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September 24, 2007

Mr. Raymond J. Fortier
P.O. Box 621
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**SUPPLEMENTAL DAM SAFETY ORDER
Anasagunticook Lake Dam, Canton, Maine**

This order is issued pursuant to the terms of the Dam Safety Order for the Anasagunticook Lake Dam in Canton, Maine, dated December 4, 2006 (hereafter "the December 4 Order"), and the provisions of 37-B M.R.S.A. sections 1111-1130.

The December 4 Order directed the dam owner, Mr. Raymond Fortier, to engage a licensed professional engineer to assist in preparing a remedial action plan for the dam meeting certain specific requirements and to present that plan for approval by no later than March 31, 2007. No plan was submitted by that date, and the owner had not retained an engineer by that date. An Emergency Supplemental Dam Safety Order was issued by this Department on May 8, 2007, directing the owner to leave the overflow sluice gates at the dam open and clear of the water to maintain a lower water level and thereby reduce the hazards presented by the dam, until such time as the remedial plan required by the December 4 Order was submitted, approved and implemented.

On June 1, 2007, this Department was informed that Mr. Fortier had engaged the services of Wright-Pierce Civil and Environmental Engineering Services ("Wright-Pierce") and Summit Geotechnical Engineering Services ("Summit") to prepare a remedial action plan. The projected date for completion was within approximately six weeks, or by mid-July. The Department was informed in late July that the report would be provided to the owner by August 16, 2007.

On August 31, 2007, this Department received a document entitled "Phase 1 - Remedial Action Plan, Anasagunticook Lake Dam, Canton, Maine for Raymond J. Fortier" and stamped "Draft." Included with the submission is a document entitled "Emergency Action Plan, Warning Plan and Procedures," marked as a draft and dated August 22, 2007. Also included is a Geotechnical Investigation report and Appendices prepared by Summit.

FINDINGS RE: REMEDIAL ACTION PLAN SUBMITTED ON AUGUST 31, 2007

Based on review of the submission of August 31, 2007 (hereafter referred to as "the plan"), the Department makes the following findings, set forth below in reference to the specific requirements of the December 4 Order, which are highlighted in italics:

1) Develop a remedial action plan with the assistance of the licensed professional engineer to restore the integrity and structural stability of the dam and to assure that it functions and operates in a manner that will protect public safety, including at a minimum:

The introduction to the plan states that it "will serve as a guide" to accomplish the objectives set forth in this paragraph of the December 4 Order. It does not contain enough specificity, however, to constitute an actual plan for conducting the remedial work to accomplish these objectives. The plan is labeled as "Phase 1," and the Geotechnical Investigation report acknowledges that it includes only generalized recommendations, anticipating that "specific construction recommendations" would follow in the design and permitting phase. The December 4 Order, however, did not call for preparation of a Phase 1 study with design work to be conducted in a later phase. The Order clearly directed the owner and his engineer to prepare a detailed plan, signed by the engineer, for repairs and improvements that would be fully implemented by December 31, 2007, as required by subparagraph 2(f). The documents submitted on August 31, 2007 do not meet these requirements.

2) An evaluation of the causes and extent of settlement, seepage and erosion of the left and right earthen embankments and a plan for restoring the integrity and structural stability of the embankments;

Although a geotechnical investigation was conducted to evaluate the condition of both earthen embankments, test pits were dug at only seven locations (shown on Appendix B, Figure 1), omitting any analysis of approximately 60 feet of embankment to the left of the spillway and 90 feet to the right where the State Dam Inspector had previously found evidence of leaks and settlement. Grading analyses were conducted, but no evaluation was done to determine the structural properties of the materials comprising each embankment (e.g., density, strength, compression or permeability). No structural integrity analysis was done for the right embankment, yet the test pits revealed a mixture of materials such as "gravel mixed with bricks, cobble and boulders" and "a thin wood layer," unsuitable for dam construction.

The plan recommends installation of a 130 foot long concrete retaining wall to restore the integrity and structural stability of the left embankment; however, it contains no design details or specifications for that wall.

With regard to the right embankment, the plan recommends building it up to a higher level (approximately 3.5 feet higher than the existing height) and stabilizing the entire embankment area with rip rap, but no site plans or construction details are provided. Section 3 of the plan prepared by Wright-Pierce recommends construction of a trapezoidal-shaped "emergency spillway" approximately 80 feet long and 4.8 feet deep, in the area of the right embankment, but this is expressed as a concept only and lacks design details. The submission also lacks

information sufficient to show that the proposed spillway is adequately sized to perform its design function. The crest elevation and profile of the spillway are not shown on any diagram. The Civil Technical Investigation suggests it may be possible to use the existing concrete retaining walls as part of the spillway but notes that this possibility remains to be investigated. Moreover, the plan does not address the extent to which raising the height of the dam could lead to flooding of shore front properties upstream and would increase the dam's downstream hazard potential. Both are critical factors that should be addressed in the spillway design.

The plan does not address any elevations in relation to the water level order of September 13, 1978.

) A plan for removing all new fill material along the left embankment or, if the engineer determines that the fill does not compromise the integrity and structural stability of the embankment, a plan for stabilizing and incorporating the fill as part of the embankment;

The plan does not include specific provisions for removing or stabilizing and incorporating the fill that was added by the owner to the left embankment, as described in the findings of the December 4 Order.

) A plan for repairing and testing the four spillway gates to ensure that all gates are functional and can be raised in a timely manner to the fully open position;

The plan recommends "at minimum" that the existing wooden gates and stems be replaced with rivet stainless steel gates and stems; that the existing gate guides be extended to at least one half the gate height above the walkway deck; that all gates be made the same height; and that there be a gate anchoring system that would allow for rapid adjustment of the gate positions and would no longer consist of wedges that rely on friction to hold the gates in place. While these recommendations are acceptable in concept, the plan lacks the detailed specifications necessary for implementation. The type and capacity of the gate hoist and its supporting structure are not described, and no drawings for the gate mechanisms have been submitted for approval. The gate overfill elevation has not been specified.

) An emergency operational procedure that will be employed to open the spillway gates during flooding situations;

The one-page "operation plan" contained within the August 31 submission, labeled as "Revision 03-04-07" and signed by the owner, is inadequate to meet this requirement of the December 4 Order. It is unclear from this plan who will "monitor the weather twice a day," and who will notify the dam owner prior to the arrival of a storm involving flood warnings or flash flood warnings. The owner should be responsible for monitoring the weather and being aware of any storm warnings, even though he may request that local emergency officials notify him as well, as a back-up plan. The plan fails to identify the personnel who would operate the gates in response to a flood situation if the owner is not available. Indeed, the plan of operation included with the August 31 submission is still dependent on the owner manually operating the gates in the event of a flood. This is not acceptable since the owner may not be available to do so quickly and effectively in an emergency situation. The plan should include a detailed description of how,

when and by whom the gates would be opened incrementally, in advance of an approaching storm, to manage excess flows.

No provision is made for automatic notification of downstream residents and property owners in the event that gates have to be opened to pass excess water through the spillway in flood conditions. It appears from the plan that the owner intends to rely on local emergency officials to notify local residents, but there is no indication that local officials have committed to taking on this responsibility for the owner.

Given that the dam structure is already undersized to handle flood flows, as acknowledged by the owner's engineers, it is extremely important to have on file with the owner and with local, county and state emergency officials a detailed and comprehensive procedure for managing the water flow through the gates at this site and for giving prompt and appropriate notification to downstream residents and property owners. The plan submitted by the owner fails to meet these basic requirements.

e) A plan for reducing the height of all four spillway gates to increase the flow capacity of the spillway; and

As noted above (under subparagraph c), the plan calls for establishing a uniform height for the gates, but it does not specify the top of gate elevation or the expected overspill capacity when the gates are closed. No diagrams have been provided to give sufficient detail to this part of the plan.

f) A schedule for completing all elements of the remedial action plan by December 31, 2007.

The schedule included in section 9 of the plan does not call for performing any actual repairs or improvements to the dam until the summer of 2008, thereby failing completely to meet this requirement of the December 4 Order.

CONCLUSIONS

The "Phase 1 Remedial Action Plan" submitted by the dam owner on August 31, 2007, does not meet the requirements of the December 4 Order and is, therefore, rejected as inadequate.

The dam owner is in violation of the December 4 Order due to his failure to submit a remedial action plan, signed by a licensed professional engineer, by March 31, 2007, as required by paragraph 3 of that Order, and his failure to submit a remedial action plan that addresses all the requirements of paragraphs 2, subparagraphs (a) through (f) of the December 4 Order.

The integrity, structural stability, function and operation of the dam continue to constitute a threat to public safety, and the situation at the dam continues to present a real and impending danger to life, limb or property because of flooding or potential and imminent flooding pursuant to 37 M.R.S.A. section 1114(2).

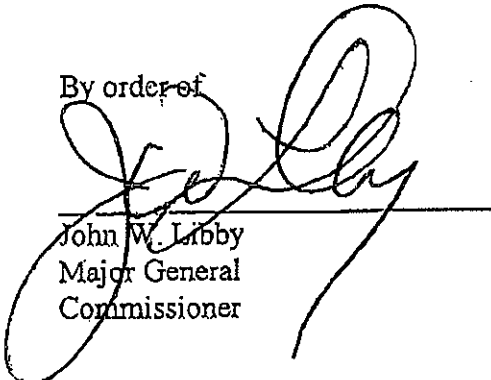
Penalties are necessary to enforce the deadlines in the December 4 Order and this Order.

ORDER

Based on the above findings and conclusions, I hereby direct the owner of the Androscoggin Lake Dam to do the following:

1. Submit to this Department a detailed remedial action plan and schedule that meets all the requirements of the December 4 Order and includes plans and specifications for any repairs and improvements being proposed in sufficient detail to permit a qualified contractor to perform that work.
2. Include in the remedial action plan a description of the qualifications necessary for a contractor to perform the work, the name of the engineering firm that will oversee the work, and estimates of the cost of completing the work proposed in the remedial action plan.
3. If a remedial action plan meeting the above requirements is not delivered to the Department by October 25, 2007, pay a civil penalty of five hundred dollars (\$500.00) per day for each day thereafter until a remedial action plan meeting these requirements is received by the Department.
4. Comply with all other requirements of the December 4, 2006 Dam Safety Order and the Emergency Supplemental Order issued on May 8, 2007.
5. Pay a civil penalty of five hundred dollars (\$500.00) per day for each day after December 31, 2007 that repairs are not completed in accordance with a remedial action plan approved by this Department.

By order of



John W. Libby
Major General
Commissioner

NOTICE OF APPEAL RIGHTS: Any person aggrieved by this Order has a right to seek judicial review by filing a Petition for Review within 30 days of receipt of this Order in Superior Court in accordance with Title 5 M.R.S.A. §§11001 & 11002 and Rule 80C of the Maine Rules of Civil Procedure.