

TOWN OF NORTH ANDOVER
120 MAIN STREET
NORTH ANDOVER, MASSACHUSETTS 01845



2001 Annual Town Meeting – 14 May 2001 – North Andover, MA

Article 16. Reducing the Beaver Population.

Moderator's notes on voted, amended motion. – Adopted by unanimous voice vote.

VOTED that Town Meeting request the Board of Selectmen direct the Town Manager to establish a special committee of town officials and residents who will study, investigate and formulate recommendations on mitigating the property damage caused by activities of beavers, and wherever possible, explore non-lethal means to control the beaver population, with the results to be presented in a report at the next Annual Town Meeting.

And further request that the Board of Selectmen direct the Town Manager to take all appropriate actions to immediately begin implementation of mitigation measures through the Division of Public Works using any funding that may be identified within Public Works, Conservation, or any other municipal account.

As a result of the Town Meeting vote on Article 16 at the 2001 Annual Town Meeting, a committee consisting of town officials (the Assistant Town Manager, the Health Director, the Conservation Administrator, and the Superintendent of Operations from Public Works) along with three residents (Mr. Paul Stewart, Ms. Carol Balmas, and Mr. Dave Rand) have met to review the beaver situation within the Town of North Andover.

In the 2000 legislative session, the Massachusetts Legislature amended M.G.L. c131, s80A with the passage of "An Act Relative to Foothold Traps and Certain Other Devices." This new law became effective on July 21, 2000, and was intended to make it easier for applicants to alleviate threats caused by beaver and muskrat-related flooding. The law places the administration of the legislation under the local board of health in consultation with the conservation authority of the town. The law also clearly defines "threats to human health and safety" which trigger various remedies and actions.

In order to properly address the concerns of residents and in compliance with M.G.L. c131, s80A, the Town has organized a working group consisting of the Health Director, the Health Inspector, the Conservation Administrator, the Conservation Associate, and the Superintendent of Operations (Public Works) to coordinate efforts and to prepare and present a unified Town response (either short-term or long-term) to beaver related issues. The working group is overseen by the Assistant Town Manager.

Chapter 139 of the Acts of 2000

AN ACT RELATIVE TO Foothold TRAPS AND CERTAIN OTHER DEVICES.

Whereas, The deferred operation of this act would tend to defeat its purpose, which is to protect forthwith persons from threats to human health and safety caused by certain animals, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Section 11 of chapter 131 of the General Laws is hereby amended by adding the following paragraph:-

The director shall also provide trapper training courses to certify licensed trappers on the effective use of box, cage and conibear type traps, for furbearing mammals, including beaver or muskrat. Such training courses shall be held at least twice each calendar year.

SECTION 2. Said chapter 131 is hereby further amended by inserting after section 19A the following section:-

Section 19B. Any person authorized under section 4 to take and possess mammals may transport them within the commonwealth for the purpose of euthanasia.

SECTION 3. Section 80A of said chapter 131, as appearing in the 1998 Official Edition, is hereby amended by inserting after the word "health", in line 13, the following words:- or municipal boards of health.

SECTION 4. The second paragraph of said section 80A of said chapter 131 as so appearing, is hereby amended by adding the following two sentences:- A threat to human health and safety may include, but shall not be limited to:

- (a) beaver or muskrat occupancy of a public water supply;
- (b) beaver or muskrat-caused flooding of drinking water wells, well fields or water pumping stations;
- (c) beaver or muskrat-caused flooding of sewage beds, septic systems or sewage pumping stations;
- (d) beaver or muskrat-caused flooding of a public or private way, driveway, railway or airport runway or taxi-way;
- (e) beaver or muskrat-caused flooding of electrical or gas generation plants or transmission or distribution structures or facilities, telephone or other communications facilities or other public utilities;

As an initial phase of the effort, the Town contracted with Beaver Solutions (of Hadley, Massachusetts) to survey the primary beaver conflict sites within the Town and to submit recommendations as to the best possible method to deal with the issues at the respective sites. Seven primary locations were identified:

Barker Street culvert / Hickory Hill Road
Cochichewick Brook (Chickering Road at the High School)
Rear of Bridle Path adjacent to the Sewer Pump Station
Carriage Chase Road
Jasmine Plaze / Route 114 culvert
Boston Brook (rear of 1084 Johnson Street)
Boston Brook (Barker Street culvert)

These locations are, by no means, the only affected areas of the Town.

Working with the recommendations of Beaver Solutions and the affected residents, several of the primary areas have begun to be addressed:

- The Town directly contracted with Beaver Solutions to install a water flow device in the rear of Bridle Path adjacent to the Sewer Pump Station. The contract calls for the site to be maintained by Beaver Solutions for a one-year period.
- Working closely with the resident of 1084 Johnson Street, appropriate permits were issued to provide for trapping beavers and for gradual breaching of the beaver dam.
- Price proposals, based on the recommended plans of action, were received from Beaver Solutions for two locations within Carriage Chase Road. The Town will contract with Beaver Solutions to complete the work on the beaver dam within Town-owned land which will address the long-term solution. The respective home owner intends to do likewise for the dam located on his property.

This report contains the following:

- The amendment to M.G.L. c131, s80A enacted in July of 2000;
- The "Massachusetts Beaver Law Flow Chart";
- A publication entitled "Information for Citizens Concerned with Beaver Control";
- A listing of beaver conflict sites in the Town of North Andover; and
- The report submitted by Beaver Solutions pertaining to the seven primary sites.

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In order to properly address the concerns of residents and in compliance with M.G.L. c131, s80A, the Town has organized a working group consisting of the Health Director, the Health Inspector, the Conservation Administrator, the Conservation Associate, and the Superintendent of Operations (Public Works) to coordinate efforts and to prepare and present a unified Town response (either short-term or long-term) to beaver related issues. The working group is overseen by the Assistant Town Manager.

(f) beaver or muskrat-caused flooding affecting the public use of hospitals, emergency clinics, nursing homes, homes for the elderly or fire stations;

(g) beaver or muskrat-caused flooding affecting hazardous waste sites or facilities, incineration or resource recovery plants or other structures or facilities whereby flooding may result in the release or escape of hazardous or noxious materials or substances;

(h) the gnawing, chewing, entering, or damage to electrical or gas generation, transmission or distribution equipment, cables, alarm systems or facilities by any beaver or muskrat;

(i) beaver or muskrat-caused flooding or structural instability on property owned by the applicant if such animal problem poses an imminent threat of substantial property damage or income loss, which shall be limited to: (1) flooding of residential, commercial, industrial or commercial buildings or facilities; (2) flooding of or access to commercial agricultural lands which prevents normal agricultural practices from being conducted on such lands; (3) reduction in the production of an agricultural crop caused by flooding or compromised structural stability of commercial agricultural lands; (4) flooding of residential lands in which the municipal board of health, its chair or agent or the state or federal department of health has determined a threat to human health and safety exists. The department of environmental protection shall make any determination of a threat to a public water supply.

SECTION 5. Said section 80A of said chapter 131, as so appearing, is hereby further amended by inserting after the second paragraph the following seven paragraphs:-

An applicant or his duly authorized agent may apply to the municipal board of health for an emergency permit to immediately alleviate a threat to human health and safety, as defined in the previous paragraph. If the municipal board of health determines that such a threat exists, it shall immediately issue said emergency permit to alleviate the existing threat to human health and safety, for a period not exceeding ten days. If denied, the applicant or his duly authorized agent may appeal said emergency permit application to the state department of public health or director. If the state department of public health or director determines that such a threat exists, it shall immediately issue said emergency permit to alleviate the existing threat to human health and safety, for a period not exceeding ten days.

The aforementioned emergency permit authorizes the applicant or his duly authorized agent to immediately remedy the threat to human health and safety by one or more of the following options: (a) the use of conibear or box or cage-type traps, subject to the regulations promulgated by the division; (b) the breaching of dams, dikes, bogs or berms, so-called, subject to determinations and conditions of municipal conservation commissions under section 40; and (c) employing any nonlethal management or water-flow devices, subject to determinations and conditions of municipal conservation commissions under section 40.

If said threat to human health and safety has not been alleviated within said ten days, the applicant or his duly authorized agent in conjunction with the municipal board of health, shall apply to the director for an extension permit to continue the use of alleviation techniques, specified in this section, for a period not exceeding 30 days. If the director determines that such a threat to human

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- (e) beaver or muskrat-caused flooding of electrical or gas generation plants or transmission or distribution structures or facilities, telephone or other communications facilities or other public utilities;

health or safety exists, as defined in this section, the director shall immediately issue an extension permit.

If the director determines that said extension permit should be continued for 30 days, the director shall within 30 days of such decision develop, with the assistance of the applicant or his duly authorized agent, municipal board of health and municipal conservation commission, a plan to abate the beaver or muskrat problem using alternative, nonlethal management techniques in combination with water-flow devices, where possible, subject to the determinations and conditions of municipal conservation commissions under section 40, and if necessary, box and cage type-traps in order to provide a long-term solution. The director shall take reasonable steps to implement the plan within this 30-day period.

Compliance with the provisions of any or all of the previous four paragraphs shall not preclude the applicant or his duly authorized agent from applying to the municipal board of health for an additional emergency permit, provided the applicant (a) states in writing that there exists on the property an animal problem which poses a threat to human health and safety, as defined in this section, which cannot reasonably be abated by the use of alternative, nonlethal management techniques or box or cage traps, and that the applicant has attempted to abate the animal problem using alternative, nonlethal management techniques or box or cage traps, or (b) is awaiting the director's approval for an extension permit.

An applicant or his duly authorized agent under clause (b) shall be eligible for only two additional emergency permits, the first of which shall entitle the applicant or his duly authorized agent the use of all or any of the alleviation techniques previously allowed under the initial emergency permit. Said first additional emergency permit shall expire in ten days. If the director still has not acted within this ten day period, the applicant or his duly authorized agent shall be eligible for a second additional emergency permit. Said second additional emergency permit shall entitle the applicant or his duly authorized agent the use of all alleviation techniques previously allowed in this section, except for the use of conibear traps. The second additional emergency permit shall expire on the rendering of a decision by the director regarding the extension permit.

The division shall provide a report annually to the joint committee on natural resources and agriculture on the creation, implementation and efficiency of such animal problem plans.

SECTION 6. The director of fisheries and wildlife shall adopt emergency regulations to carry out the purposes of this act as soon as possible and shall adopt final regulations within three months after the effective date of this act. All final rules and regulations promulgated under this act shall be filed with the joint committee on natural resources and agriculture 60 days before their effective date. Within one year after the effective date of this act and annually thereafter, the division shall conduct a study of the results and financial requirements of this act and file the results of such study with the clerks of the house of representatives and the senate and the joint committee on natural resources and agriculture.

Approved July 21, 2000.

Massachusetts Beaver Law Flow Chart

Are you incurring beaver damage that may be a threat to public health under "a-i" in beaver law

Yes

No

Contact local BOH for possible emergency permit

Contact DFW for possible non-emergency permit

10-day emergency permit issued

Permit denied

You may appeal to DPH regarding public health questions or DFW regarding wildlife cause

Problem solved

Problem still not solved

Appeal approved

Appeal denied

Apply to DFW for 30-day extension permit using A, B and/or C

Permit approved

Waiting for 30-day permit
You may apply to BOH for additional 10-day emergency permit

30-day permit approved
10-day permit becomes void

Still waiting for 30-day permit
You may apply to BOH for 2nd additional emergency permit -Option B and/or C only

You must develop with DFW, BOH and Conservation Commission, a long-term management plan

Options

- A any box, cage or conibear type trap
- B breaching of dams
- C installation of water flow devices
- B & C require ConCom approval

- BOH = Board of Health
- DFW = Division of Fisheries & Wildlife
- DPH = Department of Public Health

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INFORMATION FOR CITIZENS CONCERNED
WITH BEAVER CONTROL

The following document provides general information on the permitting procedures for emergency beaver control activities within the Town of North Andover. 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 law became effective on July 21, 2000 and streamlines the process for applicants to alleviate threats caused by beaver and muskrat-related flooding by using local Boards of Health as conduits in the permitting process. 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 Board of Health has the sole responsibility for declaring a beaver or muskrat-related activity a "threat to human health and safety". Threats to human health and safety include the following:

- 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;
- Flooding affecting the public use of hospitals, emergency clinics, nursing homes, homes for the elderly, fire stations, hazardous waste, incineration, or resource recovery facilities;
- Flooding of electric or gas facilities, transmission or distribution equipment, cable, alarm systems, or facilities;
- Flooding causing structural instability on the applicant's property, if it poses an imminent threat of substantial property damage or income loss including residential, commercial, industrial and agricultural facilities;
- Beaver or muskrat occupancy of a public water supply (determined by DEP)

If the Board of Health determines a threat to human health and safety exists, they shall immediately issue a 10 day emergency permit to alleviate the threat in one of three ways:

CONTACTS

North Andover Board of Health
27 Charles Street
North Andover, MA 01845
(978) 688-9540

North Andover Conservation Department
27 Charles Street
North Andover, MA 01845
(978) 688-9530

Massachusetts Division of Fisheries & Wildlife
68 Harris Street
Acton, MA 01720
(978) 263-4347

Massachusetts Department of Public Health
250 Washington Street
Boston, MA 02108
(617) 624-5757

WEBSITES

Masswildlife.com
(Click on wildlife, then Beavers in Massachusetts)

Town of North Andover

BEAVER COMPLAINT DATA SHEET

Complaint # _____	Date Received: _____
Name: _____	Tel #: Day _____
Address: _____	Tel #: Night _____
Complaint Location: _____ Map: _____ Parcel: _____	
Type of Complaint: (Check all that apply):	
<input type="checkbox"/> Property flooding <input type="checkbox"/> Road flooding <input type="checkbox"/> Tree damage <input type="checkbox"/> Property damage <input type="checkbox"/> Crop damage <input type="checkbox"/> Septic system <input type="checkbox"/> Water supply <input type="checkbox"/> Other _____	

Site Visit Information

Date	Inspector	Comments

Disposition: (Check all that apply)

Notified Conservation Commission _____	Technical Advice _____
Beaver Destruction Permit _____	Permit # _____
Dam Breach Permit _____	Permit # _____
Pipe Installed _____	Permit # _____
Referred to trapper- Name: _____	
Other _____	

**APPLICATION FOR 10-DAY EMERGENCY PERMIT TO MANAGE
BEAVER OR MUSKRAT THREAT**

TO BE FILLED OUT BY APPLICANT

Fee (if applicable): \$ _____

Name: _____ Date: _____

Address: _____

Town: _____ Zip Code: _____

Daytime Tel. # _____ Evening Tel. # _____

Agent Name: _____ Tel. # _____
(if applicable)

Complaint Location:

Is the problem entirely on your property? Yes: _____ No: _____ Don't Know: _____

Note: If the problem does not occur entirely on the applicant's property, consent forms from all other property owners must be obtained.

Complaint Condition: Check appropriate box and provide a detailed description of the perceived threat to public health and safety

Flooding of drinking water well _____

Flooding of septic system or sewer _____

Flooding of public or private way or driveway _____

Flooding of a utility structure such as an electrical or communications facility _____

Flooding of a building _____

BEAVER CONFLICT SITES IN NORTH ANDOVER

- SITE 1 – Barker Street culvert / Hickory Hill Road
- SITE 2 – Cochichewick Brook (Chickering Road at the High School)
- SITE 3 – Rear of Bridle Path adjacent to the Sewer Pump Station
- SITE 4 – Carriage Chase Road
- SITE 5 – Jasmine Plaza / Route 114 culvert
- SITE 6 – Boston Brook (rear of 1084 Johnson Street)
- SITE 7 – Boston Brook (Barker Street culvert)

BEAVER SOLUTIONS
98 Bay Road
Hadley, MA 01035
Telephone 413-585-9145
Email info@beaversolutions.com

Flow devices (beaver dam pipes and culvert protective fences) offer long term, cost effective solutions to most beaver conflicts. Since 1998, we have used flow devices with proven track records as well as our own successful, innovative designs to solve over 250 beaver problems in five states, including over 60 communities in Massachusetts. Our satisfied clients include towns, major railroads, public utilities, state and federal agencies, businesses and private landowners. Nevertheless, there are situations where trapping is necessary and/or more cost-effective. For these instances Beaver Solutions also offers licensed trapping services. References are available upon request.

Flow devices can generally be classified as either beaver dam pipes or culvert protective fence systems. Pipe systems are often referred to as Pond Levelers as they control the size of a beaver pond to prevent damaging flooding. Specially designed culvert protective fence systems are typically utilized on road culverts to stop beaver damming of the culvert. When properly designed and installed, these types of flow devices offer long term protection from beaver damming activity, thereby protecting roads, human health and safety, and saving significant amounts of time and money for years to come. They are also the most humane and environmentally friendly solution to beaver problems.

Our flow devices are designed to remain effective for at least 10 - 15 years with minimal maintenance. While these flow devices are designed to be very low maintenance, the little maintenance that is required is very important. Three to four times a year, any floated leaves and sticks need to be cleared from the upstream and downstream culvert fences. Typically this is done after autumn leaves, spring runoff, and large debris-producing storms. Pond Leveler pipes should be inspected annually in the spring for winter ice damage and the pipes adjusted if necessary to ensure the proper pond level.

When this routine maintenance is performed as recommended, our flow devices will remain effective for many years. Since both your satisfaction and our reputation are very important to us, Beaver Solutions offers maintenance plans at a very low-cost. In addition, Beaver Solutions guarantees the effectiveness of every flow device we maintain. We are also always available at no cost for telephone consultations.

intervention appears necessary at this time as there is no evidence of current or impending property damage.

4. Rear of Bridle Path

Apparently from the piles of beaver dam debris, this beaver dam has been breached to protect town well heads from flooding and to allow water to continue to flow into the drought depleted Lake Cochichewick. Fortunately, this problem can be easily resolved with the installation of a Flexible Pond Leveler with a 10" diameter pipe. This device will prevent beavers from flooding the well heads, prevent the need for dam breaching, and allow for a continuous flow of water towards the lake. Minimal maintenance is required with our Flexible Pond Leveler. Each spring the system should be checked for winter ice damage (rare) and the pipe adjusted if necessary to maintain the desired pond level.

5. Rear of 1084 Johnson Street

A large dammed stream has significantly deepened the water level of a marsh and is threatening the septic system at 1084 Johnston Street. The beaver dams are elevating the water level by approximately two feet. Due to the size of the drainage basin at this point, the flatness of the area, and the presence of three difficult to access downstream dams, this is a very challenging site to manage.

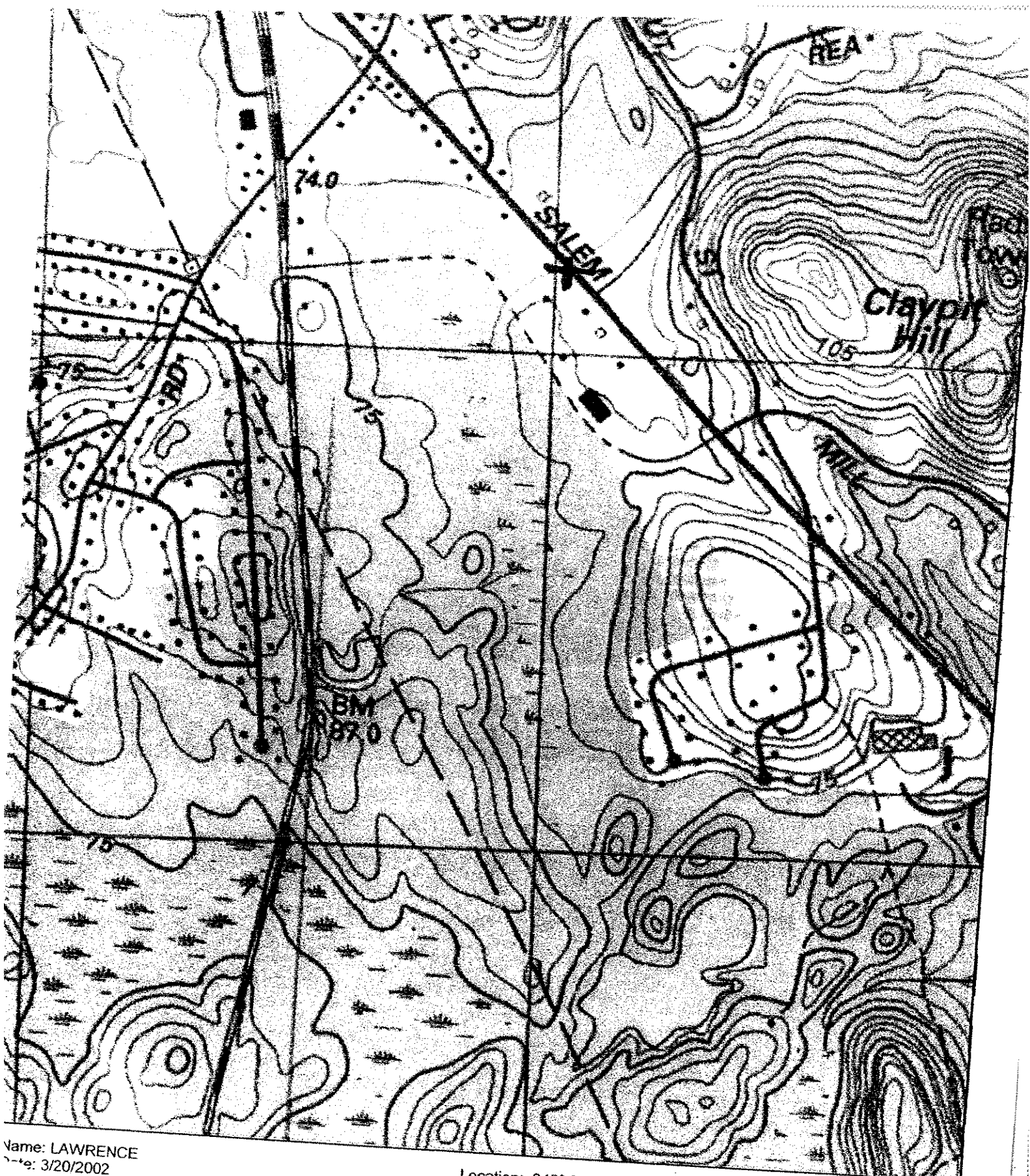
The first issue that needs to be determined is how much the water needs to be lowered in order for the septic system to function properly. Due to the relative small height of the beaver dams causing the flooding, the most that beaver dam pipes can lower and maintain the pond level is one foot below the current level. If that amount of water lowering is insufficient for the septic system to function properly, then we do not recommend pipes. Therefore, unless the septic system was moved to higher ground, beavers in this area would need to be trapped indefinitely.

If a one foot drop is acceptable, the installation of water control pipes remains challenging as there are three "control points" downstream where the beavers can dam and flood the septic system. All three control points (the active dam, an inactive dam, and a stone sluiceway) need to be managed if a long term solution is to be achieved. The most reliable, but most expensive plan would be to install pipes at all three locations. However, we recommend an alternative approach that would require installing pipes at only two of the three control points. Two Flexible Pond Leveler pipes could be installed very low in the primary beaver dam to eliminate the water storing effectiveness of this dam. No matter how much beavers worked on this dam the water level would not rise. Eventually the beavers would give up on the piped dam and build a new dam.

In order to prevent the beavers from rebuilding their downstream inactive dam, or starting a new one immediately downstream of the piped dam, a "diversion dam" could be created at the stone sluiceway. The loose stones at the sluiceway could be positioned to form a 12 - 18 inch high dam. This dam would create both a strong sound stimulus and a higher water level in the channel which would draw the beavers' attention downstream and encourage them to choose this location to rebuild their dam. Two Flexible Pond Leveler pipes would be installed through the

The water level could be maintained two feet lower than its current level with this device without a large risk of beavers building new dams upstream of the culverts and flooding the property owners. Lowering the water level by more than two feet would stimulate the beavers to build new dams. Then more Flexible Levelers would be needed in the new dams to prevent property flooding. However, if enough water is allowed to remain for the beavers to survive, they will not build new dams and the single Flexible Leveler will control the pond level for at least 10 - 15 years with minimal maintenance.

The purpose of the backhoe work to reopen both culverts is to regain the large storm runoff capacity that was originally designed for this area. The Flexible Leveler could be installed with the expense of the backhoe work and culvert protective fencing but there would be more water level fluctuation after storms because all the water would need to flow through the Flexible Leveler's single ten inch diameter pipe. The estimate assumes the culverts will be completely reopened.



Name: LAWRENCE
Date: 3/20/2002
Scale: 1 inch equals 800 feet

Location: 042° 39' 21.6" N 071° 06' 41.5" W
Caption: Beaver Solutions
Jasmine Plaza / Rt. 114 culvert
North Andover, MA