

BOARD OF HEALTH
Minutes for Wednesday, January 24, 2023, 7:00 PM
Remote Participation

- 7:00 Ferns Country Store
- Well Installation Update
 - 2023 Food Permit Application

DISCUSSION ITEMS

NEW BUSINESS

The meeting agenda lists all topics reasonably anticipated by the Board of Health at the time of posting. Additional topics not anticipated may be discussed at the meeting under the agenda item New Business.

Meeting Dates -

Attendance members: Tony Mariano Chairman, Patrick Collins, David Erickson, Cathy Galligan

Absent members: Jean Barry

Attendance nonmembers: Linda Fantasia Health Agent, Kris Gines Asst. Health Agent, Barney Arnold Select Board,, Gary Culkins, Joel Fisch (Northeast Geoscience Inc), Rob Frado (TCG) , Matt Herweck, Angela Jaffarian, Andrew Marshall, Ryan McLane (Town Administrator), Alexandra Rubin(Town Counsel)

1. Ferns Country Store

Mariano opened the meeting and reviewed the history of water problems at Ferns. Since September of 2021 there has been e-coli and coliform in Fern's water supply well. The BOH has been working with Matt Herweck and the DEP to resolve this problem. Herwick has put in a treatment system and that has been an encouraging step. Testing in 2021 showed that the well had been compromised by a crack, unfortunately, when the crack was sealed there was an insufficient water supply so the crack was unsealed and a chlorination system was added. The BOH looks at the treatment system as a temporary solution and replacement of the water supply being the ultimate goal. The BOH has been working with Herwick over a long period, with a number of missed meetings and requests not addressed. The BOH needs a schedule for permanently addressing this problem. Separately, the food service permit expired on 12/31/2022. We currently have a partial application for a new permit but the application is not complete until we receive the application fee.

Herwick said that since we last spoke in December, he has brought in the engineer, Joel Frisch at Northeast Geoscience Inc. Herwick affirmed that in the fall of 2021 they put a Caswell Seal to repair the crack in the well but when they realized that was problematic they removed it. The DEP instructed them to put in a temporary chlorination system. They reached out to Joel Frisch to help with this. Frisch said that the well is a shallow (84') and it contains a fracture less than 50' down. They would normally seal off a fracture at that level

but that fracture seems to be the supply for the well. They did a video inspection on October 7, 2021, and installed a seal on November 21, which was then removed and a temporary chlorination system was installed in May of 2022 and a permit was submitted for a permanent treatment system. The current system is functionally close to being a permanent system. The chemical feed system is flow based to keep the proper dosage regardless of the flow. When the system was first installed there was no data on flow rate so they really didn't know what the demand was. They knew the desired residual but didn't know how much chlorine was consumed by organic matter. After running for several months there is enough information to begin the optimization process while waiting for DEP approval for permanent status. They are now aiming for .5ppm of chlorine in the water and believe that the chlorination will have-virtually no impact on the septic system. The chlorine residual is less than .5ppm and that residual is consumed almost immediately, it will likely not even make it to the septic tank.

Herwick applied for a permit on June 1, 2022. On September 8, DEP replied with questions and modifications. On October 5, 2022, the ground water report was completed, then on January 11, 2023 they submitted to DEP modified plans and answers to DEP's questions. Frisch spoke with the DEP today and he will get DEP the remaining information needed for the permit this week and it will probably take another 3-4 weeks for the final permit. Frisch stated that this is an engineered solution which, in his opinion, is a last resort. A new well would be preferable but that is not easy at this site. If possible, they want to get the final system permitted and then pursue deepening the well. Frisch recommends deepening the current well and putting in a tanker system until the new well is installed. There are currently bacterial and nitrate issues which the new well would likely resolve. Herwick noted that we had a dry summer and a wet and saturated winter so they will soon have data for all 4 seasons.

The current system has a tank of sodium hypochlorite with a pump for injecting the solution into the water with a flow meter to adjust the pump. The new system would add a contact tank whereas now the chlorine goes through 50' of pipe and pressure tank, which provides little contact time. Frisch recommends installing a baffled water tank and static mixer so that the sodium hypochlorite solution goes into a baffled tank to keep the chlorine in contact with the water longer. The new system would also add an alarm to call the operator if anything goes wrong (too much or too little chlorine, well failure, etc.). The chlorine would be logged and the system calibrated system to ensure the pump is operating at the proper rate.

Frado asked Frisch how they will decide how deep to drill. Frisch replied that in a commercial application you go as deep as possible, probably 350-400' and the well will store 1.5 gallon of water per foot of well depth. Frado also asked who would be on call and typically that would be the operator and the owner, notification can be by phone and email. The operator can log into the system and see the flow rate, residuals, etc. The system is reasonably priced.

Mariano noted that a food permit requires a viable water source and asked for a firm schedule on drilling the well. Frisch said that we have to get approval from the DEP to deepen the well so the DEP will say whether we can in fact deepen the well. When the permanent treatment system is completed it will be 4 log, that is 99.99% of viruses will be destroyed or inactivated. Mariano asked why they might not approve a deeper well and Frisch said they may feel that you wouldn't improve the water quality and there is also the possibility that a

deeper well would encounter different contaminants, although most contaminants could probably easily treated.

The current water supply is probably coming from the overburden aquifer but Frisch is confident that if the well is deepened that the upper zone could be sealed off.

Galligan asked how long it would take to get the drilling permit once the permanent system is installed. Frisch replied that it would be same process as a new well, it's a TNC (transient non community water supply), wells are classified as community, non-transient non community (like a school), and TNC which serves up to 25 people/day but different people every day. For a new TNC well they need to go to the DEP and tell DEP they are going to drill a new well, provide maps, and say where and how deep. They will do a site evaluation, then drill the well, set up temporary water and run a 24 hour pumping test which is then submitted to the lab. The lab gets results back in 6-8 weeks.

Once you have submitted everything it probably take 3-8 weeks for the DEP to approve it, but they would probably expedite this so it could be 2-3 weeks. Drillers vary but currently there is a 12–16-week backlog, there are also potential equipment delays and there could also be delays for parts for the permanent system.

Collins said that it sounds like deeper well is what should be done but the BOH should be kept in the loop, he has felt that we have been in the dark on much of this and would like to feel more informed.

Mariano then opened the discussion up to others. Herweck noted that Gary Culkins was representing the owner as Herwick is a tenant, not the owner.

Frisch noted that it is very common to contaminate a well sample as coliform is ubiquitous, and wells may need to be disinfected occasionally.

Mariano and other board members asked for a schedule along with requirements for meeting the schedule, as well as a schematic of the current system. BOH did not specify the schedule format but expects a time scale with deliverables (including scope of work, specific deliverables and predecessor requirements – what needs to be done to meet a deliverable, and dates for each item). Frisch said he can provide that next week and Herwick said he will bring in the check for the food service permit on 1/25. Fantasia said the deli operation was inspected in November, finding several deficiencies which were corrected prior to a re-inspection in December. The food service operation is currently in compliance with the Food Code. The Board agreed that a 2023 Food Establishment License could be issued once a completed application including fee was received and an action plan and timetable for addressing the well problem.

2. Adjourn

The meeting adjourned at 20:23PM, the next meeting is 2/8/23.

Respectfully submitted,
David Erickson,
Recorder