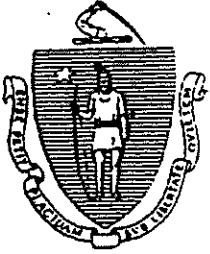


**VIII. Massachusetts Department of Environmental Protection Guidelines**



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ARGEO PAUL CELLUCCI  
Governor

JANE SWIFT  
Lieutenant Governor

BOB DURAND  
Secretary

LAUREN A. LISS  
Commissioner

February 1, 2001

RE: Beaver or Muskrat Control Where Public Health Threats Exist

Dear Conservation Commission, Water Supplier, and Board of Health,

The Massachusetts Legislature enacted a new law on July 21, 2000 that provides any parties who are experiencing public health threats as a result of beaver or muskrat flooding to apply to the municipal Boards of Health to abate those threats. The new law directly effects Conservation Commissions, Public Water Suppliers, and Boards of Health.

The Massachusetts Departments of Environmental Protection (DEP) has been coordinating with the Department of Public Health (DPH) and Division of Fisheries and Wildlife (DF&W) to implement the new law. DEP has developed the attached guidance to assist Conservation Commissions and Public Water Suppliers in implementing sections of the new law. DPH and DF&W will be sending out guidance under separate cover to specifically assist the Boards of Health in determining whether beaver or muskrat activities pose a public health threat. In addition, the DF&W has adopted emergency regulations to implement aspects of the new law and is in the process of preparing final regulations, subject to legislative review, to supplant the emergency regulations. The guidance contained herein will help Conservation Commissions and Public Water Suppliers in implementing the aspects of the new law related to Commissions and Water Suppliers. The new law specifically makes breaching of beaver dams and nonlethal management or water flow devices subject to the determinations and conditions of conservation commissions pursuant to the Wetlands Protection Act, and requires DEP to make the determination relative to whether beaver or muskrat activity poses a threat to a public water supply.

Enclosed you will find the following documents:

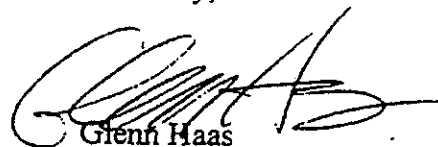
- 1) A copy of the new legislation amending G.L. Chapter 131, section 80A, "An Act Relative to Foothold Traps and Certain Other Devices" (effective July 21, 2000);
- 2) DEP guidance for conservation commissions on administering this new law including wetlands circuit rider contacts;

- 3) DEP Emergency Certification form for conservation commissions for any emergency certifications under the Wetlands Protection Act, including, but not limited to beaver or muskrat caused threats;
- 4) DEP guidance and application form for public water suppliers specifying how to apply to DEP to assess whether a threat exists to a public water supply due to the presence of beavers or muskrats;
- 5) DF&W Emergency Regulations; and
- 6) Technical guidance documents produced by DF&W, entitled, "Issuing Breach Permits," (recommendations for how to condition breaches based on DF&W's experience in issuing breach permits), "The Use of Water Flow Devices in Addressing Flooding Problems Caused by Beaver in Massachusetts," and "Beavers in Massachusetts."<sup>1</sup>

While we have attempted to answer as many questions as possible in the enclosed guidance, we are certain other issues will arise as local Boards of Health, Conservation Commissions, and Public Water Suppliers gain experience with the process. For guidance for Boards of Health in determining whether a public health threat exists, contact Michael Celona of the DPH at (617) 624-5757. For guidance relative to trapping, breaching, installation of water flow devices, and beaver flooding along roadsides, contact your DF&W District Office (please refer to the telephone numbers listed in the enclosed DF&W publication entitled, "The Use of Water Flow Devices in Addressing Flooding Problems Caused by Beaver in Massachusetts"). For guidance for Conservation Commissions in implementing the law, contact your DEP regional wetlands circuit rider (please refer to telephone numbers listed on the last page of the enclosed Conservation Commission guidance) or Thomas Maguire of the wetlands program in Boston at (617) 292-5602. Lastly, for guidance for public water suppliers in determining whether a threat exists to a public water supply, contact Kathleen Romero of the DEP water supply program in Boston at (617) 292-5727.

For additional copies of this packet, please contact Thomas Maguire in the DEP Wetlands Program at (617) 292-5602.

Sincerely,

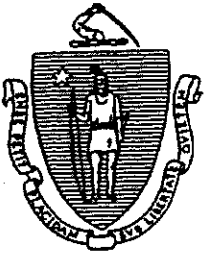


Glenn Haas  
Acting Assistant Commissioner  
Bureau of Resource Protection

Beaverltr09-02-01-01

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<sup>1</sup> Water suppliers may not receive Enclosure No. 6 with this mailing (the guidance documents from the DF&W). If you are a water supplier, and would like copies of these documents, please contact Tom Maguire of the Wetlands program at the phone number listed above.



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Commissioner

**Guidance for Conservation Commissions Implementing G.L. c.131, s.80A  
Threats from Beaver and Muskrat-Related Activities**

Summary of the Law

The Massachusetts Legislature recently amended G.L. c.131, s.80A, with the passage of "An Act Relative to Foothold Traps and Certain Other Devices." This new law became effective on July 21, 2000, and makes it easier for applicants to alleviate threats caused by beaver and muskrat-related flooding.

Any person may apply to the Board of Health for an emergency permit to immediately alleviate a threat to human health and safety from beaver or muskrat-related activity. The law includes a list of activities, summarized here, that may constitute a threat to human health and safety. (See enclosed copy of the new law for a complete list).

- Beaver or muskrat occupancy of a public water supply (the Department of Environmental Protection (DEP) must make this determination);
- Beaver or muskrat-caused flooding of drinking water wells, well fields, pumping stations, sewage beds, septic systems, sewage pumping stations, public or private ways, driveways, railways, airport runways or taxi-ways, electrical, gas, communication, or other public utility structures or facilities;
- Beaver or muskrat-caused flooding affecting the public use of hospitals, emergency clinics, nursing homes, homes for the elderly, fire stations, hazardous waste, incineration, or resource recovery facilities, or other facilities where flooding may result in the release of hazardous or noxious materials;
- Damage (gnawing, chewing, entering or other damage) to electric or gas facilities, transmission or distribution equipment, cable, alarm systems, or facilities, caused by beavers or muskrat;
- Beaver or muskrat-caused flooding or structural instability on the applicant's property, if it poses an imminent threat of substantial property damage or income loss of the following types: flooding of residential, commercial, or industrial facilities; flooding of or access to commercial agricultural lands which prevents normal agricultural practices from being conducted; reduction in the production of an agricultural crop caused by flooding or compromised structural stability of commercial agricultural lands; and flooding of residential

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DEP on the World Wide Web: <http://www.state.ma.us/dep>

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lands in which the Board of Health, its chair or agent or the state or federal department of health has determined a threat to health and safety exists.

If the Board of Health determines that such a threat exists, the Board of Health shall immediately issue an emergency permit to alleviate the threat. The permit is valid for ten days. In some cases, the applicant may apply to the Board of Health for two additional ten-day permits. (See the new law for details). If denied, the applicant may appeal to the Massachusetts Department of Public Health (DPH) for a determination as to the existence of the threat. The Massachusetts DPH will be sending out written guidance to the municipal Boards of Health to help them implement the law.

The Board of Health permit authorizes the applicant to remedy the threat in one of three ways: 1) use of conibear or box or cage-type traps (subject to Massachusetts Division of Fisheries and Wildlife (DF&W) but not Conservation Commission regulation); 2) breaching of dams, dikes, bogs or berms, subject to determinations and conditions of Conservation Commissions; or 3) use of any nonlethal management or water-flow devices, subject to determinations and conditions of Conservation Commissions.

The applicant "in conjunction with the Board of Health" may apply to the DF&W for a 30-day extension permit. If the extension is granted, the DF&W shall develop, with the assistance of the applicant, the Board of Health, and the Conservation Commission, a plan to abate the beaver or muskrat problem using alternative, nonlethal management techniques in combination with water-flow devices, subject to Conservation Commission determinations and conditions. The plan may include box and cage type-traps, if necessary, subject to all applicable permitting requirements, including, but not limited to, any permits required by the DF&W.

Beaver and muskrat-related problems that are determined by the Board of Health to not constitute threats to public health and safety under this new law may still be addressed with assistance and approval from DF&W pursuant to regulations at 321 CMR 2.08. Any permits issued by DF&W that allow an alteration to a wetland resource area, for either long term management purposes or beaver related problems that do not constitute a threat to public health, are still subject to the determinations and conditions of the Conservation Commissions.

G.L. c. 131, s. 80A and the Wetlands Protection Act.

The Legislature recognized that Conservation Commissions have always had an important role to play in solving beaver and muskrat problems, and it specifically emphasized that breaching and other water management proposals are subject to "determinations and conditions" of Conservation Commissions pursuant to the Wetlands Protection Act (G.L. c.131, s.40). Still, the Legislature placed responsibility for declaring a beaver or muskrat-related "threat to human health and safety" squarely with Boards of Health rather than with Commissions. Commissions, therefore, should not second-guess Boards of Health as to the existence of these threats. Commissions can, however, ask as many questions as necessary to ascertain the exact nature, scope, and magnitude of the threat, as well as the details of the proposed remedy, in order to impose conditions that will protect the interests of the Wetlands Protection Act. Commissions should work towards solutions that will alleviate immediate threats while protecting wetlands

interests to the greatest extent possible. Close cooperation with applicants and Boards of Health will be essential in achieving this goal.

Resource areas likely to be altered by a dam breaching or water management proposal include banks, freshwater wetlands, land under water bodies, land subject to flooding, and riverfront areas. The interests served by these resource areas include: protection of public and private water supplies; protection of groundwater supplies; flood control; storm damage prevention; prevention of pollution; protection of fisheries; protection of wildlife habitat; and less likely, protection of land containing shellfish.

In order to properly condition the proposed work under either an Emergency Certification or Orders of Conditions, Commissions should become familiar with the site. A site inspection is an important part of the process. A site inspection that includes not only the site with the alleged problem, but also the property on which the dam is located, will be necessary. Although the Commission has the right-of entry on an applicant's property, be sure to seek permission from all property owners, because in many cases, the landowner with flooding problems may not be the owner of the dam. The nearest DF&W District Office may be able to provide assistance and information concerning site inspections, particularly at chronic problem sites.

If an Emergency Certification is to be issued, (see below "Recommended Process" for guidance on the use of Emergency Certifications versus Orders of Conditions), the Commission should require that the threat caused by beaver or muskrat be described with as much specificity as possible, and condition the activity to limit the alterations to the minimum necessary to abate the immediate public health threat and safeguard the interests protected by the Wetlands Protection Act and regulations. DEP recommends that the Emergency Certification be used to handle most of these cases. Any additional alterations beyond that necessary to abate the immediate public health threat require a follow-up Notice of Intent filing. The Request for Emergency Certification should include flood elevations, if known, and at least a general description of the frequency and duration of flooding. Commissions should request specific information on the technique proposed to remedy the threat, including construction and maintenance methods, predicted impact on water levels both up and downstream, and a preliminary analysis of wetland interests that may be impacted.

If a Notice of Intent is required to abate the immediate public health threat or for additional work beyond that specifically authorized in an Emergency Certification, the Conservation Commissions should require the same information listed above under Emergency Certifications and seek answers to the following questions. How long has the beaver dam been in existence, and what is its size and condition? Has it recently been expanded or otherwise altered? How well developed is the pond and/or wetland system behind the dam? Is there evidence of recent water level increases? What are conditions like downstream? What is the potential for flooding or erosion with the proposed remedy? What are the impacts on wildlife habitat, both upstream and downstream, of the proposed remedy? Would rare or endangered species be impacted? Would a water-flow device or limited breach alleviate the immediate threat, without causing undue impacts? Commissions may request that the applicant provide an analysis of optimum water levels that would alleviate the immediate flooding problem while allowing the

dam/pond/wetland system to remain essentially intact. Commissions should condition the proposed activities to safeguard the interests protected by the Wetlands Protection Act.

### *Potential Solutions*

Two common solutions to eliminate flooding associated with beavers and muskrat activities which require review by conservation commissions include: installation of water flow devices or the breaching of dam structures.

If properly constructed, the installation of a water flow device provides an effective long-term measure for controlling flooding. Technical guidance on the use of water flow devices has been provided by the Division of Fisheries and Wildlife (DF&W) in a booklet entitled, "*The Use of Water Flow Devices in Addressing Flooding Problems Caused by Beaver in Massachusetts.*" (see enclosed copy). This booklet provides an excellent summary of beaver control techniques, outlining the pros and cons of each. DEP recommends that Commission members read this manual in its entirety, and keep it handy as a reference guide. Please note, though, that the permitting summary on page 3 is now out-of-date because of the new law. In addition, please note that since this booklet was published, additional types of water control devices have entered the market and may prove effective in a wider range of circumstances. For additional information on water level control devices, please contact your local DF&W District Office (DF&W District phone numbers are listed in the water flow devices booklet).

The DF&W booklet contains practical recommendations that can be used as conditions and made part of either an Emergency Certification or Orders of Conditions for the installation of water level control devices. For example, the booklet recommends specific maintenance intervals and measures for some of the water flow devices; these could be turned into conditions to ensure the devices function as intended. If limited breaching is approved, the booklet provides suggestions for timing (breach in the morning, as beavers are most active at night) and recommendations for hand and mechanical methods. These recommendations also could be turned into conditions.

An alternative to installing water flow devices to control water level is to breach a beaver dam. DF&W has also developed guidance entitled "Issuing Breach Permits" (see attached) which discuss issues to be considered when designing plans to breach a dam. The dam breach guidance reviews the types of breaches that are generally appropriate to minimize flooding impacts or changes in hydrology up or downstream of the breach location, and to protect wildlife habitat located in wetland jurisdictional areas. Breaching has generally not been recommended by DF&W during the winter and spring months, when beaver kits are born. Conservation Commissions should adhere to these DF&W guidelines, and include special conditions in the Emergency Certification or Order of Conditions specifying the size of the breach approved and controlling the release of water to minimize downstream flooding. The DF&W guidance entitled "Issuing Breach Permits" contains suggested special conditions to limit flooding impacts from sudden release of water from a breached beaver dam, and recommendations that can be made into conditions. For additional information on breaching, please contact your local DF&W District Office.

### *Recommended Process*

The new law is silent as to how Conservation Commissions are to impose "determinations and conditions" under the Wetlands Protection Act. Nonetheless, the legislation clearly conveys a sense of urgency in dealing with these problems by directing Boards of Health to act "immediately" to issue emergency permits. Board of Health permits are valid for only ten days.

It is recommended that Boards of Health and Conservation Commissions take steps to establish a mutually agreeable process to handle beaver related filings, including appropriate notification to both the Board of Health and Conservation Commission, what information should be included in both applications, and a schedule for actions, given that a public health threat may exist. In communities with good working relationships between municipal boards, the Board of Health may agree to send applicants to the Conservation Commission for input prior to issuing an emergency permit, or will at least solicit input from the Commission concurrently. However, in many cases, applicants will seek their permits from the Board of Health prior to dealing with the Conservation Commission, and the Commission will then be forced to respond quickly. Commissions should therefore be prepared for an increase in requests for Emergency Certification under the Wetlands Regulations at 310 CMR 10.06. DEP believes that Emergency Certifications can be used effectively in this situation, provided the work authorized is limited to abating the immediate emergency and alleviating the specific beaver or muskrat-related threat. Emergency Certifications are appropriate for handling short-term, limited measures, such as the installation of temporary or small water flow devices, or the authorization of a limited breach.

Longer term projects, such as those which exceed the time authorized by the Board of Health and require plans developed as part of the DF&W 30-day extension permit, or activities beyond those necessary to abate the immediate public health threat, are better handled through a routine Notice of Intent filing. In addition, major projects such as full breaching of a well-established dam, which will result in long-term impacts to established wetlands, should be handled through a Notice of Intent and Order of Conditions. Proposals to alleviate beaver and muskrat-related problems that are not determined by the Board of Health to be threats to public health and safety under this new law should also continue to be handled through the Notice of Intent process.

Projects that require a Notice of Intent require the associated Wetlands Filing Fee. DEP recommends that Category 2 (water level variations - \$250) be used in situations where water flow devices or very limited breaches are proposed. Category 4 (dam, sluiceway, tidegate (safety work - \$725) can be used for proposals that seek to dramatically alter and/or fully breach an existing dam.

DEP does not recommend using the Request for Determination process to handle beaver and muskrat flooding, as it is unlikely that the work proposed will occur solely in the buffer zone, and it is likely that the work will impact wetland resource areas.

### *Issuing Emergency Certifications*

Emergency Certifications to abate the immediate public health threat may be issued for up to 30 days. DEP recommends that Emergency Certifications be issued to coincide with the ten-day Board of Health permit (which may be extended for two ten-day extensions). The Commission can make the extensions automatic (triggered by Board of Health extensions); or, if the Commission really has the time and energy, it can conduct a separate review for each extension.

The Conservation Commissions must only allow the minimum necessary work to abate the immediate public health threat. This could mean allowing the breaching or removal of a small section of the top of the dam to drawdown the water in the pond up-gradient of the dam, or the installation of a water flow device. Any drawdown allowed should be conditioned to occur gradually, to avoid sudden downstream flooding from the breached dam.

To comport with the wetlands Emergency Certification language at 310 CMR 10.06(1), Boards of Health should not only authorize the remedial work, but should order that the work be done. Even if a Board of Health does not use the word "order" in its emergency permits, Conservation Commissions are not precluded from issuing Emergency Certifications. The new legislation sends a strong and explicit message that beaver and muskrat-caused threats to human health and safety should be remedied much more quickly than the routine Notice of Intent process. The legislation directs Boards of Health to issue emergency permits immediately upon finding of a threat, and sets up ten-day timelines to alleviate these threats. These actions fall within the framework and scope of the wetlands Emergency Certification provisions at 310 CMR 10.06.

As part of the Emergency Certification process, Conservation Commissions retain the option of requesting an after-the-fact or follow-up Notice of Intent filing. The submittal of an NOI will be most useful if long-term solutions need to be analyzed, or if short-term measures implemented under an Emergency Certification do not perform as expected. Emergency Certifications can, and should, be conditioned to protect wetland interests. Each Emergency Certification should specifically describe the work to be done as well as the goal to be achieved (e.g. lower water level by 1 foot to elevation 36 to eliminate flooding of First Street at intersection with Beaver Brook).

All Emergency Certifications should be conditioned to ensure that the Commission is not granting any property rights or authorizing trespass. Often, the applicant with a flooding problem is not the owner of the property upon which the dam is located.

DEP has developed an Emergency Certification Form that may be used in these cases as well as other situations requiring emergency action. A copy of this new form is enclosed in this packet and will be available on the internet at <http://www.state.ma.us/dep>. The Emergency Certification Form includes general conditions that mirror those in the standard Orders of Conditions form.

### *Special Conditions for either Emergency Certifications and Orders of Conditions*

Emergency Certifications and Orders of Conditions, issued to abate an immediate public health threat or for long-term management of beaver related problems, should contain special conditions to prevent sudden flooding impacts from breached dams, changes in hydrology, and

alterations to wildlife habitat located in wetland resource areas, including beaver habitat. Please refer to the DF&W guidance referenced above entitled "Issuing Breach Permits" and "The Use of Water Flow Devices in Addressing Flooding Problems Caused by Beavers in Massachusetts."

DEP recommends that the Boards of Health and Conservation Commissions send each other their written decisions on any beaver or muskrat threat related applications. Copies of the Emergency Certification must be sent to the DEP Regional Office, Wetlands Section. DF&W has requested that all Emergency Certifications or Orders of Conditions issued by Conservation Commissions to alleviate beaver and muskrat-related problems be sent to them at:

Fur Bearer Project Leader  
Massachusetts Division of Fisheries & Wildlife  
Wildlife Section  
Field Headquarters  
1 Rabbit Hill Road  
Westborough, MA 01581

A simplified process and shortened timeframe for DEP's review of Emergency Certifications on appeal is set forth at 310 CMR 10.06(5).

For more information on the recommended process for permitting under the Wetlands Protection Act and regulations, please contact the appropriate regional DEP Wetlands Circuit Rider or wetlands program. There contacts are NERO: Michael Abell at 978-661-7811 or Gillian Davies at 978-661-7812; CERO: Nancy Reed at 508-767-2781; WERO: Susan Gillan at 413-755-2147 or Terry Eucker at 413-755-2144; SERO: Carlos Fragata at 508-946-2885, or contact Thomas Maguire in the Boston office at 617-292-5602. We encourage you to discuss novel and or controversial cases with your regional Circuit Rider, and welcome your feedback and comments on this guidance.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

# WPA Emergency Certification Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

## A. Emergency Information

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Issuance From:

Issuing Authority \_\_\_\_\_

1. Reason for Emergency:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Public agency to perform work or public agency ordering the work to be performed:

\_\_\_\_\_

3. Date of Site Visit:

Start Date:

End Date\*:

\_\_\_\_\_

\* no later than 30 days from start date or 60 days in the case of an Immediate Response Action approved by DEP to address an oil/hazardous material release.

4. Work to be allowed\*:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* May not include work beyond that necessary to abate the emergency.

## B. Signatures

Certified to be an Emergency by this Issuing Authority.

Signatures:

Chairman (or designee)

Date

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A copy of this form must be provided to the appropriate DEP Regional Office.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Emergency Certification Form**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**C. General Conditions**

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Emergency Certification or subject to enforcement action.
2. This Emergency Certification does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of property rights.
3. This Emergency Certification does not relieve the applicant or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. Any work conducted beyond that described above, and any work conducted beyond that necessary to abate the emergency, shall require the filing of a Notice of Intent.
5. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Emergency Certification at reasonable hours to evaluate compliance with this Certification, and may require the submittal of any data deemed necessary by the Conservation Commission or the Department for that evaluation.
6. This Emergency Certification shall apply to any contractor or any other person performing work authorized under this Certification.
7. No work may be authorized beyond 30 days from the date of this certification without extension by the Issuing Authority.

**D. Special Conditions**

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**E. Appeals**

The Department may, on its own motion or at the request of any person, review: an emergency certification issued by a conservation commission and any work permitted thereunder; a denial by a conservation commission of a request for emergency certification; or the failure by a conservation commission to act within 24 hours of a request for emergency certification. Such review shall not operate to stay the work permitted by the emergency certification unless the Department specifically so orders. The Department's review shall be conducted within seven days of: issuance by a conservation commission of the emergency certification; denial by a conservation commission of the emergency certification; or failure by a conservation commission to act within 24 hours of a request for emergency certification. If certification was improperly granted, or the work allowed thereunder is excessive or not required to protect the health and safety of citizens of the Commonwealth, the Department may revoke the emergency certification, condition the work permitted thereunder, or take such other action as it deems appropriate.



**Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Drinking Water  
Determination of Threat to Public Water Supplies Due to Beaver and Muskrat  
Massachusetts General Law Chapter 131 Section 11**

**D. Proposed Method for Eliminating Threat (cont.)**

2. Will dams be breached with this request?

Yes       No

If yes, please explain the work proposed?

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3. Will non-lethal management or water-flow devices be used?

Yes       No

If yes, please provide more detail on what will be used?

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Please attach additional information, if necessary.

**E. Signature and Submittal Requirements**

"I hereby certify that the information submitted in this application is true and accurate to the best of my knowledge"

Signature \_\_\_\_\_

Date \_\_\_\_\_

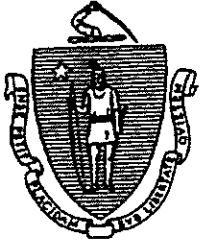
Please submit the application to your appropriate DEP regional office:

DEP Northeast Region  
Drinking Water Program  
205A Lowell Street  
Wilmington, MA 01887  
(978) 661-7600

DEP Central Region  
Drinking Water Program  
67 Main Street  
Worcester, MA 01605  
(508) 792-7650

DEP Southeast Region  
Drinking Water Program  
20 Riverside Drive  
Lakeville, MA 02347  
(508) 946-2700

DEP Western Region  
Drinking Water Program  
Suite 402  
Springfield, MA 01103  
(413) 784-1100



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Commissioner

**Determining a Threat To Public Water Supplies Related to Presence of Beaver and Muskrat  
Standard Operating Procedure (SOP)  
Drinking Water Program**

Applies to Public Water Suppliers (PWSs) with beaver or muskrat populations endangering public water supply sources or pump stations:

***Rationale:*** The presence of beavers or muskrats near public water supply sources may pose a threat to the protection of public health. Both animals have commonly been identified as carriers of *Giardia Lamblia* and *Cryptosporidium*--pathogens identified within the Surface Water Treatment Rule and Enhanced Surface Water Treatment Rule respectively as posing an unacceptable risk to drinking water. Amendments to the State's trapping laws charge DEP with determining when a threat to human health and safety exists as a result of the presence of beavers and muskrats in and around public water supply sources and pump stations. A DEP determination that a threat exists may be used by an applicant to petition the local Board of Health for an emergency permit to eliminate the threat.

**Applications**

Applications to DEP requesting that a determination as to the existence of a threat to human health and safety resulting from beavers and muskrats in and around public water supply sources and pump stations must include the following information:

1. A scaled site map showing the location of all affected areas where determinations are requested in relation to all potentially impacted public water supply sources or pump stations. All public water supply sources and pump stations must be labeled on the site plan.
2. A narrative which:
  - a. Details the reason for the determination request;
  - b. Identifies the duration of the problem;
  - c. Identifies control mechanisms already used;
  - d. Identifies changes in water levels or flowpath. This information will be specific to problems related to flooding; and
  - e. Includes available evidence of interaction between groundwater sources and surface waters.
3. A description of the proposed method for eliminating the threat which:

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DEP on the World Wide Web: <http://www.state.ma.us/dep>

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- a. Specifies the type of trap, if any, that will be used;
- b. Specifies if dams will be breached; and
- c. Specifies if the use of non-lethal management or water-flow devices is proposed.

### Review and Determination

DEP may determine that a threat to human health and safety exists if beavers or muskrats or dams or active lodges are observed:

- Within a pathogen control zone previously sanctioned by the Massachusetts Division of Fisheries and Wildlife.
- Within a terminal reservoir or in a tributary within 400 feet of a terminal reservoir.
- Within 400 feet of a public water supply well or wellfield.
- Within 200 feet of a public water supply pump station.
- In a tributary, beyond 400 feet of a terminal reservoir, if the applicant can demonstrate that degradation in water quality is occurring. Parameters used to demonstrate a degradation in water quality shall include:
  - Fecal coliform
  - Total coliform
  - Turbidity
  - Total Organic Carbon
  - *Giardia*
  - *Cryptosporidium*

### Actions

Following the submittal of a complete application, the DEP will conduct a site visit to determine if a threat exists to a water supply. The DEP/Wetlands Program, local Board of Health, and local conservation commission will be invited to any field visit for a determination. After the field visit, DEP will send the applicant a determination letter with a copy to the local Board of Health, Massachusetts Division of Fisheries and Wildlife, and Massachusetts Department of Public Health. DEP will try to issue its determination within 5 business days from receipt of a complete application. If that determination identifies that a threat exists, the applicant may petition the local Board of Health for an emergency permit to abate the threat. The determination from DEP will require that the applicant notify DEP within a specified time period as to the actions completed and whether the threat was successfully eliminated. Proposals for the removal or breaching of dams, or other actions which will lower water levels must receive the approval of the local conservation commission within the City/Town that the proposed action will take place.

The emergency permit for trapping is for ten days during which trapping can be carried out and dams may be removed as allowed. There is authority by Fisheries and Wildlife for their Director to permit an extension for an additional 30 days.



**Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Drinking Water  
Determination of Threat to Public Water Supplies Due to Beaver and Muskrat  
Massachusetts General Law Chapter 131 Section 11**

**A. General Information**

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



**1. Applicant:**

Applicant	E-mail Address	
Mailing Address		
City/Town	State	Zip Code
Phone Number	Fax Number (if applicable)	

**2. Contact:**

Name	E-mail Address	
Mailing Address		
City/Town	State	Zip Code
Phone Number	Fax Number (if applicable)	

**3. Project Information:**

Town	Public Water Supply (PWS) Name	PWS ID Number
Impacted Source Name	Impacted Source ID Number	Application Date

**B. Request for Determination**

Explain why the request for determination has been submitted (include information on control mechanisms already used and identify any changes in water levels or flow path). Attach additional information if needed.

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Duration of Problem	Proposed Duration of Control
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**C. Site of Beaver and/or Muskrat Presence**

1. Location of effected areas where determination is requested. Attach a map identifying location of affected area.  

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2. Is the presence in a previous Division of Fisheries and Wildlife sanctioned pathogen control zone?  
 Yes       No
3. Is the presence in a terminal reservoir or tributary within 400 feet of a terminal reservoir?  
 Yes       No
4. Is the presence within 400 feet of a PWS well or wellfield?  
 Yes       No
5. Is the presence within 200 feet of a PWS pump station?  
 Yes       No
6. Does the attached map show the location of effected area(s) and potentially impacted PWS sources or pump stations?  
 Yes       No
7. Are water quality results attached to demonstrate water quality degradation of the PWS?  
 Yes       No  
If yes, what parameters are being used?  

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**D. Proposed Method for Eliminating Threat**

1. Will traps be used?  
 Yes       No  
If yes, specify the type of trap:  

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