rainy Lake Elevations (high flood risk rule curve)

| Minimum | | | Maximum | | |
|---------|--------|---------|---------|--------|---------|
| Date | Meters | Feet | Date | Meters | Feet |
| 01-Apr | 336.70 | 1104.66 | 01-Apr | 337.00 | 1105.64 |
| 01-May | 336.70 | 1104.66 | 01-May | 336.85 | 1105.15 |
| | | | 01-Jun | 337.30 | 1106.63 |
| | | | 01-Jul | 337.60 | 1107.61 |
| 15-Jul | 337.50 | 1107.28 | 15-Jul | 337.75 | 1108.10 |
| 31-Dec | 337.20 | 1106.30 | 31-Dec | 337.45 | 1107.12 |

From the 1970 Supplementary Order

2.(c) Whenever the level of Rainy Lake is in excess of 337.90 meters (1108.6 feet), as will occur occasionally when flood inflows are in excess of the outflow capacity of the dam at International Falls-Fort Frances, all gates in that dam shall be fully open to ensure the most rapid possible return to the maximum elevation prescribed in subparagraph 2(a).

From the 2000 Supplementary Order, amended by the 2018 Supplementary Order

2.(d) Whenever the level of Rainy Lake is lower than the minimum elevations prescribed in subparagraph 2(a), the outflow from the dam at International Falls- Fort Frances shall be reduced to 100 m³/s (3530 cfs) instantaneous; furthermore, whenever the level of Rainy Lake is lower than the drought line prescribed below, as may occur during periods of deficient inflow, the outflow from the dam at International Falls-Fort Frances may be further reduced at the discretion of the Water Levels Committee following appropriate consultations with resource agencies and affected municipalities and others, to not less than 65 m³/s (2300 cfs) instantaneous. If outflows are so further reduced at the discretion of the Board, the Companies shall monitor dissolved oxygen levels as the Board may require.

Rainy Lake Drought Line

| Date | Elevation (m) | Elevation (ft) |
|---------|---------------|----------------|
| 1 Jan | 336.90 | 1105.3 |
| 1 April | 336.70 | 1104.7 |
| 30 June | 336.70 | 1104.7 |
| 1 July | 337.20 | 1106.3 |
| 24 Oct | 337.20 | 1106.3 |

From the 1970 Supplementary Order

- 2.(e) The existing barrier which obstructs or partially obstructs the high-level Bear Portage outlet, and which has deteriorated by natural process, shall not be repaired, strengthened, raised, lowered, or otherwise modified in any way by the Companies, their successors or assigns, or by any other corporation or person without specific authorization from this Commission.

From the 1970 Supplementary Order, amended by the 2018 Supplementary Order

3. Notwithstanding Paragraphs numbered 1 and 2 of this Order, if extremely high or low inflows to Namakan Lake or Rainy Lake are anticipated, the Water Levels Committee, after obtaining the approval of the Commission, may authorize the levels of Namakan Lake and/or Rainy Lake to be raised temporarily to greater than the maximum or lowered temporarily to less than the minimum elevations respectively prescribed in Paragraphs numbered 1(a) and 2(a) of this Order.

From the 2018 Supplementary Order

4. All obligations imposed in the said Order dated June 8, 1949, as amended by the Supplementary Orders dated October 1, 1957; July 29, 1970; January 5, 2000; and this Order upon the Companies, their successors or assigns apply jointly and severally to H2O Power Corporation and Packaging Corporation of America and their successors or assigns.

From the 2018 Supplementary Order

5. This Order shall be subject to review 15 years after the effective date of this Supplementary Order or as otherwise determined by the Commission. The review shall, at a minimum, consider monitoring information collected by natural resource management agencies and others during the interim that may indicate the effect of the changes contained in this Supplementary Order.

From the 2000 Supplementary Order

6. In the event of any conflict regarding English and metric units given in this Order, metric units shall prevail.

From the 2000 Supplementary Order

7. Figure 1 provides an illustration of the requirements of this Order.

From the 1949 Supplementary Order

- a. The Commission reserves the right to have the aforementioned Bear Portage barrier removed, or cause its crest to be lowered, in event the Commission shall find at any time that said barrier interferes seriously with the achievement of the objectives of this Order.

From the 1957 Supplementary Order

- b. The Companies shall maintain their control works in the Kettle Falls dams in such manner that changes in the outflow may be made promptly at all times.

From the 1949 Supplementary Order

- c. The Commission also reserves the right to amend or rescind this Order at any time, and to issue such supplementary or other Orders in the premises as it might deem to be in the public interest; but this Order, from and after the date of its adoption by the Commission, shall be in full force and effect until otherwise ordered by the Commission.

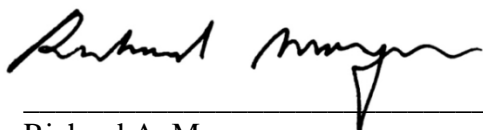
This Order, signed the 13th of September, 2018, is an authoritative compilation of the previous Order and Supplementary Orders.



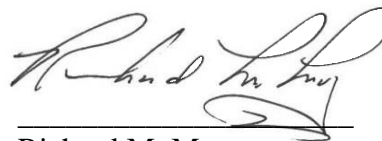
Gordon W. Walker



Lana B. Pollack



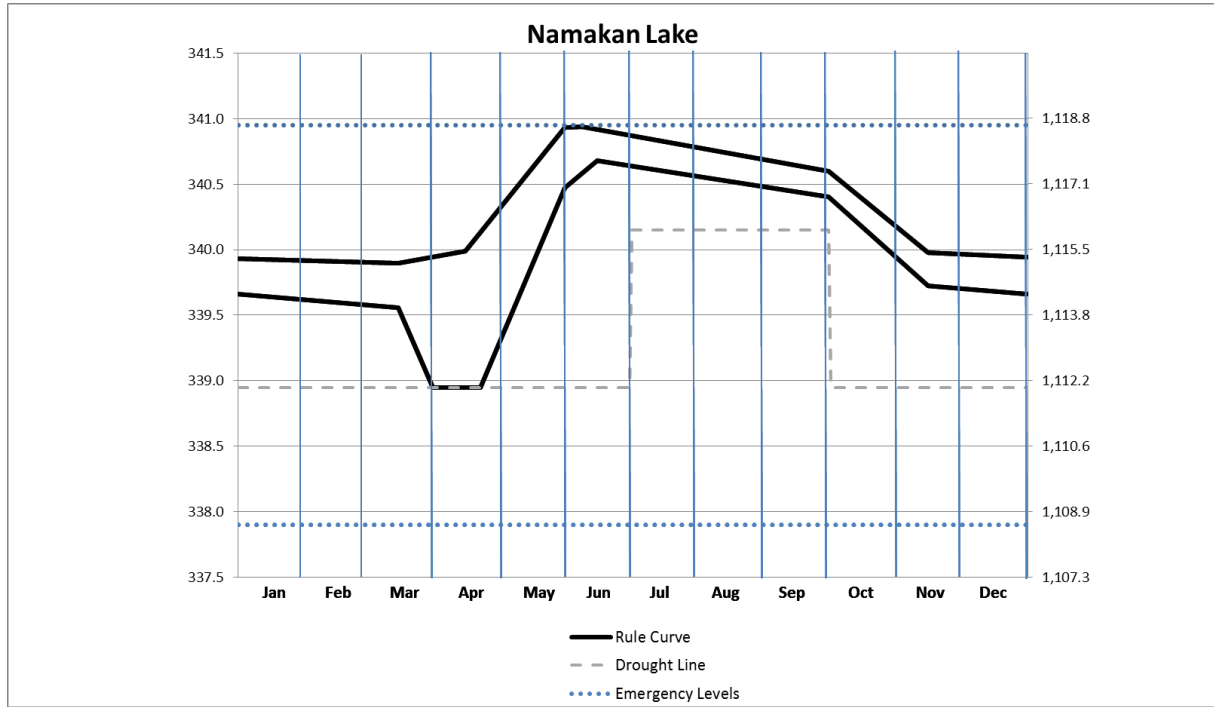
Richard A. Morgan



Richard M. Moy

Figure 1

Namakan Lake Rule Curve



Rainy Lake Rule Curves

