

Best Management Practices for Handling Human-Beaver Conflicts

Although some Vermont statutes allow the removal of both nuisance beaver and beaver dams, other statutes require that water quality and wetlands be protected. These Best Management Practices (BMPs) have been designed to address the issues of nuisance beaver and the alteration or removal of beaver dams while at the same time, and to the greatest extent possible, protect water quality and wetland values. By following these BMPs, including complying with the requirements of the 1272 Order (contained in Appendix 12 of larger document*), a person or organization will be considered in compliance with the law.

Beaver problems should be brought to the attention of a Fish and Wildlife warden and/or wildlife biologist in the Agency of Natural Resources regional office closest to the problem site, the Wetlands office, or the Wildlife Services Hotline.

Upon receipt of a call, the responding person will ask the caller to provide the following information:

- Does the dam pose a hazard to human health, safety, or property and what is the nature of the hazard? Is the hazard imminent so that there is an emergency situation?
- What is the location of the dam, how long has it been there, and approximately how large is it?
- What is the nature of the problem (flooding of water supply, concerns regarding *Giardia*, threat to roads or cropland, etc.)?
- What are the property uses downstream?

Whenever possible, the caller's concerns should be satisfied through information and advice given over the phone. If further action is needed, the problem should be referred to the appropriate ANR individual.

TYPE 1 DAMAGE PREVENTION TECHNIQUES

A. Problem Description: Beaver are eating ornamental trees and shrubs or damaging other landscape.

Management Response:

First try to:

- Install wire or electric fencing around ornamentals or landscaping. (Refer to Appendix 2 of larger document for examples of how to install this kind of protection).

If that doesn't work:

- Arrange for lethal reduction and/or removal of beaver population. While problem beavers may legally be removed any time, removal of beaver during the normal trapping season may minimize costs to the landowner and maximize the use of a renewable resource.

B. Problem Description: Beaver are digging ditches and channels. There may also be a proliferation of small dams and lodges resulting from an expanding beaver population. No damage has occurred yet.

Management Response:

- Arrange for lethal reduction/control of beaver population. While problem beavers may legally be removed any time, removal of beaver during the normal trapping season may minimize costs to the landowner and maximize the use of a renewable resource.

C. Problem Description: Landowner is concerned about rabies or *Giardia*.

Management Response:

First try to:

- Provide educational materials or personal consultation regarding rabies and *Giardia* (Appendix 5 in larger document).

If that doesn't work:

- Arrange for lethal reduction and/or removal of beaver population. While problem beavers may legally be removed any time, removal of beaver

***BEST MANAGEMENT PRACTICES FOR HANDLING HUMAN-BEAVER CONFLICTS** (larger version):

http://www.vtfishandwildlife.com/library.cfm?libbase_=Factsheets

during the normal trapping season may minimize costs to the landowner and maximize the use of a renewable resource.

TYPE 2 OBSTRUCTED CULVERTS AND DAMS LESS THAN TWO YEARS OLD

Problem Description: This applies to the specific condition where beaver have obstructed a culvert or constructed a dam **that is less than two years old** and the dam poses a hazard to public health or safety or public or private property.



Management Response:

- Municipalities and state agencies should develop a regular monitoring program for roads, highways, and bridges to identify potential beaver problems and implement appropriate control measures.
- Consider arranging for the lethal removal or reduction of the nuisance beaver (live trapping and the relocation of beaver is not authorized by this procedure). While problem beavers may legally be removed any time, removal of beaver during the normal trapping season may minimize costs to the landowner and maximize the use of a renewable resource.
- Investigate the possibility of installing and maintaining water control structures (such as the use of piping to serve as a siphon to lower the water level in the beaver pond) or exclusionary devices. When installing one of these devices, it may also be necessary to control the size of the beaver population through an annual trapping program.
- Notify downstream landowners if dam removal is the only option.
- Lower the water level of the beaver impoundment by using a pump or siphon (refer to Appendix 6 of larger document for an example). The water level must be reduced gradually so that the impoundment is lowered not more than one foot per day so as to minimize erosion, stream degradation, the potential for downstream flooding, and personal liability for damages. (Note: Beaver could potentially respond in one of two ways: they may abandon the area or attempt to work against all efforts to reduce water levels.)

- To maximize the protection of spawning trout and salmon, and the development of their eggs and fry and if no imminent hazard exists, dam removal will take place only between June 1st and October 1st. Dam removal must be done in accordance with the requirements of Appendix 11.
- Immediately following dam removal, beaver fencing or water control devices should be installed and maintained in accordance with the procedures contained in Appendix 7, 8, 9, and 10 for the purpose of preventing future beaver dam construction.
- Persons who remove beaver dams or culvert obstructions in accordance with these BMPs must notify a Fish and Wildlife warden, one of the Agency of Natural Resources regional offices, or the Wildlife Services Hotline at 1-800-472-2437 as soon as possible.
- Any person who complies with the requirements listed in this section for Type 2 beaver dam problems will need no further authorization from the Agency of those activities. Compliance with the Type 2 requirements constitutes compliance with the 1272 Order contained in Appendix 12.

NOTICE: *Beaver dams which obstruct man-made dams, gates, and/or spillways can result in higher pond levels and reduce spillway capacity. This may cause an imminent hazard situation to occur with little to no warning. These beaver dams must be removed immediately upon discovery and as part of routine maintenance of other man-made dams. People who remove beaver dams in this type of situation do not need to comply with the BMPs, but it is recommended that they use the BMPs as guidance.*

TYPE 3 CONFLICTS WITH AN ESTABLISHED BEAVER DAM OR DAM COMPLEX

Problem Description: Beaver dam or dams (inhabited or uninhabited) which have been in existence **two years or more**, and which pose a hazard to human health or safety, or to public or private property.

Management Response: In cases involving well-established beaver dams and associated wetlands, Agency personnel must be contacted and a site visit by one or more representatives of the Agency will be

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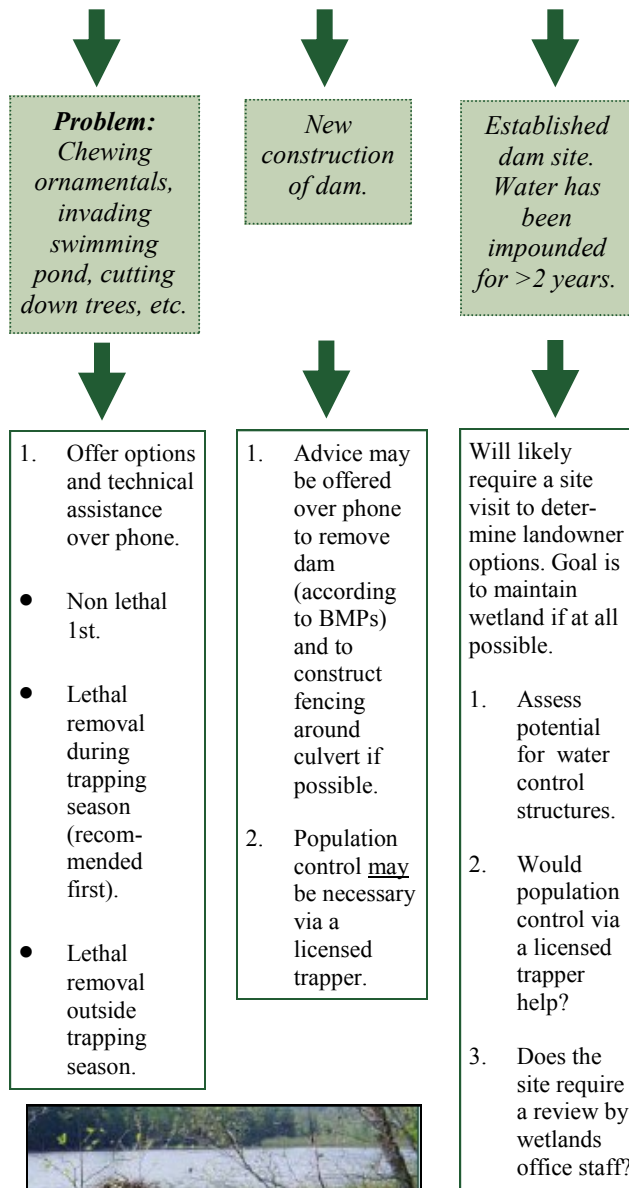


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Rev. 8/2014 CAB/mmc

HUMAN/BEAVER CONFLICT PROTOCOL



necessary. Agency personnel will work with the landowner, municipality, or state Agency to identify solutions to the problem with the goal of appropriately managing the nuisance beaver and associated hazards while maintaining wetland values, minimizing negative environmental impacts, and reducing personal liability for damages. Responses may vary. For example, with respect to the following situations:

- If a beaver dam and its associated wetlands poses a hazard to human health and safety or has in the past caused substantial damage to property, roads, or railroads, then the procedures described in Type 2 may be appropriate in some cases and will be determined on a site-by-site basis.
- In a situation where a beaver pond is no longer inhabited by an active colony and the potential failure of the unmaintained dam poses a likely threat to adjacent and/or downstream properties and the retention of water no longer serves the ecological function that it once did, ANR personnel may determine that the dam can be removed by lowering the water level no more than one foot per day. Other measures may be necessary during dam removal to protect downstream water quality and habitats.

In all cases listed above, if a municipality, railroad, or the Agency of Transportation deems a situation to be an imminent hazard (i.e. high water during a significant rain event) to public health and safety or to public or private property and cannot follow the BMPs due to the need for immediate action, they should contact the Department of Environmental Conservation or the Fish & Wildlife Department as soon as possible after taking immediate action.

NOTICE: *The alteration or removal of a beaver dam in accordance with these BMPs does not authorize dredgings, filling, dam construction, or any other activities that may have an adverse effect on wetlands or the waters of the state not authorized by these BMPs.*

Phone Numbers:

USDA APHIS Hotline: 1-800-472-2437
 Vermont Wetlands Office: 802-828-1535
 Chris Bernier, VT F&W Dept.: 802-885-8833