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Acton Board of Health

February 28, 2011

TOWN CLERK, ACTON

Members Present: Mark Conoby, Chairman, Bill McInnis, Vice Chairman, Dr. William Taylor, Member, Joanne Bissetta, Member and Michael Kreuze, Member.

Staff Present: Doug Halley, Health Dept. Director, Justin Snair, Environmental Health Agent and Isabel Roberts.

Others Present: Joeseeph Peznola, Peggy Mikkola, Nick Keramaris, John Keramaris

The meeting was called to order at 7:30pm

**352 Main Street – I/A Technology Under General Use Approval**

The Health Department is in receipt of a request to vary the I/A Technology Use approval to allow for the construction of a 3140 gpd onsite sewage disposal system to serve the proposed Next Generation Children's Center at 352 Main St. The applicant requests the use of Presby Enviro-Septic Leaching System in accordance with Modified Certification for General Use issued by MA DEP dated August 5, 2010. The Health Department has determined that the aforementioned I/A system allows for reduction of the soil absorption system by up to 40 percent for installations considered New Construction pursuant with 310 CMR 15.002.

Conventional SAS required: 5148 sqft

Presby SAS Proposed: 3550 sqft

Percent reduction: 31 %

The Board asked if a conventional sub-surface disposal system could be designed for this lot. Mr. Snair noted that yes it could, and Hancock Associates have submitted a Title 5 proof plan to support this.

The Health Department recommends the use of the proposed I/A technology consistent with the MA DEP General Use Approval and is pursuant with 310 CMR 15.287 (7) General Conditions for Use of Alternative Systems, with the following conditions:

1. The system shall, at all times, be maintained in compliance with the most recent Modified Certification for General Use issued by MADEP for the Presby Enviro-Septic Leaching System
2. The septic tank shall be pumped once annually.
3. The system shall be constructed in accordance with the above listed conditions and in accordance with the plan stamped by Joseph Peznola, dated February 23<sup>rd</sup>, 2011

On a motion made by Mr. McInnis, seconded by Dr. Taylor, the Board unanimously voted to approve the use of Presby Enviro-Septic Leaching System is in accordance with Modified Certification for General Use issued by MA DEP dated August 5, 2010, with the noted conditions, at the location known as 352 Main Street.

#### **895 Main Street – Variance Request**

The Health Department is in receipt of a request for variance from Acton Board of Health Rules and Regulation Article 16 for the purposes of replacement and future increase in daily flow to an existing 330 gpd onsite sewage disposal system serving the 3 bedroom dwelling located at 895 Main St. The applicant requests to utilize an 800 sqft SAS as opposed to a 600 sqft SAS as required pursuant with BOH Art 11-8.1.1. The owner also requests a variance from Art 16-6.2.7, which requires a 100 ft min, setback from SAS to flood plain and/or wetlands.

While an increase in field size does not necessarily produce an increase in design flow, an increase in the hydraulic capacity does occur. Because of the Acton minimum SAS size requirements, most systems are capable of receiving greater daily flow than actually permitted<sup>1</sup>. As such, the Health Department finds no issue with allowing a larger SAS, while limiting the permitted flow to 330 gpd. The system has been designed in accordance with “new construction” status defined in 310 CMR 15.002 and a reserve area has been designated. Either system, 440 gpd or 330 gpd, would require variance from Art. 16-6.2.7, as a system can not be sited outside of the 100’ buffer flood plain anywhere on the property. Generally, variance for the reduction of setback from wetlands to SAS under remedial status has been

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<sup>1</sup> SAS required for a 4 bedroom in Acton is 800 sqft ; with an effective loading rate of .74 the hydraulic capacity of the system is actually 592 gpd, while permitted for 440 gpd

granted with the use of barriers, effluent tee filters and/or additional settling tanks. However, due to the proximity of the SAS to wetlands, should the owner wish to increase the daily flow to 440 gpd, compensating environmental protection should be provided.

Should the owner wish to increase the daily flow from 330 gpd to 440 gpd, the Health Department recommends the Board of Health require the utilization of a nitrogen reduction technology to treat the effluent prior to discharge into the environment.

The Board stated they did not feel comfortable approving the use of I/A Technology that maybe constructed at a much later date in the future, but with the approval based on today's conditions, standards and regulations. Once the applicant is ready to upgrade to 440 GPD (under new construction status) he should submit an application to upgrade to the Board of Health for review. The Board also noted that since the application is under a renewal status versus upgrade, it requires only the approval from the Health Department.

On a motion made by Mr. McInnis, seconded by Mr. Kreuze, the Board unanimously voted to approve the variance from Art 16-6.2.7, which requires a 100 ft min, setback from SAS to flood plain and/or wetlands.

#### **Strawberry Hill Road Apartments - Permit Approval**

Mr. Snair presented the Board with a request for an issuance of permit to replace the existing septic system with nitrogen removal technology (recirculating sand filters) in lieu of a Wastewater Treatment Facility as well as a brief history of the site in question.

The Strawberry Hill Road apartments, located at 14-18 Strawberry Hill Road, consist of 54 2-bedroom housing units in three residential apartment buildings on three parcels of land. All of the parcels are owned by George Keramaris as Trustee of Strawberry Hill Acton Realty Trust ("Keramaris"). The buildings are served by two private wells on the site (which are considered "public water supplies" for purposes of the Commonwealth's drinking water regulations, 310 CMR 22.00), and by on-site sewage disposal systems serving each of the three buildings. Because these buildings are in common ownership, these systems are considered a single "facility" according to the definition of that term in 310 CMR 15.002. Based on the number of

bedrooms in the three buildings (108), the design capacity of the facility is 11,800 gallons per day (gpd).

As the system has a design capacity of over 10,000 gpd, it is classified as a "large system" under 310 CMR 15.304. A system of that size is considered to be systems that "fail[s] to protect ... public health and safety and the environment" if it is located within a "nitrogen sensitive area" as defined in 310 CMR 15.215. Those areas include the zones of protection required around the public water supplies located on the site. The fact that the existing soil absorption systems are within these zones of protection would ordinarily require that the systems be relocated entirely outside the zones of protection or that the system and facility be brought into compliance with the groundwater permit program requirements of 314 CMR 5.00 (in effect, requiring the installation of a WWTF).

In 2001, DEP first notified Mr. Keramaris that the system on the site was subject to the provisions of Title 5 pertaining to "large systems" and that the system was required to be inspected at least once every five years. In 2002, DEP issued a Notice of Noncompliance to Keramaris for failure to submit a proper inspection report. By 2004 (if not earlier), the Department was apparently aware that the system was in a nitrogen-sensitive area and subject to the groundwater permit program requirements. The matter then escalated to the litigation between Keramaris and DEP referenced above.

On October 13, 2008, while those cases were pending, Keramaris applied to the Board of Health for a variance from the definition of "facility" in 310 CMR 15.002 and from the requirements of 310 CMR 15.304 pertaining to large systems. By letter to you dated November 3, 2008, DEP requested that the Board take no action on that request, noting that it has "primary jurisdiction" over large system pursuant to 310 CMR 15.003(2) (which states that DEP is the "issuing authority" for such systems). The Board acceded to that request, and informed Mr. Keramaris that (a) it was not required to respond to a variance request that was not a part of a permit application pending before it, and (b) it lacked jurisdiction to grant variances from the

basic jurisdictional provisions in Title 5, and that it would therefore neither grant nor deny Keramaris's variance application.

Keramaris and DEP then reached an agreement to settle Keramaris's appeals; that agreement was reduced to a Final Judgment which the Superior Court approved and docketed on June 24, 2009 (see attachment 1). That Judgment requires Keramaris, among other things, to upgrade the systems with the installation of recirculating sand filters, but does not require the installation of a WWTF. Other conditions, including the requirement that the upgrade be completed within a particular time-frame, are included in the Final Judgment.

Department Findings:

The following variances from Board of Health Articles 16 and 19 have been requested by Keramaris (see attachment 2) from the requirement(s) to:

- 1) Provide WWTF with advance treatment capabilities for projects in excess of 10,000 gpd with in any aquifer protection zone pursuant with Art. 16-4.2.9,
- 2) Prepare hydrogeological studies for any proposed effluent flow exceeding 5000 gpd on any one property pursuant with Art. 16-4.2.11,
- 3) Obtain and submit a groundwater discharge permit pursuant with Art. 19-1.30(3),
- 4) Disinfect the effluent by ultraviolet irradiation, ozonation, or other approved equivalent pursuant with Art. 19-4.8,
- 5) Provide surety bond or other financial guarantees acceptable to the Board of Health in an amount specified by the Board of Health to guarantee operation for at least one year pursuant with Art. 19-9.30,
- 6) Prepare an environmental impact report pursuant with Art.19-4.1,
- 7) Prepare a hydrogeological report pursuant with Art.19-4.30,
- 8) Install monitoring wells pursuant with Art. 19-7.00,
- 9) Monitor sewage influent and effluent pursuant with Art.19-8.00,

10) Setback the sewage treatment system at least 400 feet from the PWS pursuant with 19-4.51

This is an unusual situation and, as determined by Town Counsel, there are no statutes, regulations or court precedents that directly answer the question of how to reconcile the local regulations with the settlement of the state enforcement matter as reflected in the Final Judgment approved by the Superior Court. Despite the lack of a clear precedent or rule, however, the chance that a court would allow a decision by the Board to stand, if it were inconsistent with the Final Judgment, is vanishingly small, and that if the Board were to treat the Final Judgment as non-binding and impose inconsistent terms in a local permit, it would expose to the Town to the cost of defending an appeal that would be very unlikely to produce a good result. Consistent with the recommendation of Town Counsel, Health Department recommendation is that the Board treat Articles 16 and 19 as applicable, but that it also consider itself bound by the Court judgment. The Board may, therefore, impose additional requirements pertaining to this upgrade that do not conflict with or are unaddressed in the Final Judgment, particularly with regard to local regulations that differ in language from Title 5 or 314 CMR 5.00 Groundwater discharge permit regulations.

Though influent and effluent monitoring is indicated within the Operation and Maintenance Manual accepted in the Final Judgment, it is not specified how such monitoring shall take place. Monitoring of the quality of effluent, prior to any potential contact with the private water supply well, is of particular concern. Therefore, the Health Department recommends that that Board requires installation of monitoring well(s) in a safe and accessible location approved by the Health Department. The Final Judgment would not be impeded or undermined in any way by such a requirement and it does not appear that the Final Judgment preempts such a condition. Furthermore, it is possible that the monitoring results may disclose violation of the Final Judgment or disclose previously unknown conditions that are not addressed by the Final Judgment.

**Department Recommendations:**

In accordance with the recommendation of Town of Acton legal counsel, the Health Department recommends that the Board takes “no action” in regards to the aforementioned variances, consider itself bound by the basic terms of the Final Judgment, approve the design for the septic system with nitrogen removal technology and issue a Disposal works construction permit with the following conditions:

1. Installation of monitoring wells, one (1) up gradient and two (2) down gradient of the disposal system, in a location subject to Health Department approval. Testing of the wells shall be performed, at a minimum, semiannually in the months of April and October for the following parameters:
  - Fecal & Total Coliform
  - Nitrate Nitrogen
  - Total Phosphorus
  - Dissolved Phosphorus
2. On an annual basis, the Board of Health, either on its own motion, or upon written request from the permittee, may review the sampling frequency and the tested parameters and may modify one or both if it deems it necessary. Baseline sampling from said wells shall be conducted prior to the issuance of certificate of compliance and the result of which shall be submitted to the Health Department within 30 days of testing;
3. The applicant shall obtain all Town issued permits related to the system, prior to the installation of the system;
4. Require an annual operation permit pursuant with Art. 19-1.20 and further require the following information from the owner prior to operation of the system:
  - a. The name, address, phone number and emergency contact information for the owner, chief operator, and back-up operator
  - b. A copy of the current operations and maintenance contract Operation and maintenance Manual which includes the current staffing plan
  - c. Any other relevant information required by the Board or its Agent
5. The applicant shall provide a project and inspection schedule prior to commencement of construction, subject to Health Department approval

At the time of disconnection of service from existing system, the owner or agent shall notify and allow inspection by the Health Department.

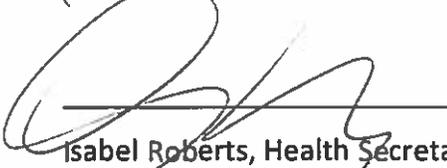
6. The applicant shall submit to the Health Department, in digital format, all correspondence, materials, testing submitted to MA DEP pertaining to the design, construction, and operation of system within 30 days of said submission;
7. The applicant shall provide a financial plan, subject to Health Department approval, which details the ongoing maintenance, operation, and replacement for the system to the Health Department prior to the issuance of Certificate of Compliance.

**Adjournment**

On a motion made by Dr. Taylor, seconded by Ms. Bissetta, the Board unanimously voted to adjourn at 8:30PM.

Respectfully Submitted,

*For Isabel Roberts*



Isabel Roberts, Health Secretary  
Acton Board of Health



Mark Conoby, Chairman  
Acton Board of Health