Acton Board of Health

July 12, 2010

Members Present: Joanne Bissetta, Chairman, William McInnis, Member, Mark Conoby, Member and Michael Kreuze, Associate Member.

Staff Present: Justin Snair, Environmental Health Agent and Isabel Roberts.

Others Present: Mr. and Mrs. Vandergift and Mr. Brown, P.E.

The meeting was called to order at 7:40pm

On a motion made by Mr. Conoby, seconded by Mr. McInnis, the Board unanimously voted to approve the Board of Health minutes dated June 21, 2010.

VOTE FOR CHAIRMAN AND VICE-CHAIRMAN

On a motion made by Mr. McInnis, seconded by Mr. Kreuze the Board unanimously voted to appoint Mr. Conoby as the Board of Health Chairman.
On a motion made by Mr. Conoby, seconded by Mrs. Bissetta, the Board unanimously voted to appoint Mr. McInnis as the Board of Health Vice - Chairman.

4 HOUGHTON LANE – APPEAL

Mr. Snair presented the Board with a request for an Appeal to a Health Director decision made in accordance with Acton Board of Health Onsite Wastewater System Policy.
Mr. Brown was before the Board seeking an appeal to the Health Department's decision regarding a complete waiver of Article 11-8.1 – reduction in minimum required area. Mr. Brown requested this waiver stating undo financial hardship at a cost of $7730.00 in order to comply with the minimum compliant area. Mr. Brown further stated that setbacks to the utility lines would also be reduced.

On a motion made by Mr. McInnis, seconded by Mr. Conoby, the Board unanimously voted to uphold the Health Director's decision stating manifest injustice was not met, and good policy and reasonable judgment was made.

MERRILY ENDOKIMOFF – APHNS UPDATE

Merrily Endokimoff presented the Board with an update of the Nursing Service. The Nursing service is still working with a financial consultant who is anticipated to give a final report in September, 2010. Cutbacks have already been made in the attempt to reduce expenses. Sharon Faldasz, who is the Nursing Service secretary has recently had her hours reduced to 20 per week, plus all of the nurses have reduced their hours by one hour per day. Ms. Endokimoff also stated she plans to only work 3 days per week as a consultant to the Nursing Service. Unfortunately, the Nursing Service is showing an approximate $90,000 deficit for FY10. This total is due to a number of changes, including staff being eligible for benefits, computer systems and equipment costs. Ms. Endokimoff reminded the Board that the Town voted for a substidy of $50,000 for FY11.

Adjournment

On a motion made by Mr. Taylor, seconded by Mr. Kreuze, the Board unanimously voted to adjourn at 8:15PM.

Respectfully Submitted,

Isabel Roberts, Health Secretary
Acton Board of Health

Joanne Bissetta, Chairman
Acton Board of Health

Town of Acton
Board of Health

Meeting Agenda

July 12, 2010
Acton Memorial Library
7:30 p.m. – 9:00 p.m.

.....

7:30
Vote for Chair and Vice-Chair.
7:45
4 Houghton Lane
Variance Request
8:00
Merrily Evdokimoff
APHNS Update

Meeting Minutes
June 21, 2010

Acton Board of Health

MEMORANDUM

Acton Board of Health - Telephone (978) 264-9634

Public Health
Prevent. Promote. Protect.

TO: Board of Health
FROM: Justin Snair; Health Agent
RE: 4 Houghton Lane – Request for Appeal to Health Director Decision
DATE: 06/20/10

The Health Department is in request for an Appeal to Health Director Decision made in accordance with Acton Board of Health Onsite Wastewater System Policy #033009 (see attached).

Specifically, variances have been requested for the replacement of the failed onsite waste water system serving the dwelling located at 4 Houghton Lane. The Health Director has determined that approval may not be granted, as requested variances, in part, do not conform to the "Standard Conditions" permitted under Policy #033009.

The Health Department, therefore, requests the Board of Health provide a yes/no vote in favor or against the Health Director Decision.

Acton Board of Health

MEMORANDUM

Acton Board of Health - Telephone (978) 264-9634

Public Health
Prevent. Promote. Protect.

TO: Doug Halley; Health Director
FROM: Justin Snair; Health Agent
RE: 4 Houghton Lane – Variance Request
DATE: 06/20/10

The Health Department is in receipt of a request for variance from Acton Board of Health Rules and Regulations Articles 11 and 16 for the repair of the onsite sewage disposal system serving the 440 gpd dwelling located at 4 Houghton Lane.

Specifically, the following variances have been requested:

1	11-6.1.1	No sewage disposal system with a capacity of less than 2,000 gallons per day shall be constructed within seventy five (75) feet of any wetland (Any land area or surface area so defined by the Massachusetts Wetland Protection Act, MGL, Ch. 131, s. 40 and/or the Town of Acton Wetlands Protection Bylaw.)
		Details
		Required: 100' Requested: 91' As the proposed system is located within an Aquifer Zone 3, actual request should be from Art. 16-6.2.7, which states a sewage disposal system shall be min. 100' from flood plain and/or wetlands Site restrictions prohibit alternative placement of septic tank. Soil Absorption System is located greater than 100' from wetlands.
		Department Recommendation: **Recommend Approval**

2	11-8.1	Disposal facilities for any use shall be designed utilizing the Long-Term Acceptance Rates prescribed in 310 CMR 15.242 and to meet the requirements given in Table 1. No disposal facility shall be constructed with an area less than 600 square feet.

Table 1: Minimum Required Disposal Areas

Design Flow (gallons per day)	Minimum Required Area (square feet)
0 – 330	600 ft2
331 – 440	800 ft2
441 – 550	900 ft2
551 and up	1000 ft2

Details

Required: 480 sqft (60% of Acton Minimum Required Disposal Areas)
Provided: 420 sqft.

Proposed system utilizes the Presby Enviro-Septic Leaching System, which can be designed for at 60% of MA DEP Title V requirements leaching area. As Acton Board of Health Minimum Required Disposal Areas are in addition to Title V, the Board of Health has typically allowed use of Presby Leaching System designed to 60% of Acton Minimum requirements (see attached Item 1).

A complete waiver of Art. 11-8.1 Table 1 is requested. Original justification for the variance by the design Engineer was due to financial hardships (see attached Item 2), citing $7730 in additional costs to add 6' more feet to a 42' long system (15% increase in size).

The designer has gone on to indicate that setback to waterline, gasline, and property line from SAS will be reduced should 480 sqft be required. It is the opinion of Department that the 60 sqft can be added to the field without major impact to setbacks and would recommend setback reductions rather than further reduction to SAS.

If it is determined, through a proof plan, that the required sqft cannot be added, the Health Department would recommend that an additional settling tank, equal to the primary septic tank, be provided.

Department Recommendation: **Recommend Denial**

3	11-8.4 11-8.4.1	The minimum depth of clean washed stone 3/4"- 1 1/2" in size shall be 12 inches measured below the invert of the distribution pipes.

Details

Stone is not used in a Presby Enviro-Septic Leaching System. 6" of C-33 Masonry Sand is required. System should be designed in accordance with manufacturer specifications and MA DEP approval letter.

Department Recommendation: **Not applicable**

4	16-6.2.5 Figure 1	Aquifer Zone 3, with 2 mpi perc requires 6' offset to ESHGW.
		Details
		Provided: 3 Presby Enviro-Septic Leaching system has been approved by MA DEP for a 3' offset to ESHGW.
		Department Recommendation: **Recommend Approval**

Item 1

	Property	Status	GPD	SAS Sqft Required (gpd/LTAR)	Min. Acton SAS	Provided	Reduction		Designed to Acton BOH SAS Regs	Mitigation	Comments
							Allowed	Utilized			
1	12 Tuttle Dr.	Repair	440	830	800	605	40%	28%	Y	Presby Enviro-Septic 2000 gal 2 Comp. Tank	
2	22 Lincoln Dr.	Repair	440	1100	800	840	40%	24%	Y	Presby Enviro-Septic	Existing Septic ank to remain
3	32 Duggan Rd	Repair	440	594	800	800	40%	0%	Y	Presby Enviro-Septic 1500 gal 2 Comp. Tank	
4	9 Madison	Repair	440	785	800	546	40%	32%	Y	Presby Enviro-Septic 1500 gal 2 Comp. Tank	

ITEM 2

Justin Snair

From: Justin Snair

Sent: Thursday, June 17, 2010 11:32 AM

To: Duncan M. Brown

Subject: RE: 4 Houghton Review

The variance you requested, if deemed necessary, may be approved at the directors level. I can tell you that in the past when presby has been approved, the reduction in SAS has been from the Acton min. As far as Doug and I see, a 480 sqft field can fit there, and maxinum feasible compliance should be achieved. I will discuss this with doug thus afternoon, but know if you should seek appeal to a directors approval, your request will be on the next meeting following the june 21st, as the agenda is closed.

The notes on a plan regarding offset adaptor position and the the d-box level as discussed are required in accordance with the review document provided by enviro-septic. The notes must be included on the plan regardless of use of a licensed installer who may know to do it.

Sent using a mobile device.

Justin Snair

From: Duncan M. Brown [DMBrownPE@verizon.net]
Sent: Thursday, June 17, 2010 4:07 PM
To: Justin Snair
Subject: Re: 4 Houghton Review

The biggest reason is the additional cost for the added area and construction of the Presby. We would have to: Excavate 120sf overdig @ $ 10 = $ 1200
Purchase and install 80 cy of fill @ $ 23/cy = $ 1840 Cut down two more large trees @ $ 500 ea = $ 1000 Loam and seed 180 sf more area @ $ 9 = $ 1620 Add 30 more feet of Presby pipe installed @ $ 20/lf = $ 600 Add 9 cy C33 sand @ $ 30 = $ 270 Add 20 sy additional site work @ $ 10/ sy = $ 200 Raise the outlet sewer pipe 1" in the house = $ 1000 Total Increase $ 7730

Realistically, you are making a decision to lower your 800 sf min to 700 sf min and allowing the 40% reduction for the Presby system, ie 0.60 x 700 sf = 420 sf. I know my client doesn't want to pay an additional $ 7730 for being that conservative with the 800 sf min, which is a made up number with no supporting data, and really doesn't have to be defended with your life.

Duncan

----- Original Message -----
From: "Justin Snair" <jsnair@acton-ma.gov>
To: "Duncan M. Brown" <DMBrownPE@verizon.net>
Sent: Thursday, June 17, 2010 11:32 AM
Subject: RE: 4 Houghton Review

> The variance you requested, if deemed necessary, may be approved at the
> directors level. I can tell you that in the past when presby has been
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> provided by enviro-septic. The notes must be included on the plan
> regardless of use of a licensed installer who may know to do it.
>
> Sent using a mobile device.
>

Justin Snair

From: Doug Halley
Sent: Thursday, June 17, 2010 4:37 PM
To: Justin Snair
Subject: RE: 4 Houghton Review

I looked at the plan. I would be more likely to agree to a decreased offset to wetlands than a decrease in size. However, I don't see why the system can't be realigned so that it doesn't take down the additional trees or requires a change in the sewer pipe. To add six more feet of length on a 42' long system (15% increase) and say it will cost $7,730 more implies the system as designed will cost over $50,000. I'm not buying. Denied. He can go to the Board if he likes.

-----Original Message-----
From: Justin Snair
Sent: Thursday, June 17, 2010 4:09 PM
To: Doug Halley
Subject: FW: 4 Houghton Review

Please read below.

-----Original Message-----
From: Duncan M. Brown [mailto:DMBrownPE@verizon.net]
Sent: Thursday, June 17, 2010 4:07 PM
To: Justin Snair
Subject: Re: 4 Houghton Review

The biggest reason is the additional cost for the added area and construction of the Presby. We would have to: Excavate 120sf overdig @ $ 10 = $ 1200
Purchase and install 80 cy of fill @ $ 23/cy = $ 1840 Cut down two more large trees @ $ 500 ea = $ 1000 Loam and seed 180 sf more area @ $ 9 = $ 1620 Add 30 more feet of Presby pipe installed @ $ 20/lf = $ 600 Add 9 cy C33 sand @ $ 30 = $ 270 Add 20 sy additional site work @ $ 10/ sy = $ 200 Raise the outlet sewer pipe 1" in the house = $ 1000 Total Increase $ 7730

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Duncan

----- Original Message -----
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To: "Duncan M. Brown" <DMBrownPE@verizon.net>
Sent: Thursday, June 17, 2010 11:32 AM
Subject: RE: 4 Houghton Review

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> the directors level. I can tell you that in the past when presby has

Justin Snair

From: Justin Snair
Sent: Friday, June 18, 2010 9:47 AM
To: Duncan M. Brown
Cc: Doug Halley
Subject: RE: 4 Houghton Review

Hi Duncan,

Based on the reasoning provided, the Health Department has denied the requested variance to reduce the min. required SAS size. We are unable to grant variance simply based on financial hardship.

Article 11 does, allow for a reduction, without variance, if the reduction is no more than 25% of required and that an additional settling tank of equal size to the primary is provided.

You can of course, request, in writing, appeal of the Health Departments decision before the Board of Health. The agenda is closed for the June 21st BOH meeting. The item will be placed on the next available and open meeting after receipt of your request.

Regards;

Justin Snair

From: Duncan M. Brown [DMBrownPE@verizon.net]
Sent: Thursday, June 17, 2010 4:06 PM
To: Justin Snair
Subject: Re: 4 Houghton Review

The biggest reason is the additional cost for the added area and construction of the Presby. We would have to: Excavate 120sf overdig @ $ 10 = $ 1200
Purchase and install 80 cy of fill @ $ 23/cy = $ 1840 Cut down two more large trees @ $ 500 ea = $ 1000 Loam and seed 180 sf more area @ $ 9 = $ 1620 Add 30 more feet of Presby pipe installed @ $ 20/lf = $ 600 Add 9 cy C33 sand @ $ 30 = $ 270 Add 20 sy additional site work @ $ 10/ sy = $ 200 Raise the outlet sewer pipe 1" in the house = $ 1000 Total Increase $ 7730

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Duncan

----- Original Message -----
From: "Justin Snair" <jsnair@acton-ma.gov>
To: "Duncan M. Brown" <DMBrownPE@verizon.net>
Sent: Thursday, June 17, 2010 11:32 AM
Subject: RE: 4 Houghton Review

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

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

MODIFIED APPROVAL FOR REMEDIAL USE
Pursuant to Title 5 310 CMR 15.000

Name and Address of Applicant:

Presby Environmental, Inc.
143 Airport Road
Whitefield, NH 03598

Trade name of technology and model: **Presby Enviro-Septic Leaching System** (Hereinafter called the "System"). The "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide" including schematic drawings of typical Systems, a technology checklist, and a System Installation Form are part of this Certification.

Transmittal Number:	W021550
Date of Issuance:	November 21, 2005. Revised May 22, 2006, June 2, 2006. March 16, 2007, July 11, 2007, February 15, 2008 and July 10, 2009
Date of Expiration:	November 21, 2010

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Approval to: Presby Environmental, Inc., 143 Airport Road, Whitefield, NH 03598 (hereinafter "the Company"), approving the System described herein for Remedial Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Approval constitutes a violation of 310 CMR 15.000.

Glenn Haas, Acting Assistant Commissioner
Bureau of Resource Protection

July 10, 2009
Date

7. The System shall be installed in a bed or field configuration, as defined in 310 CMR 15.252. The effective leaching area shall be the bottom area (length times width) of the field or bed as presented in the Company's "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide".

8. Effluent loading rates adjusted to reduce the soil absorption system by 40 percent shall be in accordance with 310 CMR 15.242. No System shall be installed with a leaching area of less than 400 square feet.

9. The System shall not require pressure distribution.

10. The System may be used in soils with a percolation rate of up to 90 minutes per inch (MPI). For soils with a percolation rate of 60 to 90 MPI, the effluent loading rate shall be 0.15 GPD/SF

III. Allowable Soil Absorption System Design

1. The following reductions are allowable for Soil Absorption Systems (SAS) when designing the System.

   A. The approving authority may allow a reduction in the required separation between the bottom of the SAS and the high groundwater elevation of up to two feet. This provides a minimum separation of two feet (in soils with a recorded percolation rate of more than two minutes per inch) or a three feet (in soils with a recorded percolation rate of two minutes or less per inch); or

   B. The approving authority may allow a reduction in the required four feet of naturally occurring pervious material in an area with no less than two feet of naturally occurring pervious material, provided that it has been demonstrated that the four foot requirement cannot be met anywhere on the site.

   If a remedial System needs either of the allowable reductions listed above, then the reductions must first be approved by the local approving authority and then approved by the Department pursuant to 310 CMR 15.284 through filing a BRPWP 64c permit application.

2. Additional reductions allowable for Soil Absorption System (SAS) when designing the System:

   A. When using 1A, or 1B above for the System where full compliance with 310 CMR 15.000 is not feasible, the local approving authority may consider granting local upgrade approvals in accordance with the provisions of 310 CMR 15.401 – 15.407

   For example:

   i. When considering 1B above, an applicant may request from the local approving authority and the local approving authority may consider a local upgrade

6. Design, installation and operation shall be in strict conformance with the Company's DEP approved plans and specifications, 310 CMR 15.000 and this Approval.

V Conditions Applicable to the System Owner

1. The System is approved for the treatment and disposal of sanitary sewage only. Any wastes that are non-sanitary sewage generated or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed.

2. The System owner shall at all times properly operate and maintain the on-site sewage disposal system. The System owner shall have the System inspected annually by an operator trained by the Company and shall submit the results of that inspection, on a technology checklist, to the local approving authority.

3. The System owner shall furnish the Department any information that the Department requests regarding the operation and performance of the System, within 21 days of the date of receipt of that request.

4. No System owner shall authorize or allow the installation of the System other than by a person trained by the Company to install the System.

5. Prior to the issuance of a Certificate of Compliance for the System, the System owner shall record and/or register in the appropriate Registry of Deeds and/or Land Registration Office, a Notice disclosing both the existence of the alternative septic system subject to this Approval on the property and the Department's approval of the System. If the property subject to the Notice is unregistered land, the Notice shall be marginally referenced on the owner's deed to the property. Within 30 days of recording and/or registering the Notice, the System owner shall submit the following to the Department and the local approving authority: (i) a certified Registry copy of the Notice bearing the book and page/instrument number and/or document number; and (ii) if the property is unregistered land, a Registry copy of the owner's deed to the property bearing the marginal reference.

VI Conditions Applicable to the Company

1. By January 31st of each year, the Company shall submit a report to the Department, signed by a corporate officer, general partner or Company owner that contains information on the System, for the previous calendar year. The report shall state: the number of units of the System sold for use in Massachusetts including the installation date and date of start-up during the previous year; the address of each installed System, the owner's name and address, the type of use (e.g. residential, commercial, school, institutional) and the design flow; and for all Systems installed since the date of issuance of this Approval, all known failures, malfunctions, and corrective actions taken and the address of each such event.

VII. Conditions Applicable to Installers of the System

1. Each installer shall install the System in accordance with Company training on the installation of the System and the conditions of this Certification.

2. No Installer shall install the System unless the Installer has been trained by the Company on installation of the System or the installation is overseen by a Company representative(s).

3. Installers shall complete the System Installation Form and forward a copy to the Company and the local approving authority.

4. The System installer shall provide the System owner and the local approving authority with a bill of lading certifying that the sand fill meets ASTM C-33.

VIII. Reporting

1. All notices and documents required to be submitted to the Department by this Approval shall be submitted to:

Director
Wastewater Management Program
Department of Environmental Protection
One Winter Street - 5th floor
Boston, Massachusetts 02108

IX. Rights of the Department

1. The Department may suspend, modify or revoke this Approval for cause, including, but not limited to, non-compliance with the terms of this Approval, non-payment of the annual compliance assurance fee, for obtaining the Approval by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Approval, or as necessary for the protection of public health, safety, welfare or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Approval and/or the System against the owner, or operator of the System and/or the Company.

X. Expiration Date

1. Notwithstanding the expiration date of this Certification, any System installed prior to the expiration date of this Certification, and approved, installed and maintained in compliance with this Certification (as it may be modified) and 310 CMR 15.000, may remain in use unless the Department, the local approving authority, or a court requires the System to be modified or removed, or requires discharges to the System to cease.

DUNCAN M. BROWN, P.E.
REGISTERED PROFESSIONAL ENGINEER
55 WHITCOMB ROAD
BOXBOROUGH, MA 01719-2211
(978) 263-5810 • FAX: (978) 263-5766 • RES: (978) 263-3852

June 24, 2010

Acton Board of Health
Town Hall
472 Main Street
Acton, MA 01720

RE: Vandegrift, Proposed Septic System Replacement, 4 Houghton Lane, Acton, MA.

Dear Board Members,

Enclosed are two copies of a revised plan, dated 6/21/2010 for Jeff and Tineke Vandegrift, 4 Houghton Lane for the Proposed Septic System Replacement. The existing 46 year old septic system died a slow death from tree root growth, culminating at the time of the spring 2010 floods when the surface soils were saturated from the rains. The failure was not due to high groundwater.

This is a letter request for the following local variances, as listed on the plan:

11-6.1.1 One hundred feet (100') to wetlands. Proposed 91' to ST.

11-8.1 Table 1: Acton minimum sf leaching 800 sf; Title 5 is 589 sf x 60%= 348 sf; Presby system min is 400 sf; Proposed system is 420 sf.

11-8.4 Minimum 12" stone; Presby system sand C-33) is 6" below pipe.

11-8.4.1. 1) No filter outlet tee. 2) Single chamber septic tank. 3) Three (3') feet to ESHGW.

16-6 Figure 1; Protection Zone 3; 2mpi, 6' offset to GW; 3.0 feet proposed.

Discussion.
1. It is 91 feet from the wetlands associated with Fort Pond Brook at the back of the lot. The proposed leaching area is greater than 100 feet from the wetlands. The Owners filed a Request for Determination with the Acton Conservation Commission. At the CC meeting on June 16th, the CC voted a Negative Determination, which means they do not consider the work in the front yard as a detriment to the wetlands in the back of the house.
2. This is a straight request for a variance to the 800 sf minimum leaching area required for a 4 bed room house in Acton. The owners are going with the Presby Enviro-Septic Leaching System (Presby) as approved by DEP under Modified Approval For Remedial Use, W021550, Expiration Date November 21, 2010, as attached. The owners consider

this the "Green System" compared to all the other treatment systems on the market. As approved by DEP, the Presby can be designed for 60% of the DEP leaching area and to 3' above the ESHGW. Presby has a minimum leaching area of 400 sf for a 4 bedroom house. Proposed is 420 sf leaching area due to several constraints in the front yard; offset to water service pipe of 10', offset to front property line of 10'; offset to gas service pipe; and slope restrictions toward the lower driveway elevations.

3. Acton requires 12" stone. The Presby design incorporates 6" sand (C-33, Masonry sand) under and over the 12' ES pipe, thus an envelope of 2' of sand around the ES pipe.

4. The Presby does not recommend using effluent tee filters; Section D, No septic tank tee filters. As a designer, I agree in that the effluent tee filters clog up, as they are suppose to, but they restrict air flow back from the leaching area to the septic tank and hence the high vent pipe needed for the Presby system. Positive flow of air is the key to the Presby.

5. A two chamber septic tank is no more efficient than a single chamber septic tank. A 1990-1995 study by the University of Maine at Orono indicated no increase in efficiency for a two chamber tank vs. a one chamber tank of the same size. I just convinced Littleton BOH to take that requirement out of their local regulations, which they did; see Attached letter and Table 3 from the report and the web site.

6. The Presby is allowed a 3' offset to GW for percolation rates of 2 minutes per inch or less.

7. In that the Presby is being proposed, the sewage will be treated and have 3' of soil to go through before joining the groundwater. DEP has determined that the Presby does provide for the protection of public health, safety, welfare or the environment, and as authorized by applicable law, see approval document.

? 8. There is no room for a Reserve system in the front yard area. Presby cautions about requiring a Reserve area, but Title 5 only requires a Reserve area for new construction (15.248).

This requests the variances listed on the plan as well as the above. If there are any other variance requests needed under Title 5 or the local regulations, they should be raised verbally at the BOH meeting and then included in the list of requests for this plan and acted upon by the BOH.

If you have any questions, please call.

Sincerely,

DUNCAN M. BROWN, PE

CC: Jeff and Tineke Vandegrift

DUNCAN M. BROWN, P.E.
(978) 263-5810
FAX: (978) 263-5766

DUNCAN M. BROWN, P.E.
REGISTERED PROFESSIONAL ENGINEER
55 WHITCOMB ROAD
BOXBOROUGH, MA 01719-2211
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October 16, 2009

Board of Health
Town Offices
PO Box 1305
Littleton, MA 01460

RE: Review of Current Littleton BOH Regulations, Section #29.

Dear Board Members:

This letter presents a review of the Littleton BOH Regulations, particularly Section #29, which requires the installation of a two chamber septic tank on all new and replacement SSDS and also requires a filter (such as the Zabel) on the outlet tee of each septic tank.

Attached is a copy of a study "Influence of Design on Septic Tank Effluent Quality" by Rock and Boyer, University of Maine at Orono, from 1990 to 1995. http://ww2.doh.wa.gov/ehp/ts/WW/tanks/tanks-rap/design-uw.pdf. The summary Table 3, Removal efficiencies for Phase I and II, indicates that the efficiency of the single chamber 1000 gallon septic tank for BOD5 was 31% and for TSS was 76% while the comparable size dual chamber 1000 gallon septic tank for BOD5 was 30% and for TSS was 66%. Thus, the dual chamber tank was no more efficient than the single chamber tank.

I queried the National Precast Concrete Association web site and found no newer studies on the dual chamber septic tanks in use today. I called E. F. Shea Concrete Products, Inc. and they have no studies comparing single or two chamber septic tank efficiencies.

I called the DEPSERO (South East Region Office), which has the state Testing Facilities, which is now run by the Barnstable County Health Department. They are not aware of any further studies done on dual vs. single septic tanks. I spoke with John Perveris at DEPSERO and he indicated that the only use he was aware of for dual chamber tanks was with the installation of a garbage disposal unit 310CMR 15.223 (c). I followed up with a call to George Heufelder (pronounced Hoy felder), Director of the Barnstable County Health Department Testing Facilities and he is not aware of any more recent studies on the septic tanks. He was aware that the older Maine study showed no increase in efficiency and has been relaying that information since those tests. I sent him the web reference.

I called DEPCERO and spoke with Dave Boyer and he is not aware of any recommendations for dual chamber septic tanks except when flows are 1000 gallons per day or more or in the case of garbage grinders being installed 310CMR 15.223 (b) and

(c). He was not aware that the older tests showed no increase in efficiency and was surprised that it said dual chamber or two tanks in series. He was aware that two tanks in series would double the efficiency. I sent him the web reference.

I called DES New Hampshire, Robert Tardif, Chief, Subsurface Sewage Bureau, about NH adding the use of dual chamber or two septic tanks in series to their regulations in February 2008. He said they did no studies, but picked it up from the MA Title 5. He was not aware that the older tests showed no increase in efficiency. I sent him the web reference.

I called Presby Environmental, Inc in Whitefield, NH, Ms Susan Simpson and they have not done any testing on single vs. dual chamber septic tanks. I sent her the web reference.

The following is from the Memo I sent Jim Garreffi before submitting the Webber Plan to the BOH for approval:

1. We are asking for a variance from the requirement for a two chamber tank with an effluent filter, Reg 29. The request is for the following reasons:

a. The two chamber tank adds too much to the cost of construction- Difference in cost of the tanks is $ 360; Add Internal piping, materials and labor, $ 100; Add one gas baffle and effluent filter $ 50; Add one MH, frame and cover $ 300; total $ 810 to $ 1000.

b. The single chamber tank is equal in efficiency to the two chamber tank. The formula for settling in tanks is based on flow, time, surface area and water depth. It does not matter if there is one or many walls interrupting the surface area, same surface area, same efficiency. Title 5 calls for single chamber tanks for single family dwellings 15.223 (1) (a).

c. The effluent filter does not increase efficiencies in single chamber tanks under normal flow conditions. It does, however, require a MH to the surface and maintenance annually 15.227 (7), which increases the cost to the home owner because they need a pumper annually vs. once per three years 15.351 (1), at $ 900 for 3 years vs. $ 300 for 3 years.

d. The pumper has to pump out two chambers vs. one, and there is more plumbing inside the tank, thus, more chance for failed piping, etc.

Thus, the concept that the dual chamber septic tanks are more efficient than a single chamber septic tank of the same size is not true. By adding Reg #29 to your requirements, you have added the unnecessary burden of construction cost and maintenance costs to the home owners of Littleton.

I recommend you give public notice, hold a hearing and review regulation #29 with the positive result of removing it from your Regulations.

If you have any questions, please call.

Sincerely,

Duncan M. Brown, PE

Cc: Nashoba Associated Boards of Health

tank (Tank 5) produced statistically significant lower BOD5 and TSS removal rates than Tank 2, 3, or 4.

Table 3. Removal efficiencies for Phase I and II.
Note: Phase II is not continuous data (*)

SEPTIC TANK DESIGN	BOD_5 EFFLNT (mg/L)	%	TSS EFFLNT (mg/L)	%
PHASE I - Rectangular 1,000 gallons				
1. CONVENTIONAL TANK	175	**31**	64.6	**76**
2. BAFFLED TANK	160	**37**	63.8	**75**
3. COMPARTMENT + BAFFLES	147	**41**	50.7	**80**
PHASE II - Two Compartments*				
4. 2,000 GALLON TANK*	165	**32**	54.5	**74**
5. 1,000 GALLON ROUND TANK*	192	**17**	79.0	**64**
6. COMPARTMENT + BAFFLES 2*	174	**30**	74.3	**66**

While the 2,000 gallon (3.8 cubic meters) Tank 4 produced the second best TSS results of the six tanks, it did not statistically out perform Tank 1, the one-compartment, conventional 1,000 gallon (3.8 cubic meters) tank, even though the effluent TSS concentration was 16% better (54.5 versus 64.6 mg/L). Again, the use of a four inch (10 cm) diameter slot, plus the fact that the Phase II monitoring was interrupted by the flow controller problem and had to be re-started,

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

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN BOWLES
Secretary

LAURIE BURT
Commissioner

MODIFIED APPROVAL FOR REMEDIAL USE

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Presby Environmental, Inc.
143 Airport Road
Whitefield, NH 03598

Trade name of technology and model: **Presby Enviro-Septic Leaching System** (Hereinafter called the "System"). The "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide" including schematic drawings of typical Systems, a technology checklist, and a System Installation Form are part of this Certification.

Transmittal Number:	W021550
Date of Issuance	November 21, 2005, Revised May 22, 2006, June 2, 2006, March 16, 2007, July 11, 2007, February 15, 2008 and July 10, 2009
Date of Expiration.	November 21, 2010

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Approval to: Presby Environmental, Inc., 143 Airport Road, Whitefield, NH 03598 (hereinafter "the Company"), approving the System described herein for Remedial Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Approval constitutes a violation of 310 CMR 15.000.

Glenn Haas, Acting Assistant Commissioner
Bureau of Resource Protection

July 10, 2009
Date

I Purpose

1. The purpose of this approval is to allow Remedial Use of the System in Massachusetts with the necessary permits and approvals required by 310 CMR 15.000.

2. With the necessary permits and approvals required by 310 CMR 15.000, this Approval for Remedial Use authorizes the use and installation of the System in Massachusetts.

3. The System may only be installed where conditions meet the criteria of 310 CMR 15.284(2). The System is an alternative system approved in accordance with 310 CMR 15.280 through 15.289 and is used to treat and dispose of wastewater.

4. This Approval for Remedial Use allows the use of the System where the local approving authority finds that the System is for upgrade of a failed, failing or nonconforming system. The Title 5 design flow for the facility must be less than 10,000 gallons per day.

II Design and Construction Standards

1. The System is a subsurface unit that replaces a soil absorption system (SAS) designed in accordance with 310 CMR 15.000. The System consists of an 11 5/8-inch diameter corrugated, high-density plastic pipe with a 9.5-inch interior diameter and a length of 10 feet. The exterior of the pipe has ridges on the peak of each corrugation. The pipe is perforated with eight holes equally distributed around its inner circumference. Each hole has a plastic skimmer extending inwards. The exterior of the pipe shall have a minimum of two layers of material. The inner layer shall be a thick layer of coarse, randomly oriented polypropylene fibers. The outer layer shall be a non-woven geo-textile polypropylene fabric. The pipe shall be installed in a concrete system sand bed and surrounded on all sides by a minimum of six inches of system sand. Depth to the high groundwater elevation shall be measured from the bottom of the system sand underlying the pipe.

2. The System sand shall meet ASTM C-33.

3. Systems shall be installed with a differential venting for aeration and inspection at end of each run of pipe, section or serial bed and whenever the System is installed under impervious surfaces.

4. The System shall be designed and installed using distribution boxes allowing for inspection access. The pipe between the distribution box and the System shall be installed at a minimum slope of 0.02 feet/foot.

5. The System shall include an inspection port installed within the bed or field as required by 310 CMR 15.240(13).

6. Serial distribution laterals shall be limited to no more than 500 gpd. Multi-level systems shall not be allowed.

7. The System shall be installed in a bed or field configuration, as defined in 310 CMR 15.252. The effective leaching area shall be the bottom area (length times width) of the field or bed as presented in the Company's "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide".

8 Effluent loading rates adjusted to reduce the soil absorption system by 40 percent shall be in accordance with 310 CMR 15.242. No System shall be installed with a leaching area of less than 400 square feet.

9. The System shall not require pressure distribution.

10. The System may be used in soils with a percolation rate of up to 90 minutes per inch (MPI). For soils with a percolation rate of 60 to 90 MPI, the effluent loading rate shall be 0.15 GPD/SF.

III. **Allowable Soil Absorption System Design**

1. The following reductions are allowable for Soil Absorption Systems (SAS) when designing the System.

   A. The approving authority may allow a reduction in the required separation between the bottom of the SAS and the high groundwater elevation of up to two feet. This provides a minimum separation of two feet (in soils with a recorded percolation rate of more than two minutes per inch) or a three feet (in soils with a recorded percolation rate of two minutes or less per inch); or

   B. The approving authority may allow a reduction in the required four feet of naturally occurring pervious material in an area with no less than two feet of naturally occurring pervious material, provided that it has been demonstrated that the four foot requirement cannot be met anywhere on the site.

   If a remedial System needs either of the allowable reductions listed above, then the reductions must first be approved by the local approving authority and then approved by the Department pursuant to 310 CMR 15.284 through filing a BRPWP 64c permit application.

2. Additional reductions allowable for Soil Absorption System (SAS) when designing the System:

   A. When using 1A, or 1B above for the System where full compliance with 310 CMR 15.000 is not feasible, the local approving authority may consider granting local upgrade approvals in accordance with the provisions of 310 CMR 15.401 – 15.405.

   For example:

   i. When considering 1B above, an applicant may request from the local approving authority and the local approving authority may consider a local upgrade

approval for reduction to estimated high groundwater in accordance with 310 CMR 15.405(1)(h).

ii. The local approving authority may not consider granting a local upgrade approval for a further reduction of the SAS in accordance with 310 CMR 15.405(1)(c).

iii. When an applicant chooses a reduction in the naturally occurring soil with the use of the System, a local upgrade approval may be considered for a reduction in groundwater separation in accordance with 310 CMR 15.405(1)(h).

B. If any remedial system is still not able to achieve full compliance with all of the minimum set back distances in 310 CMR 15.211, even taking into account provisions for local upgrade approval in accordance with the provisions of 310 CMR 15.401 – 15.405 the applicant must obtain variance(s) from the approving authority and then approval from the Department pursuant to 310 CMR 15.410 through filing a BRPWP 59c permit application.

IV. General Conditions

1. All provisions of 310 CMR 15.000 are applicable to the use of this System, the System owner and the Company, except those that specifically have been varied by the terms of this Approval.

2. Any required operation and maintenance, monitoring and testing shall be performed in accordance with a Department approved plan. Any required sample analysis shall be conducted by an independent U.S.EPA or DEP approved testing laboratory, or a DEP approved independent university laboratory. It shall be a violation of this Approval to falsify any data collected pursuant to an approved testing plan, to omit any required data or to fail to submit any report required by such plan.

3. The facility served by the System and the System itself shall be open to inspection and sampling by the Department and the local approving authority at all reasonable times.

4. In accordance with applicable law, the Department and the local approving authority may require the System owner to cease operation of the system and/or to take any other action as it deems necessary to protect public health, safety, welfare and the environment.

5. The Department has not determined that the performance of the System will provide a level of protection to public health and safety and the environment that is at least equivalent to that of a sewer system. No System shall be installed, upgraded or expanded, if it is feasible to connect the facility to a sanitary sewer, unless as allowed by 310 CMR 15.004. When a sanitary sewer connection becomes feasible, the facility served by the System shall be connected to the sewer, within 60 days of such feasibility, and the System shall be abandoned in compliance with 310 CMR 15.354, unless a later time is allowed in writing, by the approving authority.

6. Design, installation and operation shall be in strict conformance with the Company's DEP approved plans and specifications, 310 CMR 15.000 and this Approval.

V. Conditions Applicable to the System Owner

1. The System is approved for the treatment and disposal of sanitary sewage only. Any wastes that are non-sanitary sewage generated or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed.

2. The System owner shall at all times properly operate and maintain the on-site sewage disposal system. The System owner shall have the System inspected annually by an operator trained by the Company and shall submit the results of that inspection, on a technology checklist, to the local approving authority.

3. The System owner shall furnish the Department any information that the Department requests regarding the operation and performance of the System, within 21 days of the date of receipt of that request.

4. No System owner shall authorize or allow the installation of the System other than by person trained by the Company to install the System.

5. Prior to the issuance of a Certificate of Compliance for the System, the System owner shall record and/or register in the appropriate Registry of Deeds and/or Land Registration Office, a Notice disclosing both the existence of the alternative septic system subject to this Approval on the property and the Department's approval of the System. If the property subject to the Notice is unregistered land, the Notice shall be marginally referenced on the owner's deed to the property. Within 30 days of recording and/or registering the Notice, the System owner shall submit the following to the Department and the local approving authority: (i) a certified Registry copy of the Notice bearing the book and page/instrument number and/or document number; and (ii) if the property is unregistered land, a Registry copy of the owner's deed to the property bearing the marginal reference.

VI. Conditions Applicable to the Company

1. By January 31st of each year, the Company shall submit a report to the Department, signed by a corporate officer, general partner or Company owner that contains information on the System, for the previous calendar year. The report shall state: the number of units of the System sold for use in Massachusetts including the installation date and date of start-up during the previous year; the address of each installed System, the owner's name and address, the type of use (e.g. residential, commercial, school, institutional) and the design flow; and for all Systems installed since the date of issuance of this Approval, all known failures, malfunctions, and corrective actions taken and the address of each such event.

2. The Company shall notify the Director of the Watershed Permitting Program at least 30 days in advance of the proposed transfer of ownership of the technology for which this Approval issued. Said notification shall include the name and address of the proposed new owner and a written agreement between the existing and proposed new owner containing a specific date for transfer of ownership, responsibility, coverage and liability between them. All provisions of this Approval applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.

3. The Company shall develop and submit to the Department an operating manual including information on substances that should not be discharged to the System and a recommended schedule for maintenance of the System essential to consistent successful performance of the installed Systems within 60 days of the effective date of this Approval.

4. The Company shall make available, in print and electronic format, the referenced procedures in paragraphs 3 above to System owners, operators, designers and installers.

5. The Company shall institute and maintain a training program in the proper design installation and inspection techniques of its System and provide a training course at least annually for prospective designers, installers and inspectors. The Company shall certify that installers and inspectors have completed the Company's training class, maintain a list of trained installers and inspectors, submit a copy to the Department, and update the list annually. Updated lists shall be forwarded to the Department.

6. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the receipt of that request.

7 The Company shall include copies of this Approval and the procedures in Section VI (3) with each System that is sold. In any contract executed by the Company for distribution or re-sale of the System, the Company shall require the distributor or re-seller to provide each purchaser of the System with copies of this Approval and the procedures described in Section VI (3).

8. The Company shall comply with 310 CMR 15.000 and all Department policies and guidance that apply and as they may be amended from time to time.

9. If the Company wishes to continue this Approval after its expiration date, the Company shall apply for and obtain a renewal of this Approval. The Company shall submit a renewal application at least 180 days before the expiration date of this Approval, unless written permission for a later date has been granted in writing by the Department. This approval shall continue in force until the Department has acted on the renewal application.

VII. Conditions Applicable to Installers of the System

1. Each Installer shall install the System in accordance with Company training on the installation of the System and the conditions of this Certification.

2. No Installer shall install the System unless the Installer has been trained by the Company on installation of the System or the installation is overseen by a Company representative(s).

3. Installers shall complete the System Installation Form and forward a copy to the Company and the local approving authority.

4. The System installer shall provide the System owner and the local approving authority with a bill of lading certifying that the sand fill meets ASTM C-33.

VIII. Reporting

1. All notices and documents required to be submitted to the Department by this Approval shall be submitted to:

Director
Wastewater Management Program
Department of Environmental Protection
One Winter Street - 5th floor
Boston, Massachusetts 02108

IX. Rights of the Department

1. The Department may suspend, modify or revoke this Approval for cause, including, but not limited to, non-compliance with the terms of this Approval, non-payment of the annual compliance assurance fee, for obtaining the Approval by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Approval, or as necessary for the protection of public health, safety, welfare or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Approval and/or the System against the owner, or operator of the System and/or the Company.

X. Expiration Date

1. Notwithstanding the expiration date of this Certification, any System installed prior to the expiration date of this Certification, and approved, installed and maintained in compliance with this Certification (as it may be modified) and 310 CMR 15.000, may remain in use unless the Department, the local approving authority, or a court requires the System to be modified or removed, or requires discharges to the System to cease

Acton Board of Health

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Public Health
Prevent. Promote. Protect.

Doug Halley, Health Director

ONSITE WASTEWATER SYSTEM POLICY #033009

Introduction

The Acton Board of Health, through the adoption of this policy, finds that certain variances and approvals allocated to the Local Approving Authority pursuant to the applicable sections of 310 CMR 15.00; and variances to specific sections of Articles 11 and 16 of the Acton Board of Health Regulations are allowed to be granted by the Public Health Director in accordance with this document.

This policy shall only govern the granting of variances and approvals for repair and/or replacement of malfunctioning onsite wastewater systems. Any proposal requesting a variance or approval listed in this document that meets the definition of "new construction" as listed in 310 CMR 15.002, unless otherwise noted as included, shall be required to seek the necessary variance or approval at a regular meeting of the Acton Board of Health through already established procedures.

Variances and Approvals Allowed Under this Policy

310 CMR 15.000 (Title 5) – *citations are taken directly from the regulations*

Local Upgrade Approvals pursuant to 310 CMR 15.405(1)

310 CMR 15.405(1)(a)

Reduction of system location setbacks otherwise established in 310 CMR 15.211 for property lines provided that the system is within the property lines, a survey of the property line is required if a component is to be placed within five feet of the property line, and no such reduction shall result in the soil absorption system being located less than ten feet from a soil absorption system on an abutting property;

Approved Health Department Action:

The Public Health Director may approve a reduction to the required setback to property lines by no more than half than the required under 310 CMR 15.211 and such approval will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director

sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks.

Reduction by more than half the required setback to property line shall require Board of Health action.

310 CMR 15.405(1)(b)

Reductions of system location setbacks from cellar wall, crawl space, swimming pool, or slab foundations; an increase in the maximum allowable depth of system components required by 310 CMR 15.221(7), from 36" to 72" below finish grade, provided that adequate venting and adequate access are provided and H-20 loading is provided for all system components; a decrease in the liquid depth of the septic tank required by 310 CMR 15.223(2) from four feet to three feet;

Approved Health Department Action:

The Public Health Director may approve a reduction to the required setbacks to cellar wall, crawl space, swimming pool, or slab foundation by no more than half the required under 310 CMR 15.211.and and such approval will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks.

Reduction by more than half the required setbacks to cellar wall, crawl space, swimming pool, or slab foundation shall require Board of Health action.

310 CMR 15.405(1)(c)

Up to a 25% reduction in the required subsurface disposal area design requirements;

Approved Health Department Action:

The Public Health Director may approve up to a 25% reduction to the required subsurface disposal area design requirements and such approval will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks.

Reduction by more than 25% of the required subsurface disposal area design shall require Board of Health action.

310 CMR 15.405(1)(g)

Reduction of system location setbacks from water supply lines

Approved Health Department Action:

The Public Health Director may approve a reduction of system location setbacks from water supply lines provided that disposal facilities are at least 18 inches below water supply lines and whenever sewer lines must cross water supply lines, both pipes shall be constructed of a class 150 pressure pipe and shall be pressure tested to assure watertightness and such approval will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks, barriers, and/or use of I/A technology.

310 CMR 15.405(1)(h)

The local Approving Authority may reduce the required four foot separation (in soils with a recorded percolation rate of more than two minutes per inch) or the required five foot separation (in soils with a recorded percolation rate of two minutes or less per inch) between the bottom of the soil absorption system and the high groundwater elevation only if all of the following conditions are met:

1. An approved Soil Evaluator who is a member or agent of the local Approving Authority determines the high groundwater elevation.
2. A minimum three foot separation (in soils with a recorded percolation rate of more than two minutes per inch) or a minimum four foot separation (in soils with a recorded percolation rate of two minutes or less per inch) between the bottom of the soil absorption system and the high groundwater elevation is maintained.
3. The system is a failed or non-conforming system serving an existing building with a design flow of less than 2,000 gpd.
4. No increase in design flow is allowed.
5. No reduction in required soil absorption system size or setbacks from public or private wells, bordering vegetated wetlands, surface waters, salt marshes, coastal banks, certified vernal pools, water supply lines, surface water supplies or tributaries to surface water supplies, or drains which discharge to surface water supplies or their tributaries, is allowed.

Approved Health Department Action:

The Public Health Director may approve a reduction of the required separation to ESGHW when the criteria listed above are met and such approval will be subject to the "Standard Conditions" imposed on each

permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks.

310 CMR 15.405(1)(i)

A sieve analysis may be performed in accordance with Department guidance if a percolation test in accordance with 310 CMR 15.104 and 15.105 can not be performed as determined by the local Approving Authority.

Approved Health Department Action:

The Public Health Director may approve a sieve analysis provided that the total daily flow of the site where analysis will be performed does not exceed 2000 gpd.

310 CMR 15.405(1)(j)

Reduction of the requirement of a 12 inch separation between the inlet and outlet tees and high groundwater.

Approved Health Department Action:

The Public Health Director may approve a reduction of the required separation provided ESGHW elevation does not exceed the elevation of the invert of the inlet/outlet and provided that all boots or pipe joints are sealed with hydraulic cement or installed with watertight sleeves and the tank is proven watertight. Expandable foam spray is not an acceptable alternative for sealing pipe joints.

310 CMR 15.405(1)(k)

The two deep holes per disposal area as required by 310 CMR 15.102, may be reduced to one provided at least one deep hole has been performed in the proposed disposal area.

Approved Health Department Action:

The Public Health Director may approve a reduction to the required number of deep holes per disposal areas if it has been determined by the Health Department that the deep hole adequately characterizes the soils for the purpose of designing the soil absorption system.

Alternative System Use Approvals pursuant to 310 CMR 15.281 through 310 CMR 15.288

Alternative technologies with valid MassDEP general, remedial, provisional or piloting approval letters used to improve existing conditions at particular sites (including upgrade or

replacement of failed or nonconforming systems) which only require the authorization of the Local Approving Authority are subject to this policy.

Approvals which require submission to MassDEP are **not** subject to this policy and require Board of Health action.

Alternative technologies with valid MassDEP general, remedial, provisional or piloting approval letters used for "new construction" as defined by 310 CMR 15.002, unless otherwise included in future policy amendments, are **not** subject to this policy and require Board of Health action.

Articles 11 and 16 of the Acton Board of Health Regulations

Siting of Onsite Wastewater Systems

11-6.1.1

No sewage disposal system with a capacity of less than 2,000 gallons per day shall be constructed within seventy-five (75) feet of any wetland (Any land area or surface area so defined by the Massachusetts Wetland Protection Act, MGL, Ch.131, s. 40 and/or the Town of Acton Wetlands Protection Bylaw.)

Approved Health Department Action:

The Public Health Director may approve a reduction twenty-five (25) feet or less provided that nitrogen removal technology will be included with in the constructed sewer disposal system and such approval will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks, barriers, and/or use of I/A technology.

Reduction by more than twenty-five (25) feet shall require Board of Health action.

16-4.2.10

All leaching areas within an aquifer zone shall be set back one hundred (100) feet from any recharge, retention, detention or surface drainage area.

Approved Health Department Action:

The Public Health Director may approve a reduction fifty (50) feet or less provided that nitrogen removal technology will be included with in the constructed sewer disposal system and such approval will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and reasonable conditions for compensating environmental compliance that the Director sees fit to impose on the project, such as, but not limited to, use of dual compartment tanks, effluent tee filters, and/or additional settling tanks, barriers, and/or use of I/A technology.

Reduction by more than fifty (50) feet shall require Board of Health action.

Procedure for Variance Requests

1) Applicant submits a request for the approvals and/or variances in the form of a letter to the by Acton Health Department office.

2) The Environmental Health Inspector will review the requests using the following standards.

(a) The person requesting a variance/approval has established that enforcement of the provision of 310 CMR 15.000 or Article 11 and 16 of the Acton Board of Health Regulations from which a variance is sought would be manifestly unjust, considering all the relevant facts and circumstances of the individual case; and

(b) The person requesting a variance/approval has established that a level of environmental protection that is at least equivalent to that provided under 310 CMR 15.000 or Article 11 and 16 of the Acton Board of Health Regulations can be achieved without strict application of the provision of 310 CMR 15.000 or Article 11 and 16 of the Acton Board of Health Regulations from which a variance is sought.

3) The Environmental Health Inspector will then submit the results of his/her review along with a recommendation to the Public Health Director for final determination.

4) The Public Health Director may then grant and/or deny the variance(s)/approval(s) requested by the applicant in part or as a whole. The Public Health Director will notify the applicant in writing of his/her determination.

5) Variances and/or approvals issued by the Public Health Director will be subject to the "Standard Conditions" imposed on each permit issued by the Acton Board of Health and any reasonable conditions as the Director sees fit to impose on the project.

6) The variance(s) and/or approval(s) granted by the Public Health Director shall run concurrent with the Disposal Works Construction Permit and shall expire two (2) years from the date of issuance, with the option, as allowed Acton Board of Health Regulations 11-3.1, of a one (1) year extension.

7) The Public Health Director may, at his/her judgment, refer any application for variances/approvals to the Board of Health for action at their next regular meeting.

8) The applicant may request an appeal of decision before the Acton Board of Health, provided that such request is submitted to the Health Dept in writing.

Approval of Policy by the Board of Health

This policy (Policy #033009: Onsite Wastewater System Variance Policy) is hereby approved by the Acton Board of Health and shall become effective on May 18th, 2009.

The Acton Board of Health reserves the right to modify and/or rescind this policy at their discretion, through a majority vote of the Board.

Signed, this May 18th, 2009

Acton Board of Health

June 21, 2010

Members Present: Joanne Bissetta, Chairman, William Taylor, Member and Michael Kreuze, Associate Member.

Staff Present: Doug Halley, Health Dept. Director and Isabel Roberts.

Others Present: Al Cormier, David M. Stone and representative for Café Ziba.

The meeting was called to order at 7:30pm

EMERGENCY BEAVER TRAPPING – NAGOG POND

Doug presented the Board with a request for a 10 day emergency Beaver trapping from the Concord Water and Sewer Division. This request was made due to flooding from Beaver activities at Nagog Pond. Additionally, should the 10 day emergency trapping permit not solve the problem, the applicant may apply for the 30 day extension with the DFW. The Board questioned if this dam is the same location as the previously requested emergency Beaver trapping permit? Doug commented that a number of emergency Beaver trapping permits have been issued in the past, for this same location.

On a motion made by Mr. Kreuze, seconded by Mr. Taylor the Board unanimously voted to grant the 10-day emergency Beaver trapping permit for Nagog Pond.

D'BOSS AND SON BUILDERS

On Monday, May 24, 2010, Mr. Cormier submitted an application for Disposal Works Installer's license to the Health Department. At that time Mr. Cormier stated that he had begun with the installation of a septic system at 8 Billing St. Mr. Cormier was informed that he was to cease work until:

a) a copy of the approved plan for 8 Billings St had been brought into the Health Department and verified that it was the correct plan.
b) an inspection fee should be submitted prior to any work beginning.

Later that day Acton's Environmental Inspector, Justin Snair, while making inspections, found that work had continued at 8 Billings St, despite the guidance given to Mr. Cormier. While at the site, Mr. Snair observed that two tanks had been installed and backfilled without a Health Department inspection, nor without fulfilling the required procedures.
Mr. Cormier agreed with the information presented to the Board, and went on to say that it had been sometime since being licensed in the Town of Acton and he was no longer familiar with the local requirements.
Doug recommended to the Board that they rescind Mr. Cormier's current 2010 Disposal Works Installer's license and require that Mr. Cormier obtain a provisional license within 30 days of receipt of this notice. Should Mr. Cormier's work for the remainder of the year adhere to the policies and standards as established by the Board of Health he will be eligible for a full license in 2011.
On a motion made by Mr. Kreuze, seconded by Mr. Taylor the Board unanimously voted to approve the revocation of the Disposal Works Installer's application and require that Mr. Cormier obtain a provisional license within 30 days.

CAFÉ ZIBA

Doug presented to the Board a request for approval of an increase in seats available at Café Ziba, located at 340 Great Rd. The increase would be from 12 seats to 18 seats, based on a establishment reclassification, going from a "restaurant" to a "fast food" establishment with 20 gpd per seat. The Health Department found that the water use records for Café Ziba from 4.15.2010 thru 6.8.2010 indicate 273 actual gpd. Under the current Board of Health approval, Café Ziba is allowed 12 seats at 35 gpd or a total of 420 gpd.
The proposed operation, with no food preparation on site, is more related to a "fast food" operation than a "restaurant." The Health Department recommends that the Board of Health reclassify Café Ziba as fast food and grant the approval of the increase from 12 to 18 seats with the following conditions:

1. Establishment water use records shall be submitted to the Health Department quarterly, starting September 1, 2010;
2. Paper or plastic table ware and eating utensils shall be used.
3. The Board of Health shall suspend or revoke approval should use result in a threat or hazard to public or environmental health.

On a motion made by Mr. Taylor, seconded by Mr. Kreuze, the Board unanimously voted to approve the reclassification of Café Ziba to" fast food" establishment with an increase in seats, from 12 to 18 with the noted conditions.

OTHER BUSINESS

Doug informed the Board of the four students currently interning with the Health Department. Two of the interns are currently working on a Lyme Disease Awareness Campaign, looking into the most effective ways to inform people of the risks associated with ticks and Lyme disease. This project will be completed by the end of the summer, and the results will be brought before the Board. The two other interns are working on improving the water sampling program that the Health Department currently runs. So far the Health Department has been very impressed with the performance of all of the interns.

A consultant has recently been hired to work with the Nursing Department for 6 weeks, due to the financial difficulties that the Nursing service has been experiencing. It is anticipated that a report will be brought before the Board in the fall.

As the liaison for the WRAC committee, Mr. Kreuze informed the Board that the WRAC will be looking to obtain feedback from the Board of Health, with approximately 20% - 30% of their time being designated to wastewater management districts.

Adjournment

On a motion made by Mr. Taylor, seconded by Mr. Kreuze, the Board unanimously voted to adjourn at 8:15PM.

Respectfully Submitted,

Isabel Roberts, Health Secretary
Acton Board of Health

Joanne Bissetta, Chairman
Acton Board of Health

Acton Public Health Nursing Dashboard
FY08-10

Visits	FY 08	FY09	FY10
Skilled Nursing	1883	1580	1932
Physical Therapy	1390	1219	1366
Occupational Therapy	83	117	74
Speech Therapy	0	10	1
Medical Social Services	1	2	1
Home Health Aide	2659	2564	2559
Total	6016	5492	5933
Activity			
Admissions	151	202	206
Discharges	150	189	190
PHN Hours	452	800	1280*
New Pt. Census	72	117	98
Payor Mix			
Medicare	66	44	54
Medicaid	2	1	1
HMO's	12	28	27
MMSS	11	8	5
Free care	1	3	5
Other	8	16	8
QA			
Rehospitalization Rate	31.42%	24.20%	26
National Reference Group	<32.4	<31	<29
Improvement in Oral Medication Adm. (Goal:▲ 51%)	55.12%	26.50%	34
National Reference Group	>50	>37.4	>43
Average Length of Stay (LOS)	85 days	65 days	68 days
Average Billable Visits per Admission	38	25	24

Financial			
Revenues	$ 623,666	$ 640,416	$670,000*
Expenses	$ 631,143	$ 680,773	$760,000*
	7,477	-40,357	-90,000

*Estimate

Acton Board of Health

SIGN IN PLEASE

	Name	Address
1.	Jeff Vandegrift	4 Houghton Ln
2.	Tineke Vandegrift	"
3.	Duncan Brown, PE	"
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