

MINUTES

PRESENT: M. DeSapio
T. Kratzer
P. Lubitz
S. Stryker

ABSENT: R. Phillips

CALL TO ORDER

The meeting was called to order by M. DeSapio at 8:01 PM.

NOTIFICATION

In order to ensure full public participation at this meeting, all members of this Board, and members of the public are requested to speak only when recognized by the Chair so that there is no simultaneous discussion or over-talk, and further, all persons are requested to utilize the microphones which are provided for your use by the Township. Your cooperation is appreciated.

Notification of the time, date and place of this meeting has been published in the Hunterdon County Democrat, Courier News and Express Times and has been posted in the Kingwood Township Municipal Building at least 48 hours prior to this meeting and has been filed with the Municipal Clerk.

NEW AND PENDING MATTERS

Blumberg – Block 19, Lot 3.04 – Alternate Septic Design Review

D. Fine was present on the application this evening. In March, T. Decker requested additional soil testing. There has been a lot of testing done post subdivision. Mitigating factors after the creation of the lot have wiped out the original soil testing. The original testing was in the wetlands transition area. There have been several different engineers since the beginning of the subdivision. R. Grant was the engineer who did the subdivision. It was then taken over by Stires Engineering and they finalized the subdivision. When the applicant's engineer applied for the permitting, they realized the soil testings creating the lot were no longer valid. Stires Engineering went back and did some testing as well as R. Grant. The engineer for the Township also changed. He stated the change of the witnessing for the Township had changed for the better. It was determined the mottling was too high on the property. He went to another area and basically came up with the same results. There is decent permeability in the ground to sustain the system. The mottling indicates the water table to be shallower than 24". They need to apply to the DEP for a Treatment Works Approval (TWA), which is a waiver from the state code. The state code defines the limitation for the water table as a maximum of 24". He has appeared before the Board with peat systems when the house has already existed. The only condition requiring a waiver on the property is the 24" mottling. Since he is using a peat system to provide treatment, he is taking advantage of some size reduction on the disposal field. Wastewater treatment shall be provided by four PuraFlor Peat Biofilter Units which shall make up 30" of the 48" total zone of treatment above the water table. The units are located atop 18" of suitable fill and then the disposal field will be pressure dosed via the proposed pump chamber. The entire zone of treatment in the peat units are above the regional water table and zone of saturation. The design provides a treatment above the water table through the peat units. There have been many TWA in the past for the situation where engineers have proposed mounded septic systems providing a 48" zone of treatment above the water table by a conventional pressure dose or gravity dosing type mound with 48" of select fill above the regional water table. In this case, he is looking to do at least as good as that and provide at least the same protection of select fill. In looking at the effectiveness of the system, it requires maintenance

every six months, which is recommended in the guidance documents and is a stipulation of the TWA requirements. The DEP may recommend but this Board can require a deed notice. The deed notice tells all interested parties that the property contains an advanced treatment system which requires maintenance. Copies of the maintenance records must be kept on file and up to date with the Township and County Health Department. The purpose of the notice in the deed is so it cannot be forgotten and will show up in a title search. The system provides better treatment to the wastewater. The system contains multiple chambers, one for each bedroom. The wastewater is released in small doses. It provides an aerobic treatment, which is passive, with a high level of dissolved oxygen to the effluent, which makes it easier to dispose of and move through the ground. The system is no longer putting in bacteria and waste into the ground. It treats the water first before release into the ground. There are no known side effects of the system that would cause someone to say these systems do not perform as good as a conventional system. It does have a finite life span. The filters are made out of peat fibers. It is a real hardy root. The life span is 10-15 years. A requirement of the maintenance contract for the life of the system is to monitor the life of the peat. When it has been determined it has degraded enough, through the sampling chamber, the peat is removed and replaced. The maintenance contract is required to be renewed on a yearly basis. An approximate cost of the maintenance contract is \$300-\$350 per year, which provides for two trips to the property, checking out the whole system, checking the pumps, floats, filters, timers, degradation of the peat, looking in the inspection ports to ascertain if the field itself is working and cleaning the effluent filter in the septic tank. It also requires the testing of the PH and turbidity, which is a measure of clarity. Normal operating peat has a very pale color. Once it starts to degrade it will have a darker color. Verification analysis of BOD and dissolved oxygen is done. He has not seen any problems in the systems he has designed. His oldest one is just five years old. The designs of all three manufacturers are doing very well. The advantage of the system is that there will never be a catastrophic failure as in a conventional system. Someone will be testing the system every six months. If something is not right, it will show up on the report. The guidance document requires that an annual maintenance contract is in place with two inspections per year with an authorized provider. With the conditions currently existing on the lot, this lot would not have been permitted to be created. Protocols have changed in the Township. T. Decker and R. Vaccarella from the Hunterdon County Health Department mentioned to him that Kingwood is the only town when you apply for a subdivision that does not require Hunterdon County Health Department review of the soil testing. When he reviewed some of the information, he feels R. Vaccarella would have caught some of the problems. He has provided all the information T. Decker requested. He responded to T. Decker's letters of March 9th and March 30th. On the plan he added a sheet that put together all the previous soil log information from Stires and AzMarc Associates from 2006. The additional sheet indicates all the retest attempts to find a more conforming area for the septic. Based on the previous testing, he cannot identify a better conforming placement of the septic system on the lot. When he first applied, he talked about the uniqueness of the situation. He thinks this is a good solution to an issue that maybe Kingwood Township had in the past and maybe shows that additional issues might be needed to be done in the future to avoid any further problems. At the end of the 15 year life span, the peat will have to be replaced. Most pumps last 8-12 years but some may go for 20 years. The system might have a pump failure but there is an alarm with a telephone auto dialer. The maintenance provider will know as quickly as the homeowner of a pump failure. Peat fiber lasts 10-15 years and degrades a lot slower than sphagnum. With the required maintenance, every single component of the system is checked. You can tell when there is a problem with the septic tank. It might have a strange odor or color. If the homeowner is doing something wrong, you will know it. All peat manufacturers are required to guarantee the treatment capability of the peat for five years. There is a vertical tube that will allow you to judge how well the tank is operating. The rule of thumb for pumping the tank is every three years. A conventional system can be designed for the site but would still need a waiver from the DEP. He has worked closely with the DEP with new technologies and it would be advantageous to use them in these situations. If effluent breaching occurs, it has already been treated. You would be hard pressed to find fecal coliform in the breaching effluent unless the peat has failed in the treatment area. It is not a true malfunction or health hazard. The system is protecting the health of the residents and ground water. There are no solids left in the effluent. Peat replacements, today, cost approximately \$3,500. There is some data available but the DEP does not require it to be turned in. He has

not had the need to pull any data. The NSF40 units have been tested for their ability to treat in residential situations. They perform as intended. The systems have been around for about 25 years but only about 5 years in New Jersey. The manufacturers are getting a longer life out of the peat. It depends on the usage. The proposed system is based on a 4 bedroom dwelling. The system is purchased as one unit per bedroom and another unit can be added in the series. There is roughly a 25% reduction factor. There is faster permeability. Some of the systems have been used where there is permeability but some have been used where there is no permeability. The advantage of the system is water is slowly disbursed into the field. It is a time dosing system. There is a holding tank which releases a smaller amount of water. If there are seasonal effect saturated soil conditions, it will be pushed out of the ground and will start to breach the surface. When you have inadequate permeability, the design can be made as a drip disposal. The drip disposal is put on a very shallow bed of sand with drip tubes on top which would not allow it to become saturated. It is installed close to the ground surface and not relying on the permeability of the ground. There is some evaporation. The treatment has to precede the drip system. The drip can be installed in the top soil. There is a tube every two feet and the holes are every two feet. They seem to work well. It is a different approach to dispose of the water. Once you saturate the system, it can remain saturated for a period of time. If you spread out the water for a longer period of time, it would become unsaturated. All additions to homes are considered new construction and require a TWA. He performed four soil logs in the southwesterly corner of the lot. There were ten others scattered on the property. The logs that Stires Engineering did in October of 2006 indicated mottling at 23". August of 2009 was wet. The bottom of the excavation will be at 83". There will be a 72" zone of disposal. The Board expressed concern about the compliance with the upkeep of the system. D. Fine responded the guidance document does require under the Administrative Authority requirements that failure to hold a contract is a specific health violation. The Township would be able to cite them for a violation. The service provider is required to notify the Township.

P. Lubitz stated he was impressed with his presentation. It might be a solution to homes that were built on sites that should not have been built. D. Fine's testimony this evening raises the question of where there might have been a questionable evaluation prior to subdivision. He stated the Board would like to review the information presented this evening with the Board's attorney before a vote is taken that might act as a precedence for all new lots and subdivisions that were granted ten years ago.

It was moved by P. Lubitz, seconded by T. Kratzer and carried to table the application until a review by the Board's attorney can be completed. All members present voted **AYE** on **ROLL CALL VOTE**.

D. Fine will provide the Board with some additional information prior to next month's meeting, as well as a copy of the guidance document. There are approximately 40-50 systems in the County.

Schedule a Well Subcommittee Meeting

The Board requested the secretary to write a letter to the Well Subcommittee to request a meeting be scheduled to discuss the comments from the June and July meetings.

Wastewater Ordinance Committee – Appointment

The Board requested the secretary to include in the above letter to the Well Subcommittee of their interest in participating in a Wastewater Ordinance Committee.

Approval of Minutes

The approval of the July 21, 2010 meeting minutes was postponed until the September 15, 2010 meeting.

CORRESPONDENCE

PRIVILEGE OF THE FLOOR

ADJOURNMENT

It was moved by M. DeSapio, seconded by P. Lubitz and carried to adjourn the meeting at 9:07 PM. All members present voted **AYE**.

Respectfully submitted,

s/Diane Laudenbach

Diane Laudenbach, Secretary