

BOARD OF HEALTH MINUTES  
41 COCHITUATE RD- TOWN BUILDING  
AUGUST 14, 2017

The meeting was called to order at 7:08. Present were Susan Green (SG), Arne Soslow, M. D. (AS) and John G. Schuler, M. D. (JS). Also present were Julia Junghanns, Director of Public Health and Patti White, Department Assistant.

**7:08 p.m. Public Comment - There were none**

**7:08 36 Barney Hill Rd.- Animal Keeping Permit application to keep chickens, owner Marie Sondey**

Requesting to keep up to 16 chickens, the coop and run design have been presented, the chickens will be closed up at night. The enclosure will be solid on 4 sides and will be fenced with chicken wire. There will not be any food kept outside. The homeowners have been composting kitchen and garden waste and have not had any odor problems. They are planning to add hay and shavings to the chicken waste and compost also.

As per the owner letters were sent to abutters, green cards have been returned except for one letter that was not picked up. One letter was received from the neighbor at 38 Barney Hill Rd.

Staff reviewed the package after meeting with the owner, and a site visit was done to confirm distance and location of the coop, run and the location of waste and composting was reviewed. The size of the property is just under 1 acre (.93), town regulations require 1.0 acre. The location of the coop is in the woods in the back of the house, surrounded with trees, the adjacent homes are not visible.

**AS: motion to grant the waiver request, due to undersized lot, for chicken keeping at 36 Barney Hill Rd., according to the plans submitted with the design for the coop and fencing. Approval is for up to 12 chickens.**

**Second- SG vote 4-0 all in favor**

**7:25 p.m. Update on High School Wastewater Treatment Facility**

The Health Dept. was on copy of the letter of response from the School Superintendent regarding a letter they received from DEP dated June 27, 2017(the letter was drafted by Town Engineer, Paul Brinkman). The letter from the town is dated July 27, 2017.

Staff feels the proposed solutions are reasonable and the remedy of the chemical tanks, JJ had some questions regarding the response. The space was built out when the plant was constructed and there is really no extra space for changing the layout/improved storage of the chemicals and/or secondary containment.

JS: Do you have any update on the questions regarding the rising pressure that were discussed at a prior meeting attended by Whitewater? JJ: I know there was a meeting planned to discuss the issues with the rising pressures, I do not have an update. JS: The students are due back in 3 weeks and I am concerned that these issues have not been addressed. JJ: The letter is in regard to compliance issues from the DEP WWTP permit, and the issues we want answered are being handled separately.

Questions were posed regarding the sampling as called out/questioned by Dep requiring the response.

SG: Will the sampling, give us any information regarding the pressure issues? Will the sampling reports give us any signs that there may be a problem going forward, even if the samples are within normal ranges?  
Do we need a professional consultant to advise?

Tom Sciacca (TS)- Rolling Lane-- Past member of the Wellhead Protection Committee – The Happy Hollow wells are the most important in town. The HS WWTF is right near the Zone I and in Zone II and capture zone. These wells are not high in Iron and manganese which can be a problem with town well water, so they should be protected as well as possible. Very sensitive area. TS was involved in the process to study and identify the capture zones surrounding the wells(where the water is drawn from), a sensitive area around the wells, it is important to understand that the capture zone expands and contracts with the weather conditions.

JJ: I have met with a member of the School Committee (Jeanie Downs) and she said that they are aware of the situation/problems at the facility and have been kept in the loop by Ben Keefe, Facilities Director.

The manufacturer, the O & M operator and the Town Engineer were planned to meet to discuss this further.

AS: we are looking to find out how the system will perform with the coming school year? We still do not have the answer as to what else can be done to prevent this from happening again. SG: let's keep this as an agenda item to stay apprised of the situation. JG: I think this needs to be a priority to find out the answers before the students come back and the system is under a full use load.

**7:45 p.m. 113-119 Boston Post Rd.- Cascade Wayland Ch40B Affordable Housing Project- review project and plans received- provide comments to ZBA**

Steven Zieff (SZ), John Suneeth (JS) and William Doyle P.E. (WD) are present to present the plans and speak regarding the project.

Soil testing has been done and witnessed by department staff. Also, an application has been submitted and approved for scope of work with MassDEP (basically it's preparing to do soil testing/hydro geo study for the project and beginning of process for Dep reviews & approval process for a WWTF/discharge permit). However, JJ spoke with Dep and they have not heard from anyone since July and nothing has been scheduled with them for soil testing.

JJ: prepared a draft memo of comments for ZBA for review and comment by the BoH this evening. The plans submitted do not show the full 18 soil test holes that were witnessed, there are two in the area of the proposed leaching area, that are not shown on the plans. Presenting a smaller version showing the full location of test holes. We do not yet have a detailed design. JS: is this area large enough for this proposal? JJ: This proposed project is not a zone II and there is no requirement for lot size. JJ: We cannot approve anything at this stage, we do not have a full design. There is a high ground water table, Pinebrook is very close, seasonal high groundwater is as high at 36", there are some soils of sand, sandy fine loam and some poorer soils that have been identified. Perc rates are between 2min per inch to 16 min per inch. SZ: The septic area have been designed with an "Emperical" flow. SZ: will come to board and ask for relief to use 110 gpd and not 165 gpd and there will be no grinders.

WD: We are working to design 89 bedrooms at 110 g.p.d. (state regulations) for primary and reserve areas, The design is based on the soil conditions. We are exploring the idea for a third leaching area closer to street Fred Talkington to do ground water discharge analysis designed on 110 g.p.d. showing 2 leach areas with reserve and one possible in the front, distances to the stream have been met. JJ: I see the leach area at 59 feet from the closest point. Our Regulations require 100' offset to wetlands for systems over 2000 g.p.d. The comprehensive permits ask for waivers. To include the BOH opinion regarding the 110 g.p.d. vs 165 g.p.d. and the 59' to wetlands as opposed to 75'.

JJ: They may be proposing to use I/A technology to provide greater treatment; are the items on the design that appear to reflect that. WD: we are proposing standard tanks to standard treatment and then to standard pipe system. We will look at adding an I/A system and some of that is still being decided.

TS: as a representative of Sudbury, Assabet & Concord River Stewardship Council; Pine brook is a tributary to Sudbury River. Pine brook is cold water stream; with native brook trout as such it deserves highest degree of protection. There are concerns regarding chemical or biological contamination and heat, are problems with a cold water stream, it would be helpful if the leaching field was in the front of the project furthest away from the stream.

SZ: We are dealing with a fairly significant disturbed soils; building footprints- current- gravel and pavement and foundation drains, that have been in place for many years, we will be improving over the existing conditions.

JS: what is the impervious % of the 6 +/- acres? SZ: it would be a reduction of the current buildings and pavement, we are at same and or reducing the impervious area in areas conservation is concerned about. We will have to work with the Conservation Commission (ConsCom) to protect the river.

TS: the issue of the location of the septic system to the brook, I suspect that the ConCom will not be waiving any of their distance requirements.

JS: why are you not putting the system out in front? SZ: There are several reasons that the system cannot all be located in that area. We have been frustrated with the design. This will be a mounded system, and we felt that it would work best with the layout to have the raised system in the back of the property and if we need to add the front area, it will also be raised potentially even more. We will be working with the groundwater monitoring wells

SG: it sounds like the WWTF would be the best for the area for this project. SZ: we are trying to balance costs with performance there are significant costs associated with including a WWTF. WD: there will still be significant costs.

JJ: there are discrepancies with numbers that have been provided; Comprehensive Permit Application (page 4) says 96 bedrooms,(10,560 g.p.d.), when I called the Mass Dep, they said they had not heard from you since June. Nothing has been scheduled yet with DEP to look at Hydro Geo/soil testing on the site. JJ: In the end we will need detailed septic design, showing the detail in the number of bedrooms being designed for. WD: the system shown on the site plan was designed on 90 beds, which keeps it below 9900 g.p.d. SZ: 89 bedrooms will match 9900.

JJ: Details from the architectural drawings show a total of 96 bedrooms. WD: we were looking at this several ways, will it be WWTP or septic system, so there are some discrepancies. BD: this is a three story building, it has been brought down from the original design of 4 stories. The cost of a WWTP would require us to add another floor to the building to make it worthwhile, so we are working towards a septic design with I/A "enhanced" Treatment.

JS: this is presented to be apartments, will these someday become condos? SZ: the Comprehensive Permit will not allow that. JS: I am trying to look down the road to be sure that this system will function for a long period of time, the request to design at 165g.p.d will be over sized and will last longer. SZ: that is why we are looking at using an I/A system with a quality operator that will keep the system working longer. JJ: what are you looking to use for I/A technology? Some type of sand filter is being considered. WD, we are designing the plans to allow us to add I/A technology to be able to include concerns being voiced here.

TS: The Sudbury River is nitrogen limited, it is not known about Pine Brook. WD: right now we have not defined the type of treatment and the type of I/a system, we will be finalizing that as the plans go forward.

AS: how do we factor in the maintenance costs for the system? JJ: The owners will have an O & M plan, costs will be included in the tenant/resident fees. SZ: It is an operational cost that is figured in like other costs to operate the building. JJ: this will be an active I/A approach. SZ: the biggest cost of a WWTF is the electrical, with the blowers, pumps etc. The reason for the I/A is to increase to a higher level of effluent. JJ: Would you consider installing the reserve areas at the same time as the primary? WD: you can add the request to your letter, but we had not planned, as we plan for this system to last a long time and there will probably better technology at that time. AS: How is the run off from impervious area being addressed? WD: We are reducing the impervious areas, to reduce the surface runoff to the river. We have created bio retention areas to a treatment basin and to the stream (drains that go to an infiltration basin near the brook). TS: Have you considered using an impermeable pavement? WD: We only have two areas with pavement, the circular drop off area in front and the driveway across the front around to the side entrance of the parking garage. JJ: what are the soils like in the area where you are proposing the drainage area? It does not appear that soil testing was done in that area. WD: we are not planning to retain and infiltrate a large amount of runoff, as we have reduced the volume and rate of runoff. JJ: Has a drainage study/calculations been done yet? BD: We know this will be required by ConCom and we will have that in the full report to ConsCom. Some work has been done, that will be done by Beals and Thomas.

**8:30 p.m. Provide comment/feedback regarding potential STM Warrant Article- Wayland High School Athletic Master Plan; including new Artificial Turf Field (added to agenda)**

Kathy Steinberg, representative of the School Committee had reached out to us/BOH regarding the warrant article and WHS projects, she has joined the meeting to provide information and answer questions. The School is asking for design funds for an improvement plan on the athletic facility. 1<sup>st</sup> plan is to renovate stadium and bleachers. Recommending to move the artificial turf field slightly north outside of zone 1 and improve drainage, which was never done properly for the existing field. K: the current artificial turf field was installed in 2007 and is at/nearing the end of its life expectancy. They are working with a consultant to look at types of turf and consider the infill of the artificial carpet in hopes of using the best product available. JS: What will that product be? KS: there are other products available other than crumb rubber, I don't know how they are weighing the factors. We are hearing concerns and they have been shared with Weston & Sampson who is the project engineer/consultant. SG: Is this definitely going to be an artificial turf field? K: Having that field as a turf field is what they are hoping for. They need a field that would be able to handle the proposed activities/heavy use, it is estimated the turf field gets 6 hours a day of use. Grass fields cannot handle that much activity and not during spring

season. We would need 3 grass fields to handle the activity one artificial turf field can handle. We are scheduling public forums regarding synthetic vs grass, we will share the dates with the board. There are different scenarios and plans. Plans were referenced and reviewed, there are different scenarios being reviewed and considered as well as associated costs. Scenario 2 would be to swap tennis courts, renovate basketball courts. The swap would move the tennis courts out of Zone 1 and would be renovating the softball field.

There was a discussion and everyone was looking at plans showing the location of the existing fields and courts and what would be moved and to where it would go. There are wetlands nearby and the Sudbury river watershed, which are being considered with regards to possible moves of fields. The project will need to go to conservation and apply for NOI. However, they still need sign off from the existing turf field/compliance which they will be working on. They are currently looking at stadium and softball and tennis swap. Also looking at adding synthetic field at Loker Recreation on Rt 30 (former DOW) and have heard from boards to have comments for the design process. JS: The crumb rubber infill is of concern to us. In the news for several years, the science behind the worry is not proven but there are anecdotes that are of concern. There was an article written regarding a large group of children and adults who had lymphoma; primarily soccer goalies, with their faces to the field, getting crumb rubber in their faces and potentially ingested. Concerns for the potential correlation/association with this cancer, the number of incidences/cases, and the goalies exposure to the crumb rubber. 60%. The concerns arise about the composition of the crumb product, from tires, and the contents are not completely known. In addition it is not known how the rubber is impacted by the heat of summer days. Organic compounds when heated could become volatile and be inhaled. The crumb rubber can also be run off the fields and contaminate the water, arsenic and cadmium are a concern. There have not been any conclusions from the studies. I would like to suggest that I will not be in favor of this project that would be including a crumb rubber infill. I understand the need for the artificial fields, but I feel there are enough questions regarding crumb rubber to be decided now and not later. SG: this is a design request. JS: I understand the alternative options are more expensive. Do you know the options for other fill? TS: Regarding heat, I researched the thermal issues at the time the existing field was being considered. I went out and took heat tests after installation and I was showing temps up to 163 degrees. Looking at current information, there has not been a lot of progress regarding the heat issues. Infill acts as a conducting insulator. Turf fields regardless of the infill, the energy is concentrated at the surface of the field and produces the heat. The 3<sup>rd</sup> issue is the mechanical issues, when you put torque on the foot to pivot on dirt, you tear grass and disturb the soil. On a turf field, you will not affect the turf, it is said to cause a higher rate of knee and ankle injuries. JS: I have spoken to some orthopedic doctors and they are not seeing the numbers to support that. TS: there are health issues with these fields. JS: what are the runoff concerns with this being so close to a zone 1. TS: Having done the Capture Zone study, when the first field was proposed 10 years ago, The hydrologist was doing measures of the ground water flow. Part of the settlement with DeP made with the Wayland Boosters, there was to sampling done of the runoff, the sampling was to happen at the outfall pipe, but the drainage system was never functioning and sampling has not been done. TS: I checked after several storms after the field was completed and there had been significant rain. Drain tiles were installed under the turf to drain to a swale away from the Zone 1. KS: That will be one of the larger cost items, to keep it where it is (was a consideration, but not now) by not moving, there was still the drainage problem to correct. TS: there is a third part of the proposal—complaints about grass fields not working properly. It is not about maintenance, the fields were never constructed properly. Weston and Sampson has laid out a plan with drainage layer with real top soil (at least one foot, preferably two feet deep) this would allow the grass to grow better to tolerate the use estimates. Kathy: if you are going to invest in the drainage, top soil and fields you need to be sure you will be maintain the fields properly. SG: There was talk about locating a field by middle school? KS: Recreation is looking at a possible small field behind the proposed library. JJ: At the High School will there be any change to the concession stand? KS: the concession stand is not part of this plan, that has been deferred to later time.

**JS: I recommend strongly that crumb rubber not be used in the turf field and that alternative fill should be looked at. Second AS, Vote 3-0 all in favor.**

TS: How do we Protect the wells? Since the artificial turf field was built at the High School, there were 3 instances of bacteria hits in HH wells, it is not known where they came from, possibly goose poop on the field. Drainage consultant Lisa Eggleston had recommended to put a monitoring well between the field and the wells to see what is happening with the water drainage coming from the field. There is a well up gradient (not being monitored presently) (not sure if it was ever monitored?) I also have suggested building an underground wall as some type of barrier between the edge of the turf field and the wells, it is not 100% but close. Hydrogeologists say a clay layer in the native soils exists that slopes to the wells, from the edge of the field, 10 to 15 feet deep. The natural flow of the water will be toward the river, the wells divert it (from drawdown), but with a wall, it would redirect it toward the river. KS: I will go back to the School Committee and let them know of the vote on crumb rubber. A engineering consultant is working for them and looking at the turf field relocation and wellhead protection area with regards to their project plans and how they are planning to protect the wells.

**9:15 Updates on legal orders: 10 Shore Drive (housing) and 258 Commonwealth Rd. (septic)**

10 Shore Drive- Staff did a Site visit today, some clean-up has been done, the owner of the property explained that she has health issues exacerbated by heat, hoping to be able to do more with cooler weather to come. She is asking for an extension into October. We will continue to follow up and visit site to keep the process moving. The property is in violation of the State Sanitary code regarding keeping property free of refuse and nuisance.

258 Commonwealth Road-Failing septic system status update. We have witnessed soil testing and the septic design is being worked on by an engineer. There are tenants residing in the house at present, however we have not seen any evidence of breakout.

Directors report is being reviewed.

**9:20 p.m. 11 Hammond Rd., request for waiver of septic permit fee for town affordable housing project.**

JJ: right now the costs being discussed are for internal staff work on a residential project, if there are outside costs due to a larger project or commercial project (consulting fees?) to be considered, then would like to review this again. We do not know at this time what the project will be.

**AS: Motion to waive the application fees for 11 Hammond Rd. Second SG vote all in favor 3-0**

**9:22 p.m. General Business- Approve minutes of June 26, 2017 and July 17, 2017**

**AS: Motion to approve minutes of 6/26/17 and 7/16/17, as submitted. JS second, vote 3-0 all in favor.**

**9:25 p.m Discussion regarding comments for Cascade:**

JJ's draft memo of comments to the ZBA was reviewed again and referenced for potential updates/edits. AS would like to have more specific info regarding the I/A system proposed and/or considered, he feels the Wastewater Treatment Plant should be the preferred design for this large sized project on a lot that is so small. He would need to hear more about the design proposed and what type of technology if not a treatment plant.

SG: concerns with proximity to brook, environmentally sensitive area, and additional runoff JJ: they could reduce the size of the project, all agree it is very large for this small lot. AS: 110 g.p.d. vs 165g.p.d. is huge difference in size for that large of a project. JS: how is there less impermeable surface for this building less than what is there? JJ: I am still trying to understand exactly how many units there are going to be, there are discrepancies on the documents I have seen. DEP application is 9,900 gpd. (90 beds) The plans that we saw that show the size of the leach fields, it is 9900 g.p.d. AS: I would like to see calculations regarding the current impermeable surface vs the surface for the building. There is no information to prove that they are reducing impervious surface as they are suggesting.

AS wants them to provide a WWTF and wants to know what is the footprint of property regarding the impervious surface numbers, also consider thermal impact for pine brook spring. JS: locate the leaching field closer to road.

Next meeting date: August 28<sup>th</sup> or 9/11, ZBA hearing will be on 8/22

**9:35 pm JS: motion to adjourn second AS vote 3-0 all in favor.**

Respectfully submitted  
Patti White  
Department Assistant  
081417minutes  
APPROVED 092517

