

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

DATE: 11/7/17 **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

MEMBERS AND DESIGNEES PRESENT:

<input checked="" type="checkbox"/> M. Czerwiec, Easthampton	C. Seklecki, Easthampton	
D. Conti, Holyoke	J. Burkott, Holyoke	<input checked="" type="checkbox"/> A. Smith, Holyoke
<input checked="" type="checkbox"/> T. Gaughan, Southampton	<input checked="" type="checkbox"/> M. Hanc, Southampton	Paul Diemand, Southampton
<input checked="" type="checkbox"/> Heather Miller, Westfield	K. Leigh, Westfield	<input checked="" type="checkbox"/> Jay Vinskey, Westfield
<input checked="" type="checkbox"/> R. Newton, Smith College	<input checked="" type="checkbox"/> P. Gambarini, PVPC	<input checked="" type="checkbox"/> L. Sullivan, PVPC

Others present: Mary Ann Babinski, Westfield City Council; Barbara Kokosz, Westfield resident; Keith Terry, Sherman & Frydryk; Michael Byrnes, One Development & Construction; Robert Levesque, R. Levesque Assoc., Inc.; Bryan Balicki, Sage Engineering & Contracting

TIME OF CALL TO ORDER: 3:33 p.m. **TIME OF ADJOURNMENT:** 5:07p.m.

Action Items from Meeting:

PVPC

- Write up 11/7/17 meeting notes and distribute for review
- Prepare and distribute agenda for next meeting
- Prepare MET grant resubmission
- Prepare website updates and distribute for review

BAPAC members

- Photos for BAPAC web site - All
- Aquifer formation graphic - Bob Newton

1. Adoption of October 3rd meeting notes

Marla Hanc asked for her name to replace Mary Ann Babinski's name in the first paragraph on page 4 of the October 3rd meeting notes as it was she who asked about the parking lot at 184 Falcon Drive in Westfield becoming icy in the winter.

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

2. Citizen Speak

There were no members from the public who took this opportunity to speak.

3. Developments of Regional Impact

184 Falcon Drive, Westfield – Michael Byrnes, One Development & Construction LLC, and Keith Terry, Sherman & Frydryk, LLC

Mr. Byrnes stated that the building on the site was reconfigured and the sub-surface infiltration basin eliminated and replaced by a surface infiltration basin. Mr. Byrnes reported that the overall

length of the building was reduced and the Zoning Board of Appeals approved the new reconfiguration of the building.

Andrew asked what the depth of the groundwater is to the bottom of the proposed infiltration basin. Mr. Terry replied that 3 feet of separation of groundwater is being maintained.

Mike asked about the water quality swale. Mr. Terry stated that the parking lot runoff comes into the swale that will now be rendered impervious so that water can be routed to the Stormceptor unit for removal of suspended solids before infiltration. Mr. Terry reported there's no need for curb stopping blocks in the parking lot.

Mr. Byrnes reported that there are no toxic materials used on site and that the materials used by the facility consist of durable products that come preassembled. Mr. Byrnes added that on the westerly part of the building, there is a panel shop for manufacturing electrical components for another division that manufactures robotics used in food packaging. There is only a small amount of propane and mineral oil used in these processes.

Patty asked if the swale on the western side of the building was mentioned. Mr. Terry said it wasn't mentioned, but he explained that the roof runoff on this side of the building will be directed to a swale that leads to the infiltration basin. Patty asked if there should be some protection of the slope at the infiltration basin where the swale comes into it. Mr. Terry replied that he estimates there would not be a large mass of water running down that slope so he didn't believe it was necessary.

Andrew asked about the composition of the building's roof. Mr. Terry responded that it's an acrylic covered, metal roof so there'll be no sediment coming off the roof. Heather interjected that the stormwater standards speak to metal roofs not being suitable for direct infiltration. If the acrylic covering means that the metallic has no interface with water it could be suitable observed Heather. Mr. Terry underscored that the roof has a durable coating. Mr. Byrnes stated that the panel material carries a 25 year warranty that could be extended.

Heather asked about Mr. Terry's reference to an emergency shutoff valve and he responded that there is an isolation valve located after the stormceptor unit. He indicated that a section of piping and the swale, which will now be lined with impervious material, would serve as a "container" for any spill.

Patty asked if there is still a loading dock proposed. Mr. Byrnes replied that it was eliminated in its entirety along with the related infiltration structure.

Patty noted that she had looked at the Operations and Maintenance Plan (O & M Plan) regarding the stormceptor and she suggested including mention about the frequency of inspections. She said that in BAPAC's experience, stormceptors are the units that are least maintained and often failing. Mr. Byrnes asked if Patty was advocating for annual inspections. Heather interjected that the manufacturer's specifications will spell out how frequently they are supposed to be inspected so she recommended taking that number from the manufacturer's specifications and inserting it in the O & M Plan. Patty asked if a Community Maintenance Agreement is included in the O & M Plan. Mr. Terry replied that this agreement is referenced in the permit.

Patty asked if BAPAC members wanted to summarize what they would like in the letter to be written to the Westfield Planning Board. Andrew suggested that the applicant has addressed BAPAC concerns and questions asked have been answered. Patty reiterated what Andrew suggested and asked that members take a vote. Andrew Smith made a motion to approve the letter to be written to the Westfield Planning Board which will indicate that the applicant has addressed BAPAC concerns and questions asked have been answered, seconded by Tom Gaughan and unanimously approved.

0 Progress Avenue, Westfield Westfield – Michael Byrnes, One Development & Construction LLC, and Keith Terry, Sherman & Frydryk, LLC

Patty asked if the use for 0 Progress Avenue was the same as that of 184 Falcon Drive in Westfield. Mr. Byrnes replied “yes” and said the building on Progress Avenue will have the same operations as the building on Falcon Drive and that a robotics division will occupy the Progress Avenue building. Mr. Byrnes reported that there’s room for future tenant growth, but that’s restricted by the Westfield Planning Board under a special permit. Any new use of this building beyond what is being discussed today will require a special permit and would need BAPAC’s and the Westfield Planning Board’s approval.

Mr. Terry reported that the previous proposal on this site showed sub-surface piping from the stormceptor unit into drywells, but now the infiltration basin has been dropped down and has an open outlet from the rear drainage system and from the front drainage system. Mr. Terry added that there’s still a water quality unit in the front section and another at the rear. At the rear, there is also a spill isolation valve before the infiltration basin. Mr. Terry reported that all the water will be brought through the deep sump catch basin and the stormwater quality unit before going into the infiltration basin. There will be snow storage at the end of the parking lot and the landscape grading around the building will cause the snow to melt into the infiltration system.

Mr. Byrnes reported that they have addressed the comments and concerns from BAPAC and that approval has been received from the City of Westfield and its City Engineer based on the modifications that have been made. Mr. Byrnes stated that it was suggested that BAPAC be revisited to ensure any additional concerns could be addressed so that the project could move forward.

Patty asked about the roof flow and if the building’s downspouts on the northeast side are connected to the drain line that comes from the middle of the building and into the recharge basin. Mr. Terry said that downspouts in this area will flow overland to the catch basin. Heather stated that they just discharge at the ground level and Mr. Terry agreed.

Bob asked if the roof materials are the same as the Falcon Drive project. Mr. Terry said yes. Patty asked if the proposed impervious cover is 49.6%. Mr. Terry said it is and Mr. Byrnes said they have applied for a special permit.

Patty said her calculations indicate that there may not be sufficient vertical separation between the bottom of the infiltration basin and groundwater. Seasonal high groundwater is reportedly at 258 feet and lowering the infiltration basin floor would bring it to 261.5 feet within 3.5 feet of groundwater. Patty asked whether it was supposed to be five feet based on the Water Resource

Protection Ordinance and pulled out an excerpt that she circulated. Rob Levesque said he believes that the excerpt specifies five feet of separation, but it has to do with earth removal activities and not stormwater management facilities. Mr. Terry reported that he believes the City of Westfield allows a three-foot separation. Patty asked Jay whether he could offer guidance. Jay indicated that he believes the 5 feet is related to earth removal only. Patty said she will double check before writing BAPAC's letter to the Planning Board.

Heather asked about snow storage and drainage. Mr. Terry responded that the contours around the building were changed to permit melt water from the front snow storage area to drain via a 120-foot grass swale to the infiltration basin. She asked if there was a forebay there. He said "no" because the water will travel over a hundred feet across the lawn. Heather noted that the grading to the basin then works as a filter strip. She noted that the water has already gone through the stormceptor so it wouldn't need a forebay. Mr. Terry added that large petroleum spills aren't expected in the employee parking lot. The spill potential is in the rear of the building because of road trucks carrying 100 gallon containers. Heather noted that the stormceptor will have the capacity to protect against a certain amount of petroleum. Mr. Terry reported that the stormceptor will remove 80% of the suspended solids and will hold at least 50 gallons of a spill. Mr. Byrnes said its capacity will depend on the model.

Heather asked about signage for the trucks. Mr. Terry replied that there will be shipping and receiving signage and the tight entrance at the front will discourage anyone with a trailer from trying to enter.

Patty reported that she did not receive the Operations and Maintenance Plan or the Erosion and Sedimentation Control Plan for the site. Mr. Terry said these plans were included in the original submission and he handed Patty the maintenance plan. Patty asked if there had been changes. Mr. Terry replied that no changes were mentioned so there was no need to make any changes.

Andrew asked about total impervious cover and Mr. Terry said the property will be approximately 50% impervious. He said Industrial A allows for 50% impervious. Patty noted that the threshold is 15% in the Water Resources Protection District and that a special permit is needed.

Patty asked what members would like her to include in the BAPAC letter to the Planning Board. She noted that she had raised the question of the separation of groundwater and asked if there are any other concerns. Andrew stated that if there's an error in the Operations Maintenance Plan, it should be corrected and Patty said she will review it.

Tom Gaughan made a motion to approve clarification of the distance to groundwater at the site and the passage of an amendment if needed, seconded by Mike Czerwicz, and unanimously approved.

Andrew also recommended that BAPAC request seeing decisions on special permits allowing for greater impervious cover. He indicated that he is especially interested in understanding how Westfield may promote reductions in impervious cover over the Zone II.

Roots Academy, Roots Road, Westfield - Bryan Balicki, Sage Engineering & Contracting

Mr. Balicki stated that several months ago, Sage Engineering appeared before BAPAC with a use unknown for the Roots Road site which was not well received. Mr. Balicki stated that the property use has now been determined. There will be construction of a private school (Roots Academy) on this 2 ½ acre site with an impervious surface cover of 54 percent on the site. The project will result in making the site 54% impervious cover. It was noted that this triggers the need for a special permit under Westfield's Water Resource Protection Overlay District.

Mr. Balicki explained that the site has been reconfigured to allow for in and out drop-off traffic flow, but the site configuration is essentially the same concerning the underground utilities.

Mr. Balicki reported that parking lot flow will enter three catch basins that are routed to a pipe with an emergency shutoff valve. This direct flow will then be disbursed through the use of a level spreader that moves flow across a vegetated filter strip to a sediment forebay before entering a recharge basin. Roof flow will be directed from the north side of the building directly to the recharge basin. Roof flow from the south side will be piped to the level spreader and make its way down gradient via a rip rapped slope to the recharge basin from there. Mr. Balicki noted that the infiltration basin meets the required separation of groundwater whether determined to be 5 or 3 feet of separation as no groundwater was found in a 12 foot test pit. Heather asked if it will be easy for maintenance equipment to access the basin. Mr. Balicki replied the slope is such that it will not be a problem.

Mr. Balicki was asked whether the roof would be metal or a coated roof or an acrylic coated roof. Heather underscored that a metal roof is a problem with direct infiltration. Mr. Balicki replied that it will be an acrylic coated roof and he will check with the owner. Heather said in the BAPAC review, it will be stated that BAPAC understands it will be a non-metallic roof.

Heather asked about outdoor recreation space for the proposed school. Mr. Balicki replied that there will probably be a soccer field and a swimming pool. Patty asked if they had a school yet to occupy the space. Mr. Balicki replied that he is not at liberty to say, but that it will be a private entity.

Bob asked how many students will attend this private school and how large a septic system they are planning. Mr. Balicki said that the site will have a septic system, but there are no details yet on design. When asked about drinking water, Mr. Balicki replied that the site would have city water. Heather asked if the water connection was shown on the site map and he said it was.

Andrew Smith asked how many parking spaces and Mr. Balicki replied 110. Heather asked if a traffic study had been done. Mr. Balicki replied that there will not be a lot of traffic. Heather asked what the parking requirement for only the school would be. Mr. Balicki said he didn't know but he could obtain the answer for the BAPAC members. Mr. Balicki also said he would send the traffic generation report to Patty and that construction will begin in the spring.

Patty asked if there was a previous use for this site. No, Mr. Balicki said, it was just cleared. Bob asked if top soil was moved. Mr. Balicki said it was piled on site. Patty indicated that in the Erosion and Sediment Control Plan, in the section regarding off-site vehicle tracking, it states that the site must be designed to balance a total cut with total fill. Patty underscored that top soil is important for the protection of a water supply so if a great deal of top soil is removed, the

protection of the water is compromised. Patty stated that the word most should be taken out and replaced so that it reads that NO top soil should be removed from the site. Bob said he'd like to make a recommendation that the top soil be replaced in the proposed grassy areas and Mr. Balicki agreed with this condition.

Heather asked what kind of chemicals will be used for snow removal and if there is a plan for minimizing their usage. Mr. Balicki replied that Sage Engineering has been asked to use straight sand. Heather commented that with the use of straight sand, the catch basins will have to be cleaned more frequently.

Patty praised the detail of construction in the Erosion and Sediment Control Plan but she suggested an extra step requiring an inspection. Patty asked for clarity on the meaning of "rough drainage" asking if it means drainage already installed or meant roughing out the areas where the drainage is going to go. Mr. Balicki responded that basin is graded but it's not seeded or ready for growing grass. Patty asked if there could be an inspection before the site is covered by earth. Mr. Balicki said that the stormwater coordinator would be doing the inspections.

Patty said our letter will include FOUR items:

- roof material is not metal given that it is discharging directly for infiltration and recharge;
- the traffic study for this project is reviewed to understand whether it requires MEPA review;
- as much topsoil remains on site as possible given that this soil layer is critically important to protecting subsurface drinking water resources;
- that the operation and maintenance plan includes regular inspection of catch basins and cleaning when needed to best manage sands used for snow and ice.

Patty called for a motion. Approval of the inclusion in the letter of the four recommendations appearing above was recommended by Bob Newton, seconded by Tom Gaughan, and unanimously approved.

0 Southampton Road, Westfield – Rob Levesque, R. Levesque Associates

Heather asked if there were any buildings on this site. Mr. Levesque replied there were none. He explained that this site is owned by Development Associates. Westfield Community Solar will be leasing from Development Associates. Mr. Levesque stated that most PV facilities guarantee solar cells for about 25 years at a minimum as they seem to be lasting longer than they once did.

Patty asked if there is a decommissioning plan. Mr. Levesque replied considering the aquifer, this is one of the better uses that could be found for a large site because the solar cells will be set and anchored with no impervious underneath them. Under them will be a lawn that will be maintained and mowed a few times a year. Patty asked again if there is a decommissioning plan. Mr. Levesque replied that it's the engineering firm's understanding that there will be one.

Then he showed a cross-section diagram of the concrete anchors and individual solar panels and he explained that solar panels will be mounted on helical piers and arranged so that rainflow sheets off of panels and infiltrates into the grassed ground surface below. The solar array will be entirely fenced with gates at the entry roads. Heather asked if there were breaks between the

individual panels. Mr. Levesque replied that there are sections of multiple panels and then there are breaks. Patty asked how many solar panels or how many megawatts to be generated and Mr. Levesque answered that he didn't know but the facility will total 26 acres.

Mr. Levesque reported that there will be two gravel roads to provide access to equipment. One gravel road will extend from Southampton Road and the other from Medeiros Way. The transformers will be set on two pads with interconnects and the power will be run along the access road. Bob asked if the power would be run underground and Mr. Levesque replied "yes." Bob asked for a description of the transformers and Mr. Levesque said he would get a description of them from electrical engineering before the hearing.

While much of the property is currently grassed meadow, the project will entail cutting forested land. Mr. Levesque said trees are being cut down, changing the characteristics for stormwater protection, so a stormwater report has been provided. Mr. Levesque reported that there's a RCP 18-inch culvert located along the southern property line that passes under Medeiros Way about 400 feet from the intersection with Southampton Road. Because a lot of the water in this area goes in that direction, that pipe is being reduced in size from 18 inches to 15 inches. This will provide control so if there's a major storm, it will back up into that area. Andrew asked what trees were growing on the site and Mr. Levesque replied maple, pine and oak mixed. Andrew stated that sites where trees have been cleared leaving stumps changes the hydrology creating more water than was anticipated. It was noted that Arm Brook flows along the western edge of the property.

Patty asked about right-of-ways and power lines. Mr. Levesque responded by showing her Western Massachusetts Electric's easement on the map and a drainage easement along the edge and he indicated a sewer line that was installed without the benefit of an easement.

Marla asked about the cleaning of the solar panels and Mr. Levesque said he could find out about that. Andrew noted that the rain typically takes care of cleaning. Patty asked about composition of the solar panels and suggested it would be good for the planning board to be assured that there are no toxic materials used in the panels. Mr. Levesque replied that he will confirm the panel material and confirm that the panels will be maintained adequately.

Bob asked how high the panels will be off the ground and Mr. Levesque replied that the poles are 30 inches to a total of 8 feet in height and anchored with the helical piers (ground screws).

Bob asked how often the site will be mowed and Mr. Levesque assumed realistically about 5 to 6 times a year. Patty asked about the species of the grass cover because some species don't need to be mowed very often. Mr. Levesque replied that the grass will be maintained at less than 30 inches. Patty underscored that the maintenance of the grass is important as a way to prevent a wildfire that would endanger photovoltaic panels. Bob said there must be plan for grass for similar sites. Heather interjected that the BAPAC members make a recommendation that the area that's going to be cleared and stumped will be planted with slow-growing grasses in order to prevent a fire hazard.

Patty asked if there will be any screening between the solar field and Route 10 and Mr. Levesque replied there had been no talk about that.

Mike then took a few minutes to review the recommendations made by the BAPAC members in addition to the planting of slow-growing grasses in order to prevent a fire hazard. Mike said two other concerns were the materials within the transformers and the decommissioning plan.

Patty asked about soils. Mr. Levesque replied that the soil composition should be in the drainage report. Mr. Levesque asked if Patty was looking for test pits and she replied that she was. Andrew asked about the depth to groundwater and Mr. Levesque said they had not yet made that determination.

Andrew asked about the composition of the ground screws or Helical Piers because of groundwater contact and Heather added that they need to be corrosion resistant. Mr. Levesque replied that they would have to be corrosion resistant if they're being screwed into the ground.

Mr. Levesque stated that he has a meeting on November 21st with the Westfield Planning Board and asked how soon the BAPAC members needed information from him so that it can be placed in the letter. Mike asked BAPAC members if they needed this information to make a decision or should they just recommend that the Westfield Planning Board consider this information. Patty replied that the BAPAC members should make the recommendations they have discussed because otherwise they would have to have another meeting for discussion in order to come to an agreement on the contents of the letter.

Patty then reviewed the recommendations as soils, depth of groundwater, low-growing grasses, the equipment, insuring that there are no hazardous substances, and the decommissioning plan. Patty asked if there was anything else.

Andrew asked if the helical piers will be galvanized and how many piers are going into the ground. Mr. Levesque replied that the piers are galvanized. Bob indicated concern about zinc in the piers, which Heather noted is also the concern when it comes to metal roofs. Bob said he wasn't sure that the helical piers should be considered in the same way as metal roofs because the soil is not as acetic as rainwater. Tom said that there shouldn't be concern about the zinc in the galvanized screws because the pH of the soil is close to 7 and the pH of rain is 5.6. Mr. Levesque replied that he will see what he can find out about both concerns. Bob replied that because this site is a recharge area for the Aquifer, Mr. Levesque should look to research to see if it shows that the screws are not going to leach into groundwater supply. BAPAC members agreed that the recommendation be to make sure that the anchors don't leach metals into the aquifer.

Patty then stated the letter will then include:

1. The decommissioning plan
2. Ensuring that there's no hazardous materials contained in the equipment
3. Ensuring that the low growing grasses are seeded in those areas that are cleared and stumped
4. A request for information on soils and the depth of groundwater
5. A stipulation that the composition of the anchors will not leach metals into the aquifer

Patty asked for a motion to approve the five recommendations.

Tom Gaughan made a motion to approve the five recommendations as delineated by Patty and listed above, seconded by Bob Newton, and unanimously approved.

4. BAPAC Website Updates

Patty called the BAPAC members' attention to the document entitled *Schedule for BAPAC Website Updates 11-7-17* and she reviewed the tasks. For the first task, she stated that BAPAC Agendas are posted in each municipality before the meetings. In addition, she said meeting notes along with agendas are combined in a PDF posted on the BAPAC website annually. Regarding the task of posting links to consumer confidence reports that's been on the "to do list" for a while. Patty asked the BAPAC members to give her their consumer confidence links and she would forward them to the PVPC webmaster to be posted on the BAPAC website.

Patty stated that she will email the solar project information and K-12 resource information to the BAPAC members in advance for their review so that they can be posted to the BAPAC website by February. Patty noted that Bob had indicated he would create a new aquifer formation graphic. Bob said he will complete it after Thanksgiving. Patty also urged BAPAC members to get her photos to put on the website.

5. Massachusetts Environmental Trust Grant Request

Patty announced that the application for the Massachusetts Environmental Trust Grant has a deadline of December 15th and the application will be resubmitted. Patty indicated that she will bring the resubmission documentation to the December BAPAC meeting for review.

6. Next Scheduled Meeting Date:

Mike announced that the next BAPAC meeting is scheduled for Tuesday, December 5th. A short discussion ensued about the January meeting date but it was agreed that it will be January 2nd. Mike called for a motion to adjourn.

Tom Gaughan made a motion to adjourn this November 7th BAPAC meeting at 5:07 p.m. and the motion was seconded by Bob Newton, and unanimously approved.