

BOARD OF HEALTH MINUTES
41 Cochituate Road Town Building
June 5, 2017

The meeting was called to order at 7:00 p.m. Present were Elisabeth Brewer (EB), M. D. Chair, Susan Green(SG), Brian McNamara(BM), John G. Schuler (JS) M. D., and Arne Soslow (AS), M. D. Also present were Julia Junghanns, (JJ) Director of Public Health, Health Agent/Inspector Darren MacCaughey, and Patti White, Department Assistant

7:00 p.m. Public Comments- there were none

7:05 p.m. Review report and information regarding repairs to the Wastewater Treatment plant at Wayland High School- possible guest from O & M Company, Whitewater, Inc. and/or Facilities Director

Ben Keefe and Chris Hayward- Whitewater are in attendance.

Chris Hayward provided a summary of the report that he had submitted to the Board dated April 18th regarding the chain of events at the Treatment facility. Wastewater took over operation from Weston & Sampson in 2015, the contract for services was rebid at that time (3 years operational) they noticed some irregularities, but most monthly reports were within limits. In the fall of 2016, the operator of the facility went out on medical leave and Chris took over to train the new operator. At that time, he noticed pressures in Ultrafiltration side of the plant were too high, and in an effort to correct this, the system was cleaned and flushed without success. Mr. Hayward then contacted the manufacturer and they did some testing to locate the issue, followed with more cleaning and flushing. Discharge was turbid, should be clear with slight yellow hue. Conclusion: ultrafiltration membranes were no longer viable. The decision was made to pump and clean all the tanks, order and install new membranes and when they brought the system back online but the pressures were still showing high pressure. They then sampled sludge, (turbid liquid) and found great amount of solids, they cleaned the sludge tanks and removed solid particles. They discovered a problem in the Aeration tank manifold with rubber sleeves (bringing in air) breaking down. In researching the problems they discovered that the rubber sleeves were due to be replaced 3-5 years, these were now due to be replaced.

Possible solution to sludge- instead of the rubber sleeve, use a molded piece that allowed aeration and does not need to be replaced (this product would be available outside the USA- we could consider using this new product) or use a US product?

Tanks should only need to be pumped and cleaned every 8 to 10 years, however, pumping more often can help reduce the buildup of the sludge to prevent the sleeve problem.

The system has been pumped twice since March 13th. If we stay on top of maintenance and keep with the suggested pumping schedule and replace the sleeve, and/or pump out entirely or pump out and keep at least a few thousand gallons to replace in tank after cleaning(as seeding).

Evaluation was done for R/O and needed to replace membranes due to other failure.

The system was fully back online for almost 3 months, they have continued to monitor all systems closely. All was going well until recently. On the Ultra filtration side, there has been a pressure point rising, not yet out of range. This is an issue that needs to be watched so the same thing doesn't happen

again, and/or more damage or repairs needed. The system was drained and in the membranes they found shredded toilet paper; this paper is not being shredded to a fine enough level. The Waste enters a pump station, then to an equalizer tank (both have grinder pumps to break down solids) this keeps it from sticking on face of membranes and possibly inside. It appears there may be toilet paper inside the membranes. A solution that was suggested was to possibly replace impellers in grinder pumps (6 pumps total). Or there could be other solutions (either grind things more finely, or less fine and pump more?). The membranes should be fine, the pressures is not so great to damage them at this time. There is a pre discharge which appeared turbid and should be clear with slight yellow hue. The bar filter is not tight enough to keep the shredded toilet paper from getting through. Are the tanks large enough for this system set up (do solids and paper have enough time to settle?).

Some research needs to be done to figure out what will be the best fix to keep the toilet paper out of the membranes.

Whitewater has been operating the same system minus the r/o (reverse osmosis) system in East Bridgewater since 2016. Are their pumps macerator pumps? Have they replaced the membranes in the 3-5 year timeframe? What are the differences/larger tanks?

Was the problem at the High School due to floor stripper? Chris had conducted a tour of the school looking at the products the school was using and what the protocols were for floor cleaning and stripping. He was not seeing the bacterial die off that would have happened if there were chemical products introduced into the system. They cut up the filters that had failed and they did not show chemical products. It doesn't appear that there were chemical products to blame for the problems at the Treatment Plant.

JS: feels there is a product design or problem has been caused because of no recommendation by the operator.

Brian: ask them why the system is not working properly; what is the problem with the toilet paper

Chris: we will look at contracts –Bio-process provided equipment. Who/what company did the installation? Look at the specs and see if they installed as specifications, and talk to Bio-process. Why is the system not operating as designed? Ben will contact Bio-process, Mfg. and potentially the design engineer and ask them to meet to discuss and meet with Chris as well as explain to Board.

8:00 p.m. Review existing WBOH Policies: policy for Innovative and Alternative Technology use and policy for construction projects requiring septic system variances from BOH regulations.

8:00 p.m. Dr. Soslow has left the meeting

There was a discussion regarding the current Wayland BoH policy for construction projects requiring septic system variances from Board of Health Regulations, based on the number of bedrooms and finished square footage. The consensus of the board was that the policy is not really what the board would like to keep in place. The square footage of a home is not an area where BoH has any regulatory authority. The ZBA is really where the oversight of the square footage of a home should be governed, although some properties can go below the radar if ZBA is not triggered. Our regulations for building projects stem from Title 5, the State Environmental Code and Town Regulations for On-Site Subsurface Sewage Disposal Systems . This policy was basically created due to one particular project that was problematic in the past, where ZBA was also not triggered. Since then, department staff have been doing very detailed reviews on building projects.

EB: motion to rescind the current Wayland BOH policy for construction projects requiring septic system variances from Board of Health Regulations, Based on number of bedrooms and square footage.

Approved by BoH 4/24/2012 Second JS vote 4-0 all in favor.

8:15 p.m. Policy discussion- Policy on use of active and passive Innovative/Alternative (I/A) technology

There was a discussion regarding leaching area sizes, State versus local, and using passive I/A technologies as compared to a conventional pipe and stone systems. Darren has drawn a diagram showing leach area sizing requirements as dictated by State Regulation & Local Town sizing regulations, comparing conventional pipe & stone systems to I/A systems.

The diagrams demonstrates that a leaching field sized per our local regs (designed at 165 g.p.d.) versus using a passive I/A technology (with state allowed up to 40% size reduction) still provided a larger system area than what the state regulations would require alone.

Brian: what do you and Darren think of passive innovative and alternative technologies? JJ: I support the use of these types of technologies, it is more common practice now than when these technologies were first introduced. Darren: Around the year 2000 it was new to Massachusetts and considered progressive. JJ: back in 2000 we were cautious about what we would allow to be used in town. Steve Calichman was a bit leery of these technologies at the time and felt more comfortable with the conventional stone and pipe systems. That was 17 years ago and now these passive I/A technologies are much more commonly used. Passive I/A systems that are being used for difficult lots due to poor soils, shallow depth to ledge, smaller lot size, etc. and this is a good tool in the engineering tool box to enable them to engineer a solid design protective of public health and the environment. We have seen some problems with installers being able to obtain good clean natural stone locally and assuring that it good quality/clean of fines. Stone beds are more costly, taking into consideration the price of the stone and manpower to work the stones in the trenches.

There was a discussion regarding the difference from state versus town sizing regulations and the credit for the use of the passive I/A systems.

BM: Motion to allow septic systems using Passive I/A technology to be designed using 165 g.p.d. per bedroom but rescinding the square footage necessary to meet the local standard and default to Mass Title 5 State Regulations. Second EB vote 4 in favor 1 opposed (BM)

9:20 p.m. Approve minutes of May 22, 2017,EB: table minutes to next meeting.

9:21 p.m. Appointments for Inspector of Milk, Sanitarian/Health Agent , Food Inspector, Animal Control Officer

EB: Motion to Appoint Julia Junghanns as Inspector of Milk, Darren MacCaughey as Sanitarian/Health Agent, Beth Grossman as Food Inspector and David Poirier as Animal Control Officer for the Term of 1 year – July 1, 2017 to June 30, 2018. Second Susan Green, vote 4-0 all in favor.

Bills have been signed. The Director's Report has been reviewed.

The next meeting will be scheduled for June 26th

Wastewater treatment plant update

9:25 p.m. EB: motion to adjourn Seconded vote 4-0

Respectfully submitted

Patti White

Department Assistant

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APPROVED 07/17/17