

**MEETING NOTES OF  
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE**

**DATE:** 1/2/18      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

M. Czerwiec, Easthampton	C. Seklecki, Easthampton	A. Smith, Holyoke
D. Conti, Holyoke	J. Burkott, Holyoke	
T. Gaughan, Southamptn	<u>X</u> M. Hanc, Southamptn	Paul Diemand, Southamptn
<u>X</u> Heather Miller, Westfield	K. Leigh, Westfield	Jay Vinskey, Westfield
<u>X</u> R. Newton, Smith College	<u>X</u> P. Gambarini, PVPC	<u>X</u> L. Sullivan, PVPC

Others present: Mary Ann Babinski, Westfield City Council; Daniel Desrochers, Westfield News; Kristin Mello, WRAFT; Louise Sullivan, PVPC

**TIME OF CALL TO ORDER:** 3:40 p.m.      **TIME OF ADJOURNMENT:** 5:30 p.m.

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**Action Items from Meeting:**

PVPC

- Prepare 1/2 meeting minutes and distribute for review
- Prepare agenda for 2/6/18 meeting and distribute
- Begin grant request to Community Foundation of Western Massachusetts
- Invite MassDEP to February meeting

BAPAC members

- Follow up on exploring USGS interest in Barnes Aquifer study (Bob)

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**1. Adoption of December 5th meeting notes**

Heather Miller made a motion to approve the October meeting notes, seconded by Marla Hanc, and unanimously approved.

**2. Citizen Speak**

There were no citizens who took this opportunity to speak.

**3. Developments of Regional Impact**

Updates to Water Resource Protection District Ordinance, Westfield – (Mary Ann Babinski)

Mary Ann Babinski reported that the Natural Resources Committee of the Westfield City Council reviewed changes made to the Draft Water Resource Protection District Zoning Ordinance back in October 2017 with special attention given to Article III, Section 3-170. Ms. Babinski explained that based on feedback from BAPAC, input from residents, three members of the Natural Resources Committee and other City Councilors, the decision was made to meet with the Westfield City Planner and the Law Department to review the changes that had been made.

Ms. Babinski called the BAPAC committee members attention to the 15 page, distributed document entitled *Article III, Section 3-170: Water Resource Protection District Zoning Ordinance Draft* and she referenced #5 under *3-170.1 Intent and Purposes* which states: *to bring attention to the smaller brooks and streams and their importance to groundwater protection.* Ms. Babinski explained that the

Westfield City Planner and a member of the City's Law Department stated that listing the smaller brooks and streams by name is not necessary. Patty replied that if a list of the names of the brooks and streams are eliminated, it would be good to include a statement explaining that there is a dynamic relationship between groundwater and surface water s. Bob agreed and strongly suggested that it be stated that the groundwater and surface water are intimately associated.

Ms. Babinski said that they are considering a proposed expansion of the water resource protection area. She pointed to a map saying that the zoning ordinance currently applies only to the MassDEP defined Zone II area. Ms. Babinski said the USGS defined medium yield aquifers (in light green) and high yield aquifers (in darker green) in the City of Westfield are also shown on the map. While much of the USGS medium and high yield aquifer areas follow the current Zone II area, there are some locations where this is not the case. Following were points made or considerations raised during discussion:

- Bob pointed out that the Zone II areas represent the areas that are providing water to the current public drinking water supply wells and what Ms. Babinski is proposing is to protect all of the medium and high yield aquifers in anticipation of potentially needing more wells in the future.
- Bob requested the reason for enlargement. Ms. Babinski replied to ensure protection of the aquifer because there are uses that don't coincide with water supply protection, namely a nearby industrial park.
- Bob stated that if a buffer is proposed around the medium yield aquifer in order to extend the water resource protection area, there needs to be justification. It is a good idea because Zone IIs are simply modeled derivations. Bob said that the way to justify including this would be to define them topographically and state that these are secondary recharge areas where water runs off the slopes and then infiltrates into the aquifer. He explained that in many places, the Zone II areas are actually drawing from outside the aquifer directly and encompass those secondary recharge areas.
- In Easthampton, he said, the sole source designated area extends to the top of Mt. Tom, encompassing secondary recharge areas. Bob indicated that the water in that area will eventually reach the aquifer. He suggested that Ms. Babinski emphasize that if the water in these areas is contaminated, the contaminated water will eventually reach the aquifer. Kristin asked with respect to topographical markers, is this something that can be referenced. Bob responded that it's just a watershed or surface water boundary — all water that goes downhill from that location flows into the aquifer.

Ms. Babinski noted that with a proposed new zoning ordinance, all people that will be impacted by zoning changes need to be notified. The Westfield City Council can vote to suspend that ruling in order to allow people ample time and then offer an alternative. Patty asked if all people in the area would have to be notified or only people who have properties that are of non-conforming uses to the new zoning changes. Ms. Babinski clarified that all people would have to be notified. Bob asked if the alternative would be proposed and explained and Ms. Babinski said it would be. Patty interjected that it might be better to notify a greater number of people in order to obtain a better representation of the property owners who live in the area.

On the draft ordinance, Ms. Babinski provided some insights and BAPAC members made several recommendations. Following are the highlights:

- Eliminate Surface Water Supply Protection Areas in Delineation section as there is nothing currently in the ordinance that spells out what protections are afforded in these areas.
- In 3-170.3, 3, clarify what is meant in 3-170.7, 1, a., v., "expansion to greater than 10% of the existing for any material, condition or use described in 3.170.5." Is this special permitting allowed for grandfathered uses that are prohibited?
- Move *3-170.4 Definitions* from page 2 to page 1 of the ordinance document. Ms. Babinski reviewed the definitions numbered 1 - 11 and noted that the Westfield Law Department suggested a change to #12: *Interim Wellhead Protection Area (IWPA)* stating that the explanation quoting definitions be stricken because they could be changed and recommending that generic definitions be used. Ms. Babinski stated the definitions for "aquifer" and "dry well" were added to the *3-170.4 Definitions* on page 2 and Patty suggested a better definition for "Aquifer" which she found in the Easthampton Water Resource Protection document. Patty read the aquifer definition as follows: *Geological formation or group of formations or part of a formations that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.* Bob replied that while he liked the Easthampton definition, most people don't understand what the term "formation" means so he suggested keeping the definition for "aquifer" on page 2 as written. He said his feeling is that it's more important that people understand rather than using formal terminology. Bob called the members' attention to the #6 definition for "groundwater" on page 3. Bob indicated that this is a broad and non-standard definition of groundwater. It would better, he said, to say *all water found within the saturated zone beneath the surface of the ground.*
- Ms. Babinski reviewed the remainder of page 3 and all of pages 4 and 5. She then moved to page 6, item #4 regarding motorized vehicle or boat service and repair businesses and noted the highlighted words that were added which affected item #5 so *within the Airport District* was added. Heather stated that the airport district is a zone and a single parcel. Patty asked if there's a subdivision plan. Heather said her understanding is they haven't subdivided because that single large parcel is what they use to calculate percent impervious. Ms. Babinski reported that she met with the new airport manager a while back and showed him the airport zoning. The manager said that some items need to be corrected so she asked him to review the airport zoning.
- Bob stated concern regarding prohibited items such as petroleum product dispensing including commercial gasoline sales, storage facilities and underground storage of petroleum products. Regarding the new proposed definition of the Aquifer Protection District, Bob asked how many gas stations that are currently permitted would no longer be permitted. Patty said they would be listed under non-conforming uses. Bob replied that there will be a lot of gas stations that won't conform to the new regulations. Bob underscored that it's important that the regulations are defended because those operators of gas stations that have been renovated with triple-lined tanks and other upgrades may still be non-compliant. Heather interjected that her only concern is making it a disadvantage for gas station operators to make improvements such as replacing their tanks because if difficult, they may leave the old tanks in the ground.

- Kristin suggested adding something on the bottom of page 8, to section 3-170.7 - *Special Permit Uses*. Kristin read: #1. *Changes in existing uses or their developed sites, whether or not conforming to the requirements of this district, as follows: a. Business, commercial, industrial, or multifamily residential uses.* Kristin then called the members attention to # vi. *expansion to greater than 10% of the existing for any material, condition or use described in 3-170.5* and she suggested an addition to the top of page 9. However, Patty interjected that there was no need to make this addition because underground storage tanks are specifically addressed on page 13 in 3-170.11 *Performance Standards, #13* where it's stated: *The replacement of underground storage tanks shall be permitted provided that all such replacements are of no greater volume, and are in compliance with the general ordinances of the City.* Bob and Heather agreed.
- Patty asked a question about *b. Waste oil collection facility for automobile service stations, retail outlets, and marinas which is sheltered and has adequate protection to contain a spill, seepage, or discharge of petroleum waste products in accordance with and required by M.G. L. c.21. s.52A* located on page 6, Section 3-170.5 *Prohibited Uses*. Patty stated that she wonders why this is included because it's saying that if you shelter it, you can do it. Ms. Babinski replied that *a, b, and c.* at the top of page 6 are the exceptions. Patty noted that it's allowing a use that would otherwise be prohibited. Bob said it's confusing because is it allowing for a facility that takes in materials from automobile service stations, retail outlets, and marinas or is it allowing those automobile service stations, retail outlets, and marinas to collect waste oil. Heather noted that there is ambiguity in the language used. Bob indicated that it could be large building where waste oil from all the service stations in the region is trucked in and that shouldn't be allowed. Bob added that it could be that automobile service stations, retail outlets, and marinas should be allowed to store waste oil until there's enough to be trucked away by someone else. Ms. Babinski stated that M. G. L. c.21. s.52 requires that automobile service stations, retail outlets, and marinas serving retail outlets selling lubricating oil shall no later than June 13, 1974 install on premises and maintain waste oil retention facilities. Ms. Babinski stated that this law requires that those requirements be included in the new ordinance. Patty said this information could be placed at the beginning and Kristin agreed that it would be less confusing.
- Ms. Babinski moved on to page 9 and Patty indicated that she doesn't understand the meaning of "***not substantially more detrimental than the existing condition,***" in the third paragraph which states: *If a Special Permit is issued pursuant to Section 3-170.7 (a) for a pre-existing use non-conforming to the requirements of this district only, it shall be deemed a finding of **not substantially more detrimental than the existing condition,** and no finding per Section 4-10.3 shall be required, except as may concern a non-conformity with the underlying district.* Patty added that she is not familiar with *Section 4-10.3* and she suggested that it would be good to elaborate on this paragraph for clarification. Ms. Babinski stated that this paragraph has appeared over the years and Patty asked if maybe it's a hold-over from a previous edition of the Zoning Ordinance.
- Ms. Babinski moved to page 10, 3-170.8 *Dimensional and Coverage Requirements, #2.* *In order to protect and maintain adequate quality and quantity of available drinking water, maximum impervious surface coverage of any lot or common development project shall be 25%.* Ms. Babinski stated that the state calls for 15% or 2500 square feet and beyond that, the impervious surface control will be detrimental to a community's groundwater recharge and quality of the groundwater. Special permits are allowed in most communities. Due to the difficulty in implementing this

regulation, many communities have contacted the DEP for examples of how other towns are addressing the impervious surface requirement. Ms. Babinski said in the Town of Mashpee the Groundwater Protection District Zoning Bylaw was amended to include additional specifications to its impervious surface bylaw.<sup>1</sup>

- Patty asked about item #1 on page 11 under 3-170.10 *Special Permit Additional Procedures*, the last sentence, namely: *Each entity, or their representative, shall review the application and submit written comments to the Special Permit Granting Authority, who shall defer its final action until such comments are received or 35 days have elapsed.* Patty underscored that this is not a good time table based on BAPAC's monthly schedule. Ms. Babinski asked if it should be longer. Patty replied that BAPAC meets monthly and Heather added that if the Westfield Planning Board refers an item to BAPAC, it's 30 – 31 days before BAPAC receives it.
- Ms. Babinski indicated a change in wording on page 11, in 3b in Section 2-170.9 *Special Permit Additional Requirements I* from *Code* to *Zoning* to describe the Enforcement Officer. She indicated that on page 12 in Section 3-170.11, *Performance Standards*, item #2, the definition of "dry well" was removed.
- Patty questioned the last sentence in #2 in Section 3-170.11 - *Performance Standards* on page 12 which reads: *Infiltration basins and trenches shall be constructed with a 3 foot minimum separation between the bottom of the structure and maximum groundwater elevation.* Patty said the question is whether or not 3 feet is adequate. Ms. Babinski replied that she wants to change it to 5 feet and Patty remarked that she isn't familiar with the best practice regarding the minimum separation. Heather interjected that 3 or 5 feet won't make a practical difference in terms of the areas that have been examined because when deep hole or boring testing has been done, groundwater was not found. Bob indicated that he has the opposite opinion. He said the infiltration system should be as close to the surface as possible to give maximum distance between there and the saturated zone. Heather agreed. Patty said there were some projects recently presented at BAPAC meetings that were just making the 3 feet and if there had been a higher cutoff, a larger basin would have been needed. Bob said he wasn't understanding what was written. He asked if the depth of the dry well was being referenced. Heather replied that the 3 foot minimums were required for infiltration basins and trenches. Heather added that as long as the developers do their geological testing to make sure that there's at least 5 feet below where they're planning to have the bottom of their infiltration trench, it

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<sup>1</sup> The Town of Mashpee amended their Groundwater Protection District Zoning Bylaw to include additional specifications to their impervious surface bylaw. The amended language expands on the state language by specifying and detailing the method, standards, and best management practices required for artificial recharge that will not result in the degradation of groundwater quality. The following explanation for the proposed amendment was included in Article 34 of Mashpee's Groundwater Protection District Zoning Bylaw: *The Town's current Groundwater Protection District Zoning Bylaw contains a fairly vague and difficult to implement standard for artificial recharge of stormwater for properties with impervious lot coverage in excess of 15% ("a system for artificial recharge... that will not result in the degradation of water quality") that was suggested by model regulations developed by the state in the late 80s. The state's Department of Environmental Management and the Massachusetts Coastal Zone Management Office, with assistance from the Pioneer Valley Planning Commission, have recently developed more specific standards and guidelines for stormwater management and artificial recharge, along with a model ordinance language for infiltration practices. This proposed amendment is based on the suggested model ordinance language. It specifies use of the "Best Management Practices" contained in the state's recently published Stormwater Management Handbook which provides some level of nitrogen removal, are appropriate for our soils and will minimize the impact of any hazardous materials spills on our waters as the basis on which applicants and Town boards will determine whether the bylaw's standards on degradation of groundwater quality has been met. The state's Handbook is also referenced as the source of technical standards for development of those best management practices.*

shouldn't be a problem for them to meet the 5 feet except where there's higher groundwater. At this point, Ms. Babinski reminded Bob that the sentence being discussed was as follows: *Infiltration basins and trenches shall be constructed with a 3 foot minimum separation between the bottom of the structure and maximum groundwater elevation.* Bob replied that he agreed that the minimum separation should be increased to 5 feet.

- Patty then called the committee members attention to *3-170.11 Performance Standards, item #3.* which states: *All recharge systems shall be permanently and properly maintained in full working order by the owner. Logs of maintenance activities of such systems shall be made available to the Zoning Enforcement Officer upon request.* Patty remarked that just having maintenance logs will not be sufficient to meet the new MS4 permit requirements. PVPC is advising communities to update stormwater management permit code to require: signed maintenance agreement, as-built plans showing locations of all stormwater facilities, and maintenance schedule - all recorded at the Registry of Deeds once project completed. It would be good to make sure that zoning aligns with those requirements in the stormwater management permit ordinance. Heather interjected that there is more that needs to be spelled out. Heather asked who is going to be responsible for receiving and reviewing the maintenance logs of activities and checking up on them. Patty replied that the community's stormwater person is typically responsible. Patty suggested just referencing the stormwater management permit standards and the need for an O&M agreement, plan, and schedule
- Ms. Babinski delivered a lengthy explanation for Section *3-170.12 Enforcement and Penalties* on page 13. Ms. Babinski stated the original Ordinance did not address enforcement or penalties so Section *3-170.12* was added using language copied from the Stormwater Management Ordinance. Ms. Babinski said that the Law Department had concerns about including the section. Because Ms. Babinski wanted the Ordinance to include enforcement and penalties, she suggested that Section *3-170.12* should reference *Article I – Administration & Enforcement Section 1-10, Section 1-10.1 – Penalties and Enforcement* which addresses penalties for all the zoning ordinances.

#### **4. Air National Guard Phase 1 Report and MassDEP Response**

Patty distributed copies of MassDEP's response to the Air National Guard Phase Report. She noted that the Phase 1 report is not publically available. Bob said that it will be important to invite DEP to a BAPAC meeting to discuss the Air National Guard being the responsible party for the contamination of the wells that are now off-line. Bob suggested calling DEP and asking if they would be willing to talk about the current situation and the committee members' concern for surface water and the need to provide clean drinking water. Patty will follow up.

Bob made a motion, seconded by Heather, to table the rest of the agenda due to the lateness of the hour and it was unanimously approved. This meeting was adjourned at 5:30 p.m.

#### **5. Next Scheduled Meeting**

**Tuesday, February 6, 3:30 p.m.**