

**BOARD OF HEALTH**  
**Minutes for Tuesday, April 27, 2021 7:00 PM**  
**Remote Participation**

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7:00-7:45 Discussion of Benfield Farms Enforceable Agreement for Septic System Upgrade  
7:45-8:30 Alternative Systems Presentation (Meridian Engineering)

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Attendance members: Tony Mariano Chairman, Jean J Barry, Catherine Galligan, Donna Margolies, Todd Thorsen

Attendance nonmembers: Fantasia Health Agent, Mark Beaudry (Meridian), Dave Erickson, Michael Joseph, Phil Giffie, Lee Storrs

The meeting was called to Order at 7:02 pm.

**1. Discussion of Benfield Farms Enforceable Agreement**

Mariano opens the meeting. Benfield will not be up and running within the 2-year time frame allowed by Title 5, so Fantasia, Galligan and Mariano put together an agreement as provided for in Title V. The BOH went through the timeline previously distributed. Fantasia has identified 4 potential hydrologists for the mounding analysis; if she gets BOH approval she will contact them. After reviewing the timeline, the meeting was opened to comments by the board. Thorsen would like to set the testing frequency for the first year, he asked whether this would be in the document or is it already built in? He also noted that "immediate retest" is unclear--a specific time frame should be set. Mariano responded that it must all be worked out in the approval once the design is accepted, by that time immediate should be defined.

Fantasia warned not to confuse conditions with the timeline--there will probably be additional conditions for approval.

Margolies asked who will attend the pre-construction meeting. Mariano said it will be with the installer and engineer and Fantasia thought it would be good to have Sylvia Willard attend also. Barry and Galligan had no comments, although Galligan felt comfortable with the timeline.

Fantasia might want to explain that the board should attach additional conditions to the enforceable agreement, namely:

1. That Benfield should continue with a tight tank.
2. That this timeline is attached to the agreement.

Mariano asked the board to support asking Beaudry about the timeline.

Beaudry does not think May 3 is feasible because of last week's meeting paused design work to investigate another system. He thinks he will need to extend the deadline to May 10. After discussion it was agreed to change May 3 to May 10 and May 4 to May 11. If possible, BOH would still review the mounding study on May 25 but may need a special meeting on June 1 if the study is not ready by May 25. Galligan moved to accept the amended schedule for Benfield Farms timeline to be a condition of the enforceable agreement time under Title V and that the tight tank and pumping will continue. Barry seconds the motion which is approved unanimously.

Fantasia wants to make it clear that the consequences of not agreeing to this or failing to meet the timeline would be serious--possibly resulting in eviction. Giffie responded that they will comply and will be in constant communication.

**2. Alternative Systems Presentation (Meridian Engineering).**

Beaudry shows the 1st plan for treatment components on screen. It contains a septic tank, equalization tank and the MicroFast .9 system. He has added a 500-gallon recirculation tank downstream from MicroFast unit. The existing recirculation pump is in the effluent pump chamber which will go to the recirculation tank and the line then goes back to the equalization tank.

The new MicroFast .9 unit will be in a 1500-gal tank and he believes the recirculation pump will be on a timer. In the existing MicroC shed a new bio bed system was approved in 2019 but that was not constructed because system was shut down, that component will be built as part of this work, and there will be a new line from the MicroC to the MicroFast system.

Beaudry then presented 2 standard disposal systems (P5/P4). P5 is a conventional trench system although both systems continue to use the MicroC/MicroFast as pretreatment. Galligan expected a sand filter but Beaudry was unaware of this and was merely showing a conventional disposal system. In any case Beaudry does not have experience with sand filters and would need to check with his engineers to see if any of them have experience with sand filters, he is not prepared to talk about sand filters at this

meeting. Beaudry did say that the pretreatment includes a filter (which must be cleaned periodically) before the effluent goes out to the field. There was a question about the MicroFast .9 system. Beaudry said it is basically like another aeration unit. They have been getting good nitrogenation but did have high BOD, which the MicroFast should take care of. Galligan asked to allow Storrsel to speak as an honorary board member and Mariano agreed, allowing Storrsel to jump in at any time.

Beaudry's conventional disposal system is a trench system to step down the slope. It consisted of 8 pressure fed trenches 2' high by 3' wide and 100' long with 6' in between trenches so it would be 66' from edge of stone to edge of stone. There would be about 2.5' fill on lower side and about 3' fill on the upper side, considerably more than with Perc-rite or Geomat. Alternatively, one could use 11 1'x3' trenches and the footprint would then become 100x110', which would probably require more soil testing and would get close to the 100' buffer.

Mariano said the trench system will cover a greater area and he asked how it will affect the grade. Beaudry said that as he mentioned it would be 2.5' fill on low side 3.7' fill on the high side and maybe 20" on the NE corner--he would be able to blend it into the elevation on the uphill side, but the field would bulge out. Mariano noted that it would be more intrusive than the Perc-rite system. Beaudry confirmed that it would absolutely be more intrusive, but he could look at getting relief from separation to ground water and noted that this is all based on .9' mounded ground water.

Beaudry also looked at a bed configuration--4" force flow pipes with 10" stone including pipes 12" cover giving 2' top of bed to bottom of stone but the bed has to be level. The area on the uphill side controls the elevation which will be 169.2'. The bed would be 53'x100' (basically the size of Perc-rite) but since the bed it will require 5-5.5' of fill at the lower edge. With Perc-rite finish grade was about 8" above grade current grade, with a bed system the bottom of stone would be at existing grade or slightly below it.

Beaudry said that a Presby system with 1' tubes is another option. Tubes could be stepped down the hill but everything other than Perc-rite would require a new pump chamber in the field because they would all need to be pressure dosed (the pump chamber is not shown).

Mariano asked how Perc-rite is pressure dosed w/o the pressure chamber. Beaudry says it is feed by a 2" force main down cart path. It's not pressurizing the entire bed--just putting up enough pressure to open the emitters, so it doesn't need the size of pumps that you need for pressure dosed system. Beaudry is inclined to pursue the Perc-rite system, keeping in mind that we know that we have suitable soil throughout the area. Mariano would like to know options that do not require the Fast system. Beaudry does not believe he could look at that with the current schedule. Galligan does not want to push out the schedule anymore. Galligan expected that the design would be for a full conventional system and not just the field, she has concerns not just about Fast technology but that it is a complicated system that requires ongoing maintenance, but she does not want to prolong the approval process. Galligan does want to get the health department out of needing to chase after test results; she would like to see a better system that does not require as much oversight. Galligan also feels that along with the design and Operation and Management plan should also be submitted. Galligan believes that is required by Title V in any case and Fantasia confirmed that.

Beaudry said that the Fast system is not that complicated and that there are 100s of Fast systems in Massachusetts. He says the challenge is the high strength effluent which is a result of only producing 25-30% of design flow. Barry also noted that the BOH hired onsite engineers to evaluate the system and they did not recommend changing the Fast system or the Perc-rite system.

Beaudry went on to say that we need to separate failure of disposal system from the Fast system. Mariano disagreed saying that the system was out of compliance. He would like to know why we cannot consider. Consideration of pretreatment options continued and Thorsen said he is skeptical, that there is a pretty good understanding of how fast systems work and he is nervous about looking at something new just because it is different from the fast system. There was still a desire to know what options are available and Mariano and Fantasia will talk and try to give Beaudry a little more time to explore other pretreatment options. Galligan asked whether Beaudry had asked ConsCom about using a vehicle swamp mat over wetland. He said they have not yet submitted to ConsCom.

Mariano asked for a motion to adjourn. Galligan moved to adjourn; motion was seconded and approved unanimously. The meeting adjourned at 20:52.

Respectfully submitted,

David Erickson,  
Recorder

**(All documents discussed are available for review in the office of the Board of Health)**