

HAMILTON BOARD OF HEALTH
WEDNESDAY, FEBRUARY 27, 2013

Present: Board of Health members Lindle Willnow, Susan Wilfahrt and Karen Zagorski, Health Agent Leslie Whelan and Board of Health Administrative Assistant Nancy Stevens.

Meeting Opened: Lindle Willnow called the meeting to order at 7:01 p.m. at Hamilton Town Hall

Dan Johnson – Variance Request – 61 Fox Run Road

Dan Johnson explained that 61 Fox Run Road failed Title 5 inspection due to groundwater interference. He noted that Health Agent Leslie Whelan had verified the groundwater table. Johnson said the septic system will be upgraded and will drain down to the existing wetland line. While developing the septic system upgrade design, Johnson conferred with Whelan and Conservation Coordinator Jim Hankin.

He explained that it was not feasible to put the leaching field in the front of the property due to limited space from utilities location and it would be in front of the foundation. Johnson added that he and Whelan concurred that the leaching field should remain in the back of the property despite the fact it is close to the wetlands, also replacing the septic tank would be costly. He noted that he had spoken with Claire Golden at DEP due to the variances that require a public hearing. This is due to the leaching area being less than 50' from the wetland, a minimum Title 5 regulation, and the difficulty of achieving the 5' offset to groundwater. He said using a pump chamber or raising the septic tank is also not feasible in this case since the homeowner is having financial issues.

Johnson reported on his conversation with Golden noting that in June DEP will allow local boards to give approval on the two variances: less than 50' to wetland and less than 5' to groundwater without a state approval process which is not the case today. He also is asking for another variance to do one soil test to minimize the impact to the wetland.

The three variances include: reducing the offset from the wetland from 50' to 33', offset from the groundwater to the bottom of the leaching area from 5' to 4', and one soil test in lieu of 2. Johnson mentioned that the Conservation Commission has approved this and issued Order of Conditions. In response to Lindle

Willnow, Johnson explained that the new leaching field would be located in the same location as the old one. He said there would be no change in the grading with a barrier at the existing slope at the swamp to minimize off grading. In response to Willnow, Whelan said the septic system design and variance requests were in order. It was reiterated that DEP also has to grant approval in addition to the Board of Health.

Willnow moved to approve the Local Upgrade Approval request for 61 Fox Run Road. Karen Zagorski seconded the motion. VOTE: Unanimous. BOH Administrative Assistant Nancy Stevens will draft a letter related to this matter.

Bruce Haskell – CDM/Smith, John Tomasz, Michael Lombardo – Proposed Anaerobic Digestion Facility at Landfill

Michael Lombardo explaining that John Tomasz is primarily working for Salem at this point and that he would not be attending the meeting. An interim part time public works director will be working for the Town starting next week.

Lombardo introduced Bruce Haskell who is the engineer and contractor for the landfill capping and he is working on anaerobic digester component for Hamilton. He explained that a feasibility study was done and it appears that a commercially viable anaerobic digester could be accommodated at the landfill site. The next step is can the Town build specifications to attract organizations that manage anaerobic digesters to do so at the site. Lombardo added that there would be benefits for the Town's waste stream and revenue benefits in terms of land lease and power generation.

Haskell explained how his company had worked for the Town for a year and half on the landfill capping regulations and analyzed if an anaerobic digester facility makes sense for the Town and how it would be implemented. He added that historically the Board of Health has a significant role in permitting solid waste facilities for towns. Haskell described how DEP has recently rewritten its regulations to give the Board of Health a different role.

He offered to provide copies of the feasibility study that was done to the Board. Presently under development is the RFP for Town to lease for a private developer to permit, design, construct and operate an anaerobic digestion facility. The RFP requires the developer to get all permits including any approvals needed from the Board of Health.

Detailed information the Town will require from developer includes facility operation and oversight, tracking organic material (i.e., food waste, food processing waste, leaf and yard waste, animal manure and sewage sludge). This would include what is acceptable to the Town. For this the Town receives a "lease" payment in form of free electricity or free disposal of waste.

Haskell explained that anaerobic digesting is digesting food using bacteria to generate methane in the absence of air. He described how there would be food waste, a dumping area possibly with presorting, a digesting unit tank (i.e., MWRA digesters at Deer Island for wastewater sludge). From the digestion process methane natural gas is generated and combusted to generate electricity and a portion that is solid that cannot be digested is mixed in with compost and would go offsite for disposal.

He mentioned that the biggest consideration is odor control systems that would be explored with vendor responding to RFP. Haskell described how animal waste digestion is occurring in dairy near Worcester and how Europe has mastered organic waste disposal. He added that the vendor would specify the type of reactor with constraints such as allowed tonnages, how materials would be contained, and what odor control is expected.

In addition, DEP is interested in increasing recycling rates in the state and one way is to divert organics from the waste stream. DEP is looking into banning commercially generated source separated organic waste from landfills and waste energy plants by 2014. Newspapers, plastic and tires are banned from those facilities. Lombardo described how DEP has told the Town that once implemented around the five-year timeframe they are going to shift their attention to the residential waste stream. He said what Hamilton and Wenham are doing with source separated organics and curbside collection will be required statewide.

Haskell added that DEP has revised its regulations for a solid waste facility for a clear permitting pathway. There are a series of grants available and incentive programs to encourage municipalities to pilot programs. Also, there is significant interest from developers. He reiterated that a developer would design, build and operate a facility for 15 to 20 years. Lombardo noted that the Town is also looking at a five to seven acre solar field with RFP specifications written in such a way to dovetail with anaerobic digester with both projects having the capacity to integrate. Haskell said the landfill will be capped in a year or so and then the land could be leased.

He mentioned that the key role of the Board of Health in permitting solid waste facilities is site design regulations where the Board says a site is acceptable for solid waste. Discussion ensued about how a copy of the site assignment for Hamilton landfill at Chebacco Road has not been found from the 1960s and how landfill was no longer used beginning in the early 1980s. Also, the public hearing process specified by DEP relative to landfills and transfer stations where anaerobic digesters have been exempted. DEP has specified site criteria (i.e., distance to private well).

Discussion addressed that drainage from digester would not go towards Gravelly pond and Manchester's water supply. Lombardo mentioned that preliminary conversations have occurred with Manchester town officials about the project and there is interest in the electrical component since they spend \$100,000 a year on electrical at their water treatment plant. Haskell mentioned that the access to the landfill site is good since traffic would not be passing residences. Discussion noted that more electricity generation is expected than Manchester would use and it would go directly to the grid and could offset electrical use in Hamilton. This basic concept would apply to solar field and electricity going to grid so the Town would realize offsets in costs. The connection to the utility would have to be defined.

Haskell said a mechanism for dealing with old site assignments would be revised via a letter to DEP and the state agency would respond about compliance criteria for modification permits. He said DEP defines anaerobic digesters as conversion facilities. Haskell addressed permitting process related to Board of Health and need to modify site assignment at landfill. He provided Board with a conceptual idea of what buildings could look like at the site.

Haskell explained that relative to site assignment they would like to submit a letter to DEP describing the proposed facility with environmental controls and how this would comply with site assignment criteria (i.e., trucks, odor control, effort not to impact Manchester water treatment plant) and would include a support letter from Board of Health. All of this information would be provided with RFP and proposal would contain the Board's input.

Lombardo described how the Town is well situated with its curbside organic program and the ability to reduce Hamilton's property taxes is significant and the electrical component. There is a limited market for handling the organic materials and the intent is to start small and build into a commercially viable size facility that fits into the Town. The proposal has merit and Hamilton will assess

if there is interest or market on the North Shore. Haskell cited the success of plant in Bourne, major communities with digesters for wastewater treatment sludge, that there are large facilities out in western U.S. using farm manure digestion, and how Lexington is proposing a similar project. Discussion reiterated how there are successful projects in Canada and Europe.

Discussion addressed how there is a large commercial anaerobic digestion need for large generators of waste such as food stores, college campuses, hospitals and prisons that will have to deal with new methods of disposal by 2014. DEP is trying to ensure there is the infrastructure to deal with materials. Lombardo said the Town is trying to build a model for success that could include the schools from a collection standpoint. He added why not dispose of the material within the Town versus paying a vendor to haul it away and cut as much as 30 cents off of the tax rate.

Haskell reiterated intent to draft a letter to DEP citing Board's endorsement for the project process as proposed that he would prepare for the Board's next meeting. He explained that a vendor interested in the project could present its proposal to Board. He reiterated the Board's authority in the matter. Haskell offered to come back to another upcoming Board meeting, if necessary. He described how DEP has a limited staff but the Hamilton anaerobic project is being given a high level of consideration by DEP. He noted that the draft RFP is supposed to be completed by the end of February that will include details on hours of operation and traffic issues. Discussion ensued about improving Chebacco Road to reach the anaerobic digester facility. There are no plans to pave the road but consideration is possibly for vendor to do that if it would not impact the financial benefit of the agreement for the Town.

Lombardo noted that the anaerobic digester would be cleaner than a composting facility with odor management required to be built into design. Haskell said these projects are defined by Mass. procurement rules and incentives are included in the bids. He responded to Willnow, that there would be an offsite system for facility wastewater that would be hauled off the site.

Discussion ensued about use of organic waste in compostable bags and compost processor taking those out of composting cycle. Lombardo said they could research how anaerobic digester speeds up compostable bags breakdown process due to lack of air. Whelan mentioned that compostable bags take six months to breakdown in composting facility and a shorter amount of time to breakdown through anaerobic process. Haskell explained that bailers are used to sift out grit

and plastic bags. Discussion addressed whether or not anaerobic digestion technology could take dead animals but introducing a large mass such as a dead whale could be problematic for a facility the size proposed for Hamilton.

Discussion ensued about when Board of Health would make comments about specifications for anaerobic digester facility. Lombardo said they are committed to working with the Board of Health on this project. Haskell said the RFP will contain environmental conditions on the standards for operating the anaerobic digesting facility. He added that the Board of Health has the oversight to ensure the facility does not create a nuisance and the Board would provide input on the letter that he is drafting.

Discussion revisited site assignment for landfill in Hamilton and how the document cannot be located. Haskell said they want to confirm the conditions are incorporated to streamline the Town's work with DEP and to provide comprehensive project information to a potential vendor for the site.

Chuck Johnson – Covers-at-Grade

Whelan explained that Chuck Johnson would be talking about the Covers-at-Grade, Section 4 of Board's Title 5 regulations. He addressed the supplemental regulations approved by the Board in September. Johnson spoke to and showed the Board the different kinds of covers other than cast iron that are commonly used for septic systems. He provided information on the impact of the regulations on septic system designers and homeowners.

Johnson showed the Board four different 24" diameter light weight polyethylene and fiberglass covers in the order of how heavy they are including: 7 ½ pound Tuf-Tite cover requiring screws or bolts and is supplied by company in Ipswich, 4 ½ pound dome cover that is thin-walled and is not available from local distributor, 10.4 pound cover from PolyLok that requires screws or bolts, 12 pound cover from Orenco systems that requires steel bolts, 15 pound Fralo cover that screws onto riser of plastic septic tank and is difficult to get on or off. He also showed the Board a plastic safety grate manufactured by Orenco and describes how it would work in the septic tank. For comparison purposes a medium duty cast iron cover weighs 75 pounds.

Johnson said the problem with the regulation from a homeowner's point of view especially when there is more than one cover at grade that have to be replaced with cast iron covers is digging has to be done and manholes have to be

retrofitted at a cost of \$600 to \$1,000 per manhole. He suggested that the safety grates could be put in rather than requiring the cast iron covers since people don't reliably replace the bolts and screws. He added that there could be a certification for septic personnel to assure the bolts are in place along with the safety grates.

Discussion ensued about how the Board of Health's regulation impacts homeowner's cost at the time of inspection not pumping, and pumpers are instructed if they encounter a non-conforming cover to install a safety grate. Also reiterated was that installing cast iron covers is not an easy retrofit. Johnson noted a Chebacco Road septic system upgrade done with multiple covers and how the cast iron requirement would have increased the cost of that job by as much as \$4,000. He acknowledged the Board's concern about safety but he opined that the proposed certification that septic professionals did their job sufficiently and use of safety grates addresses that well enough without requiring cast iron covers.

He noted that he prefers to use Orenco covers and walked the Board through six scenarios where ground surface covers would be used in reference to Title 5 regulations stating that he wanted Board to understand the impact of its regulations. (A drawing of the six scenarios is attached to these minutes). Johnson said in an effort to comply with the Board of Health's regulations, he would recommend a cast iron cover be used in his F or sixth common septic system design scenario. He said he had some pending septic system designs, wanted to show the Board impact of regulations and suggested that the Board could potentially consider revising its regulations.

Whelan noted that the current regulation mentions that buried covers are concrete and number of inches of depth should be reworded so it no longer conflicts with Title 5. She suggested number of inches below grade be eliminated in the regulations since originally this was used to define what is not an at-grade cover. She added that the material for the covers described in the regulation could be changed to include pre-cast concrete, cast iron or light weight material such as plastic.

Discussion ensued about how the safety grates are only manufactured in plastic not cast iron and that the plastic grates are thought to support 250 pounds and definitely would support a child.

In response to Willnow, Johnson said if a medium duty cast iron cover were added to a new septic system design, he said it is the difference in materials when construction occurs. Johnson offered to provide the Board his calculation on this at a later date. He said his concern about the Board of Health's regulation is with inground existing systems. He added that for homeowners, plastic surface covers are more aesthetic than cast iron and service providers don't have to dig down to access and service systems.

Discussion ensued about the potential difference of cost of \$100 for cast iron versus plastic cover and that this would only impact the installer. Also discussed was whether or not installers are installing the correct covers according to septic system plans. Also mentioned was scenario where 4" of soil could be put on top of cast iron septic system cover to grow grass. This could not be done with an effluent filter located below to comply with Title 5, a cast iron cover would have to be at grade.

Willnow told Johnson they would take his input under review and discuss it at the Board's next meeting. Johnson mentioned his scenarios C or F as preferable and said it would be nice to have the option of plastic versus cast iron cover.

Discussion ensued about two plans that Johnson has in the works that use his Option D and to comply with regulations without a variance he described where he could use Orenco covers and for one scenario a medium duty cast iron cover below the surface. Whelan said in both cases if Board allows that to occur language would have to be changed in the regulation. In response to Whelan, Johnson said a design with a pump vault could cause a person to trip but not fall into the septic system. He discussed how he would seek a variance from the Board to use plastic cover and safety grate. Whelan said if the Board gets a number of requests for variances then it would consider changing its regulation. She suggested it could be reasonable to comply with Title 5 if there is six inches to cast iron or plastic cover. Willnow reiterated that the Board would look into this and discuss it further and that for now Johnson could submit a variance request.

Scott Dewitt – Variance Request – O Wood Drive

Discussion ensued about driven well and Scott Dewitt is interested in installing a deep well on Chebacco Lake property at Wood Drive. Whelan expressed concern about how dwelling unit is next to well and sewer line. Dewitt said the well could be 20' away and described his conversation with Wetlands Engineer Mike

DeRosa about wetlands line relative to well. He added that the water line would be sleeved.

Dewitt explained that there had been many variations of the plan after having met numerous times with the Zoning Board of Appeals. He said there would be a three bedroom house with an accessory building that has a water line. He noted a four foot trench would be used in the wetlands and reiterated that water line would be sleeved. Whelan referred to report from Conservation Coordinator Jim Hankin. Dewitt said DeRosa is preparing a Notice of Intent.

Whelan summarized that the issues are Title 5 compliance with 10' apart between water line and building sewer lines and setbacks between well and building sewer. Dewitt described the plan to accommodate ledge with a trench that will include utilities as well as sleeved water and sewer lines. Discussion ensued about how as-built plan should include all of the updated changes proposed for the site such as accommodations for ledge.

The variance is water line to building sewer line being less than 10' apart and the lines will be sleeved and there is a local regulation that says the septic tank should be 100' from the well and in this case the septic tank will be at least 50' and it is 70' now, groundwater is high so the pipes going in and out of the septic tank would be in the groundwater table and are not 12" above the groundwater. Whelan said new septic tanks have neoprene boots to minimize infiltration.

Discussion ensues about how plan should be revised to define all variances. Whelan instructs Dewitt to have the plan changed to reflect latest revisions. Discussion addresses how the Board could approve the variance contingent upon receiving an updated plan showing new location of well.

Whelan reiterates what the variance request is for: water line and building sewer line will be sleeved because they are not 10' apart, well is at least 10' if not 20' from all building sewer lines and 70' from septic tank, high water table and septic tank, bottom of leach field 4' to 3' groundwater separation (this will be shown on profile). Willnow moves to approve the variance request contingent upon the Board receiving a revised plan reflecting the variances and new location of the well. Susan Wilfahrt seconded the motion. VOTE: Unanimous.

Discussion – Title 5 Supplement Regulations “Covers-at-Grade” Follow-up

Board agreed to discuss this matter at its meeting next month.

Discussion – Mosquito Update

Discussion ensued about upcoming meeting at Cruiseport addressing mosquito control. Whelan reported on discussions she had with contacts regarding how Mosquito Control in Cape Cod and Marblehead does not use pesticides and Swampscott and Manchester do not spray but use less toxic larvacide than standard used by Mosquito Control District. She adds that Mosquito Control can be notified to use the less toxic larvacide that would not kill aquatic arthropods (i.e., lobsters). She noted that Gloucester and Essex are considering joining the Mosquito Control District.

Discussion ensued about how residents should take the necessary preventions to protect themselves during peak mosquito times. Willnow suggests if surveillance confirms more frequent identification of disease carrying mosquitoes in Town then the Town could consider opting out of spraying and possibly Mosquito Control District. Whelan emphasized that personal prevention is the best protection against mosquitoes. Discussion ensued about the large amount of wetlands in Town and that there is limited ability to control the mosquito breeding areas such as was done with culvert work at Howard Street. It was noted that larvaciding does not work with Eastern Equine Encephalitis mosquitoes since they are found in swamps.

Review – Board of Health Minutes dated January 16, 2013

Willnow moved to approve the minutes for January 16, 2013. Wilfahrt seconded the motion. VOTE: Unanimous.

Other Business

Discussion ensued about letter developed by BOH regarding Title 5 Supplement Regulations “Covers-at-Grade” Follow-up that was going to be mailed by Health Department as it relates to the just received input from Chuck Johnson. Willnow said the Board has to decide if there is any merit to keeping fiberglass at grade covers and that homeowners would bear the expense of cast iron covers as part of the cost of selling a house. He suggested that septic system installers could devise a way to retrofit septic systems to accommodate cast iron covers.

Also discussed was severity of flu season and Wilfahrt reported that it has been found that for people over 65 years old that the flu vaccine has been much less effective. Whelan noted that Public Health Nurse Kim Paskalis will speak to the Board of Health to provide a six month review of her activities for the Hamilton health department at an upcoming meeting.

Another discussion was on beaver situation at Asbury Grove and that there is no need for Asbury Grove Camp Meeting Corporation to seek an emergency permit to deal with the situation since it is the time of year when beaver population can be controlled. So the Corporation could hire a licensed trapper if it decides the water ponding behind the tabernacle is problematic or hazardous.

BOH Administrative Assistant Nancy Stevens mentioned how she and Whelan would be meeting with Collins Institute representatives to describe what their jobs entail relative to Town Hall organization study and Collins Institute would like to speak to Board of Health chair as well at his convenience.

Meeting Adjourned:

Wilfahrt moved at 9:45 p.m. to adjourn. Zagorski seconded motion. VOTE: Unanimous. The Board's next meeting is on Wednesday, March 27 at 7 p.m.

ATTEST:

cc: Selectmen, Planning Board, Town Clerk, Conservation