



March 13, 2009

Certified Mail No. 7007 2560 0001 3209 6042
Return Receipt Requested

Town of Bolton
Conservation Commission
Town Hall, 663 Main Street
Bolton, MA 01740
Attn: Carol Gumbart, Administrator

Subject: CERTIFICATE OF NON-COMPLIANCE and DAM SAFETY ORDER

Dam Name: Fyfeshire Pond Dam
Location: Bolton
National ID No: MA 01512
Known Condition: UNSAFE

Dear Bolton Conservation Commission:

In accordance with 302 CMR 10.08, the Fyfeshire Pond Dam does not meet accepted dam safety standards and is a potential threat to public safety. Therefore, the Department of Conservation and Recreation (DCR), Office of Dam Safety (ODS) is issuing a **CERTIFICATE OF NON-COMPLIANCE and DAM SAFETY ORDER**.

Records at ODS indicate that the Town of Bolton, Conservation Commission is the Owner of the Fyfeshire Pond Dam. The dam is classified by ODS as a Small Size, **Significant Hazard Potential** structure. Significant Hazard Potential dams are dams that may cause the loss of life and property damage in the event of a failure.

In response to a Dam Safety Order issued by ODS on April 2, 2008, your engineering consultant, AMEC Earth & Environmental, completed a Phase I Inspection on July 17, 2008. As a result of this inspection, the dam was determined to be **STRUCTURALLY DEFICIENT** and in **UNSAFE** condition.

COMMONWEALTH OF MASSACHUSETTS · EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

Department of Conservation and Recreation
251 Causeway Street, Suite 600
Boston MA 02114-2119
617-626-1250 617-626-1351 Fax
www.mass.gov/dcr



Deval L. Patrick
Governor

Timothy P. Murray
Lt. Governor

Ian A. Bowles, Secretary, Executive
Office of Energy & Environmental Affairs

Richard K. Sullivan, Jr., Commissioner
Department of Conservation & Recreation

ODS has determined that the dam needs to be repaired, breached or removed to bring it into compliance with dam safety regulations. During the July 17, 2008 inspection, your engineering consultant observed a number of deficiencies, including, but not limited to, the following:

- Structural deficiencies in the embankments due to wall instability;
- A failing concrete spillway; and
- The spillway is partially clogged with branches and mud and large tree growth.

G.L. c. 253, §§ 44-48 and 302 CMR 10.00 set forth the jurisdiction for the Office of Dam Safety and its authority to take action and order actions to be taken. For your information a copy of 302 CMR 10.00 Dam Safety is enclosed.

DAM SAFETY ORDER:

In accordance with the authority of G.L. c. 253, § 47, 302 CMR 10.07, 10.08 and 10.11 you are hereby **ORDERED** to comply with the following:

- 1) **Maintain a lowered impoundment level behind the dam and do not replace spillway stoplogs. Stabilize the spillway and approach channel.** Such steps should be planned and conducted in consultation with and at the recommendation of a qualified registered professional engineer with dam engineering experience (dam engineer).

G.L. c. 253, § 47 authorizes the DCR Commissioner to establish the maximum allowable water elevation for impoundments. The owner shall henceforth maintain the normal (non-flood) impoundment level upstream of the dam at the fixed spillway crest elevation until such time as repairs to the dam have been completed and your engineer certifies it is safe to re-impound water behind the dam to the full hydraulic height of the structure.

The lowered impoundment level shall be maintained by keeping the upstream approach channel free of obstructions and debris. Every 14 days and following any rainfall event in the vicinity of the dam exceeding 1.0 inch of rain in 24 hours, you shall visually verify that the spillway control structure and channel remain open and free of obstructions, the impoundment level remains at or is receding to the maximum normal level established by this Order, and that the spillway structure and channel is stable. You shall keep written records of all such verification site visits which shall include, at minimum, the date, time, and impoundment level.

The stoplog and spillway structure shall be maintained in a manner that protects the dam embankment, abutment, spillway and downstream face on the right side and the cracked and broken left wall of the spillway. Prudent steps should be taken to reduce or prevent flow from bypassing the spillway control structure and to prevent such bypass flow from causing erosion of the dam or foundation.

You shall to make the following notifications in association with your actions to maintain the sluiceway and maintain the lower impoundment level at the dam.

- a. You are to inform in writing ODS and the Bolton Emergency Management Director (EMD) when spillway cleanup and release of water will occur and what steps will be taken to stabilize the spillway channel to protect it from erosion.
- b. Within 30 days of receipt of this Order you are to inform in writing ODS and the Bolton EMD when all debris and timber have been successfully removed.
- c. Within 30 days of receipt of this Order, you are to inform in writing ODS and the Bolton EMD of the steps you will take to prevent future re-impoundment above the lowered level of water behind the dam during typical conditions.

2) **Conduct Phase II Inspection and Investigations.** The owner shall hire, at its cost, a dam engineer to conduct a Phase II Inspection and Investigation of the dam to evaluate its structural integrity and hydraulic capacity and to develop/implement a plan to make the dam safe by either repairing the dam or breaching the dam (see attached Phase II Investigation outline).

- a. The owner shall commence the Phase II Inspection and Investigation no later than **June 1, 2009**. The Phase II Inspection and Investigation is to conform to the attached Phase II Investigation Outline. You are to identify your selected engineer and inform ODS of the start date of the Phase II work no later than **May 15, 2009**.
- b. The Phase II Inspection and Investigation is to be completed, signed and stamped by your engineer and copies of the Phase II final report are to be delivered to ODS no later than **October 1, 2009**.

You shall include a cover letter with the submitted Phase II report which describes your selected alternative to bring the dam into compliance with dam safety regulations. You shall submit to ODS a statement of your intent to implement inspection report recommendations to address structural and operational deficiencies upon submission of the required Phase II Inspection and Investigation completed by your engineer. With your Phase II submittal you must also provide a proposed timeline to design, permit and construct the selected alternative and repair, breach or remove the dike.

3) **Conduct Follow-up Inspections.** The owner shall complete follow-up visual inspections at 90 day intervals, conducted by an engineer at your cost until adequate repairs are made or the dam is adequately breached. The first Follow-Up Inspection shall be submitted to ODS no later the **May 1, 2009**.

The Inspections shall be summary in format and shall provide a written description and photographs of any changes in condition. Your engineer is to use the attached ODS Poor Condition Dam Follow-Up Inspection Form to report follow-up inspection findings. The form is also available electronically on the ODS web site. Your engineer shall include a cover letter on engineering firm letterhead that briefly summarizes the current follow-up inspection and findings. Your engineer shall sign and stamp the cover letter.

You shall submit copies of all completed follow-up visual inspection reports to ODS, the Bolton EMD and the Bolton Conservation Commission within 30 days of the date of follow-up inspection field work.

4) **Bring the dam into compliance and complete repair, breach or removal no later than October 1, 2010.** With your Phase II submittals, you must also provide a proposed timeline to design, permit and construct the selected alternative to repair, breach or remove the dam. The selected alternative must be completed, and the dam brought into compliance with Dam Safety Regulations, by October 1, 2010.

5) **Additional Requirements:**

- a. You shall furnish copies of all required submittals listed in items 1 – 4 above via certified mail.
- b. To maintain compliance with the Commonwealth's Wetlands Protection Laws the owner may need to seek requisite approval in accordance with G.L. c. 131, § 40. You are obligated to contact and maintain communication with any other local, state or federal permitting agency to ensure compliance with the Wetlands Protection Act and any other regulatory compliance.
- c. You must inform the following parties about the condition of the dike and your developing plans to bring the dike into compliance with dam safety regulations: all abutters of the impoundment upstream; property owners within one-half mile downstream of the Fyfeshire Pond Dam; Bill Davis, District Manager, Central Wildlife District, Division of Fisheries & Wildlife, Temple Street, West Boylston, MA 01583; Martin Suuberg, Department of Environmental Protection, Central Region, 627 Main Street, Worcester, MA 01608; Curtis Plante, Chairman, Bolton Board of Selectman, 663 Main Street, Bolton, MA 01740; Robert Zailchas, Bolton Emergency Management Director, 77 Vaughan Road, Bolton, MA 01740.

Please be advised that in accordance with G.L. c.253, § 47, "any person...who fails to comply with the provisions of this chapter or of any order, regulation or requirement of the department relative to dam safety, shall be fined an amount not to exceed \$500 for each offense, to be fixed by the court." Furthermore, each violation shall be regarded as a separate and distinct offense and, in case of continuing violation, each day's continuance thereof shall be deemed to be a separate and distinct offense.

Nothing in this order releases the owner from the requirements of any prior Dam Safety Order issued for this dam, including a Dam Safety Order to submit follow-up inspections on a 6-month schedule.

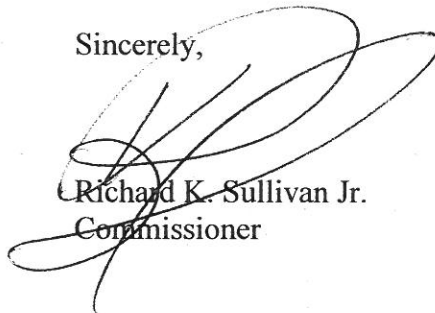
In accordance with 302 CMR 10.08 this CERTIFICATE OF NON-COMPLIANCE and DAM SAFETY ORDER will be recorded at the Registry of Deeds. Issuance of a Certificate of Compliance following adequate repair or breaching of the dam will be required to discharge the CERTIFICATE OF NON-COMPLIANCE and DAM SAFETY ORDER.

Please direct any technical questions, correspondence, or submittals to Edward Hughes, Department of Conservation and Recreation, Office of Dam Safety, 251 Causeway Street, Suite 800, Boston, MA 02114. Legal questions should be directed to the DCR Assistant General Counsel, Ariana Johnson, 251 Causeway Street, Suite 600, Boston, MA 02114. Additional information on the Office of Dam Safety can be found at the DCR-ODS website.

<http://www.mass.gov/dcr/pe/damSafety/index.htm>.

Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard K. Sullivan Jr.', is written over the printed name and title.

Richard K. Sullivan Jr.
Commissioner

CC: Curtis Plante, Chairman, Bolton Board of Selectman
Robert Zailchas, Bolton Emergency Management Director
Carol Gumbart, Bolton Conservation Commission Agent.
Paul Sneeringer, U.S. Army Corps
Martin Suuberg, DEP Regional Director
Deerin Babb-Brott, MEPA
Bill Davis, DFG
Noel Baratta, DCR
Michael Misslin, DCR
William Salomaa, DCR
Edward Hughes, DCR
Ariana Johnson, Esq., DCR
Joan Kimball, Riverways

**Department of Conservation and Recreation
Office of Dam Safety
Phase II Inspection and Investigation Outline**

I.	Review of existing information.....
II.	Updated Detailed Phase I surface inspection in compliance with Office of Dam Safety Phase I Inspection format.....
III.	Subsurface Investigations – borings, sampling, analysis.....
IV.	Topographic Survey, wetlands flagging/delineation, of sufficient detail to support not only the Phase II effort, but sufficient for the future implementation of design phase.....
V.	Stability analysis – Seismic and static stability evaluation of dam (upstream and downstream slopes, internal materials).....
VI.	Hydrologic/Hydraulic Analysis.....
VII.	Alternatives analysis and presentation of conceptual designs and associated estimated design, permitting and construction costs to bring the dam structure into compliance with Chapter 253 Section 44-48 and 302 CMR 10.00 Dam Safety Regulations by either executing selected repair plan or breach plan.....
VIII.	Final Report Presented to the Office of Dam Safety.....

Commonwealth of Massachusetts
Department of Conservation and Recreation
Office of Dam Safety Poor and Unsafe Condition Dam Follow-up Inspection Form

(Complete this inspection form and provide a cover letter on consulting firm letterhead that briefly summarizes the current follow-up inspection and findings. The cover letter shall be signed and stamped by the Registered Professional Engineer in charge of the inspection)

Dam Name:

Dam Owner:

Nat. ID Number:

Hazard Potential:

Location of Dam (town):

Coordinate location (lat,long):

Date of Inspection:

Weather:

Consultant Inspector(s): firm name and name of Registered Professional Engineer in charge of inspection.

Others in Attendance at Field Inspection: include list of names, affiliation and phone numbers.

Attachments: Updated site sketch with photo locations, Updated photos, and copy of locus map from Phase I report and other applicable attachments.

- I. Previous Inspection date/Overall Condition:**
 - Date of most recent formal Phase I Inspection Report:
 - List the overall condition reported in most recent Phase I Inspection Report:
- II. Previous Inspection Deficiencies:**
 - List identified deficiencies in the most recent Phase I Inspection Report:
- III. Overall Condition of Dam at the Time of the Current Follow-up Inspection:**
 - a. State the current condition
 - b. Have conditions changed since the previous inspection? Yes or no.
- IV. Comparison of Current Conditions to Condition Listed in Previous Phase I Inspection Report:**
 - a. Have any of the deficiencies listed in the previous Phase I Inspection Report worsened?
 - b. If yes, list the changes.
 - c. Are there any additional deficiencies that have been identified in the current inspection?
 - d. If yes, list the deficiencies and describe.

V. Dam Safety Orders:

- List dam safety orders that have been issued to the dam owner pertaining to this dam.

VI. Maintenance:

1. Indicate if there exists an operation and maintenance plan for the dam.
2. Indicate if it appears the dam is being maintained.

VII. Recommendations:

VIII. Other Comments or Observations:

IX. Updated Site Sketch with Photo Locations:

X. Updated Photos:

XI. Copy of Locus Map from Phase I Report:

XII. Other applicable attachment: