

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

**DATE:** 9/1/15      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

<input checked="" type="checkbox"/> M. Czerwec, Easthampton	C. Seklecki, Easthampton	
D. Conti, Holyoke	J. Burkott, Holyoke	A. Smith, Holyoke
T. Gaughan, Southampton	R. Kemp, Southampton	James Labrie, Southampton
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present:: Emanuel Sardinha and Rob Levesque for 1056 North Road project proposal; Carl Vincent of Westfield Planning Board; and Barbara Rokosz of Westfield Concerned Citizens

**TIME OF CALL TO ORDER:** 3:34 p.m.      **TIME OF ADJOURNMENT:** 4:45 p.m.

**Action Items from Meeting:**

PVPC

- Write up 9/1/15 meeting notes
- Prepare and distribute agenda for next meeting
- Write letter to Westfield Planning Board re: 1056 North Road project
- Invite West Springfield and Southwick Water Department officials to share what they are doing to prepare Water Management Act permit renewals
- Revise work plan as discussed at 9/1/15 meeting
- Finish writing FY2014 and FY2015 annual report
- Attend Cook Road land protection meeting on September 14

BAPAC members

- Mike will develop and maintain Face Book page for BAPAC

**1. Adoption of June 2 meeting notes**

Adoption of the June meeting notes was postponed until notes are drafted. Writing of annual report covering two years took an inordinate amount of time.

**2. Developments of Regional Impact**

1056 North Road, Dunkin Donuts

Property owner Emanuel Sardinha and engineering consultant Rob Levesque reported that they are proposing a 6,000± square-foot commercial building for 1056 North Road. The project site, located near the intersection with Old County Road, will include a retail space and a Dunkin Donuts franchise with drive-through service. The site is 1.57± acres, which is below the required 2 acre minimum for lot size in the Zone II, but is part of a few number of non residential lots that can now be developed based on the City's most recent revisions to the water resources protection zoning ordinance. The project also proposes to add impervious surface that is more than 15% of the lot/parcel or 2,500 square feet per lot. Much of the site will be occupied by the building itself or asphalt cover for driveways and parking spaces.

As currently proposed, stormwater drainage from the roof, drives, and parking area will be captured by 3 catch basins and routed to a Storm Tech isolator row, which provides subsurface

infiltration of stormwater. The stormwater report for the project indicates that overflow from the subsurface system will be directed toward the existing stormwater infrastructure in Old County Road.

Because the storm flow from the roof will essentially be clean, BAPAC members suggested that the applicant explore the possibility of capturing this flow with a cistern for reuse, either within the building or outside for landscape irrigation. In addition, BAPAC members had four recommendations:

- ☞ Curb all bituminous surfaces so that in the event of a spill, contaminated material can be contained on the impervious area.
- ☞ Include a gate valve before the isolator row system so that in the event of a spill the valve can be turned off to prevent the spill from reaching the isolator row.
- ☞ Pretreat all stormwater, perhaps with a swirl separator, before it moves into the isolator row to ensure the continued ability of the isolator row to infiltrate over the long term.
- ☞ Stipulate in the operation and maintenance plan that no synthetic chemical fertilizers or pesticides be used for landscaping work associated with the project. Also for winter de-icing, use ecologically friendly alternatives to sodium chloride to prevent salt contamination of drinking water supplies.

The applicant requested suggestions for finding organic land care specialists. BAPAC will provide a source in the recommendations letter to the Westfield Planning board on which the applicant will be ccd.

1006 Southampton Road, Contractor Yard

Westfield Planning Department sent information on this project, but applicant did not appear before BAPAC. Woody indicated that he would recommend applicant attend October BAPAC meeting to describe proposal.

**3. Salt Study 2015 - update**

No update provided.

**4. Work plan for FY2016**

Patty distributed the draft annual report for FY2014 and FY 2015, which includes the FY2016 work plan. She requested a discussion about the coming year's work so that she can add to the annual report narrative. A full discussion of the annual report will be on the agenda for the October meeting. Key points from the work plan discussion were:

- Now that the work on commenting on the SWMI regulations is over, work should help facilitate information sharing about preparing applications for Water Management Act permit renewals. Woody suggested that perhaps water department officials from West Springfield and Southwick would be willing to come talk with BAPAC about their experience. (As they are in the Westfield River basin, their permit renewals are due before Southampton and Easthampton, which are in the CT River basin.)

- From the experience on land protection with the Cook Road property, Patty has learned that BAPAC should ensure that land trusts take the lead in protecting important properties. BAPAC can provide support, but she feels does not have the capacity or know how to navigate what can sometimes involve complicated land deals.
- Guidance to local boards of health on geothermal projects will be an important activity for the coming year. Information developed in the past year on this should be posted on the BAPAC website.
- Reach out to other possible funding sources for the BAPAC video. Rather than reach out to foundation sources, would be better to get support locally from businesses. Will help to involve them in care for drinking water supply. Patty will begin by developing list of possible local funding sources and circulating the list for input.
- Mike will develop and maintain a Face Book page for BAPAC to help supplement the work being done on the website. Additional website work this year will entail posting the best practices brochure, and creating section on K-12 resources. The latter can draw from existing resources on the web.
- In the SEP request letter to MassDEP, include storm drain labelling and printing best practices brochure for distribution at schools

## **5. Other Business**

None

## **6. Next Meeting**

October 6 @ 3:30 p.m.  
50 Payson Avenue, Easthampton

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

**DATE:** 10/6/15      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

<input checked="" type="checkbox"/> M. Czerwec, Easthampton	C. Seklecki, Easthampton	
D. Conti, Holyoke	J. Burkott, Holyoke	A. Smith, Holyoke
T. Gaughan, Southampton	R. Kemp, Southampton	James Labrie, Southampton
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
<input checked="" type="checkbox"/> R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present:: Matthew Roman and John Keilch of Westfield; Barbara M. LaFlam of Southampton; and Mary Ann Babinski and Barbara Rokosz of Westfield Concerned Citizens

**TIME OF CALL TO ORDER:** 3:36 p.m.      **TIME OF ADJOURNMENT:** 4:55 p.m.

**Action Items from Meeting:**

PVPC

- Write up 10/6/15 meeting notes
- Prepare and distribute agenda for next meeting
- Follow up with Westfield Planner and City Clerk on referring proposal for expansion of motorcycle business on Southampton Road
- Follow up with West Springfield and Southwick Water Department officials on sharing what they are doing to prepare Water Management Act permit renewals
- Finalize FY2014 and FY2015 annual report
- Information to Bob about porous asphalt
- Contact state geologist Steve Mabbee at UMass...perhaps invite to BAPAC meeting to talk about how might pose a study to USGS
- Continue assistance where needed for Cook Road land protection

BAPAC members

- All municipal reps provide updates to Patty for Service Table 1.1 in draft annual report
- Bob to provide salt study report

**1. Adoption of September 1 meeting notes**

Adoption of the September meeting notes was recommended by Mike, seconded by Woody, and unanimously approved.

**2. Developments of Regional Impact**

There were no DRIs officially before BAPAC for review, but conversation under this item addressed project review issues related to the development proposal for 1006 Southampton Road, Westfield. Westfield Planner Jay Vinsky had sent the project application to BAPAC and Patty put the project on the September agenda. The applicant, however, did not appear at that meeting to explain what he is proposing. As a result this project at 1006 Southampton Road went to City Council without BAPAC review and comments. Patty had an e-mail exchange with Jay, clarifying that for BAPAC to comment on a project an applicant must attend a meeting and provide a description of the proposed plan. For the future, projects will not be put on the agenda unless the applicant contacts Patty and makes the request to appear before BAPAC.

Mary Ann Babinski noted that there was another problem involving the City Council public hearing notice not mentioning the need for a special permit on this project. She said that the City Council had referred the matter to their L&O Subcommittee.

Woody provided an update on several other projects in the works within Westfield:

- Another proposal for South Road involves locating a part of a motorcycle business on a lot that is partially within the Zone 2. The public hearing for this project is not yet set.
- The public hearing for Dunkin Donuts, a project for which BAPAC already provided comments, is still open. The project proponent has worked out an agreement with the East Mountain Country Club to help with meeting septic system requirements for nitrogen mitigation. Bob Newton explained that the two protected acres at the country club will be used to offset the mitigation that cannot be attained at the developed site. Mary Ann Babinski noted that the Country Club has been using lots of fertilizer and there is a question about how so much fertilizer use affects the Aquifer and how this mitigates for nitrogen. Woody noted that MassDEP has approved the proposal already under Title 5.

As an aside, Patty asked Bob whether he knows where the groundwater divide is located between water flowing to Westfield's wells and water flowing to Easthampton's wells. He indicated that he is not sure and that flows can be different at different times of year. Patty asked what might be a good strategy to get a USGS study done for the Barnes Aquifer. She had worked in the past with a great USGS study done for North Kingstown, Rhode Island. Bob suggested talking first with the state geologist Steve Mabee who is at UMass. He might know how to best pose a study to USGS.

### 3. Updates

#### Integrated water management planning in Easthampton

Mike reported that Easthampton and its consultants, Kleinfelder and Tighe & Bond, did the first public meeting on the integrated water management plan on September 29. This plan will include stormwater, drinking water, and waste water, a review of all existing infrastructure, all existing resources, etc. The meeting provided an overview, but not any detail as of yet. There will be additional public meetings.

#### Salt Study, 2015

Bob reported that the analysis for the salt study was completed in May. He will provide a final report that relates the data to the old salt study. In general they found chloride in one well exceeding 694 parts per million and several other wells are severely impacted.

#### Cook Road land protection

Patty provided a hand out (attached to these notes) that summarizes the September 14 meeting with Easthampton officials, Southampton officials, the landowner, and Winding River Land Conservancy. Barbara La Flam explained that her family has agreed to extend the agreement with Winding River to allow for time to work out funding for the land purchase for 6 months. If by that time, the family feels that the "ducks are in a row," they may extend the time frame. They are looking for affirmative votes from Community Preservation Committees and then from Southampton Town Meeting and from Easthampton City Council.

#### **4. Annual Report for FY2014 and FY2015 and Work plan for FY2016**

Patty distributed an updated draft of the annual report for FY2014 and FY 2015, which includes the FY2016 work plan. The following were the key points of discussion:

Municipal representatives need to provide updated information for Barnes Aquifer Service in Table 1.1, page 3

In the Executive Summary and beginning of Chapter 2, it was recommended that Patty include:

- Information about increased withdrawals from other uses, particularly the 3 breweries that have been permitted in Easthampton (Abandoned, New City, and Fort Hill). Mike will provide figures for capacity. But also explorations in Westfield by Niagra. These projects have particular significance under the new Water Management Act regulations and the concern is that though such projects might be out of the regulated Zone 2, they present significant withdrawals from the Aquifer. Outside of the Zone 2, projects would not normally come before BAPAC for comment. Maybe put it out to regulated authorities that the committee welcomes the opportunity to comment on these projects or even possibly amend MOA to include such projects.
- Mention of the trend of ZBA waivers for undersized lots in Westfield

#### **5. Other Business**

John Keilch of Westfield said he runs an organic farm along the Manhan River near the border with Southamton. He has 500 feet of frontage on the Manhan and has noted that it is been running with very low flow. He is concerned about why this flow is so low and the proposal for a brewery that might further contribute to this condition. It was noted that the Manhan seems to have chronically low flow since construction of the pipeline around 1993, delivering surface water from Tighe Carmody to Holyoke.

#### **6. Next Meeting**

November 3 @ 3 p.m.  
50 Payson Avenue, Easthampton

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

**DATE:** 11/3/15      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

<input checked="" type="checkbox"/> M. Czerwec, Easthampton	C. Seklecki, Easthampton	
D. Conti, Holyoke	J. Burkott, Holyoke	<input checked="" type="checkbox"/> A. Smith, Holyoke
T. Gaughan, Southampton	R. Kemp, Southampton	James Labrie, Southampton
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
<input checked="" type="checkbox"/> R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present:: Jeffrey Auer, Town of West Springfield DPW; Randy Brown, Town of Southwick DPW; Aaron Wagner, Carpet Warehouse; John Burke, Whip City Aviation; Rob Levesque, R. Levesque and Associates; Paul Dion, Westfield Air and Transport Museum

**TIME OF CALL TO ORDER:** 3 p.m.      **TIME OF ADJOURNMENT:** 5:05 p.m.

**Action Items from Meeting:**

PVPC

- Write up 11/3/15 meeting notes, including summarizing conversation with Jeffrey Auer and Randy Brown re: experience to date in Water Management Act repermitting
- Follow up with Mass DCR on water forecasting
- Prepare and distribute agenda for next meeting
- Finalize FY2014 and FY2015 annual report
- Send out funding solicitation letters for video project
- Contact state geologist Steve Mabbee at UMass...perhaps invite to BAPAC meeting to talk about how might pose a study to USGS
- Continue assistance where needed for Cook Road land protection

BAPAC members

- All municipal reps provide updates to Patty for Service Table 1.1 in draft annual report
- Bob to provide salt study report

**1. Water Management Act Permitting Under the new Sustainable Water Management Initiative (SWMI) Standards**

Jeffrey Auer from West Springfield DPW and Randy Brown from Southwick DPW were kind enough to join BAPAC members to talk about their experience to date in repermitting municipal wells under the new Sustainable Water Management Initiative standards within the Water Management Act. Both Southwick and West Springfield are within the Westfield River basin so are required to submit permit renewal applications between September 30 and November 30, 2015. Connecticut River basin communities must submit permit renewal applications within the same timeframe next year, in 2016. Following are major highlights from the conversation:

Process

- MassDEP hosted meeting in September for Westfield Basin permittees to introduce revised permitting process and new regulatory requirements. The powerpoint presentation from this meeting is available at:

<http://www.mass.gov/eea/agencies/massdep/water/watersheds/water-management-act-permit-renewal-outreach.html> (see bottom of page)

- Permits for Southwick and West Springfield expire in November 2016 so both municipalities are in process of reapplying for new permits. Southwick has already submitted and West Springfield will submit before end of November 2015. Then there will be consultation sessions with MassDEP, DFW, and DCR staff. MassDEP will then issue "order to complete" likely in the spring or summer and Southwick and West Springfield must respond before permit is renewed.
- Application for renewal has entailed providing a lot of details about the system, much of which can come from the annual statistical report. Randy said MassDEP is looking for how permittees can make improvements in their system through internal audits, automatic read systems, etc.
- Mass Fish and Wildlife did a study at Great Brook to examine withdrawal impacts on the brook. Watershed Ecologist is Laila Parker. Jeff says some good information from this to promote understanding of impacts in Town.
- Jeff said that it looks like raising water rates in West Springfield will be a given for both residential and commercial uses to help address the water department funding gap that will come with conservation at a time when there are infrastructure issues that must be resolved. The limits on outdoor water use alone could reduce annual revenues by as much \$250,000.

#### Surprises

- In West Springfield, Jeff said they are facing a cut in withdrawal authorization of 6.45 MGD to below 4 MGD to approximate current use. This is based on water needs forecasting for West Springfield done by MassDCR. (Southwick has not yet done forecasting with MassDCR.)
- In Southwick, the current authorization is for .73 MGD. The Town would like to apply for authorization of a higher withdrawal amount, but are waiting to see how process moves along. (West Springfield received a letter from DCR indicating that the amount of water in the permit renewal application cannot exceed the amount currently permitted.)
- In conversations about curtailing outdoor water use and irrigation, MassDEP is pushing to have bans be tied to USGS gauge in Westfield River with 7 days of low flow serving as the trigger. Currently, West Springfield has an ordinance related to outdoor water use, but it is not tied to the Westfield River gauge.

#### Mitigation

- West Springfield is exploring possible releases at Bear Hole Reservoir to help mitigate drinking water withdrawal impacts during critical months, but not sure whether this will work well given the nature of the reservoir basin.
- Any mitigation activity since 2005 is eligible to receive credit under the new permit.

## **2. Adoption of October 6 meeting notes**

Adoption of the October meeting notes was recommended by Mike, seconded by Bob, and unanimously approved.

### 3. Developments of Regional Impact

#### Contractors' Yard, 1006 Southampton Road, Westfield

Project proponent Aaron Wagner reported that he would like to use the back of his property at 1006 Southampton Road as a contractor yard for wood storage. Mr. Wagner reported that the surface is gravel and storm flows drain through the gravel surface to underlying subsoils, as well as sheet flow to the back of the property. Based on the conversation with BAPAC members, Mr. Wagner said that there will be no storage of pressure treated lumber, fuel or other hazardous materials, and no vehicle maintenance. The project site is located within the Zone II of Westfield's water supply wells #7 and #8.

BAPAC members wanted to make sure that the City Council decision makes note of the prohibitions in order to protect the City's drinking water supply:

- ☞ Ensure that no vehicle maintenance and fuel storage will occur on the property
- ☞ Ensure that no pressure treated wood or other hazardous material storage will occur on the property

#### Aircraft Hangar, Whip City Aviation, Westfield- Barnes Regional Airport, Westfield

Rob Levesque of R. Levesque and Associates said that he was concerned that his client is being asked to attend to stormwater requirements when neighboring properties are not. The federal project to build a taxi way for example on nearby property had no requirements for stormwater attenuation. They are just allowing sheet flow off the runway. Mr. Levesque said he was also in receipt of an e-mail message from MassDEP indicating that if you are not creating a point source, you need not seek a stormwater permit. He wants to make sure that the approach is not to overdesign for stormwater management. Patty requested that Mr. Levesque forward the e-mail to her so that she can check with MassDEP on this. Woody noted that the Airport Commission had done a checklist for guidance on stormwater. Patty indicated it would be great to know what was on this checklist. She will follow up with Woody on this to see what next steps might be appropriate.

Moving on to the development proposal at hand, Mr. Levesque and John Burke of Whip City Aviation reported that Whip City Aviation is proposing construction of a 6,426 square foot aircraft hangar that would stand adjacent to an existing hangar. Stormwater flow from the proposed new hangar would drain to an existing catch basin, then move through pipes to a swirl separator, into an existing forebay, and into an infiltration basin that is currently used to manage storm flow from the adjacent hangar. The infiltration basin will be modified to expand capacity for managing the increased storm flows from the new hangar facility and associated new access drives.

Mr. Levesque and Mr. Burke also talked about 2 additional hangars to be constructed in the future, but details of the stormwater management system were not yet developed. Mr. Levesque indicated that they are hoping to be able to direct flow to an existing outlet structure that delivers flow to a low spot.

For the currently proposed hangar, BAPAC members have the following recommendations:

- ☞ Curb any new road or driveway surfaces so that in the event of a spill, contaminated material can be contained on the impervious area and not move into the stormwater system.
- ☞ Ensure that there is an emergency shut off valve to prevent spills from reaching the sediment forebay and infiltration basin. The Emergency Spill Response Plan should include

regular testing of valve shut off procedures, as well as spill containment so that fuel remains on the road and driveway surfaces and does not reach the stormwater management system.

- ☞ Ensure that there are clear provisions for proper disposal of the fuel sump drainage generated during pre flight preparations – typically this is less than 1 cup of fuel, but there is a cumulative impact to improper disposal.
- ☞ If floor drains are required, ensure that the tight tank meets DEP requirements for a Zone 2. Also stipulate that hauling records are submitted to the Board of Health at the time of hauling.
- ☞ Operation and maintenance should include use of winter deicing materials that will not harm groundwater sources.

#### Westfield Air and Transport Museum, Barnes Airport, Westfield

Rob Levesque of R. Levesque and Associates and Paul Dion of the Museum said that a museum is planned for property leased from the City of Westfield. The museum is a nonprofit organization with a mission of creating a museum and hangar space for planes and other modes of transportation (95% aircraft).

While the program for the museum needs to be further defined, the current plan is to build the facilities in 3 to 4 phases as follows:

- Phase 1 - 72x100-foot storage building to house 4 to 5 planes, including one rotary engine plan
- Phase 2 - 2 hangars
- Phase 3 - museum building

Development of the parking area may be integrated with these phases.

The intent is to have as little paving as possible. There is an existing swale that runs across the front of the property. There are also 2 swales that run to an existing retention basin. Any run off from the parking lot would see pretreatment before going to the retention basin.

The vintage WWII planes can travel over grassy areas and they are considering the use of perforated planks to create a surface for getting planes to the taxi way.

Based on questions from Bob Newton, Mr. Dion said the planes would be in flyable condition. There would be no refueling at the museum location; rather any refueling would occur over at the main ramp where the fuel trucks are located. Bob noted that some of the old planes leak oil at a fairly high rate with the rotary also tending to drip. Perforated planks, he noted, may not be a good idea. Mr. Dion said that the majority of aircraft will not have rotary engines.

Woody asked what they plan to do for water as there is no water line in the street. He added that the square footage of the first hangar is below the square footage for requiring a fire suppression plan.

There has not been a formal submission yet of the project to the Westfield Planning Board. BAPAC can issue a letter with some general thoughts, but would need to see plan that shows proposal for stormwater system.

#### **4. Annual Report for FY2014 and FY2015 and Work plan for FY2016**

Patty requested data for the Barnes Aquifer Service in Table 1.1, page 3 so that she can finish up report. Woody and Mike will send information in the next week.

**5. Updates**

Salt Study, 2015

Bob shared a map that shows location of all 20 wells tested for road salt and the 9 wells that are impacted by road salt. Six of the impacted wells are along Route 10 and two are along Route 202 just north of the airport. Bob continues to work to finish the study and make some comparisons between the last and current salt study.

Cook Road land protection

Patty reported that the next meeting for the Cook Road land protection group will be on November 5.

**6. Other Business**

None

**7. Next Meeting**

December 8, 2015 @ 3:30 p.m.  
50 Payson Avenue, Easthampton

DRAFT

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

**DATE:** 12/8/15      **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	A. Smith, Holyoke
<input checked="" type="checkbox"/> T. Gaughan, Southamptn	R. Kemp, Southamptn	James Labrie, Southamptn
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present: Richard Gwinner and Barbara LaFlam of Southamptn; Marla Hanc, Southamptn Conservation Commission; Mark Chrisos of Con Ed Development; Mike Gagnon of Milone & MacBroom, Inc.; Steve Marsden of SHR Energy Management; Mary Ann Babinski, Westfield City Council Elect; and Jean Carpenter and Barbara Rokosz of Westfield.

**TIME OF CALL TO ORDER:** 3:35 p.m.      **TIME OF ADJOURNMENT:** 5:10 p.m.

**Action Items from Meeting:**

PVPC

- Write up 12/8/15 meeting notes
- Draft comment letters for Solar Park at 219 Russellville Road, Westfield
- Draft comment letter for Solar Project, Rock Valley Road, Holyoke
- Prepare and distribute agenda for next meeting
- Finalize FY2014 and FY2015 annual report
- Send out funding solicitation letters for video project
- Contact state geologist Steve Mabbee at UMass...perhaps invite to BAPAC meeting to talk about how might pose a study to USGS
- Continue assistance where needed for Cook Road land protection

BAPAC members

- Bob to provide salt study report

**1. Adoption of November 3 meeting notes**

Adoption of the November meeting notes was recommended by Mike Czerwiec, seconded by Tom Gaughan, and unanimously approved.

**2. Developments of Regional Impact**

Solar Project, Russellville Road, Westfield

The project site is located within the Zone II of Southamptn's water supply well. Con Edison Development's Mark Chrisos and engineering consultant Michael Gagnon from Milone & MacBroom explained that Con Edison Development proposes to construct a 2 megawatt, 8,800 panel ground-mounted solar array at 219 Russellville Road. The 35-acre site, which has been vacant now for 2 to 3 years, is a former construction yard and sand and gravel mine. The terrain of the site is greatly varied with wetlands and construction and demolition debris piles that include asphalt, gravel, and concrete. These stockpiles will be used onsite as fill.

The site drains generally from northwest to southeast and because of the gravel and sand material removed from the site, the groundwater table is now only 3 feet from the soil surface in

many locations. During the environmental assessment phase of the project, low levels of oil contamination were found in three areas at or slightly below ground surface, but no contaminants were found in the groundwater monitoring wells. For the oil contaminated soil, Con Edison is currently involved in the Massachusetts Contingency Plan process to address this problem.

As part of the proposed project, Con Edison plans to make improvements to the existing gravel access road. This includes narrowing the road from 28 to 20 feet and constructing grassed swales with check dams along each side of the road to slowly convey the flow of stormwater away from the roadway. The cable carrying power from the transformers to the electrical line on Russellville Road will run alongside the access road. The site will be regraded in locations to direct flow toward a stormwater basin and planted with a grass conservation seed mixture that will be mowed periodically.

Mr. Chrisos and Mr. Gagnon reported that an existing garage building will be maintained as part of the project, but no motor vehicles will be stored on site. The solar panels will transmit energy to two transformers. Coolant to be used in the transformers, some 300 gallons, is called Enviro Temp FR3, and is a non toxic vegetable oil. Responding to a question from a BAPAC member about panel cleaning, Mr. Chrisos reported that rainfall provides effective washing of the panels so that cleaning is not required.

The project team is expecting that the Westfield Planning Board will have a final decision on the project at a December 15th meeting. BAPAC members have the following recommendations, which were informed in part post meeting by a June 2015 MassDEP document entitled, "Questions and Answers: Ground Mounted Solar Photovoltaic Systems" and experience on recent solar projects by the Town of Spencer's acting planner.

- ☞ Ensure that there will be no oil, hazardous materials, or other potential contaminants stored on-site.
- ☞ Stipulate that no fertilizers or pesticides be used for vegetation management since the potential for groundwater contamination, with the water table so close to the surface, is great.
- ☞ Stipulate that should there be any need to clean panels, only non toxic cleaning products (such as a water and vinegar solution) will be used.
- ☞ Require regular mowing of grasses to ensure minimal fuel for wildfires in the areas around the panels. Fire is the greatest threat to the integrity of the panels and potential release of hazardous materials from the panels.
- ☞ Ensure that there is a plan for properly decommissioning the panels and 100% funding for decommissioning secured through a bond or through a dedicated cash account. The average life of photovoltaic panels is 20 to 30 years. Special arrangements will be necessary for recycling, reusing or disposing of the panels so as to prevent problems with any associated hazardous materials within the panels. The operator, land owner, and municipality should all be party to the bond with a review every 5 years to ensure that the funding amount adequately covers the costs of decommissioning. It should also be stipulated that the bond be automatically renewed every year and that any notice of nonrenewal by the bonding company be issued 120 days in advance to provide the parties time to establish another source of security or to draw on the bond.

### Solar Project, Rock Valley Road, Holyoke

The City's Conservation Agent referred this development proposal to BAPAC for review in accordance with the 1989 Intermunicipal Memorandum of Agreement for the Barnes Aquifer. The project site is located within the recharge area for numerous private wells.

Steven Marsden of Marsden Engineering explained that his client, SHR Energy Management, proposes to construct a 650 kilowatt ground-mounted solar array on Forestdale Cemetery Association property on Rock Valley Road. The project will involve installation of 2,052 solar panels on a 2-acre area. Mr. Marsden reported that there will be some selective clearing by hand of trees over 15 feet high, no grading, and no new impervious area. An existing driveway will be used to access the site.

Mr. Marsden explained that the solar array will transmit energy to one transformer to be located at the northeastern corner of the site. When asked about the coolant to be used in the transformer, he indicated that the transformer is specified by Holyoke Gas & Electric, which will be buying the power generated by the array. He was not sure about whether the specified transformer makes use of non toxic coolant. There was also some discussion about cleaning of the panels and how rainfall should be adequate for washing panels. The site will be planted with grasses and mowed just once a year to keep out woody plants.

BAPAC members have the following recommendations, which were informed in part post meeting by a June 2015 MassDEP document entitled, "Questions and Answers: Ground Mounted Solar Photovoltaic Systems" and experience on recent solar projects by the Town of Spencer's acting planner.

- ☞ Ensure that coolant within the transformer is non toxic vegetable oil and that there will be no oil, hazardous materials, or other potential contaminants stored on-site.
- ☞ Stipulate that no fertilizers or pesticides be used for vegetation management so as to avoid groundwater contamination.
- ☞ Require regular mowing of grasses to ensure minimal fuel for wildfires in the areas around the panels. Fire is the greatest threat to the integrity of the panels and potential release of hazardous materials from the panels.
- ☞ Stipulate that should there be any need to clean panels, only non toxic cleaning products (such as a water and vinegar solution) will be used.
- ☞ Ensure that there is a plan for properly decommissioning the panels and 100% funding for decommissioning secured through a bond or through a dedicated cash account. The average life of photovoltaic panels is 20 to 30 years. Special arrangements may be necessary for recycling, reusing or disposing of the panels so as to prevent problems with any associated hazardous materials within the panels. The operator, land owner, and municipality should all be party to the bond with a review every 5 years to ensure that the funding amount adequately covers the costs of decommissioning. It should also be stipulated that the bond be automatically renewed every year and that any notice of nonrenewal by the bonding company be issued 120 days in advance to provide the parties time to establish another source of security or to draw on the bond.

### **3. Finalize Annual Report for FY2014 and FY2015 and Work plan for FY2016**

Patty indicated that Table 1.1 within the annual report now includes updated information from Westfield and Easthampton. Tom Gaughan handed Patty updated information from Southampton at the meeting with which she can finalize the report. Patty also reviewed with

members two additions that had been requested by members, including BAPAC interest in reviewing development projects that involve entities with higher water use, and mention of the need to address series of waivers in Westfield for undersized lots. Mike Czerwiec recommended approval of the annual report as corrected and presented, this was seconded by Tom Gaughan, and then unanimously approved.

#### **4. Updates**

##### Cook Road land protection

Barbara LaFlam reported that a representative of the Easthampton Community Preservation Committee came and walked the Cook Road property with her. The Southampton Community Preservation Committee then approved \$2,400 to help pay for an appraisal update. Winding River Land Trust is working with Bob O'Connor to do the appraisal. The next meeting for the Cook Road land protection group will be on January 14.

##### Fundraising for video

Patty shared letters she has prepared for the 3 Easthampton breweries and Easthampton Savings Bank to request help with funding the video on the Barnes Aquifer. As Chair of BAPAC, Woody Darling signed the letters. Some additional suggestions for funding by members and others attending included:

- C&S Grocers, which makes ice as part of their operation (they gave BAPAC an education grant some 10 to 12 years ago)
- Local cultural councils
- Southampton Mothers Club (Barbara LaFlam will provide contact information)
- Gulfstream, Home Depot, Lowes all of which are located in the Zone II

##### Barnes Airport stormwater management plan

Woody Darling reported that he has seen the multi-sector stormwater management plan prepared by the Airport as required by the EPA's multi sector stormwater permit.

#### **5. Other Business**

None

#### **6. Next Meeting**

January 5, 2016 @ 3:30 p.m.

50 Payson Avenue, Easthampton

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

**DATE:** 1/5/16      **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	R. Kemp, Southampton	James Labrie, Southampton
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
<input checked="" type="checkbox"/> R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present: Richard Gwinner, Ed Gwinner, and Barbara LaFlam of Southampton; Marla Hanc, Southampton Conservation Commission; Mary Ann Babinski, Westfield City Council Elect; and Barbara Rokosz of Westfield Concerned Citizens.

**TIME OF CALL TO ORDER:** 3:32 p.m.      **TIME OF ADJOURNMENT:** 5:10 p.m.

**Action Items from Meeting:**

PVPC

- Write up 1/5/16 meeting notes
- Prepare and distribute agenda for next meeting
- Send out funding solicitation letters for video project
- Update BAPAC website with studies as recommended by state geologist Steve Mabee (then follow up on his thoughts about working toward request to USGS for study on Barnes Aquifer)
- Continue assistance where needed for Cook Road land protection

BAPAC members

- Mike will obtain well log from Easthampton Board of Health for geothermal well dug at residence on Clark Street and share with other BAPAC members
- Bob to meet with Patty to identify and locate additional Barnes Aquifer studies that should be included on BAPAC website.

**1. Adoption of December 8 meeting notes**

Adoption of the December meeting notes was recommended by Tom Gaughan, seconded by Bob Newton, and unanimously approved.

**2. Citizen Speak**

Mary Ann Babinski indicated that she is unofficially as of now Westfield City Council liason with BAPAC. The official appointment should be forthcoming.

**3. Developments of Regional Impact**

There were no DRI projects officially before BAPAC for review. Mike Czerwiec noted that there is a geothermal well going in on Clark Street. Bob suggested that Mike ask for the well log for this project from the Board of Health. Patty noted that the company drilling the well seemed to be from Connecticut based on what she had seen on the side of their truck. This speaks to the importance of getting guidelines on geothermal wells out to Boards of Health given that out of state companies are not often aware of Massachusetts regulations.

#### 4. **Distribute Final Annual Report for FY2014 and FY2015 and Work plan for FY2016**

Patty provided copies of the Annual Report and Work Plan, one for each BAPAC community, and noted that the report is also posted to the BAPAC website.

#### 5. **Updates**

##### Fundraising for video

Patty noted she needs to follow up on letters she sent to breweries and Easthampton Savings Bank.

##### Cook Road land protection

Barbara LaFlam reported that Mark Walmsley of Kestrel Trust walked the property with her. Richard Gwinner and Barbara, and particularly Ed Gwinner expressed great frustration and disappointment over the seeming lack of progress toward acquisition of their land. They made it clear that the family's extended deadline to April 1 is predicated on them seeing good progress and specifically approval by each of the municipalities for their share of costs in the acquisition. Patty reiterated that she is not in the lead on this project, but is available to assist where needed.

Marla Hanc indicated that Southampton Town Administrator Heather Budrewicz is meeting with Southampton Selectboard on this issue on Thursday, but Marla does not know what Heather was going to say/request from the board about this land acquisition.

Andrew asked about right of first refusal under Chapter 61 properties and indicated that this provides 180 days for a municipality to act. Marla said that the Town had talked about this in concept when the 2 previous lots on this property were released. She said it is very unlikely that the Town of Southampton would hold things up for 180 days given that the family has been working with Winding River and BAPAC now for 2 years toward acquisition.

Patty said she would reach out to Winding River Land Conservancy and Kestrel Land Trust right away to get an update on next steps and strategy. There is a meeting with both municipalities scheduled for January 14th to include Mayor Cadieux and Heather.

##### Salt study

Bob Newton provided several hand outs related to the most recent salt study. One chart shows the concentrations of chloride at several private wells from 2004 to 2015. Of the 21 wells sampled, 10 are salt impacted and two of these are at or above the 250 mg/l state maximum contaminant level threshold for chloride.

Bob noted that many of these wells are located in bedrock area where wells are more sensitive to higher concentrations because the volume of water storage is very low with water quickly passing through these areas. It may be too that there are natural sources of sodium. Stratified drift areas of the aquifer, in contrast, are not as sensitive, because they have higher volumes of water storage and water moves through more slowly. So when you do see chloride contamination, observed Bob, it takes a much longer time to resolve and is harder to get rid of in stratified drift. Woody noted that Westfield's municipal wells, which are located in the stratified drift area, have been showing increased salt concentrations over time.

For next steps, it will be important to sample from observation wells, groundwater pumping wells in the summer when there are base flow conditions. This will cost about \$5,000.

## 6. Other Business

### Website

Patty reviewed with committee members a few improvements to the BAPAC website and sought their input on where to put links to guidance on geothermal and solar projects.

Following is how Patty will proceed based on comments:

- Add box on home page about best tasting drinking water awards to Easthampton and Southampton
- Put links to geothermal and solar project guidance on both the "information for property owners" and "information for developers" pages
- Put more recent DRI example letters on developers page
- Add studies on Aquifer that have in hand already and work with Bob Newton to get additional studies from him
- Meeting Notes and Annual Reports page will include only meeting notes from current fiscal year as notes from past years are already included in the annual reports
- Post meeting notes as they are finalized
- Post the latest annual report to the Meeting Notes and Annual Reports page
- Links page should include connections to municipal consumer reports

Members recommended e-mailing the BAPAC website link to all municipal officials as many likely have no idea that it exists.

### Proposing USGS study of Barnes Aquifer

Patty reported on a call that she had with state geologist Steve Mabee regarding a possible proposal to USGS to do study of Barnes Aquifer. (Bob Newton had referred Patty to Steve for this.) Steve recommended several preliminary steps:

- Put all old hydrological analysis studies and atlas information on BAPAC website
- Evaluate what information we have about the Aquifer, what we do not have, and what we most want to know
- Develop brief proposal/mini scope of work, perhaps an RFP of sorts indicating that this is what we would like and send to Steve for review

Steve noted that USGS is very expensive and they would want to see some cost sharing, possibly 10 to 25 percent. Possible contacts include: Peter Weiskel (though he is now semi retired), Leslie DeSimon, John Masterson (modeller), Denis LeBlanc (works on Cape).

## 7. Next Meeting

February 2, 2016 @ 3:30 p.m.

50 Payson Avenue, Easthampton

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

**DATE:** 2/2/16      **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	A. Smith, Holyoke
<input checked="" type="checkbox"/> T. Gaughan, Southampton	R. Kemp, Southampton	James Labrie, Southampton
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
<input checked="" type="checkbox"/> R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present: Barbara LaFlam of Southampton; Marla Hanc, Southampton Conservation Commission; Gail Santoro, Winding River Land Conservancy; Mary Ann Babinski, Westfield City Council Elect; and Barbara Rokosz of Westfield Concerned Citizens.

**TIME OF CALL TO ORDER:** 3:34 p.m.      **TIME OF ADJOURNMENT:** 4:30 p.m.

**Action Items from Meeting:**

PVPC

- Write up 2/2/16 meeting notes
- Prepare and distribute agenda for next meeting
- Continue assistance where needed for Cook Road land protection
- Send out funding solicitation letters for video project
- Update BAPAC website with studies as recommended by state geologist Steve Mabbee (then follow up on his thoughts about working toward request to USGS for study on Barnes Aquifer)

BAPAC members

- Bob to meet with Patty to identify and locate additional Barnes Aquifer studies that should be included on BAPAC website.

**1. Adoption of January 5 meeting notes**

Adoption of the meeting notes was postponed to the March 1 meeting to allow Patty to make corrections under discussion of the salt study. BAPAC members took a moment to further the discussion about the salt study, which focuses on chloride. Bob Newton noted that chloride is corrosive. In light of the tragedy in Flint, Michigan, he observed that it might be an important thing to think about. Woody Darling said that he has in the past used the Langelier Index to estimate corrosivity in Westfield's supply. He said he is seeing increases in chloride in Westfield Wells 1 and 2, which has nearby roads (where salt is presumably used for deicing). Mike Czerwiec said he is not seeing a lot of chloride in Easthampton's supply and Tom said there is no history of chloride in Southampton's supply.

**2. Citizen Speak**

Barbara Rokosz of Westfield Concerned Citizens said she is concerned about another airport project. She said she had heard about a plan to remove 25 acres of trees when the Air National Guard went before the City Council to talk about leasing land. The ANG is apparently working to update design of its facilities to meet security requirements and developing a longer access road is part of this.

### 3. Developments of Regional Impact

There were no DRI projects officially before BAPAC for review.

Woody Darling noted that there is another solar array project in Westfield planned for Southampton Road. The developer will call Patty to get on the next BAPAC agenda. Patty asked whether anyone knows how the Westfield Planning Board received BAPAC recommendations on the last solar array project. Woody said that the Russellville Road project did end up specifying low growing grass species to reduce risks to the panels should there ever be a fire on the site.

There is also an indoor amusement park in the works for 15 acres on Falcon Drive in Westfield. This will include a water park.

### 4. Updates

#### Cook Road land protection

Patty provided an update on the last meeting with Easthampton and Southampton representatives and distributed the graphic provided by Kestrel Land Trust on the "preferred plan" for land acquisition. The arrangement gives each municipality the interest in the land they wish for with Easthampton holding the conservation restriction and Southampton holding fee ownership. The arrangement achieves this while also providing for equal amount of Community Preservation Act investment from each of the communities.

Patty noted that there is still quite a bit of work to do in seeing this protection through. She acknowledged that much of her BAPAC time last year was invested in this project. Currently, Kestrel Land Trust with Winding River Land Conservancy are in the lead, but they would like continued support from BAPAC if possible.

Barbara LaFlam noted that Southampton town meeting is in May and that there needs to be outreach to residents in advance of the meeting. This can include cable access, focus groups, fact sheet. Barbara has flyer that she assembled before Selectboard meeting in June 2015 that may be useful. The Town is also going for CPA funding for greenway funding, but it has become clear that there are sufficient funds to pursue both projects.

Marla Hanc said that one of the important points to make is that because this property is contiguous to other protected lands, it plays a key role in wildlife corridors and helps further the feel of a rural town. It was noted too that Southampton gets 25 acres of open space for \$350,000, a fairly good deal. Marla said it will be important for the family to see that something is happening as soon as possible.

BAPAC members agreed that it would be a good investment for Patty to continue to work in support of this project, including providing help to Kestrel Land Trust in preparing for this next round of proposals to each of the communities and the state grant programs. Bob noted it is important to finish this work. Woody said it should be a priority and all agreed.

#### Porous paving

Patty shared with BAPAC members a recent e-mail from MassDEP's Tom Maguire providing clarification and an update on porous paving. The key points being:

- While porous paving is discouraged in the Zone II, within the current Massachusetts Stormwater Handbook, it does not preclude its use
- MassDEP did prepare a draft revision to the porous pavement section of the stormwater handbook, but that did not advance forward for a number of reasons

Bob noted that Smith College is putting in a permeable parking lot this spring that will accommodate 14 cars. They are doing a test with half the lot being conventional asphalt and the other half being porous asphalt. The facility will be instrumented to provide information that can help guide the College in its practices.

## **5. Other Business**

## **6. Next Meeting**

March 1, 2016 @ 3:30 p.m.

50 Payson Avenue, Easthampton

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

**DATE:** 3/1/16      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

<input checked="" type="checkbox"/> M. Czerwiec, Easthampton	C. Seklecki, Easthampton	A. Smith, Holyoke
D. Conti, Holyoke	J. Burkott, Holyoke	James Labrie, Southampton
<input checked="" type="checkbox"/> T. Gaughan, Southampton	<input checked="" type="checkbox"/> M. Hanc, Southampton	
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	
<input checked="" type="checkbox"/> R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present:

Barbara LaFlam of Southampton; Mary Ann Babinski, Westfield City Council; and Barbara Rokosz of Westfield Concerned Citizens; Joel Lindsay, Ameresco, Inc.; and Rob Bukowski, Amec Foster Wheeler.

**TIME OF CALL TO ORDER:** 3:33 p.m.      **TIME OF ADJOURNMENT:** 4:45 p.m.

**Action Items from Meeting:**

PVPC

- Write up 3/1/16 meeting notes
- Prepare and distribute agenda for next meeting
- Continue assistance where needed for Cook Road land protection
- Make updates to website as recommended by Marla Hanc

BAPAC members

- Participate where needed on Cook Road land protection

**1. Adoption of January 5 and February 2 meeting notes**

Adoption of the January meeting notes was recommended by Mike Czerwiec, seconded by Bob Newton, and unanimously approved. Approval of February meeting notes was postponed until the next meeting.

**2. Citizen Speak**

No comments.

**3. Developments of Regional Impact**

Groundmount PV Solar Array Installation, North Road, Westfield

Joel Lindsay, business development manager for Amaresco, and Robert Bukowski, engineering consultant from Amec Foster Wheeler, described Amaresco's proposed installation of a 3.9 megawatt (DC) ground-mounted solar array on approximately 20 acres of a 30 acres on North Road. The installation is proposed for an undeveloped City-owned parcel that Mr. Lindsay reported had been cleared some 3 years ago. Acreage to be covered by the panels has been amended to 13 acres though the power generation capability has not changed.

For the access road, the developers will make use of the pathway of an existing dirt road. They reported too that grading of the site will be minimal and that erosion and sediment controls will be

set up during construction to protect nearby wetlands. Post construction there are no stormwater controls planned for the site. Mr. Lindsay noted that based on their other New England sites, rainfall provides effective washing of the panels. As such, there is no intention to clean panels.

Panels will be mounted on galvanized steel posts driven into the soil. Each of the inverters for the system will sit on small concrete pads and transformers will use a food grade oil. The life span of the panels is about 20 years.

BAPAC members had the following recommendations:

- ☞ Ensure that there will be no oil, hazardous materials, or other potential contaminants stored on-site.
- ☞ Stipulate that no fertilizers or pesticides be used for vegetation management to avoid any contamination of groundwater.
- ☞ Stipulate that should there be any need to clean panels in the future, only non toxic cleaning products (such as a water and vinegar solution) will be used.
- ☞ Require planting of low growing grasses or regular mowing of other types of grasses to ensure minimal fuel for wildfires in the areas around the panels. Fire is the greatest threat to the integrity of the panels and potential release of hazardous materials from the panels. *As an alternative, obtain assurances that the solar panels contain no hazardous materials.*
- ☞ Ensure that there is a plan for properly decommissioning the panels and 100% funding for decommissioning secured through a bond or through a dedicated cash account. The average life of photovoltaic panels is 20 to 30 years. Special arrangements will be necessary for recycling, reusing or disposing of the panels so as to prevent problems with any associated hazardous materials within the panels. The operator, land owner, and municipality should all be party to the bond with a review every 5 years to ensure that the funding amount adequately covers the costs of decommissioning. It should also be stipulated that the bond be automatically renewed every year and that any notice of nonrenewal by the bonding company be issued 120 days in advance to provide the parties time to establish another source of security or to draw on the bond.

#### Building and parking lot, Root Road, Westfield

Proponent did not appear before BAPAC on this project.

#### 4. Updates

##### Cook Road land protection

Toward further defining the case for the Cook Road land protection, Patty asked how reliant Southampton is on Easthampton for water supply.

Tom noted that CEI is doing a drinking water supply master plan for Southampton and looking into whether the Town should seek increased withdrawal authority under Water Management Act repermitting. Money had been set aside for construction of a new well, but this will likely be unnecessary if increased withdrawal is approved. MassDEP has indicated that the Town should have about 3 days worth of stored water. CEI will be done with the plan in late summer/late fall likely.

He also indicated that in an average year, Southampton uses about 120 million gallons. In a dry year, only about 12 million gallons are needed from Easthampton. The Annual Statistical Reports have this data. Easthampton's water only feeds one part of Southampton. A super

booster pump would be needed to overcome the hydraulics to supply other parts of Southampton. Southampton is currently exploring interconnections with Westfield and with Holyoke. Relative to Holyoke, one hurdle is that Holyoke fluoridates water coming from Tighe Carmody and Southampton has an ordinance against fluoridation.

Patty noted that by the sounds of it, Easthampton would need to be the applicant if a Drinking Water Supply Grant is sought from MassDEP.

Website

Marla noted several updates that are needed to the BAPAC website, including membership, functioning link on map, and Drinking Water Week. Patty will replace Drinking Water Week news with information about best tasting water and will make updates as Marla noted.

**5. Other Business**

None

**6. Next Meeting**

April 5, 2016 @ 3:30 p.m.  
50 Payson Avenue, Easthampton

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

**DATE:** 4/5/16      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

<input checked="" type="checkbox"/> M. Czerwec, Easthampton	C. Seklecki, Easthampton	
D. Conti, Holyoke	J. Burkott, Holyoke	A. Smith, Holyoke
<input checked="" type="checkbox"/> T. Gaughan, Southamptn	<input checked="" type="checkbox"/> M. Hanc, Southamptn	James Labrie, Southamptn
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	<input checked="" type="checkbox"/> Heather Miller
R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present: Barbara LaFlam of Southamptn; Mary Ann Babinski, Westfield City Council Elect; Carmine Capua, Westfield; Filipe Cravo, R. Levesque Associates

**TIME OF CALL TO ORDER:** 3:30 p.m.      **TIME OF ADJOURNMENT:** 5:05 p.m.

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**Action Items from Meeting:**

PVPC

- Write up 4/5/16 meeting notes
- Prepare and distribute agenda for next meeting
- Continue assistance where needed for Cook Road land protection
- Follow up with Bob on core samples for Cook Road property
- Have additional studies scanned and then post all studies to BAPAC website
- Invite Easthampton Media to next meeting
- Explore best shape for drain labels
- Contact Ray Talkington about whether there may be rule of thumb on how much development can have over Aquifer

BAPAC members

- Help finalize Developments of Regional Impact comment letters
- 

**1. Adoption of March 1 meeting notes**

Approval was postponed to April 5 meeting as notes were not yet ready.

**2. Citizen Speak**

Mary Ann Babinski asked if there was any information on when development over a Zone II/aquifer reaches a tipping point. How much is too much? Is there any good guidance?

Patty Gambarini noted that there are some good rules of thumb when it comes to amount of impervious cover and stream and river health, but she had not seen anything on protecting drinking water supplies. Woody Darling suggested getting in touch with Ray Talkington, a hydrogeologist from New Hampshire, who knows a lot about the Barnes Aquifer and had done a lot of research related to Westfield's Zone II. Patty will reach out to Ray to see if he can provide some guideline.

### 3. Developments of Regional Impact

#### 0 East Mountain Road, Westfield

BAPAC members heard a proposal from Carmine Capua for constructing a house at a location referred to 0 East Mountain Road. Mr. Capua showed that the project site involves a 9.82 acre flag lot. The proposed driveways extends east from East Mountain Road up a hillside where the proposed grade for the driveway is an average of 15% and proposed width is 12 feet. The property will have on-site septic and a well. The Zone 2 for the Aquifer extends across the western part of the property.

BAPAC members expressed concern that the property is in a steeply sloping bedrock area where development could promote increased movement of water through the developed area that is downgradient of these slopes and toward the nearby town wells. Narrowing the width of the driveway and minimizing disturbance and other impervious surfaces should be key strategies to reducing these potential impacts. Furthermore, use of synthetic chemical fertilizers and pesticides for landscaping should be completely restricted. Mr. Capua said they would work with the location of the driveway based on the grade.

#### Jarvis Surgical, 53 and 56 Airport Road, Westfield

Filipe Cravo, a project engineer with R. Levesque Associates, Inc., explained that his client Jarvis Surgical acquired adjacent land to expand an existing manufacturing facility at the corner of Airport Road and Apremont Way. With the expansion, Mr. Cravo explained there will be an increase in impervious area with a 15,000 square foot addition to the building and a larger parking area that has a total of 66 spaces. Another area at the corner of Apremont Way and Airport Road, he said, will be used only for overflow parking area and will remain gravel as it is currently. Deliveries will come in from Airport Road and utilize a new loading dock at the southeastern end of the facility. He explained that drainage from the roof will be directed to an existing infiltration basin. Drainage from the parking area will be directed to a new infiltration basin with stormwater first passing through a hydrodynamic separator then sediment forebay before it reaches the infiltration basin. BAPAC members asked several questions that led to several recommendations:

- Parking lot and drives should be bermed to contain spills and prevent hazardous materials from infiltrating to groundwater.
- Dry wells should be eliminated from the new infiltration basin receiving parking lot drainage to reduce risk of groundwater contamination.
- Where drainage moves from the parking lot to the hydrodynamic separator, ensure there is a shutoff valve and instructional sign so that it is absolutely clear that response during a spill requires closing of this valve.
- Ensure that there is regular maintenance of the hydrodynamic separator. Too often these facilities are neglected and thus fail to perform and provide treatment as designed.
- Consider redesign of the inlet to the parking lot sedimentation forebay so that likelihood of scour and erosion to the walls of forebay are reduced.
- Stipulate that no chemical fertilizers or pesticides be used for vegetation management to avoid potential contamination of groundwater.

Patty asked Mr. Cravo if there was any point in his work with his client to explore more innovative solutions than what is currently proposed. Mr. Cravo said they had talked about rain gardens in the parking lot, but that those facilities would likely cost more and take more maintenance. Patty said she meant that given that this company's work is essentially in the health care industry, whether they had expressed any interest in doing something really

innovative to model good practices in both drinking water supply protection, energy efficiency, etc.. Capture and reuse of rainfall within their manufacturing building could be but one example. She noted that there are some good leaders out there showing other companies how these practices can be done and that she thought a company in the health care industry could set an especially good example.

#### New Solar Bylaw, Southampton

Patty circulated the proposed new solar bylaw for Southampton. She pointed to several places within the document where recent BAPAC comments on solar projects to protect drinking water supply would be useful:

- For both site plan review and site plan approval processes, sections G and H, require that project site plan show location of the Zone II.
- If project is in Zone II, require information on level of hazard or toxicity of system components.
- Under design and performance standards, section H5, prohibit use of herbicides, pesticides, and chemical fertilizers and promote use of low growing grasses to minimize fuel available in case of fire.
- Revise paragraph on Hazardous Materials, section H5f, to put the last sentence at the beginning.

#### **4. Updates**

##### Cook Road land protection

Mark Walmsley of Kestrel Land Trust and others have been working diligently in Southampton to get the word out. Patty, Marla Hanc, and Barbara LaFlam had attended a Board of Selectmen meeting where board members voted 2-1 to support the acquisition. Mark was planning to hold a follow up meeting with the Board that evening and he and others were planning to meet with the Community Preservation Committee the following night. Marla asked if we could have Bob Newton follow up on his offer to do core samples on the property to provide information about the role of infiltration of rainfall to the aquifer. Barbara said she had already given Bob permission so that he need not track her down when coming to the property. Patty said she would send an e-mail to Bob about this to see if he can follow up.

##### BAPAC studies for website

Patty distributed list of Aquifer studies that she has for website. Some have already been scanned and several studies that are newly in her possession from Bob Newton will be sent to be scanned. Patty said that in her meeting with Bob to get additional studies, he noted that all of the studies are town by town and that none really cover the Aquifer as a whole. A more holistic understanding of the Aquifer is critically important for the towns relying on it for drinking water supply. This will be an important point in helping to make the case for a more comprehensive study.

##### Storm drain labels

Patty revisited the topic of storm drain labels, pulling out the design and pricing that had been completed earlier. BAPAC needs to identify a source of funding to help produce the labels and then once produced, labels can be provided to developers for installation wherever they are using infiltration as a strategy to manage stormwater from roadways, parking lots, and driveways. Heather Miller noted that the storm drain labels may be too small at the size shown on paper. Mary Ann Babize noted that drain labels installed by the Westfield Watershed Association tend to get lifted by plows. She suggested that it would be good to look into what label shape might

be least likely to get lifted by a plow. Marla noted that Easthampton had just mapped all its storm drains as part of the integrated water planning work being done.

### Outreach

Tom Gaughan received an e-mail from Easthampton Media to do a piece on Southampton's water supply. Easthampton Media was one outlet that Patty had talked with and shared a story outline about the Barnes Aquifer video. Initially, she said, she was concerned that a small piece on Southampton would detract from a larger more powerful piece on the Aquifer as a whole. Given the lack of time to do some real fundraising to produce this larger piece, Patty said she is having a change of heart and recognizing that the story told from a very local point of view, possibly town by town, may not be a bad idea. Collaborating with Easthampton Media might work well provided the following:

- That the larger story about the Aquifer that is told in the Southampton video (with BAPAC's help) could be produced in such a way as to provide components/segments for other videos to be done for Easthampton, Westfield, and possibly Holyoke.
- That Easthampton Media be open to BAPAC's use of the video, perhaps in shortened format, in other venues, especially schools and community events.

Patty also said she would like to meet with local breweries to come up with a more powerful program of outreach. Events, fun slogans like "no water; no beer" could all help to elevate the importance of protecting drinking water supply and making it hip at the same time. BAPAC members suggested possibly engaging the following businesses:

- Black Birch Vineyard in Southampton,
- Opa-Opa, Southampton
- Fort Hill Brewery, Easthampton
- Abandoned Building Brewery, Easthampton
- New City Brewery, Easthampton
- Root Road brewery project that should be forthcoming
- Paper City Brewing, Holyoke
- Whip City Brewery, Westfield

### **5. Other Business**

None

### **6. Next Meeting**

May 3 2016 @ 3:30 p.m.

50 Payson Avenue, Easthampton

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

**DATE:** 5/3/16      **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	A. Smith, Holyoke
<input checked="" type="checkbox"/> T. Gaughan, Southampton	<input checked="" type="checkbox"/> M. Hanc, Southampton	James Labrie, Southampton
<input checked="" type="checkbox"/> W. Darling, Westfield	K. Leigh, Westfield	<input checked="" type="checkbox"/> Heather Miller
<input checked="" type="checkbox"/> R. Newton	<input checked="" type="checkbox"/> P. Gambarini, PVPC	

Others present: Mary Ann Babinski, Westfield City Council Elect; Pastor Chad Correia, Mountain View Baptist Church; Michael Gagnon, Milone & MacBroom; Mark Reed, Heritage Surveys, Inc.; Kathleen Lynch, Easthampton Media; Diane Kirby, indoor amusement park, water park developer.

**TIME OF CALL TO ORDER:** 3:33 p.m.      **TIME OF ADJOURNMENT:** 5:05 p.m.

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**Action Items from Meeting:**

PVPC

- Write up 4/5/16 meeting notes
- Prepare and distribute agenda for next meeting
- Continue assistance where needed for Cook Road land protection
- Follow up with Easthampton Media to next meeting
- Send reminder to Ray Talkington re: aquifer studies

BAPAC members

- Help finalize Developments of Regional Impact comment letters

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**1. Adoption of April 5 meeting notes**

Adoption of the April meeting notes was recommended by Tom Gaughan, seconded by Mike Czerwiec, and unanimously approved.

**2. Citizen Speak**

Mary Ann Babinski noted that the Westfield Evening News had reported on MassDEP survey waterways. She asked if anyone knew anything about this, but no one did.

**3. Developments of Regional Impact**

Mountain View Baptist Church Expansion, 310 Apremont Highway, Holyoke

BAPAC members heard a proposal from Pastor Chad Correia and engineering consultant Michael Gagnon of Milone & MacBroom for an expansion of the Mountain View Baptist Church on Apremont Highway. The church is proposing a 15,000 square foot addition with approximately 7,500 on 2 floors. The expansion would be done on the southwestern side of the existing building. Grades on the site vary from 10 to 15% slope. In the area of the building, geotechnical analysis has indicated that it is soft "excavatable" rock, according to Mr. Gagnon.

Main access to the site will continue via a driveway from Apremont Highway. As part of the expansion, the church will be bringing in new water service, connecting to the City's water lines along Apremont Highway. Minister Correia said that the church will close down its existing well

once this new connection is made. The church will be constructing a new septic system to supplement the older 1992 septic system that will continue to service the existing older building.

Mr. Gagnon reported that impervious cover (roofs, parking lots, driveways) will increase from 1.2 to 1.4 acres of the total 13.2 acres of the project site. Parking lots and roadways are curbed so that most stormwater flow from these surfaces will go directly to 2 leaching catch basins. Stormwater flow from 1 parking lot catch basin, from roofs, and several yard drains will be directed to an underground infiltrator unit that is equipped with one isolator row to trap sediment and debris. Mr. Gagnon observed that the infiltrator unit is located 50 feet from the septic system's leach field to meet state setback requirements. He noted too that there is access provided for a vacuum truck to reach the infiltrator should inspection indicate that the isolator row needs maintenance. The infiltrator unit overflows to an existing drainage swale and detention structure. The proposed expansion will include a small gravel parking area, where stormflow will sheet flow to a grassy area.

BAPAC members made several recommendations:

- Provide pretreatment for stormflows coming from parking areas and loading docks before infiltration to protect groundwater supplies. A pretreatment facility also typically allows for a shutoff valve in case of a spill on these surfaces. Mr. Gagnon indicated that the infiltrator unit is preceded by an inverted elbow, but it was not clear how this would keep any spilled oils or fuels from reaching groundwater supplies. The leaching catch basins in the parking lot would infiltrate directly.
- Stipulate that no fertilizers or pesticides be used for vegetation management and that no salt be used for snow and ice management to avoid groundwater contamination.
- Ensure that the stormwater management facility operation and maintenance plan has clear direction for frequency of inspection and maintenance activities so that stormwater facilities operate as designed.

#### Proposal for light industrial building at Madieros Way (Summit Lock Road), Westfield

Though not on the agenda, Mark Reed of Heritage Survey, Inc. said that he wanted to provide an update on a project proposed by his client Rich Oleksak for a development on 4.6 acres of land on Madieros Way. Nothing has yet been filed with the City of Westfield and there were not even preliminary plans presented to BAPAC.

The proposal will be for a building that will house 3 tenants, including a woodworking shop some other light industrial activity, and storage and operations space for Mr. Oleksak. This is the site where Millenium Power had made a proposal some years ago. Mr. Reed said he has been working since February with the Natural Heritage and Endangered Species Program, in hopes that a conservation restriction can be place on a portion of the property. There has been some discussion with the City about accepting a conservation restriction, but the City Solicitor is recommending that the Conservation Commission not take the conservation restriction due to liability concerns.

The development will require on-site wastewater treatment and the plan will include water a stormceptor for pretreatment of stormflow from surfaces and water quality swales to promite recharge. Patty noted that BAPAC would not provide formal comment to the City until plans were more defined.

Proposal for indoor amusement park, water park at Madieros Way (Summit Lock Road), Westfield

This project was heard under "Other business," but placed under this section so that project can be better followed. Diane Kirby said she is in the process of working with Berkshire Design Group to develop a proposal for an indoor amusement park and water park and was seeking initial feedback from BAPAC members. The indoor amusement park would be located on 10 acres of land with a 4-acre building and 2-acre parking lot. The building itself will be 70-feet in height, for which Ms. Kirby said she has an okay from Brian Barnes relative to aircraft safety. Across the street she is also interested in developing a 2.5-acre indoor water park with 2 acres of parking. The water park building would be 50-feet in height. Water circulation would be self contained with no drainage in and out of the park. Woody Darling recommended that Ms. Kirby look at the Aquifer Protection Overlay District Ordinance. He noted that she will need to comply with the special permit requirements. Heather noted that with such a large project Ms. Kirby could phase construction. Each phase of construction, however, would have to ensure proper stormwater management.

**4. Updates**

Cook Road land protection - Marla and Patty reported that Mark Wamsley of Kestrel Land Trust prepared a flyer (which they distributed to BAPAC members), and was preparing a public service announcement. A public information session was set for May 12th in advance of Southampton's Town Meeting on May 17th. Bob Newton is planning to attend the public information session to talk about the aquifer and the importance of land protection for water supply.

Video - Kathleen Lynch from Easthampton Media joined BAPAC members to talk about a possible video on the Aquifer. Patty noted that Easthampton Media had reached out to Southampton to do a video, but maybe there is a way to produce some standard pieces for Southampton that can also work for other Barnes Aquifer communities. Ms. Lynch said that she wants to facilitate producing the video, but not act as a production company. She noted that they had done something similar some time ago on Nashawannuck Pond. Ms. Lynch said it would be great for members to capture footage and images year round that could be used. Bob noted that he has an animation of how water moves through the system that might be used. She said it would be helpful to have a resource list of experts and materials. Based on a question from Patty, she said there is no conflict using video product on the web, other cable access channels, or schools.

Storm drain labels - Patty suggested that in advance of storm drain labels and other public outreach efforts, members think about a possible new logo. The existing logo on the letterhead is difficult to comprehend. She showed an example of one possible idea.

**5. Other Business**

See above under Developments of Regional Impact: "Proposal for indoor amusement park, water park at Madieros Way (Summit Lock Road), Westfield"

**6. Next Meeting**

June 7, 2016 @ 3:30 p.m.  
50 Payson Avenue, Easthampton

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

**DATE:** 6/7/16      **LOCATION:** Easthampton Municipal Offices, Easthampton, MA

**MEMBERS AND DESIGNEES PRESENT:**

<u>X</u> M. Czerwiec, Easthampton	C. Seklecki, Easthampton	
D. Conti, Holyoke	J. Burkott, Holyoke	A. Smith, Holyoke
<u>X</u> T. Gaughan, Southamptn	<u>X</u> M. Hanc, Southamptn	James Labrie, Southamptn
<u>X</u> W. Darling, Westfield	K. Leigh, Westfield	<u>X</u> Heather Miller
<u>X</u> R. Newton	<u>X</u> P. Gambarini, PVPC	

Others present: Mary Ann Babinski, Westfield City Council; Barbara Rokosz of Westfield Concerned Citizens; Joyce Donahue, EPA Headquarters

**TIME OF CALL TO ORDER:** 3:35 p.m.      **TIME OF ADJOURNMENT:** 5:05 p.m.

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**Action Items from Meeting:**

PVPC

- Write up 6/7/16 meeting notes
- Prepare and distribute agenda for next meeting
- Continue assistance where needed for Cook Road land protection
- Follow up with Easthampton Media on video
- Send reminder to Ray Talkington re: aquifer studies
- Check with MassDEP on drinking water grants
- Prepare draft annual report

BAPAC members

- Help finalize Developments of Regional Impact comment letters

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**1. Recognition of Charles "Woody" Darling and appointment of new chair**

Committee members wished Woody well in his new life adventures with good food and thoughtful words. Woody noted that he will likely be working part time for the City and may find his way to another BAPAC meeting. Mike Czerwiec was voted in as the new chair and Tom Gaughan as the new vice chair.

**2. Citizen Speak**

Barbara Rokosz said she is concerned about expansion projects at the airport and asked, "How much of the Zone 2 can we cover until we have a problem?" Patty said that BAPAC is working toward trying to get USGS interested in doing a comprehensive study of the Barnes Aquifer so that we have better answers to this and many other questions.

A discussion ensued about specific things BAPAC could do to help improve practices, including:

- Best practices for poison ivy so that people do not use Round Up
- Posting signs to remind people that they are living over their water supply. Tom Gaughan has signs from National Waterworks Association. BAPAC will look into whether these signs will serve or whether another sign might be better.

### 3. Adoption of May 3 meeting notes

Adoption of the May meeting notes was recommended by Tom Gaughan, seconded by Marla Hanc, and unanimously approved.

### 4. Developments of Regional Impact

#### Closing of Westfield Wells 7 and 8

Woody described the problem at Wells 7 and 8: Perfluorooctanoic acid (PFOA) and Perfluorooctane Sulfonate (PFOS) were detected in these wells in 2013 at concentrations below the health standards at that time. In May, however, EPA issued new lower lifetime Health Advisories for PFOA and PFOS to reflect new scientific data on potential health effects, from 400 parts per trillion to 70 parts per trillion. The City of Westfield Water Division subsequently issued an advisory announcing closure of the wells.

He said that at the beginning of last year, the Air National Guard at the Barnes Airport began testing for groundwater contamination around their fire training area, the likely source of contamination. They plan to get rid of all of these firefighting compounds that are now stored on the base. Ray Talkington, a consultant, will be coming to discuss: status of Wells 1 and 2, which are located downgradient of wells 7 & 8; the extent of groundwater contamination; and a proposed plan for removal.

Joyce Donahue of EPA Headquarters joined in the conversation, explaining that she is a native of Westfield, but works in Washington DC, and happened to be in the area for vacation. She was the lead scientist on the health risk assessment for these compounds. She noted that the problem is Air National Guards have been using these chemicals at fire training areas for long periods of time. Groundwater contamination is a big problem in other parts of the country and that triggered a check at the Barnes. There are major problems at Pease, Otis, a number of places in New Jersey, and Decatur, Georgia, among others.

She explained that these chemicals do not break down. You do not get rid of it once it is in the body...it binds to proteins. So it interferes with a lot of processes in the human body. The biggest impact is on the immune system where it will bind to antibodies, she noted. PFOs cause neurological delays. The company that manufactured these chemicals, 3M, stopped making them in 2002.

Tom Gaughan noted that a Southampton resident tested their public water for PFOA and PFOS, but results came back negative.

Mary Ann suggested that there needs to be more strict conditions for operations in the airport area. Be a good citizen campaign might be a good starting place.

It was noted that Gulfstream, which also operates out of the airport, does not use this type of firefighting foam.

### 5. Updates

Cook Road land protection - Marla reported that Mark Wamsley of Kestrel Land Trust will be preparing a LAND grant proposal to help cover acquisition costs. The plan is to meet with Easthampton's Community Preservation Committee in September and then work to get approval from the Easthampton City Council come November.

## **6. Work Plan for FY2017**

Patty distributed the BAPAC work plan, walking members through the list and identifying which activities had been completed in FY2016. Several of these are ongoing activities and several activities have been better defined for work in FY2017. Among the activities that rise to the top for FY2017--aside from ongoing activities--are:

- working with Easthampton Media on a video,
- exploring installation of signs and storm drain labels,
- posting information on geothermal projects and groundwater considerations and getting that information out to Town boards.

Patty noted that to do a robust education and outreach effort it would be great to get a grant. She will explore what may be available from MassDEP and MassEPA to start.

## **7. Other Business**

Patty distributed proposed changes to the Underground Injection Control Regulations noted that there is a hearing on June 28th in Central MA

## **8. Next Meeting**

September 6, 2016 @ 3:30 p.m.  
50 Payson Avenue, Easthampton