



CAMP KEYES, AUGUSTA, MAINE 04333-0033

January 5, 2000

Office of The Commissioner

The Honorable Sharon Treat, Senate Chairman The Honorable John Martin, House Chair Committee on Natural Resources 115 State House Station Augusta, Maine 04333-0115

Dear Senator Treat, Representative Martin, and Members of the Committee on Natural Resources:

This letter is in response to your July 6th, 1999, letter requesting that the Department of Defense, Veterans and Emergency Management review issues relating to dam safety. Given the highly technical aspects of this subject and the varied constituencies involved, we consulted individuals who represent private industry, dam owner associations, private non-profit resource protection interests and technical staff from Maine State government. Together they participated in a working group to investigate these issues.

- A review of statewide dam inspection policy.
- An assessment of the current state of high risk dams.
- An assessment of staffing and funding issues.
- A review of the division of responsibility among State Departments.
- Recommended changes to the law, especially as they relate to inconsistencies with federal statutes.

The working group comprised: Mr. Peter Nielsen, Town Manager, Wayne; Mr. Mike Noble, Robinson Manufacturing Co.; Ms. Judy Bourget, Tacoma Lakes Association; Mr. Stephen W. Brooke, American Rivers; Mr. Robert Bohlmann, County EMA Directors Association; and representatives from the Maine Departments of Environmental Protection; Inland Fisheries and Wildlife; and Defense, Veterans and Emergency Management. Together they arrived at the following conclusions:

- Current state dam safety law is inconsistent with federal law regarding dam inspection and maintenance, and contains language which prevents meaningful enforcement of dam safety actions except when dams have already failed, or failure is imminent. Current law makes no distinction between "high hazard" dams and "significant hazard" dams in terms of inspection frequency. This is inconsistent with the fact that "high hazard" dams are considered to be a threat to life as well as property should they fail, whereas "significant hazard" dams are thought to only pose a hazard to loss of property. The group

MAINE EMERGENCY MANAGEMENT 72 State House Station Augusta, Maine 04333-0072 (207) 626-4503 Fax: 626-4499 MAINE VETERANS' SERVICES 117 State House Station Augusta, Maine 04333-0117 (207) 626-4464 Fax: 626-4471 MILITARY BUREAU 33 State House Station Augusta, Maine 04333-0033 (207) 626-4271 Fax: 626-4509 ADMIN SERVICES DIVISION 104 State House Station Augusta, Maine 04333-0104 (207) 624-7047 Fax: 624-7137 proposes a statute to include provisions for inspecting high hazard dams for physical condition once each two years and significant hazard dams once each four years. The definition of a dam was also found to be inconsistent with federal statutes. Current Maine law defines a dam as a barrier two or more feet in height and impounding fifteen acre-feet of water. The United States Army Corps of Engineers definition defines a dam as a barrier twenty five or more feet in height and impounding 50 acre-feet of water. Nothing under six feet in height is considered to be a dam by federal law regardless of impounding capacity. The working group has developed a revised state dam safety law that incorporates these changes, as well as limited aspects of the Federal Emergency Management Agencys' "Model State Dam Safety Program". It is attached with my strong endorsement for adoption.

- The working group addressed the division of responsibility of dam regulation among various state Departments. The group recommends that the existing regulatory scheme continue as is. Additionally recommended is to notify specifically named departments/agencies prior to the issuance of any dam safety order by this Department in order to ensure compliance with each department/agencys' statutory mandate to provide more of a "one stop shopping" approach.

- Adoption of the revised dam safety statute eliminates 233 dams from state regulation. The state now has one full time dam inspector who is involved in many other aspects of dam safety, including the preparation of federal dam safety grants and dam emergency action plan review. The addition of a GIS operator for the production of hydrologic maps and a technical staff member for the administration of a dam safety program would greatly improve the ability of the Department to address dam safety issues, and provide dam owners and the public at large with an adequate capacity to add value to a significant state resource.

- The working group supported the adoption of a more robust dam safety law and program due to the shared value of what dams provide in terms of recreation, fisheries and wildlife, economic and environmental value. Within this context, the group recommends a state funded grant and loan program for the repair or removal of public and privately owned dams on a percentage cost basis. The group felt that such a program should seek to improve dam safety consistent with the shared values identified above, without inducing a migration of dam ownership toward the public sector. The group quickly reached consensus on the importance of addressing this aging infrastructure, and believed that a bond issue to assist in the maintenance or removal of dams would be very positively received by the public in a referendum. I recommend the Committee strongly consider this type of financial assistance to dam owners.

It is requested that the Committee, after considering the recommendations, adopt the enclosed revised statute as well as providing a measure of financial assistance to dam owners for the repair or removal of dams. I would be pleased to appear before the committee to answer any questions you may have concerning this important issue.

Sincerely,

lams Earl L. Adams

Commissioner

Attachment

CHAPTER 23 DAM SAFETY

37B MRSA § 1101 Legislative policy.

It is the intent of the Legislature that the Department of Defense, Veterans and Emergency Management inspect existing dams and reservoirs to determine their hazard potential, to review the design and construction of new and/or reconstructed dams, to assist dam owners in developing emergency action plans to minimize the effects of dam failure, to take all necessary actions in emergency situations of probable dam failure, in order to protect life and property.

No person, except the Federal Government, may exercise any authority over the emergency regulation or supervision of any dams or reservoirs in the State, where that exercise would conflict with the powers and authority vested in the Department of Defense, Veterans and Emergency Management.

37B MRSA § 1102. Definitions

As used in this chapter, unless the context otherwise indicates, the following terms have the following meanings.

1. Department . "Department " means the Department of Defense, Veterans and Emergency Management.

2. Dam. "Dam" means any man-made artificial barrier, including appurtenant works, the site on which it is located and appurtenant rights of flowage and access, which impounds or diverts water, and which (1) is 25 feet or more in height from the natural bed of the watercourse measured at the downstream toe of the barrier, or from the lowest elevation of the outside limit of the barrier, to the top of the primary spillway and impounds at least 15 acre-feet of water or (2) is 6 feet or more in height from the natural bed of the watercourse measured at the downstream toe of the barrier, or from the lowest elevation of the barrier, or from the lowest elevation of the primary spillway and impounds at least 15 acre-feet of water or (2) is 6 feet or more in height from the natural bed of the watercourse measured at the downstream toe of the barrier, or from the lowest elevation of the outside limit of the barrier, to the top of the primary spillway and has an impounding capacity at maximum water storage elevation of 50 acre-feet or more.

3. Commissioner. "Commissioner" means the Commissioner of the Department of Defense, Veterans and Emergency Management.

4. Emergency. "Emergency" means, breaches and all conditions leading to or causing a breach, overtopping, or any other condition in a dam and its appurtenant structures that may be construed as unsafe or threatening to life and property.

5. Emergency situation. "Emergency situation" means situations deemed by the Commissioner, after consultation with other state and federal agencies, if time permits, to present a potential but real and impending danger to life, limb or property because of flooding or potential and imminent flooding and/or includes those situations which the Governor declares to be emergency pursuant to section 742.

6. Emergency action plan. "Emergency action plan" means a set of written instructions or guidelines for use by public officials which recommends actions which, when implemented, will minimize the effects of a dam failure on people and property.

7. Hazard Potential. "Hazard Potential" means the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the dam or mis-operation of the dam or appurtenances. The hazard potential classification of a dam does not reflect in any way on the current condition of the dam and its appurtenant structures (e.g., safety, structural integrity, flood routing capacity). The classifications are as follows:

a. High Hazard Potential Dam. "High Hazard Potential Dam" means a dam assigned the high hazard potential classification where failure or mis-operation will probably cause loss of human life.

b. Low Hazard Potential Dam. "Low Hazard Potential Dam" means a dam assigned the low hazard potential classification where failure or mis-operation results in no probable loss of human life and low economic and / or environmental losses. Losses are principally limited to the owners property.

c. Significant Hazard Potential Dam. Significant Hazard Potential Dam means a dam assigned the significant hazard potential classification where failure or mis-operation results in no probable loss of human life but can cause major economic loss, environmental damage, disruption of lifeline facilities or impact other concerns. Significant hazard potential dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

8. Necessary remedial measure. "Necessary remedial measure" means any repair or hazard reducing measure relating to a structural component or operation of a dam needed to mitigate a specific condition at the dam that constitutes a threat to public safety.

9. Person. "Person" means any individual, firm, association, partnership, corporation, trust, municipality, quasi-municipal corporation, state Department, federal Department or other legal entity.

10. Public safety. "Public safety" or "safety of the public" means protection of life, health or property from any condition, event or action at a dam which might compromise the safety, stability or integrity of the dam or its ability to function safely.

11. State dam inspector. "State dam inspector" means an inspector appointed or hired under section 1107.

37B MRSA § 1103. Administration

This chapter shall be administered by the Department. In carrying out the provisions of this chapter, the Department shall consult as appropriate with other state agencies, to include: the Department of Conservation, the Department of Environmental Protection, the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Department of Public Safety, the Department of Transportation, the Land Use Regulation Commission, the Maine Atlantic Salmon Commission and, the State Planning Office for their aid and assistance.

37B MRSA § 1104. Powers of the Department

1. Rules. The Department may, in accordance with the Maine Administrative Procedure Act, Title 5, chapter 375, subchapter II, adopt, modify or repeal rules for carrying out this chapter.

2. Emergency Situation. When an emergency situation arises, the Commissioner will warn the public of the emergency and notwithstanding any other provision of law, will take all actions necessary to protect life and property which may include, but are not limited to the following:

- A. Taking full charge and control of any dam reservoir;
- B. Lowering the water level by releasing water from the reservoir;
- C. Completely emptying the dam itself;
- D. Breaching or removing the dam itself; and
- E. Taking other necessary steps to safeguard life and property.

3. Investigations. For the purpose of enabling it to make decisions as compatible as possible with economy and protection of life and property and for the purpose of determining compliance with this chapter, the Department may make necessary investigations and inspections. In making investigations and inspections required or authorized by this chapter, the Department or its representatives may, as necessary in emergency

situations, enter upon public or private property or in nonemergency situations secure administrative warrants from any District Court Judge or Superior Court Justice for the purpose of gaining entry onto private property.

4. Injunction; civil or criminal proceedings. In the event of violation of any of the provisions of this chapter or of any rule, order or decision of the Department, the Department may institute injunctive proceedings or other civil action as provided in this chapter.

37B MRSA § 1105. Jurisdiction

The inspection of and design standards for all dams shall be under the sole jurisdiction of the Department, except that the Department does not have jurisdiction over any dam licensed or inspected by any Department of the Federal Government or by the International Joint Commission.

37B MRSA § 1106. Design standards

All new dams which reasonably will be classified as high or significant hazard potential dams shall be designed, constructed or reconstructed under the supervision of a registered professional engineer. Prior to construction, the dam owner will provide a copy of the plans and specifications to the Department.

37B MRSA § 1107. Inspectors of dams

The Commissioner shall appoint or hire one or more dam inspectors who are licensed as professional engineers under Title 32, chapter 19, and experienced in the inspection and design of dams.

37B MRSA § 1108. Dam Hazard Evaluation

1. Evaluation. The Commissioner will evaluate all dams to assign or re-assign a hazard potential classification, in accordance with the following schedule:

A. New or reconstructed dams within six (6) months of construction or reconstruction;

B. All other dams, at least once every six years;

C. Any dam, within 30 days of a request for an evaluation from the dam owner, the municipality in which the dam is located or the emergency management director of the county in which the dam is located;

D. At any time, any dam for which, in the judgment of the commissioner such an evaluation or reevaluation is appropriate.

Notwithstanding the schedule of this subsection, the Commissioner will evaluate the hazard classification of a significant or high hazard potential dam within 30 days of receipt by the commissioner of a notice of transfer of ownership of the

dam as required under section 1118, unless the dam has been evaluated under this subsection within 4 years preceding the notice of transfer of ownership.

Until the commissioner assigns or re-assigns a hazard potential classification, a dam will retain the hazard potential classification assigned in the 1981 United States Army Corps of Engineers' Inventory of Dams in the United States.

2. Factors Considered. Before assigning a dam a hazard potential classification, the commissioner will consider the potential risk to public safety and property that may result from the failure or operation of the dam. In addition when reassigning a hazard potential classification, the commissioner will review any changes in upstream and downstream conditions since the last hazard classification.

3. Hazard Report. Before the Commissioner assigns or re-assigns a dam hazard potential classification, a state dam inspector will visually inspect that dam and its upstream and downstream environs, and provide a report to the commissioner recommending a hazard classification for that dam. A copy of the report will be provided by certified mail to the dam owner, lessee or other person in control of the dam, to the municipality in which the dam is located and to the emergency management director of the county in which the dam is located. The dam owner, lessee or other person in control of the dam will notify the commissioner within 20 days of receipt of the report if the dam owner, lessee or other person in control of the dam disagrees with the recommended hazard classification, and must file within 3 months of receipt of the commissioner's classification the basis of the appeal with the commissioner. The commissioner may extend the 3 month period for good cause shown, but not more than an additional 3 months. The commissioner will consider the evidence presented by the dam owner, lessee or other person in control of the dam as well as the state inspector before issuing a final determination.

37B MRSA § 1109 Dam Condition Inspection

1. Inspections. A state dam inspector will conduct an inspection of all high and significant hazard potential_dams to determine if the integrity, structural stability, function, or operation of these dams constitute a threat to public safety, in accordance with the following schedule:

A. All significant hazard potential dams, at least once every four years;

B. All high hazard potential dams, at least once every two years;

C. Any dam, within 30 days of a request for an inspection from the dam owner, the municipality in which the dam is located or the emergency management director of the county in which the dam is located; and

D. At any time, any dam that may, in the judgement of the commissioner, constitute a potential risk to public safety.

Notwithstanding the schedule outlined in this subsection, a state dam inspector will conduct an inspection of a significant or high hazard potential dam within 30 days of receipt by the commissioner of a notice of transfer of ownership of the dam as required under section 1118, unless the dam has been inspected under this subsection within 4 years preceding the notice of transfer of ownership.

2. Condition Report. After the on-site dam inspection, a state dam inspector will provide a condition report to the commissioner detailing the operation and material condition of the dam and recommending all necessary remedial measures. A copy of the state dam inspector's condition report will sent by certified mail to the dam owner, lessee or other person in control of the dam, the municipality in which the dam is located and the emergency management director of the county in which the dam is located should the condition report recommend any necessary remedial measures. The dam owner, lessee or other person in control of the days of receipt of the report if the owner disagrees with the findings and recommendations of the report. The dam owner, lessee or other person in control of the dam will provide the basis of his disagreement to the commissioner within 3 months of receipt of the inspector's report. The dam owner, lessee or other person in control of the dam will provide the basis of his disagreement to the commissioner within 5 months of receipt of the inspector's report. The dam owner, lessee or other person in control of the dam will provide the basis of his disagreement to the commissioner within 5 months of receipt of the inspector's report. The dam owner, lessee or other person in control of the dam will provide the basis of his disagreement to the commissioner within 5 months of receipt of the inspector's report. The dam owner, lessee or other person in control of the dam will provide the basis of his disagreement to the commissioner within 5 months of receipt of the inspector's report. The dam owner, lessee or other person in control of the dam will provide the inspector's report. The dam owner, lessee or other person in control of the dam may apply for and be granted an extension of this deadline for good cause, but not for more than an additional 3 months.

3. Review Conference. After receiving the inspector's report and prior to issuing any dam safety order, the commissioner may hold a review conference upon his initiative or at the request of the dam owner, lessee, or person in charge of the dam. The commissioner will invite the emergency management director of the county in which the dam is located to the review conference as well as representatives from appropriate state agencies which may include, the Department of Conservation, the Department of Environmental Protection, the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Department of Public Safety, the Department of Transportation, the Land Use Regulation Commission, the Maine Atlantic Salmon Commission and, the State Planning Office to discuss the public safety, environmental, economic and other concerns relating to the dam and the necessary remedial measures under consideration. A state dam inspector will attend the review conference. The commissioner will maintain a written record of the conference and will make a copy of this record available to all parties participating in the conference.

4. Order. The commissioner will consider the inspector's report, the evidence presented by the dam owner, lessee or other person in control of the dam, and the record from the review conference before issuing a dam safety order directing necessary remedial measures be undertaken by the dam owner, lessee or other person in control of the dam. Necessary remedial measures may include, but are not limited to:

A. Breach or removal of the dam;

B. Repair or maintenance of the dam in a specified manner;

C. Operation of the dam in a specified manner;

D. Preparation of and adherence to any emergency action that is approved by the commissioner; or

E. Maintenance of appropriate records relating to water levels, dam operation and dam maintenance.

37B MRSA § 1110. Enforcement

The Commissioner may commence an action to enjoin the violation of any provision of this chapter. The Commissioner may enforce any order by any other appropriate remedy, including, but not limited to, entering the dam premises to carry out the terms of the order.

The owners, lessees or persons in control of the dam shall be jointly and severally liable for any costs incurred by the Department in carrying out its responsibilities under §1104 (2) or in enforcing any order. If the owners, lessees or persons in control of the dam refuse to comply or do not fully comply with the Department's order, the Department shall initiate a civil action against the owners, lessees or other persons in control of the dam for damages in the amount of the costs incurred by the Department in enforcing its order.

37B MRSA § 1111. Appeal

Any person aggrieved by an order of the Commissioner may appeal to the Superior Court under the Maine Administrative Procedure Act, Title 5, chapter 375, subchapter VII

37B MRSA § 1112. Exemptions

Dams licensed by or subject to the jurisdiction of the Federal Energy Regulatory Commission are exempt from this chapter.

37B MRSA § 1113. Rights of owner

Nothing in this chapter may be construed to deprive any owner of recourse to the court in which he may be entitled to relief under the laws of this State.

37B MRSA § 1114. Immunity

No action may be brought against the State, the Department or its agents or employees for any action taken or failure to take action pursuant to this chapter.

37B MRSA § 1115. Relief of obligation

Nothing in this chapter may be construed as relieving any person of any duties, responsibilities or liabilities, imposed by any other law, regulation, municipal ordinance or rule of law including, but not limited to, the need to obtain any permits or other approvals required to authorize any repairs or other remedial measures at a dam, and the need to comply with the terms and conditions of any outstanding water level or dam release order except in an emergency situation as defined by this chapter.

37B MRSA § 1116. Access and notification

1. Department access. A state dam inspector and any Department staff member shall have full access to any dam site under the Commissioner's jurisdiction for the purpose of conducting an inspection or enforcing an order under this chapter subject to the Maine Rules of Civil Procedure, Rule 80E.

2. Owners, lessees; necessary access. The owners, lessees or persons in control of a dam shall have access over land abutting the dam site owned by others if the access, including the passage of vehicles, machinery and equipment, is reasonably necessary to comply with an order issued under this chapter. In passing over land owned by abutters, the owners, lessees or persons in control of a dam shall make every effort to minimize the intrusion, shall restore the land to its preexisting condition to the maximum extent practicable and shall be liable to the abutters for all property damage caused by their activities on the abutters' land. The abutters shall not be liable to any person for any personal injuries or property damage arising from the crossing of their land by the owners, lessees or persons in control of a dam.

37B MRSA § 1117. Emergency action plans

Within 6 months after the determination of the classification of a dam, the owners of dams under the Commissioner's jurisdiction classified as high or significant hazard potential will prepare and update every 2 years an emergency action plan. These emergency action plans shall be reviewed for adequacy by the Department. Emergency plans shall follow a model plan supplied by the Department. All emergency action plans shall be available and on file at the appropriate local and county government offices and at the Department

37B MRSA § 1118. Notice of Transfer of Ownership

Forty-five days prior to any change of ownership of a dam, whether by sale, lease or gift, the owner or owners of a dam classified as a high or significant hazard potential dam shall provide in writing the name and address of the prospective new owner or owners to the Commissioner along with any plan that the prospective owner has with regard to maintaining competent operations and correcting any unsafe conditions. For purposes of this section, "competent operations" means properly and safely maintaining the dam and ensuring compliance with all safety, environmental and water level rules or orders.

37B MRSA § 1119. Violations

In addition to any other forfeitures or penalties provided by law, a person who violates any provisions of this chapter or any rule or order promulgated or issued hereunder shall be subject to a civil penalty as assessed by the commissioner of not less than \$100 nor more than \$5,000 for each day that the violation continues. The penalty shall be payable to the State to be recovered in a civil action.

Amend:

38 MRSA § 818. Miscellaneous

1. Other laws. Except as specifically provided in this Article, nothing in this Article shall be construed as relieving any person from duties, responsibilities or liabilities imposed by any other statute, regulation, municipal ordinance or any rule of law.

2. Rights of others. Except as specifically provided in this Article, nothing in this Article shall be construed as denying any person any rights he may have under any other statute, regulation, municipal ordinance or any rule of law.

3. Other powers. No provision of this article may be construed as limiting the powers of the Maine Emergency Management Agency under Title 37-B, sections 1051 to 1059.1101 to 1119.

4. Damages. No action may be brought against the State, the board, the commissioner or their agents or employees for the recovery of damages caused by any order of the board or commissioner or by the partial or total failure of any dam or through the operation of any dam upon the ground that the State, the

board, the commissioner or their agents or employees are liable by virtue of any order or determination of the board or commissioner.

38 MRSA § 841. Maintenance of dams

1. Prohibition. After issuance of an order under section 840, subsection 5, establishing a water level regime for any body of water, no owner, lessee or person in control of any dam impounding the body of water, nor any subsequent transferee, may operate or maintain the dam or cause or permit the dam to be operated or maintained in any manner that will cause the level of water to be higher or lower than that permitted by order of the board or commissioner or to otherwise violate the terms of the order of the board or commissioner.

2. Exception. No owner, lessee or person in control of a dam may be in violation of subsection 1, where the water level fluctuation not permitted by the order was caused by unforeseeable and unpredictable meteorological conditions or operating failures of the dam or any associated equipment or by valid order of federal, state or local authorities including an order issued pursuant to 37-B <u>MRSA §1104 (2)</u> and where the person could not have avoided the fluctuation by promptly undertaking all reasonably available steps to regulate water flow through or over any dam under the person's control. The burden of proof is on the owner, lessee or person in control of the dam to demonstrate the applicability of this subsection.

3. Enforcement. The commissioner or any littoral or riparian proprietor may commence an action to enjoin the violation of any provision of this subarticle. The commissioner may enforce any order issued under section 840, subsection 5 or subsection 6 by any other appropriate remedy, including, but not limited to, entering the dam premises to carry out the terms of the order.

The violation of any order issued under section 840, subsection 5 or subsection 6, is punishable by a forfeiture of not less than \$100 and not more than \$10,000. Each day of violation is considered a separate offense.

4. Repealed. Laws 1993, c. 370, § 11.

5. Appeal. Any person aggrieved by an order of the board or commissioner under section 840, subsection 5 or 6 may appeal to the Superior Court under Title 5, chapter 375, subchapter VII.

Version 1/7/00