

March 16, 2010

The regular meeting of the Andover Township Land Use Board was called to order at 7:30 p.m. on Tuesday, March 16, 2010 by the Vice-Chairman, Susan Howell.

Present: Members Diana Boyce
 Suzanne Howell
 Gerald Huelbig
 Gail Phoebus, Class II
 Rick Melfi, Class I
 Christine Kretzmer
 CeCePattison
 Ellsworth Bensley
 Paul Messerschmidt, Alt. No. 1

Secretary T. Linda Paolucci

Absent: John O’Connell
 Rourke Day, Alt. No. 2

Professional Present: Attorney Richard Brigliadoro, Esq.

Professional Absent: Joseph Golden, P.E.

FLAG SALUTE - RULES - OPEN PUBLIC MEETINGS ACT

OPEN TO THE PUBLIC MEETINGS ACT NOTICE– The Vice-Chairperson, Sue Howell, opened the meeting to the public and read the rules of the act. The Vice-Chairperson announced that this is a joint meeting of the Land Use Board and the Environmental Commission.

Howell advised that we will be listening to Matt Mulhall of M² Associates give a presentation of his hydrology report and both boards will have the opportunity to question Mulhall and then questions will be opened to the public.

Christine Kretzmer, Chairman of the Environmental Commission stated that this is a joint meeting of the Land Use Board and the Environmental Commission. Kretzmer opened the meeting to the public and read the rules of the act. Roll call was taken: Eric Olsen, Chris Nosti, Christine Kretzmer, Katherine Richardson, Diane Gillespie.

Matt Mulhall of M² Associates Inc. of Hampton, New Jersey stated that Andover Township has requested that he re-evaluate the water resources in the township which report was submitted in December of last year. Mulhall continued that he is here tonight to make a presentation to summarize what was found as a result of that study. He continued that the purpose of the study was because everyone in this township relies on groundwater for their water resources and no one uses surface water for potable supply to meet their water supply needs.

Mulhall stated that concern was raised as to whether or not the areas of resources are protected. Some of the questions raised where – Where do we stand today; Can we support our

businesses and agricultural needs; and ultimately – What do we need to think about for our future planning?

Mulhall explained the hydrological cycle as this is where the water resources are associated with. It starts out with precipitation, which is lost right back up into the atmosphere through evaporation and we have surface water run-off, he stated. In a town such as this where you have high relief or topography, you get a lot of surface water run-off. Mulhall also spoke of what ultimately gets into our groundwater systems. Mulhall said that Andover Township is somewhat unique in the fact that it has both glacial deposits as well as fracture bedrock aquifer systems.

He explained that groundwater run-off is what gets down into soils and basically gets into our aquifer systems. There are also recharge areas within aquifers where precipitation migrates downward into the aquifer system. There are also pumping wells, he continued, that pull water out of it, and in some cases it takes days or years for that water to get into the well. The same thing with a stream, he explained, it could be days or years for that water to migrate quickly and out of it. He continued to explain the different types of aquifers in New Jersey and the migration process.

Mulhall explained the bedrock geology beneath Andover Township and the differences between precambrian rocks and hardyston quartzite, cambrian-ordovician and carbonite rocks. He explained that carbonate rocks are the best aquifers in Sussex, New Jersey.

Mulhall continued that Andover must rely on groundwater resources for drinking water, no one has surface resources available to them, however, the surface resources in the lakes and ponds do become part of the groundwater systems. As a result, of any infiltration, especially in drought conditions, these ponds can lose water into the underlying groundwater. The nearby municipality's resources are protected by exploitation, the concern the township had in the past is what could happen in future and this must be taken into consideration. There are four major ground water systems, some of them are very good, but most of them are not very good. The township has had an experience of direct impacts from the over pumping of water in particular areas. In those particular areas it may not be an area where Andover would want to put something that may need a large water supply, the township would want to put something that will use lesser water.

As you move forward you want to consider the water availability. In the southwestern portion of the township there is some carbonate rock, which is some of the better areas, but you still must be careful about pollution impacts and structural impacts. In existing high density areas, which there are not a lot of that type of area in Andover Township, but if you did, you might want to look at preserving and protecting upgrade areas and forested areas. Basically, he continued, Kittatinny Park serves that purpose for some areas. If you have large diversions, it may be necessary to protect areas to ensure that adequate resources are available to support the aquifer demands.

The Boards members were asked if they had any questions. Boyce questioned Mulhall with regard to his referral to the Limecrest quarry pumping and the amount of pumping that is done a day and whether or not there is a permit for the quarry. Boyce was advised that the quarry pumps 8.6 million gallons per day and the permit will expire on March 31, 2013.

Phoebus stated that she figured it out that the gallonage that is pumped at the quarry daily, it would be 17,000 homes if each home were to pump at 500 gallons per day household. Phoebus continued that she was concerned that the quarry is pumping out the township's aquifer and it is being pumped into the Paulinskill stream, so it actually then becomes surface water which then dissipates and is lost, which has an impact on Andover township residents. Mulhall stated that Andover cannot do much about it other than not considering a major residential

development for that area where everyone will be affected by it. Phoebus went on to explain her concerns with the area and the pumping.

Messerschmidt asked if there was any opportunity to recycle the water that is pumped at the quarry. Mulhall answered "no" and explained the difficulty with it.

Phoebus in discussing the Limecrest quarry, asked Mulhall "if a neighboring municipality wanted to, instead of just doing what they are doing with this, couldn't they do a water company out of this, isn't there a potential for that at some point?" Mulhall answered "yes" and explained how some other areas have done that.

Boyce had further question with regard to possible contaminations that may be done by the quarry pumping and what can be done, if and where it exists.

Melfi questioned Mulhall if there was a benefit to not being designated as being in the highlands area is there any benefit to that as far as our water supply. Mulhall stated that the only benefit would be that Andover has more ability to take control of their water supply, whereas, in the Highlands, the State has taken control of the water supply, therefore it helps Andover to make their own plans for it in the future.

Howell asked Mulhall about his last point stating that there are four major groundwater resources available to the residents and that they should have adequate and safe groundwater and dependable groundwater for several decades providing that Andover does not grow faster than it has in the past thirty years and commercial and industrial diversions do not return to levels equal to those observed prior to 2005. Howell questioned Mulhall what commercial and industrial diversions was he referring to. Mulhall answered "the quarry". Mulhall stated that this has to be taken into consideration in planning as Andover can control what is in its area, but the quarry is there and exists.

Bensley and Phoebus had further questions with regard to the pumping at the Quarry and the water supply.

Diane Gillespie of the Environmental Commission had questions with regard to septic systems and what issues you would need to be concerned with. Mulhall answered that the town would have to take into consideration that when you are allowing septic systems to be built in the township, is there adequate land area if you would need to replace that system. He stated that in many townships they have adopted reserved septic systems ordinances so that in the future the homeowner is not the one getting stuck with the cost of trying to find the location for a septic system. He continued that typically what happens is when septic systems fail, everyone feels sorry for the homeowner and you may get a system built that is not really the best system and in the future the water may disappear. It is best to pump out your septic system every three years, however, most systems will eventually be taken care of, or regulated, by the Department of Environmental Protection, he stated. Gillespie asked other questions with regard to future ordinances, master plan review, gallon calculations, etc.

Gillespie asked what type of measures should Andover start investigating to protect the quality of our water and the sustainability of our water since our neighbors are protected by the Highlands and we are not. Your master plan process is the best way, Mulhall replied. The township does already have some protective measures as with the aquifer protection ordinance that was adopted last year.

Katherine Richardson of the Environmental Commission had a question with regard with Mulhall's report as to *Conclusion #5* and asked if she was correct in her understanding of it is that 85 percent of the township is not suitable for development. Mulhall went on to explain that this is the reason for testing before you put housing and septic systems in.

Howell opened the meeting to the public. Michael Spozarsky of Springdale Garden Road had a question regarding water in his basement and asked Mulhall if the closeness of his home to the stream and pond be filtering through the land and coming to the houses. Mulhall answered that it could be.

Stan Christodlous of Wisteria Road thanked Mulhall for doing a thorough job. He asked a question with regard to the withdrawal of water at the quarry and whether or not he thought it would be wise to limit development in that area to development that would not be a significant drain on water resources. Mulhall stated that he said that it is not an area where the township might want to put a water intensive use. Christodlous had questions with regard to Howells Pond and the changes in the acreage size, and the DEP allowing the type of pumping that is happening at the quarry. Christodlous suggested that the township committee look into what can be done by objecting to the pumping that is happening at the quarry.

John Carafello of Eileen's Way commended Mulhall on his report. Carafello also stated that he believes that there is a distribution problem of the 8.6 million gallons of water a day and he suggested that the township put some sort of density in an area where you can put some sort of city water supply in and during the negotiations request for access to part of the 8.6 million gallons and supply it to the homes to preserve the homes that are already there so that they will not be impacted by any new development as right now it is just being sent down the Delaware. He stated that this can be an asset to Andover.

Nathaniel Sajdak, Coordinator for the Wallkill Watershed Management Program wanted to commend the township and specifically the Environmental Commission in supporting and allowing the studies to occur. He stated that his department is developing a watershed restoration plan that should be released within a year from now and believes that Andover is providing themselves with the opportunity to become better informed via technical and scientific information to allow themselves to make better decisions and believes that this is an important thing. He continued that he is hoping that with the restoration plan that they are working on it will provide answers and information to the township in their efforts.

Ernie Hofer of the Wallkill Watershed Management also wanted to comment on his report which is a "user friendly" report. He stated that he believes that there are three tiers of information that Andover needs to look at: aquifers with respect to regional basis; with respect to township; and with respect to site specific. He stated that his department is undertaking a regional assessment of the aquifers that encompasses not only Andover Township but the neighboring municipalities which will include Lafayette, portions of Sparta, Frankford, Branchville and Newton. He stated that the township will eventually have another study for their information which is the State Water Balance, which is already two years late in coming out. With respect to the quarry, he said, his department is trying to focus and get a better assessment of what pumping at the quarry really means, for example what is the impact of the pumping with respect to regional issues.

He continued, with respect to contamination, his department has examined and tested samples of water at the quarry and found no contamination at the parameters which they had tested at. He stated that there are certain benefits with pumping at the quarry in particular to the water temperature of the Paulinskill. He said that the whole question remains on what is the best value on how to use that water to satisfy a regional need. Hofer said that his study will be available in three months and will share it with the township.

Peter Spinney of Andover Sparta Road asked a question with regard to stormwater detention basins and wanted to know whether or not it could function as recharge basins and what changes would have to be made in detention basin design criteria to change them from minimizing run-off in order to maximize them for recharge. Mulhall said that a detention basin is typically designed to hold storm water and slowly discharge it over time back into the stream. He continued that if you put a sand and gravel bottom on it and don't compact it, keep it loose, etc. this can be an opportunity for water to exfiltrate out the basin, however, typically most of the basins are at a level wherein the water will not necessarily infiltrate down. Mulhall stated that it can be done, but someone would have to plan for it in order to have it done correctly.

Dan Freed of 85 Lawrence Road spoke of the open space referendum and said that the people at that meeting were concerned about two things in particular, wanting ball fields and water quality. This is one of the reasons why the committee pursued the open space, he said. Freed stated that Mulhall's report is a great source of information and encourages the boards to use it.

Mulhall stated that if you look at the DEP regulations you will see that 85% of the soils beneath Andover Township does not meet the criteria for septic systems. Phoebus agreed and stated that her concern is not only for the new septic systems, but also for the existing ones and believes that the State, not only with its proposed new water quality rules, but residents will be made to pump their septic every three years and will have to get a permit to do that and it will get inspected.

Vic Capo of 23 Victoria Pines, questioned some of the ways the rate of water consumption versus recharge is handled with regard to applications before the Board. In answer to Capo's concerns, Mulhall stated that there is already an ordinance that addresses his concerns and the issues also become part of the master plan. Mulhall stated that theoretically someone cannot develop more than what the Wastewater Management can sustain, which is regulated by the DEP.

Lois DeVries of 85 Lawrence Road, asked Mulhall if after his studies on the Riverbank project could he make any conjectures or observations on how those findings on that project will affect that area with what was previously believed to be a homogenous formation. Mulhall commented that he does not know why it would be perceived to be considered homogenous and it is a much more complex picture. He went on to explain some of the patterns of the rock and some of the complexities. Lois had some questions with regard to impact of any future development and Mulhall said he did not know at this time as it would have to be investigated.

Phoebus asked Mulhall if he is stating that the town is using .6 million gallons of water, and if from a residential perspective, if the town built out the residential use it would be 1.2 million gallons and, therefore, this town completely built out would be using less than the 6 million gallons than the quarry is now using. Mulhall stated that it is a mining operation at the quarry and they are mining water and it is permitted under a mining operation.

The public session was closed. The acting chair asked if there were any more questions from the Board. Boyce stated that she would like to see this planning board take a more proactive look at the quarry. Phoebus said that the township committee is presently doing that.

ADJOURNMENT – Time 8:40 p.m. A motion was made to adjourn the meeting by Huelbig, second by Phoebus. All in favor: Aye. Opposed: None. Motion carried.

Respectfully submitted,

Sue Howell, Acting-Chairperson

T. Linda Paolucci, Secretary