

**EAST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY**  
**Tuesday, December 13, 2005**  
**7:30 AM**

**Those in Attendance:**

Michael Corbin, Chairman  
Gerald Kirkpatrick, Vice-Chairman  
David Summers, Treasurer  
Joseph Anthony, Secretary  
Sandra Moser, Member

**Also in Attendance:**

Scott T. Piersol, Township Manager  
Mr. Matthew Vanlew, Roadmaster  
John Spangler, Municipal Authority Solicitor  
Joseph Boldaz, Municipal Authority Engineer  
Mary Beth Smedley, Secretary/Treasurer

The Municipal Authority met on Tuesday, December 13, 2005 at the East Brandywine Fire Company. Mr. Corbin called the meeting to order at 7:30 AM.

**Minutes: November 8, 2005, 2005**

Mr. Corbin asked if there were any corrections or additions to the above minutes. There were none. Mr. Summers made a motion to approve the November 8, 2005 minutes as presented. Mrs. Moser seconded the motion, with all voting Aye.

**Treasurer's Report**

Mrs. Smedley read the Treasurer's Report for December 2005. The Municipal Authority account balance as of December 13, 2005 was \$31,022.15. Mr. Corbin made a motion to approve the Treasurer's Report and authorize payment of the bills. Mr. Anthony seconded the motion, and the motion was approved by unanimous vote.

**Applecross Development AKA Overlook Road Farm**

The applicant is proposing to build a combination of single family homes, carriage homes, and townhouses for a total of 655 units on both the north and south side of East Reeceville Road. The plan also shows an 18-hole Jack Nicholas-designed golf course with a clubhouse. The property encompasses approximately 621.74 acres of land, comprised of 307.58 acres north of East Reeceville Road and 314.16 acres south of East Reeceville Road. The southern portion is a 310 acre tract located in the R-2 Zoning district and proposes single family homes on individual lots and approximately half of the golf course. The portion of the property north of East Reeceville Road was part of a settlement agreement that concluded in April of 2004. The applicant submitted a subdivision plan for the south side of East Reeceville Road based on the requirements of the R-2 Zoning District and was granted preliminary plan approval in March of 2004.

The “North Tract” is being reviewed under the “Clustered Residential Development” regulations of the R-3 Residential Zoning District in conjunction with the Settlement Agreement dated April 1, 2004. The “South Tract” is being reviewed under the “Clustered Residential Development” regulations of the R-2 Residential Zoning District. The project is proposed to be constructed in five phases.

Ray Grochowski, Fred Ebert and Theresa Lemley, Esq. attended the meeting on behalf of Pulte Homes to discuss several issues regarding the proposed sewage treatment plant.

Treatment Plant Sizing

Mr. Boldaz prepared a spread sheet projecting the expected flow rates and flow rate timing for the proposed treatment plant, showing anticipated flows from June 2007 to buildout in October 2012. Mr. Grochowski’s total projected flow rate numbers were very similar to those on the total flow rate spread sheet developed by Mr. Boldaz, although there were some differences on a line item by line item basis. Mr. Boldaz’s calculations indicate that the expected flow will be less than 300,000 gpd. Mr. Boldaz provided the following information:

<u>Developer/Municipality</u>	<u>Flow Allocation</u>	<u>June 2007</u>	<u>October 2012</u>
Pulte/E.B. Twp.	137,680	2,790	131,688
K. Hov/E.B. Twp*	44,250	1,800	44,400
Guthriesville/E.B. Twp.	50,000		50,000
Unallocated/E.B. Twp.	68,070		
<b>Total E.B. Twp. Flow</b>	<b>300,000</b>	<b>4,602</b>	<b>226,384</b>
Pulte/W.B. Twp.	59,700	1,302	57,288
Initial/W.B. Twp.	2,250	2,250	2,250
Final W.B. Twp**	26,300		
<b>Total Wastewater with E.B. Allocation and W.B. Twp.</b>	<b>320,180</b>	<b>5,904</b>	<b>283,672</b>

\*Planning module indicates a total flow of 45,300 gpd

\*\*Intermunicipal Agreement indicates this amount shall become available upon upgrade to 500,000 gpd

The Municipal Authority discussed what other developments, properties, etc. might at some point connect to the proposed treatment plant, since any other connections will likely necessitate an expansion of the treatment plant. The plant will initially be built with a capacity of 300,000 gpd. Mr. Grochowski stated that Gambone Brothers, Inc. approached him some time ago about possibly including the Watters property development for effluent treatment at the proposed plant, but Pulte didn’t have a disposal area for the effluent once treated. Mrs. Smedley reported that

It was her understanding that Gambone Brothers have purchased the Spence property next to the Watters property so they can dispose of the effluent. It is Gambone Brothers intention to have their sewage treated at the Pulte proposed treatment plant, if possible.

Gambone Brothers are planning to construct townhouses and some commercial businesses. At this time, it isn't certain what the flows will be from this community. It was noted that the Watters property is on the Culbertson Run Watershed, not the Beaver Creek Watershed, where other most other properties expected to connect to the sewer system are located. Other areas that might be candidates to connect to the sewer system include portions of Gloucester Drive, where, according to residents, there are septic system failures, and the Brandywine Village Shopping Center. Mr. Corbin asked Mr. Boldaz to revise his table to include the additional areas discussed in this meeting. Mr. Boldaz will also compare his table with that of Mr. Grochowski to make sure they are in agreement regarding the potential flows, rates and dates/schedules for the projected flows.

Mr. Grochowski stated that Bentley Homes has also proposed a treatment plant to be constructed in West Brandywine Township to treat their sewage. They have submitted their Sewage Facilities Planning Module to PADEP and it is still pending DEP approval. It is uncertain if PADEP will approve two sewage treatment plants within ½ mile of each other. In addition, it is uncertain how much longer the Kimberwick treatment plant in West Brandywine Township will be in operation. Mr. Grochowski has scheduled a meeting at PADEP for January 9, 2006 at 1:30 P.M. to discuss the Pulte Sewage Facilities Planning Module and Part II permit. Mr. Piersol and Mr. Boldaz will also attend this meeting.

Peaking Factor – There are questions whether the peaking factor for plant design should be 1.5 or 1.36. Mr. Boldaz stated he wouldn't be comfortable with a peaking factor of 1.36 without substantial investigation. Mr. Ebert stated there may be ways for the plant design to accommodate a higher peaking factor including increasing the post equalization storage capacity. He will discuss this further with Mr. Boldaz.

#### Intermunicipal Agreement with West Brandywine Township

The East Brandywine Township Board of Supervisors and Municipal Authority would prefer to have a known, geographically limited franchise area with specific users identified to treat sewage from West Brandywine Township rather than selling bulk sewer capacity to West Brandywine at the Township line. In essence, units in West Brandywine would be treated as individual customers of the East Brandywine Municipal Authority, eliminating the need for a "middle man" as would be the case if West Brandywine Township bought bulk capacity at the Township line.

Mr. Grochowski stated that this could be a stumbling block to negotiations with West Brandywine Township since they have indicated their unwillingness to allow East Brandywine Township to have a franchise area and bill West Brandywine Township citizens as individual East Brandywine Township customers. East Brandywine Township has several major concerns about a bulk sewer sale option that include:

1. *Metering and disputes over flow numbers.* Ms. Lemley stated that there have been discussions about each municipality having their own meters at the Township line. In fact, the Municipal Authority would prefer to have one meter so that discrepancies will not arise. There can be differences in meter readings, sometimes due to calibration and maintenance of the meters, such discrepancies and disputes are best avoided at the outset.
2. *Customer billing.* If West Brandywine Township residents aren't customers of the East Brandywine Municipal Authority there would be no certain means of dealing with delinquent customers. If there were a franchise area established for the Municipal Authority within West Brandywine Township, the control for billing and payment would lie with the Authority. For the bulk sewer option, the East Brandywine Township Municipal Authority would require a bond and advance payments quarterly from West Brandywine Township to ensure they were paid for West Brandywine Township residents.
3. *Sources and quality of the flows.* East Brandywine Township Municipal Authority would require control of quality and specific sources of wastewater flows from West Brandywine Township, for the bulk sale option.
4. *Maintenance and use of disposal fields.* Mr. Grochowski stated that Pulte currently owns the land for the disposal fields and that they could give the land to West Brandywine Township and East Brandywine Township would have an easement to operate and maintain those fields. Mr. Grochowski stated the fields would be deed restricted from other uses. The Municipal Authority is concerned that there might be deed restriction enforcement problems if it did not have full ownership and control over the land on which the disposal fields were constructed.
5. *Conflict resolution issues and arbitration procedures.* The Municipal Authority is concerned that conflict resolution issues must be resolved quickly such that termination of service would not be necessary. As agreements are currently contemplated, no such time-limited consideration is offered.

Mr. Grochowski stated that intermunicipal agreements to treat sewage are quite common and have worked well with other municipalities. Ms. Lemley stated that she thought the Supervisor's and Municipal Authority's concerns could be resolved through a strong intermunicipal agreement that spelled out the rights and responsibilities of each Township, as well as penalties for not adhering to the agreement. Mr. Spangler has a copy of the latest draft intermunicipal agreement to review. It was suggested that the Municipal Authority contact other municipalities to see if they have had any problems with intermunicipal agreements to treat sewage. The Board of Supervisors, Municipal Authority and representatives from Pulte will schedule a meeting to discuss this issue. The meeting will tentatively be scheduled to take place during the December 21, 2005 Board of Supervisors meeting. Mrs. Smedley will readvertise the meeting to begin at 7:00 P.M. instead of 7:30 P.M.

Mr. Summers asked about when would be "drop dead" times for expansion of the treatment plant. Mr. Boldaz and Mr. Ebert agreed that expansion of the treatment plant could be considered at the following intervals:

1. Completion of the Part II permit
2. Final approval of shop drawings
3. Pouring the base slab for the SBR reactors

#### 4. Erection of the building

The Municipal Authority would not be in favor of additional expansion of the treatment plant beyond 300,000 gpd without all financial issues and additional flow allocations being resolved before hand.

#### Part II Permit

The Draft Part II permit for the sewage plant and process was resubmitted by Pulte's engineers to Mr. Boldaz last week. To date, Mr. Boldaz hasn't had sufficient time to review the permit application. Mr. Ebert stated Pulte would like to have the permit signed and sent to PADEP prior to January 9<sup>th</sup> so that it can be reviewed at the scheduled meeting for the Sewage Facilities Planning Module. Mr. Boldaz and Mr. Ebert will work together to try to get this completed. One item that Mr. Boldaz mentioned is that the permit refers to a "digester". This is terminology used by PADEP; when the permit refers to a "digester" Mr. Ebert is actually referring to a "solids holding tank". The inconsistent language will need to be resolved as it may result in rejection of the application if PADEP is not made to understand the variance in terminology.

#### Sewer Agreement

Mr. Spangler received revisions on the sewer service agreement from Mr. Colagreco. This agreement could be the model for new hookups, including K. Hovnanian and possibly Gambone. Mr. Spangler will provide comments once he has had an opportunity to review it. Ms. Lemley will forward the agreement to Mr. Piersol, who will distribute it to the Municipal Authority members.

#### **Guthriesville Sewer System Storm Water Infiltration**

On November 22<sup>nd</sup> Mr. VanLew met with Brian Willcome and Andrea Hingley of Yerkes Associates to investigate the groundwater infiltration to the Guthriesville collection system. Mr. Willcome was the Yerkes inspector on-site during the installation of the sewer collection infrastructure in Hopewell and the Guthriesville off-site collection lines.

They focused on manhole locations where Mr. Willcome suspected this infiltration would most likely occur. Their investigation identified the following:

1. Manhole #50 – Leads from Kristin Circle. No flow was coming from Kristin Circle.
2. Manhole #65 – Leads from Brookhaven Lane east of the Grovehill Court intersection. They found slight infiltration around the joints/seams of the manhole structure. This collection line leads through the wetlands.
3. Manhole #62 – This manhole structure is located downstream of the Basin #3 endwall discharge in Phase 4. There was major storm water infiltration at this location, and is suspected of being the primary cause of these problems. Mr. Piersol stated that Mr. Russell Yerkes recommended the swale be extended to direct the stormwater discharge away from this manhole location. Repairs and sealing of the manhole cover will also be needed.

4. Manhole 12A – Located in the stone parking area of the former Guthriesville Tire and Service Center. This location was covered by stone, and needs to be uncovered to check for infiltration. Mr. Willcome suggested this location should be checked since it is a main intersecting manhole location.
5. Manhole 63 – There is a 4” – 5” pipe still in the ground alongside the manhole, which was used for removal of groundwater from around the manhole location. This is not creating an infiltration problem; rather it is a safety issue. Mr. Piersol stated this was identified when he and Tom Brown walked the sewer line before acceptance, but apparently was not filled with stone or soil as requested.

Mr. Piersol stated that Mike Honan from Rouse/Chamberlin and his contractor representative from Schlough, Inc. will meet next Wednesday to review these issues, and make immediate repairs as necessary to resolve the infiltration issues as noted above. In the interim, Township employees will continue to monitor the flows to the pump station once this repair work is completed. The Township will also discuss reimbursement for the extra treatment costs associated with treating storm water at Little Washington with Rouse/Chamberlin.

Based on the monthly flow records at the treatment plant, there appears to be higher flow rates in the Keats Glen Development during rainy weather. Mr. VanLew will investigate this with the operator and follow-up with the Municipal Authority.

### **Sewer Odor Issues**

Mr. Piersol was contacted by Mrs. Paula Noebes of 300 Little Washington Road regarding sewage odors. Mr. Piersol contacted Alan Roth at Aqua Pennsylvania to discuss what might be the cause of the odors. He also discussed this issue with both Mr. Brown and Mr. Boldaz. Mr. Brown stated that normally odors are a problem during warmer weather so they are not likely to occur again until next spring. Mr. Boldaz had the following suggestions if the odor was persistent and associated with the Hopewell pump station and force main:

1. A mix/flush valve could be installed at the pump station. The mix/flush valve recirculates the sewage in the wetwell at specific times to aerate the effluent and keep the solids in suspension. The effluent would be less likely to turn septic and allow conditions to create strong odors.
2. A timer could be installed to pump down the wetwell during the night during periods of low flow.

Mr. Piersol has asked Mrs. Noebes to keep a log of times when she detects odors. This may help pinpoint the cause. Mrs. Smedley will ask Mrs. Noebes to provide a copy of her log for Mr. Boldaz to review. Mr. Boldaz stated that once more homes connect to the sewer system the potential for odor would be reduced since solids will stay in the wetwell for a shorter amount of time.

If it is determined that odors are associated with the Hopewell System, the Municipal Authority would prefer to look at solutions that do not necessitate the use of chemicals at this time. Currently there is approximately 25,000 gpd being pumped through the Guthriesville Pump

Station to the Little Washington Wastewater Treatment Plant. It is anticipated there will be approximately 40,000 to 45,000 gpd per day when all the connections are completed.

The Municipal Authority expressed some concern that the specific source of the odor has not been fully identified, and as such, there are still questions as to whether or not the odors are the responsibility of the Authority, or of the Little Washington Treatment Plant.

#### **K. Hovnanian Settlement Stipulation Agreement**

Mr. Michael Macaninch and Michael Stadulis from K. Hovnanian, Neal Camens from Taylor Wiseman and Taylor, and Bill Palkovics from DelVal Soils discussed the settlement agreement, sewage facilities planning module and soils testing for the Weaver Tract.

Mr. Corbin provided his comments on the draft Settlement Agreement to Mr. Piersol. Mr. Piersol stated that those comments were incorporated into the revised settlement draft agreement. Several items that Mr. Corbin wanted the agreement to address included K. Hovnanian's commitment to send their flows to the Pulte treatment plant and K. Hovnanian's agreement to pay for their proportionate share of the treatment plant. Mr. Macaninch said that K. Hovnanian has agreed to both of those requests.

The flow allocation for K. Hovnanian will be 44,250 gpd. This equals 150 gpd per dwelling unit. Mr. Macaninch was asked to provide historical data that supports these numbers to Mr. Boldaz. Mr. Macaninch will also provide this information to Mr. Grochowski. He anticipates beginning construction in April of 2007. For flow-rate scheduling the expected sales pace is three homes a month, with some additional flows from the Weaver property and the recreation center.

Mr. Palkovics stated that soils testing has been complete in the area for effluent disposal beds and indicate high quality soils with high permeability. He doesn't feel there will be any problem with the soils accepting the effluent. The applicant is proposing a 25% back-up area in case the primary fields needs repairs or renovations. He also stated that in an emergency they could go to stream discharge. The Municipal Authority would like Mr. Boldaz to look at this closely to ensure proper contingencies are in place and that there is adequate reserve field area and design contingencies.

Mr. Palkovics was asked what the expected life of a field was. He stated that the fields could possibly be used indefinitely given the high quality of effluent being delivered to the fields. The main concern would be the buildup of organics. In addition it would be important to make sure there was no compaction of the soil, both pre and post-construction, so the proposed areas would need to be protected now. The drain fields will be dedicated to the Township. Mr. Grochowski stated that although initially all of the water could be used for the golf course ultimately the Municipal Authority will be able to control where the water will be discharged.

The construction of beds is to be escrowed. Mr. Piersol and Mr. Boldaz will work on this issue.

### **Dilworth Tract**

Mr. Jonathan Penders and Mrs. Stephen Gallo approached the Municipal Authority to discuss a revised sketch plan for the Dilworth property showing areas where soil testing was completed. The sketch plan was shown to the Planning Commission at their December 7<sup>th</sup> meeting. The

Planning Commission was pleased with the changes made to the plan, and were in agreement that Mr. Penders should proceed with the new site layout.

The property is 71 acres on the western side of Dilworth Road, in the R-2 Zoning District. It has an existing barn and equipment shed. The parcel is bordered by the Hide-A-Way Farms subdivision and the Okie property to the north, the Cross Keys development to the west and the Clavier property and the East Brandywine Township Community Park to the south.

It is the applicant's intentions to design the subdivision using the R-2 Cluster option. The revised plan shows 38 single family homes. The plan proposes over 40% open space including 14.6 acres of private open space that will include the existing shed, barn, and one future dwelling. The public open space will be maintained by a Homeowners Association. The homes will be between 3,200 s.f. and 4,200 s.f. in size.

Mr. Pender stated that three areas were tested:

1. Open Space C
2. Open Space A
3. Areas of both Open Space A & B

It is Mr. Penders' intention to locate all disposals areas in Open Space C. These beds will be located down gradient of the proposed lots. Sewer planning documents indicate the need for 300 gpd per edu. The beds will be sized for 600 gpd per edu for peaking and that flows can be equalized and dosed sequentially to the fields. This allows for both a primary and replacement area in Open Space C. Mr. Penders stated they are operating under Chapter 73 Regulations. Rouse/Chamberlin will be marketing four and five bedroom homes for this subdivision.

According to Mr. Penders it still looks viable for on-lot wells. He doesn't think nitrates should be a problem.

Mr. Penders stated they will proceed with hydrogeologic work. It is his intention to begin engineering of the plans and come back with a sewage facilities planning module for the Municipal Authority to review. Mr. Boldaz would like to be informed when the hydro work begins.

### **2006 Budget**

After review, Mr. Kirkpatrick made a motion to approve the 2006 Municipal Authority Budget as presented. Mrs. Moser seconded the motion, with all voting Aye.

**Resolution 04 of 2005 – A Resolution of East Brandywine Township Municipal Authority Amending Provisions of Sewer Rates for the Keats Glen/Delaware County Community College Service Area.**

Mr. Corbin asked if there were comments from the audience. There were none. Mr. Summers made a motion to adopt Resolution 04 of 2005 amending the Keats Glen sewer rates to \$135 per 3-month period. Mr. Anthony seconded the motion, with all voting Aye.

**Nitrate Concentration and Regulation Issue**

For any subdivision or land development application requiring a subsurface sewage treatment system that must be approved by either the local Sewage Enforcement Officer (the Health Department in Chester County) or DEP, we understand that the Department will be requiring a preliminary hydrogeologic evaluation be done if there are any wells within one-quarter mile of the proposed site that have nitrate-nitrogen levels that exceed five (5) parts per million (ppm).

The Ordinance Task Force has discussed providing information about the new DEP requirements as part of the Township's subdivision packets and building permit applications. The Planning Commission and Municipal Authority need to pay close attention to this issue since if residents can't install septic systems on their property they may request public sewers be made available. It was suggested that this issue be looked at in conjunction with the Township Sewage Management Program. With a strong septic management program, some of the nitrates problems may be alleviated in the future. Information regarding this issue was provided to Mr. Kirkpatrick for review. He will provide his comments at the next Municipal Authority meeting.

**Adjournment**

There being no further business, Mr. Kirkpatrick moved to adjourn the meeting at 9:35 A.M. Mr. Anthony seconded the motion, and the motion was approved by unanimous vote.

Respectfully submitted,

Mary Beth Smedley  
Secretary/Treasurer  
East Brandywine Township