

THOMAS POND DAM MANAGEMENT PLAN

OBJECTIVE

The goal of the Thomas Pond Improvement Association is to manage lake levels in such a way as to provide satisfactory water conditions in both Thomas Pond itself as well as the outlet Dingley Brook. Pond levels are controlled by proper adjustments of the outlet dam. Key points to be considered in adjusting the dam are as follows:

1. Maintain level of Thomas Pond at 17-20" below the concrete top of the dam as measured in the weir slots.
2. Control spring pond levels in anticipation of spring rain and snow melt so as to prevent property flooding on the pond.
3. Control spring pond levels in such a way as to avoid excessive flow in Dingley Brook. I.e. $<20 \text{ ft}^3 / \text{sec}$.
4. Minimum flow over dam or through dam must be maintained at $\geq 2.4 \text{ ft}^3 / \text{sec}$.
5. Control Pond levels so as to protect the fishery and the loon population.

MONITORING

Pond levels will be monitored and recorded by the appointed person according to the following schedule:

Jan. 1 to March 15	1/week
March 15 to May 15	2/day
May 15 to Sept. 15	1/day
Sept. 15 to Lake Freeze or Jan. 1	1/week

STOP LOG MANAGEMENT

In accordance with calculations for flow over a weir, the following flow rates occur as a result of stop log removal.

WHERE: $Q = 3.333 (L - .2H) H^{3/2}$

Q = flow in cubic feet per second

L = width of weir in feet

H = depth of water over dam in feet

FOR:

<u>H</u>	<u>Q</u>
3 inches	2.5 Ft ³ /sec.
6 inches	7.0 Ft ³ /sec.
12 inches	19.0 Ft ³ /sec.

To drop Thomas Pond (500 acres) 1 inch in 24 hours would require a flow of approximately 19 Ft³ /sec. Historically it has been shown that a flow of 12" over the dam will not result in downstream damage.

Therefore for control of spring conditions 12 inches maximum will be allowed for flow over the dam. Additionally in October the lake will be drawn down to at least 24 inches in anticipation of spring problems.

Summertime control will be so as to maintain 17-20 inch levels and will preclude flows over the dam or through the dam of less than 2.4 cubic feet/second.

ADMINISTRATION

One person will be appointed to monitor and control lake levels. He will be required to keep a log in accordance with the monitoring schedule using the top of the dam at the stop log slots as a zero reference. His adherence to the management plan will be overseen by the President of the TPIA.

A TRUE COPY
 ATTEST: Debrah Richard
 Debrah Richard, Director
 Bureau of Land Quality Control