Joint Halfmoon Township Board of Supervisors
and
Halfmoon Township Planning Commission Meeting Minutes
7:00pm November 17, 2009

Attendance: BOS Members: Mark Stevenson, Ben Pisoni, Andy Merritt. PC Members: Lorin Nauman, Jordan Finkelstein, Bob Eberhart, and Larry Fennessey John Stevens, Joe Tylka. Members Absent: Rob Brooks. Others present: Seb DeGregorio, CRPA; Joe Price, CRPA; Eric Vorwald, CRPA; Jim May, CRPA; Don Franson, Halfmoon Township Engineer; Doug Erickson, Patton Township Manager; Cory Miller, UAJA; Dan Hawbaker, Grays Woods Partnership; Matt Harlow, LLA Group; Mark Maloney, Halfmoon Acres (HMA); Gary Lohsi, HMA consultant/ engineer American Water; Neal Campbell, Maloney helper extraordinaire; Jason Terosky, citizen; Becky Brooks, minute taker.

I. Call to order- BOS Chair Ben Pisoni called the meeting to order at 7:13 pm.
II. Attendees introduced themselves.
III. Discussion of HMA proposed Wastewater Treatment Plan. Mr. DeGregorio introduced the proposed Wastewater Treatment Plant presentation. He asked people to save their questions and answers to the end.

Mark Maloney presented a power point. The facility, which will be built in Halfmoon Township, will also serve the proposed development in Patton Township. This system is being proposed because it is “greener”. The following points were presented and discussed.

A. Green Community Objectives. Objectives such as sustainability, minimizing demands on resources, minimizing energy use, (conserving energy), recharging local aquifers.
B. Wastewater Treatment Plant Alternatives. The proposed treatment method is being proposed because Halfmoon Township is not in favor of connecting up to UAJA.
C. Location of the plant. Mr. Maloney showed a map of the proposed plant location (behind the old Simpson barn, they may be able to use part of the barn, the future structure would emulate the structure of the barn) and showed the recharge area (up on the mountain) and an alternative location for the plant (near the organic garden). He showed a diagram of the tank structure.
D. Reuse of treated water. There are 5 alternative technologies. One is alternative is the Membrane Bioreactor (MBR). This system is the most up and coming. It produces a higher quality effluent. He showed a diagram of an MBR. Mr. Maloney also showed a diagram to the differences between an MBR and a traditional system. (The MBR has a considerably smaller footprint.) DEP has come out with

new regulations. Reuse is an important component because water is a valuable resource. Water from this system can be used for fire protection, residential irrigation, decorative water features, clothes washing, toilets, and many other uses.

E. Discussion of discharge location. Mr. Maloney showed a map of the discharge location, and discussed the benefits of an MBR. It had a compact footprint. Odor control is easier. It is expandable to accommodate growth, It is easy to operate, and can be operated remotely. The system is fully automated. The system produces less waste sludge. The effluent is higher quality. Mr. Maloney showed a diagram of groundwater mounding, and groundwater discharge beds.
F. Protection of water resources. There was correspondence (DEP) where there was a question about wellhead areas and Mr. Maloney responded by saying that this system will not adversely affect wellheads. There will be conversations with the Chesapeake Bay Tributary Strategy. Credits will be secured as needed. The developer will seek credits generated locally.
G. Regulatory roles and responsibility. There are 5 regulatory bodies involved: PA DEP, COG, Centre County, Halfmoon Township and Patton Township. All of these will have some level of involvement. DEP will: provide permits, insure Act 537 consistency, determine the type of discharge and treatment, examine ground water modeling, issue NPDES Permit for plant design, oversee WQM permitting and construction, determine the possible issues of the location of reuse discharge. Halfmoon Township (and in some instances, Patton Township) will be involved with location and approval of the system, easements, building configuration, aesthetics and odors, noise and safety, operation and maintenance, additional Ordinances, access, traffic setbacks, etc.

Wastewater approvals. Mr. Maloney reviewed the history and status of the approval process. Halfmoon Acres has submitted a model report for Patton Township. Mr. Maloney is hoping that the Halfmoon Proposal will be similar.

Modeling Efforts - 2009, and current status. The current proposal shows AWM modeling calibration, new model features, accuracy, Patton Township - phase one, addressed DEP letter dated September 4, 2008 regarding HC testing, geologic testing groundwater, modeling and “breakout”. Issues have been addressed in the Patton Township response.

Goals and responsibilities. HMA intends to fully cooperate with the 5 regulatory bodies, and they hope to exceed the expectations of these organizations.

Additional benefits. Additional capacity for Halfmoon Township will be incorporated into the initial planning of the system. (The next Act 537 revision and compliance is scheduled for 2011. Mr. Vorwald said that they are constantly updating the act.)

H. Examples of Membrane Bioreactor (MBR) plants. Mr. Lohsi showed other examples of existing MBRs. Mr. Maloney described and showed slides of the tour of the Millhiem Borough Membrane Reactor Wastewater Treatment Plant.
I. Next Steps. Mr. Maloney said that he would like to move forward with the project. He would like to: a) come to an agreement on the MBR plant, and b) move RVZD to the public comment phase.
J. Question and Answer period:

Mr. Pisoni: When will you submit documents to DEP?
Mr. Maloney: We will resubmit the Patton plans which will determine the location of the plant. HMA will need a letter from Halfmoon Township, which would show that the Township acknowledges awareness of, and approves of the location of the MBR plant. The model submitted for Halfmoon Township will be the same and the Patton Plan with an expansion of the system.
Mr. Stevenson: Is there an issue with taking water out of one aquifer and putting it into another?
Mr. Maloney: The distance of water distribution is far less than a sewer system where water can be transported long distances though pipes.
Mr. Stevenson: Do you have to show the process from a hydrologic point of view?
Mr. Maloney: Yes, I believe that DEP may not be concerned about the distribution of water into different aquifers.
Mr. Pisoni: Mr. Miller, what do you think about MBRs? What will you be doing to ensure this MBR works properly?
Mr. Miller: UAJA may end up owning the system, so we would be evaluating several issues. Can UAJA manage the system? What are the backup control systems? What happens if the disposal isn't doing what it is supposed to do? UAJA would do a technical review. What will happen to the biosolids?
Mr. Maloney: the biosolids will be dewatered and taken to a local landfill.
Mr. Pisoni: What is your opinion of the system?
Mr. Miller: I don't have any reservations about the system. It is proven technology worldwide.
Mr. Stevenson: Mr. Lohsi, do you have any current systems that discharge into something other than a stream or such?
Mr. Lohsi: Most of the systems that our company has put in go into the ground. The Mapleton project is 1,000 EDUs, which is similar to this

project. In most situations, for example on the Trump golf course, you wouldn't even know the system is there.
Mr. DeGregorio: Does your company have any in Pennsylvania? If not, why?
Mr. Lohsi: No, it has to do with marketing. It has more to do with what to do with the effluent. These types of systems are just starting to happen in Pennsylvania. DEP has been reluctant to accept a new concept until it has been proven. Construction-wise, it is much more expensive.
Mr. Stevenson: What about instances of heavy rain or other environmental elements? What happens to the system?
Mr. Maloney/ Mr. Lohsi: That information is included in the letter to DEP. This type of system can absorb peek flows better than other types of facilities.
Mr. Stevenson: Is freezing a problem?
Mr. Maloney: No, it is not a problem.
Mr. Lohsi: There is storage, or an alternate disposal method.
Mr. Stevenson: What would be the uses for the water?
Mr. Maloney: The water would be used for public spaces, etc., which would then make the mountain top the "backup".
Mr. Stevenson: What is the process? Would you be submitting to Halfmoon and Patton Township both?
Mr. Maloney: We are not doing another draft submission. Instead there will be a Phase one model submission.
Mr. Stevenson: What is the cost to hook into an MBR instead of a regular system?
Mr. Maloney: It depends- on how many gallons are processed. The fewer the gallons the higher the cost.
Mr. Lohsi: Tanks can be added later. There would be a cost effective analysis.
Mr. May: What is the liability to the Township?
Mr. Maloney: DEP will require a bond set aside for failures. I am absolutely comfortable having UAJA review the project and provide comments.
Mr. Vorwald: UAJA will be required to provide comments.
Mr. Stevenson: Mr. Lohsi, do any of your currently operational systems pump uphill?
Mr. Lohsi: Yes, they all pump uphill. There is gravity used within the system, and then the water is pumped to wherever.
Mr. Tylka: Why is the mountaintop the discharge area?
Mr. Maloney: It is the area with the largest volume. It is a large area for dispersion. In some areas up there it is 200 feet down to the water table.
Mr. Tylka: How far is it to Halfmoon Creek?
Mr. Maloney: There are tributaries that come out of the mountain.

Mr. Lohsi: We will look and see where the water goes and evaluate the process. The goal is to keep it underground so it disperses there instead of into the stream.
Mr. Stevenson: For those of you who were not on the tour, the effluent at Millheim exceeds all of DEPs standards.
Mr. Hawbaker: Sandstone is an excellent absorber, how deep does the sandstone go?
Mr. Maloney: I don't know.
Mr. Pisoni: Who pays for and oversees the project?
Mr. Maloney: There would be a contract between two parties. It is not a Township expense.
Mr. Pisoni: I am hoping it is not a homeowners association.
Mr. Maloney: I agree. Homeowners will receive a wastewater bill.
Mr. Lohsi: The bill to individuals will be based on a tariff that PUC has approved.
Mr. Nauman: Have you established that your water will come from the State College Water Authority?
Mr. Maloney: Yes, the well will be located behind Mr. Hawbaker's house.
Mr. Miller: Let me comment on who could own the system. This is a public sewer system, and it can be owned 3 different ways:

1. It can be privately owned jointly by PUC and DEP.
2. 2. It can be owned by the Municipality, under the Municipal Authority Act (along with DEP).
3. It can be owned by the Township and controlled by the Township and DEP.

We have to make sure to know which set of rules is followed. It is very important to figure out which makes the most sense. It may be different when the project is expanded.

Mr. Hawbaker: Did you say $30.00- $40.00 per gallon? That seems very high. I am surprised.
Mr. Maloney: The cost drops off rapidly as usage goes up.
Mr. Hawbaker. It seems that it would be cheaper to go with UAJA than to go with you (Mr. Maloney).
Mr. Stevenson: How does the cost get absorbed?
Mr. Maloney: We could not saddle the homeowners with the cost. Is hard to make it work? We will have to have faith in the real estate market. We would allocate construction costs to each neighborhood as the project goes along.
Ms Brown: Is the second possible location for the plant also in Halfmoon Township?
Mr. Maloney: Yes, just above the cemetery.
Mr. Nauman: Mr. Miller, where can we get a chart of the control levels and ownership options?

Mr. Miller: There is not a chart per se, but documents are available, it is not a problem to get this information. (Perhaps CRPA can compile this information.)
Mr. Nauman: How will we know if this is a favorable plan?
Mr. May: It will be a public solution.
Mr. DeGregorio: It will be a conditional use.
Mr. Stevenson: When you own a plant like this, what keeps you up at night?
Mr. Lohsi: It depends on the plant. I guess most importantly it would be the changing regulations. It might also be compliance, and failure of an older system.
Mr. Stevenson: Are you comfortable with these systems? Have they never backed up into homes?
Mr. Lohsi: I am comfortable with them. There is a very aggressive maintenance program. No one wants a boil advisory. It is important to have stand-by operators and to keep experienced operators.
Mr. Miller: It was decided several years ago that systems built within the sewer system area must be treated through reverse osmosis. This requirement may have to change.
Mr. Fennessey: Your original discharge idea was rejected by DEP. The system you are proposing pumps the water uphill. Why is the system in Halfmoon? Why not Patton? What if it is not financially feasible? I am uncomfortable with creating wastewater in one municipality and sending it to another.
Mr. Maloney: It was unfortunate that the previous consulting company we were working with made an unfortunate model. They showed a 30-foot deep pond up on the mountain as flooded prior to any effluent. It was improperly modeled. At some point it may be that the water does go into the creek, but we will have to show that the water complies with standards before it goes into a stream.
Mr. Fennessey: Models do not do a good job of representing the conditions, but DEP said that given the existing seeps, water would be increased.
Mr. Maloney: Yes, it will be absorbed.
Mr. Fennessey: Why does the plant need to be in Halfmoon Township?
Mr. Maloney: Because most of the building is in Halfmoon Township.
Mr. Lohsi: We have submitted a model. We can calibrate within 1% of accuracy of what is actually measured on the site. There are copies of the report.
Mr. Stevenson: Mr. Miller, how many years has the reverse osmosis requirement been in place? What is the difference in the amount of water you are dealing with now?
Mr. Miller. Between 1998 and 2000 it was decided that micro filtration was not good enough. It did not filter out drugs and fertilizers, etc.
Mr. Stevenson: How does it figure into your system?

Mr. Maloney. It does not. PA DEP doesn't require it. Halfmoon Township is outside the Sewer Service Area. MBR is the Cadillac of systems and far exceeds any current systems existing in Halfmoon Township.

There was more discussion about the reverse osmosis requirement.
Mr. Stevenson reviewed why the Township wants this district to happen. There are three reasons:

1. To keep development in the eastern part of the Township,
2. To prevent sprawl and,
3. To preserve open space.

One problem is sewage disposal. It is possible that this type of plant would work.

The meeting was adjourned at 9:04 pm.

Respectfully submitted,

Rebecca Brooks