

## **Update on the Lake Anasagunticook Dam April 10, 2009**

Securing a permanent solution to the long-standing issues of dam safety and water level management has come a considerable distance since the MEMA Order to open the gates in the spring of 2007. Ownership and control of the dam has changed. Water levels have remained low for two years but not for want of efforts by the towns and water district to build a temporary dam. A permanent replacement dam has also moved toward reality.

The Canton Water District's (CWD) NRPA application for a temporary sandbag dam was withdrawn after continued opposition from State environmental officials whose chief concern was for the threat of a "fill" structure failure. Installation of a non-fill material for less than seven months can be done without a permit. In May, the core group will be looking for volunteers to help with the construction of a temporary stop-log dam at the old bridge abutment upstream of the current dam. "I" beams will be bolted to the piers, rough hewn logs will gradually be slid into place to raise water levels for the summer months and the logs will be removed in the fall. With donation of materials, equipment and labor, the temporary dam will conserve funds for completion of a permanent dam. Materials needed are:

- ◆ Five wide-flange "I" beams four feet long and bolts to fasten them to the piers
- ◆ Hemlock or clear pine milled to 6" x 6" logs of various lengths (8 - 26'; 16 - 20'; and 8 - 12')

Anyone who can help with donations of materials and/or labor should contact Judy Hamilton (597-2604 or [mafinch@megalink.net](mailto:mafinch@megalink.net)) or Dave Bowen (462-0229 [davsue@megalink.net](mailto:davsue@megalink.net)). They will let you know as soon as the temporary dam installation is scheduled.

Kleinschmidt Energy & Water Resource Consultants of Pittsfield was hired to complete Phase I: Preliminary designs, permitting requirements and cost estimates for repairing the current dam and building a new replacement dam. The core group has reviewed two drafts of this report and, upon receipt of the final report, a choice will be made between the three options before moving on to the final detailed design phase and construction. The core group has supported "Option I: Build a new dam upstream of the existing dam" but recently is favoring "Option II: Repair the existing dam" because of the difference in cost estimates. "Option III: Remove the existing dam" is included in Options I and II and would repair the left embankment per the MEMA Order and leave us with no dam and the current water levels in the lake and Whitney Brook.

A new concrete gravity dam, an overflow spillway type structure with one or two slide gates, located at the bridge abutments is described by Option I. Flashboards, four foot high, installed with steel pins would create a spillway approximately 63' long and is designed to fail when overtopped by two feet of water. One or two manually operated five foot wide gates would allow the dam to be used for flood control consistent with the old dam and protect the flashboard system against failure. Driving a sheet pile retaining wall into the Rt. 140 side of the stream would stabilize the left embankment. Removal of the existing dam would consist of removing the four piers, steel deck and superstructure and eastern downstream training wall and extending the concrete apron to the east abutment will increase the flow significantly. The estimated cost of Option I, including a 30% contingency, is \$860,000 plus \$65,000 for the final engineering design and permitting.

Option II includes repair of the existing dam structure to address dam safety concerns and improve the hydraulic capacity of the dam. Repair of the left embankment has already been described above. New stainless steel gates would replace the existing gate structure with hand-wheel operators. A fifth gate would be installed in the previously blocked powerhouse bay and an emergency spillway would handle high flows. The estimated

cost of this option is \$650,000 plus \$45,000 for the final engineering design and permitting.

An Inter-local Agreement for operation and maintenance of a fully operational permanent dam will go to the voters at the Hartford town meeting on June 11<sup>th</sup> and to the Canton voters at a special town meeting. There are plans for a joint Canton/Hartford hearing on the dam and the Agreement prior to the town votes.

Androscoggin Valley Council of Governments (AVCOG) is searching for federal funding for the dam project. A group of volunteers from the lake association are also planning a fundraising campaign. Significant funds will be needed no matter which design option is chosen. Support and volunteers will be needed from throughout the community. Please let me know if you can help.

Submitted by,  
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