



TOWN OF BOURNE BOARD OF HEALTH

24 Perry Avenue
Buzzards Bay, MA 02532
Phone (508) 759-0600 x 1513
Fax (508) 759-0679



Terri A. Guarino
Health Agent

MINUTES September 14, 2016

Members in attendance: Stanley Andrews, Vice Chairman; Donald Uitti, Secretary, Kelly Mastria, and Galon Barlow

Support Staff in attendance: Terri Guarino, Health Agent and Jamie Butler, Health Inspector

PUBLIC MEETING WAS CALLED TO ORDER AT 5:07pm

1. 5:00pm I/A SEPTIC SYSTEM TRAINING FOR BOARD OF HEALTH

MEMBERS – Terri Guarino – A workshop for members of the board, septic installers, general public – Approximately 2 hour workshop to inform of I/A septic system regulations and other pertinent informative material for innovative technology systems for discussion and future regulation changes – Terri Guarino started the discussion referencing the Department of Environmental Protection document entitled “Inspection and Sampling in Title 5 I/A Single Family Home Remedial and General Use Treatment Systems with Design Flows Less than 2000 Gallons Per Day.” Ms. Guarino read verbatim that on page 3 the program has determined that quarterly inspection does not improve operation or reduce system failures. Ms. Guarino stated that as of 2006, on page 4 of this document, there is a table that outlines the requirements for inspection and sampling for single family homes remedial and general use systems. For general use systems the inspection schedule is once per year which is a field test. It is a visual field test that includes turbidity, pH, and dissolved oxygen. The laboratory test is only required if the system doesn’t pass the field test. The remedial systems are inspected twice per year. Mr. Uitti asked Ms. Guarino what turbidity is. Ms. Guarino responded that turbidity is wastewater clarity. Mr. Andrews asked if there is a chart that gives the wastewater operators a scale to base it on. Mr. Zach Basinski of Bracken Engineering stated that turbidity is measured on a chart which is a color scale. Mr. Andrews stated that that there are several features and functions such as a UV light or a bubbler. Mr. Andrews is concerned with failures of these systems. Mr. Andrews stated an alarm will go off if the system is in failure and the silence button will shut of the horn but it will not shut off the light. Because this light is flashing away in the neighborhood, they will call to have the system serviced. Mr. Barlow feels that everyone is system specific, and that he may want to reduce inspections on some but maybe not all of them. Mr. Barlow stated that he would like to go with the Health Agents recommendation. Ms.

Guarino stated that the alarm is supposed to be on the outside of the building and that it is supposed to be on a separate circuit from the house. Additionally, the pump and the alarm are also supposed to be on separate circuits. Ms. Guarino stated that she and the electrical inspector coordinate on this. Mr. Andrews stated that he has seen many systems that are not hooked up correctly. Ms. Guarino stated that if they are not set up correctly then they have to be fixed. Ms. Guarino stated the electrical inspector inspects the circuits involved with the system and that she will not issue a COC until the electrical inspector states that it is okay. Ms. Mastria stated that there are a lot of fail safes to installing these I/A systems and that the burden to get the system inspected so many times should not be placed on the homeowner. Mr. Barlow would like to see an avenue left open for system specific projects where there are concerns so that more inspections can be required. Ms. Guarino referenced an additional document published by the Department of Environmental Protection which was revised on March 20, 2015 entitled "Standard Conditions for Secondary Treatment Units Certified for General Use." Ms. Guarino stated that most of the systems that are approved have utilized a secondary treatment unit. Ms. Guarino stated that on page 7 of this document there is a list of the parameters that are tested during the field test such as: pH, turbidity, settleable solids, color, dissolved oxygen (D.O.), depth of ponding within SAS, thickness of floating grease/scum layer, and depth of sludge and distance to effluent tee/filter/outlet which are effluent limits. Ms. Guarino stated that the people performing these tests are wastewater operators and that depending on the type of system used there are more stringent requirements for the level of wastewater operator whom can perform the test. For instance if it's a MicroFAST for nitrogen removal in a nitrogen sensitive area you have to be licensed as a municipal level 4 wastewater operator whereas for a general use system you only have to be licensed as a level two wastewater operator. Ms. Mastria stated that on page 8 of this document under number 7 it states that systems installed under this approval shall be subject to the following performance requirements which are listed in a-c. Ms. Mastria asked Ms. Guarino why on page 7 under the thickness of floating grease/scum layer and also under the depth of sludge and distance to effluent tee/filter/outlet parameters it states that it should be monitored once every three years. Ms. Guarino stated that those parameters are specific to the septic tank which are not the components specific to the I/A system and that components specific to the I/A system are the aerobic components. DEP suggests septic tanks should be pumped every three years so that solids don't carry over to the treatment unit. Mr. Basinski stated that this is based on a 3 bedroom 4 person dwelling. Ms. Guarino stated that these are the minimum requirements. Mr. Basinski stated that under the approval there is only one system in the commonwealth that uses this and that is the MicroFAST system. Mr. Andrews stated that we have done some pilot systems in the Town of Bourne. Mr. Andrews asked Mr. Basinski if he goes out and conducts the inspection and monitoring of I/A systems. Mr. Basinski stated the only system he monitors is the Lobster Trap and that generally after he designs the systems it is up to the wastewater operators to monitor them. Mr. Basinski stated that he does not receive any test results from the wastewater operators. Mr. Andrews stated that he would like to get some test results from George over at Barnstable County and that he would like to hear some feedback from some of the wastewater operators in the area to see if there is a difference in

the Town of Bourne due to the salt in the air compared to the western part of the state. Mr. Andrews stated that you have difference failure mechanisms just because of the environment. If power is turned off the unit still flows. The nitrogen removal might be turned off but it still flows. Generators keep the blower on. Ms. Guarino stated that it makes a difference if the system is being installed for a seasonal dwelling or a year round dwelling. Mr. Andrews stated that when he first got on the board there was an issue with homeowners shutting off the blowers. You also never know when homeowners may decide to switch from seasonal usage to year round. Mr. Basinski stated that systems are designed to be year round systems. Homeowners should not be shutting these systems down. Ms. Guarino recommends that seasonal systems have a field test and effluent testing 45 days after the system start up and then 60 days thereafter. Mr. Basinski stated that it is a daunting task on the people who do the testing. Ms. Guarino stated that not everyone moves into their house at the same time. Ms. Guarino stated that the current policy that the BOH has states that for the first two years both seasonal and year round systems must have quarterly inspections and semi-annual influent and effluent samples. Ms. Guarino recommends that the current policy be modified and clarified. Ms. Guarino suggest to do semi-annual inspections and samples for the first two years of the seasonal and year round systems. After the first two years, it is once per year. Additionally, these sampling and inspection requirements excludes service visits that may be necessary for the startup and shut down of systems, alarm responses, or other maintenance visits specified by the service contractor and/or technology supplier. This inspection and maintenance policy for I/A systems is only applicable to systems that are installed in a non-nitrogen sensitive area. There are more stringent requirements for systems in a nitrogen sensitive area. Nitrogen sensitive areas are for example the well areas, or a Zone I or II. Ms. Mastria agrees with Ms. Guarino that the current Board of Health Policy on I/A septic systems needs to be clarified. Ms. Guarino stated different technologies most of the time have technology specific approvals. For technologies that have components that are at a greater risk the manufacturer has their own additional requirements. Ms. Mastria stated that there is a channel of approval that must be met. Mr. Andrews stated that DEP might require 2 inspection per year, however, the manufacturer may require more. The manufacturer may be stricter. Mr. Barlow stated that the board relies heavily on the Health Agent to know and understand all of the different technologies. The Board may not know the specifics of the system but the Health Agent and the Engineer do. What Ms. Guarino is recommending is the minimum requirements because the designer and the manufacturer will often require more but it is more stringent than what DEP requires. Ms. Guarino feels that revising the current Board of Health I/A septic policy will provide more clarity. Mr. Basinski mentioned that maybe it could be a requirement to put the I/A specification on the plan. Ms. Guarino stated that it is discretionary what constitutes a pass or fail because the test is visual. Ms. Guarino does not feel that wastewater operators will pass systems that are failing. Mr. Andrews disagreed and mentioned that they just want to continue their contracts. Ms. Guarino stated that if the system fails it will require more testing and sampling. Ms. Guarino stated that the license that the wastewater operators have in order to perform this test is very strict. Mr. Andrews mentioned the possibility of having the homeowners sample the system

themselves. Ms. Guarino stated the current policy does not require sampling after the first two years. If the Board of Health were to require sampling after the first two years, that would be more stringent than the current policy that is in place. Mr. Andrews stated that independent sampling would be the best way to ensure that the system is operating correctly. Mr. Barlow does not want to add burden to the office by requiring more sampling. Ms. Guarino does not agree with requiring sampling after two years. Ms. Mastria stated that she supports that. Mr. Barlow asked Mr. Basinski if he is comfortable with testing 2 times per year. Mr. Basinski stated yes for the system with the general use because it has already gone to the state and been approved. However, Mr. Basinski does not feel as if this should be the case for remedial/pilot systems. **No action was taken at this time. The Board of Health discussed placing on the agenda for the next Board of Health meeting for a discussion and possible vote.**

2. TITLE TRANSFER REGULATION DISCUSSION FOR BOARD OF HEALTH MEMBERS—Terri Guarino—A workshop for members of the board, septic installers, general public—Discuss current local Title Transfer Regulation and existing requirement for proving a four foot vertical separation to groundwater. Discuss possible future changes to include a conditional pass for systems when structures are constructed above septic components or when subject to heavy loading. Clarify frequently asked questions including requirements for nonconforming and greywater systems.

Ms. Guarino stated that the BOH Local Title Transfer regulation requires a 4 foot separation to groundwater and that there is confusing language within the regulation. The regulation was adopted by the BOH in 1995 and is still current. The original regulation in 1995 states that any cesspool and/or leaching facility deemed to not have this four foot separation will be considered a failed system and an upgrade will be required. In 2004 the BOH revisited the Title Transfer Inspection Regulation which adds a policy in section 7 for grandfathering systems that were installed during or after 1978 as to the required 4 foot separation to groundwater. Mr. Andrews stated that both of these regulations are still in effect and they contradict one another. Ms. Guarino stated that she feels as if these regulations need to be clarified and that systems that were installed after 1995 that were witnessed by the BOH should be grandfathered. Prior to 1995, criteria for groundwater determination and approval of soil evaluators did not exist within Title 5 so those systems should not be grandfathered if encroaching on the water table. There is also an issue when a title five inspector conducts an inspection and discovers that an impervious structure was installed on top of septic components such as a garage slab or a driveway. If the leaching component is not vented and has an impervious structure on top of it, it is not going to function properly. Inspectors are often not comfortable passing these inspections and may submit a title five inspection report with the option of selecting the “needs further evaluation by the approving authority” box. Ms. Guarino mentioned that requiring these properties to install a vent might be an option and that other towns consider them as a conditional pass. Mr. Andrews stated that this would have to be a case by case basis due to different levels in severity. Ms. Guarino stated that the homeowner/builder should have done their due diligence and made sure that they did not construct impervious structures over septic components. Mr. Barlow asked

what action other towns take in response to this issue arising. Ms. Guarino stated that if it's an H-10 tank underneath a driveway the Town of Barnstable will require that this tank be replaced with an H-20 tank. Every situation is different. Ms. Guarino stated that the worst time this occurs is when a slab is placed over the components. Mr. Don Bracken of Bracken Engineering referenced a situation he ran into once where the system passed the inspection however; there was a pool that wasn't the required distance away from the SAS. In this special case the approving authority stated that the systems passed inspection but that it is non-compliant. In order to bring the system into compliance they had to file for a variance. Ms. Mastria stated that she supports the grandfathering of systems that are installed during or after 1995 and she also stated that some systems will be considered on a case by case basis in regards to impervious structures being constructed on top of them. Mr. Andrews asked that the office draft a regulation and present it to the Board of Health for a possible vote at the next meeting. **No action was taken at this time. The Board of Health discussed that this matter be placed on the agenda for the next Board of Health meeting for a vote.**

Ms. Mastria made a motion to adjourn for an intermission. Mr. Uitti seconded the motion. The vote was unanimous. The meeting reconvened at 6:38 PM in open session.

Mr. Barlow made a motion to hear agenda item #4 prior to item #3 which is scheduled for 7:00pm. Mr. Uitti seconded this motion. The vote was unanimous.

- 3. 150 RED BROOK HARBOR ROAD LOT 2– CONTINUED from August 17, 2016 - Zachary Basinski of Bracken Engineering for Edward C. Robinson and Revocable Trust – Request variances from Town of Bourne Board of Health Regulations for proposed new construction and an alternative sewage disposal system: reduction in setback distance for the proposed soil absorption system reserve area to a non-water dependent coastal bank from 150' to 111' (a 39' variance), and a reduction in setback distance for the proposed primary soil absorption system area to a non-water dependent coastal bank from 150' to 122' (a 28' variance).** Zachary Basinski of Bracken Engineering representing Deborah Juckett was present for this hearing. Mr. Basinski stated that this property has successfully transferred ownership to Ms. Juckett. This project is new construction on lot 2 of 150 Red Brook Harbor Road. The septic system does not meet the Board of Health 150 foot setback to a water resource area. Mr. Basinski is requesting a variance to both a coastal bank and also to a salt marsh. The dwelling is proposed to be 5 bedrooms. Mr. Basinski is proposing to use a MicroFAST system with a conventional gravity leaching facility. Mr. Barlow stated that this project is in a sensitive area and there are groundwater plumes about 9 feet below the surface. Mr. Basinski stated that he is doing his best to protect the environment and that this property was perc tested and higher elevation so groundwater is not an issue. Mr. Andrews asked about the existing boat shed on the property. Mr. Basinski stated that it will remain a boat shed for storage only. **Ms. Mastria made a motion to approve the variance request for 150 Red Brook Harbor Road Lot 2 based on the plan and**

architecturals last revised September 6, 2016. Mr. Uitti seconded this motion. The vote was unanimous.

4. **150 RED BROOK HARBOR ROAD LOT 1– CONTINUED from August 17, 2016 - Zachary Basinski of Bracken Engineering for Deborah Juckett– Request variances from Town of Bourne Board of Health Regulations for proposed new construction and an alternative sewage disposal system: reduction in setback distance for the proposed primary soil absorption system area to a non-water dependent coastal bank from 150' to 21' (a 129' variance), a reduction in setback distance for the proposed primary soil absorption system area to a salt marsh from 150' to 122' (a 28' variance).** Mr. Basinski of Bracken Engineering for Deborah Juckett was present for this hearing. Mr. Basinski is proposing to raze and rebuild a new dwelling on this property. This system will be an I/A system with pressure distribution. The actual nitrate nitrogen load will be reduced from 5.5 parts per million to 3.1 parts per million. Currently the existing house is served by a cesspit which is very close to a water resource area. Ms. Guarino stated that it is designed for four bedrooms which is consistent with the architecturals. There is a bonus room on the second floor that does not have a doorway so it is not being computed as one of those bedrooms. Because there is space that could potentially become bedroom space in the future, Ms. Guarino recommends a deed restriction be placed on the property for four bedrooms. **Mr. Barlow made a motion to approve the variance request for 150 Red Brook Harbor Road Lot 2 for proposed new construction and an alternative sewage disposal system: reduction in setback distance for the proposed primary soil absorption system area to a non-water dependent coastal bank from 150' to 21' (a 129' variance), a reduction in setback distance for the proposed primary soil absorption system area to a salt marsh from 150' to 122' (a 28' variance).** Mr. Barlow stated that this system will offer a substantial degree of environmental protection. This approval is based off of plans and architecturals dated September 6, 2016 by Bracken Engineering, Inc. A four bedroom deed restriction must be filed prior to the permit being granted. Mr. Uitti seconded this motion. The vote was unanimous.

Mr. Andrews made a motion to hear item #7, #8, and #9 out of order prior to item #3. Mr. Uitti seconded this motion. The vote was unanimous.

5. **125 CLARK RD – Mark Flaherty of Flaherty & Stefani, Inc. for John and Patricia Duggan-- Request approval of a Facilities Aggregation Plan consistent with 310 CMR 15.216 for the construction of a two bedroom dwelling within an IWPA at 125 Clark Road. Discuss and vote to approve Nitrogen Credit Land off Phillips Road at map 4.4 parcel 132 owned by the Werthens and the Phillips Road Realty Trust.** Mark Flaherty of Flaherty & Stefani, Inc. and owner John Duggan were present for this meeting. Ms. Elise Drew is the client of John Duggan whom also attended the meeting. This is a vacant lot that is near the water tower. The lot is 8,632 sqft. The proposed is a two-bedroom septic system with denitrification. Mr. Flaherty stated that he needed another 5,000 sqft to add to this property. Mr. Flaherty is proposing adding a nitrogen credit land to the

property that is 5,000 sqft. The nitrogen credit land is map 4.4 parcel 132. The 5,000 sqft would allow the buyer Ms. Drew to construct a two bedroom house. Mr. Flaherty stated that he has a two bedroom deed restriction on file at the registry of deeds for this property. There also is an alternative denitrification deed disclosure also on file at the registry of deeds. Mr. Andrews asked Ms. Guarino if the two bedroom deed restriction that was filed has the Town of Bourne's or the Title V's format. Ms. Guarino stated that the deed restriction uses both formats. Ms. Guarino stated that the deed restriction was filed prior to the realization that the 5,000 sqft was needed to allow for the 2 bedroom design. Mr. Andrews asked about the I/A service and operation and maintenance agreement. Ms. Guarino stated that it is in the file as well. Mr. Barlow stated that he would like the deed to be filed stating that both pieces of land can never be separated. Mr. Riley the attorney for Mr. Duggan was present for this meeting. Mr. Riley stated that he could prepare a deed that would go out from Mr. Duggan to the buyer that would reference the easement and that easements run with the land in perpetuity. Mr. Andrews stated that the two pieces must be tied together in perpetuity. **Mr. Barlow made a motion to approve a Facilities Aggregation Plan consistent with 310 CMR 15.216 for the construction of a two bedroom dwelling within an IWPA at 125 Clark Road. Mr. Barlow continued his motion to include the approval of a Nitrogen Credit Land off Phillips Road at map 4.4 parcel 132 owned by the Werthens and the Phillips Road Realty Trust. These pieces of land must be tied together in perpetuity so that neither pieces of land can be sold as individual pieces of land and from this point forward shall be considered one piece of land. Mr. Barlow made a reference to the I/A maintenance policy and the 2 bedroom deed restriction which has already been filed with the registry of deeds. Mr. Uitti seconded this motion. The vote was unanimous.**

6. **APPROVE THE MINUTES – From July 13, 2016 – CONTINUED from August 17, 2016- Mr. Barlow made a motion to approve the minutes of July 13, 2016. Mr. Uitti seconded the motion. The vote was unanimous.**
7. **APPROVE THE MINUTES – From the meeting dated July 27, 2016 – CONTINUED from August 17, 2016- Mr. Barlow made a motion to continue this until the next Board of Health meeting. Mr. Uitti seconded the motion. The vote was unanimous.**
8. **APPROVE THE MINUTES – From the meeting dated August 17, 2016- No action was taken at this time. Mr. Barlow made a motion to continue this until the next Board of Health meeting. Mr. Uitti seconded the motion. The vote was unanimous.**
9. **7:00pm- 51 ACADEMY DR – Attorney George J. MacKoul requests to have the fines issued against Mr. George Benway for violations of the State Sanitary Code 105 CMR 410.000 reduced and/or abated. Ms. Guarino stated that Mr. MacKoul made contact with her on Monday and stated that he had to leave the state due to a family emergency. Mr. MacKoul has requested that this matter be continued to the next Board of Health meeting on September 28, 2016. Mr. Barlow made a motion to continue this matter to the next Board of**

Health meeting on September 28, 2016. Mr. Uitti seconded the motion. The vote was unanimous.

Mr. Barlow made a motion to adjourn the meeting. Mr. Uitti seconded the motion. It was a unanimous vote and the meeting adjourned at 7:17 PM.

Taped and typed by Jamie Butler, Health Inspector

Kathleen Peterson _____

Stanley Andrews _____

Galon Barlow _____

Don Uitti _____

Kelly Mastria – _____

cc Board of Selectmen/Town Clerk