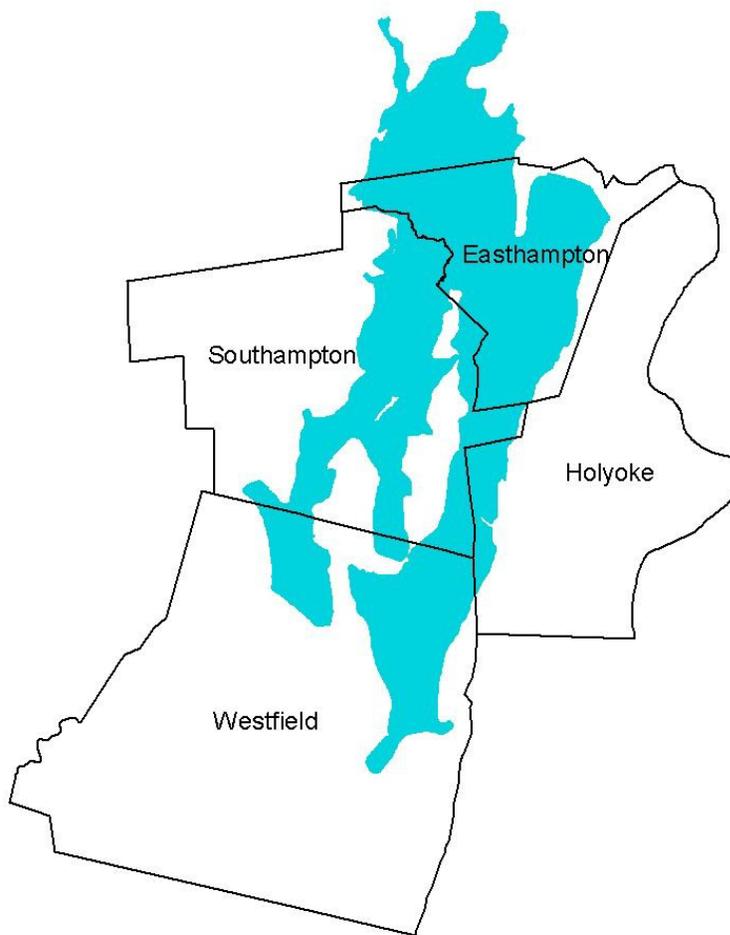


Barnes Aquifer

Protection Advisory Committee

Report on Fiscal Year 2008 Activities (July 2007 to June 2008)



Prepared by the
Pioneer Valley Planning Commission
In cooperation with
The Barnes Aquifer Protection Advisory Committee

October 2008

**BARNES AQUIFER PROTECTION ADVISORY COMMITTEE
(BAPAC)**

Fiscal Year 2008, July 2007 to June 2008 Annual Report
Prepared by Pioneer Valley Planning Commission

Acknowledgements

The Pioneer Valley Planning Commission would like to acknowledge the contributions of the municipal members of the Barnes Aquifer Protection Advisory Committee:

Charles Darling, Westfield, 2007-2008 Chair
Kenneth Taylor, Westfield
Michael Czerwicz, Easthampton, 2007-2008 Vice Chair
Robert Newton, Easthampton
Thomas Newton, Easthampton
Stuart Beckley, Easthampton
Chester Seklecki, Easthampton
Jeff Burkott, Holyoke
Alicia Zoeller, Holyoke
John Barrett, Holyoke
Joseph Slattery, Southampton
Mark Girard, Southampton

PVPC Staff Credits

Writing and Research: Anne Capra, Principal Planner, AICP
Pioneer Valley Planning Commission

This report was funded through a contribution from the four member communities and the Pioneer Valley Planning Commission.



TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	2
BAPAC ACCOMPLISHMENTS, JULY 2007 TO JUNE 2008	7
RECOMMENDATIONS FOR FISCAL YEAR 2009	15
BAPAC LONG-TERM WORK PLAN	16
APPENDICES	18
APPENDIX A MEETING MINUTES	
APPENDIX B DRI COMMENT LETTERS	

EXECUTIVE SUMMARY

Summary of Accomplishments for Fiscal Year 2008

This report details the activities and accomplishments of BAPAC for Fiscal Year 2008 (July 2007 to June 2008). BAPAC's accomplishments from Fiscal Year 2008 include:

- Received a Massachusetts Environmental Trust Grant to map monitoring and domestic wells within the Zone II. Project included collection of well logs for all 21E sites within Zone II and inputting data into geodatabase developed by Smith College;
- Performed fourth round of private well sampling along Routes 10 and 202 to monitor road salt contamination of groundwater; and,
- Performed 16 Developments of Regional Impact reviews.

Recommendations for Fiscal Year 2009

BAPAC should continue to promote regional action for protecting inter-municipal water resources. The key issues that should continue to be addressed through FY 2009 are:

- Support the implementation of best management practices for developments occurring within the recharge area through commenting on Developments of Regional Impact (DRI);
- Implement the well mapping, decommissioning and public outreach project funded through a grant from the Massachusetts Environmental Trust;
- Continue to seek funding to host a training workshop and discussion forum about the Barnes Aquifer for municipal officials;
- Seek funding to identify important parcels for the protection of the Barnes Aquifer;
- Continue to develop strong arguments and scientific data to support BAPAC's DRI comments; and,
- Continue public outreach and education about issues concerning the Barnes Aquifer and actions residents can take to ensure its protection.

INTRODUCTION

Importance of the Barnes Aquifer

The Barnes Aquifer has been widely recognized as one of the Commonwealth's most important regional groundwater supplies. The aquifer extends over 12 miles, providing water for over 60,000 residents in the communities of Easthampton, Southamton and Westfield. Although the aquifer extends into Holyoke, the City no longer draws water from the aquifer due to TCE contamination at its wells, closing the Pequot and Coronet Homes Wells in 1988. Nine active municipal wells and a large (108 unit) well field tap the regional aquifer, drawing a total safe yield of 21 million gallons per day. Portions of the aquifer in Easthampton have been designated a "sole source aquifer" by the U.S. Environmental Protection Agency.

A Regional Approach to the Barnes Aquifer

The size, importance, and inter-municipal geography of the Barnes Aquifer demands regional cooperation and regional solutions to fully protect this critical water supply. Recognizing this, the PVPC and municipal officials from Easthampton, Holyoke, Southamton, and Westfield convened an initial meeting in March of 1988 to discuss cooperative strategies for protecting the Barnes Aquifer. Out of this meeting grew the idea for creating a regional aquifer protection advisory committee.

On September 26, 1988, the Barnes Regional Aquifer Protection Advisory Committee held its first meeting. This ad hoc committee began work on a regional water supply protection strategy, and on an inter-municipal compact to formalize municipal commitments to implement the strategy.

Creation of the Barnes Aquifer Protection Advisory Committee

In December 1989, the chief elected officials in the Cities of Westfield and Holyoke, the Towns of Easthampton and Southamton, and the Pioneer Valley Planning Commission signed the "Memorandum of Agreement for Barnes Aquifer Protection" at a public ceremony. This agreement to act cooperatively to protect a natural resource of regional significance was the culmination of a yearlong planning effort by PVPC and a voluntary advisory task force of local officials and residents. The intergovernmental compact created a standing Barnes Aquifer Protection Advisory Committee (BAPAC) with the authority to review and comment on "developments of regional impact" in the aquifer recharge area, and to develop a regional aquifer protection strategy.

Issues Affecting the Barnes Aquifer

Trichloroethylene (TCE) Contamination

Although the aquifer extends into Holyoke, the city no longer maintains municipal wells in the Barnes Aquifer Zone II due to contamination of its wells by trichloroethylene (TCE). MA DEP asserts that the contamination originated at two sites in West Holyoke and Southamton from TCE laden toxic waste dumped by General Electric in the 1950s. TCE is a suspected carcinogen and has been linked to six different types of cancers including bladder cancer. A study of cancer rates from 1982 to 1997 showed that bladder

cancer rates among men are about 25% higher in Westfield and 85% higher in Southamptton than the state average. The MA Department of Public Health Center for Environmental Health's Community Assessment Program is conducting a Public Health Assessment of possible environmental exposures and cancer incidences in the Barnes Aquifer region. Although the findings of this study have not been released yet, MA DPH has submitted a letter of support for this project recognizing its need and importance (see attached letter of support).

Several years ago, MA DEP installed TCE filters at a number of homes with TCE contaminated wells that did not have access to public water. These filters cost \$2,000 per year to maintain and are a significant financial burden to most of the homeowners. Since detection of the TCE contamination, Westfield, Southamptton, and Easthampton have brought public water to most of the affected area, however there are still streets in Holyoke that are not serviced by public water (Rock Valley Road, Labrie Lane, Keyes Road and Mueller Road) . Some of these homes are on filters, some are not if they were purchased or built after MA DEP offered carbon activated filters. Although public water is available in Southamptton and Westfield, some property owners have chosen not to hook up and are still using TCE contaminated wells. At a public meeting in 2006, numerous residents of the Hampton Ponds area of Westfield, Southamptton and Holyoke stated that they were not aware that there was a contamination issue in this area and that they were utilizing private wells. It is unknown how many people are in this situation. It is likely that these people took ownership of their homes after DEP had performed their outreach and were never contacted directly.

The issues this project seeks to address are not new. They have been left on the back burner for almost a decade and have not been fully resolved. Financial constraints, lack of staff, and in some cases an irrational lack of cooperation have prevented all of the residents affected by the TCE contamination to be serviced with safe public water. Certainly the efforts of DEP's Western Regional Office should be commended for the extent to which they have taken the TCE contamination and for providing water filters to homeowners in need and maintaining them for two years. However, assistance from DEP has run out and it is costing homeowners \$2,000 a year to maintain the filters, a cost many cannot afford resulting in un-maintained filters which do not remove TCE before ingestion.

Development and Abandoned Monitoring Wells

Development pressures within Barnes Aquifer Zone II are significant. Although each of the four communities enacted aquifer protection district zoning and participate in a regional aquifer oversight committee called the Barnes Aquifer Protection Advisory Committee (BAPAC), commercial, industrial and residential development continues to consume important recharge land, bringing with it new threats and opportunity for aquifer contamination.

One of the greatest threats to the aquifer associated with past contamination and on-going development is the installation of hundreds of monitoring wells within the Zone II. Sites where monitoring wells have been installed include commercial and industrial facilities,

21E sites, and sites pertinent to the active TCE investigation of the Barnes Aquifer being conducted by DEP. In recent years, BAPAC has become increasingly aware of abandoned monitoring wells that are either not known to the current property owner or long since forgotten by them, yet not decommissioned. Abandoned wells that have not been decommissioned are a direct conduit to the aquifer and serve as a potential source of contamination.

In each of the four Barnes Aquifer communities, as well as many statewide, there are no local regulations requiring the decommissioning of monitoring wells once they are no longer of use. Likewise, M.G.L. c. 21E also does not require monitoring wells to be decommissioned once a site is beyond the five year audit period. According to the Office of Water Resources at MA Department of Conservation and Recreation, statewide 10,000 wells (both productive and monitoring) were installed in 2005 and only 750 wells decommissioned.

Examples of this threat to the aquifer are as follows. Beavers dammed Pond Brook near Westfield municipal well #8. The dammed water came within feet of covering a monitoring well installed during construction of Well #8. It is unknown if monitoring wells exist on other properties inundated by beaver activity. Also, at Westfield municipal well #3 last year, bacteria counts at the well prompted an investigation of monitoring wells in the area which found one monitoring well where the lock had been broken off by vandals and the cap left off. Well #3 and the monitoring well were both disinfected and the monitoring well re-secured. Last, MEPA Environmental Impact Reports from the early 1990s for Summit Lock Industrial Park in Westfield, the site of C&S Wholesale, identify the installation of 17 monitoring wells on a 139 acre parcel and an additional 12 on an adjacent parcel. Under MEPA, these wells were to be monitored annually and data submitted to DEP and the Westfield Water Department. Records indicate that the last round of sampling occurred in 1999. After several recent attempts to communicate with C&S about the status of their wells, the operations manager acknowledged that their monitoring program had been discontinued and he wasn't even sure where the wells are located.

Road Salt Contamination of Domestic Wells

BAPAC and Smith College are involved in an on-going investigation of the impacts of road salt on domestic wells in an area of Southampton and Westfield along Routes 10 and 202. (Note – the road salt impact zone appears to be adjacent to but outside of the TCE contaminated area.) Route 10 is maintained by MassHighway; Route 202 is maintained by the City of Westfield. Approximately 35 private wells were sampled in three sampling rounds between December 2004 and March 2006. More than 25 of these wells were determined to be salt impacted with sodium concentrations above the 20 mg/l limit set by the Massachusetts Office of Research Standards and Guidelines (ORSG) and chloride levels above the 250 mg/l Secondary Maximum Contaminant Level (SMCL).

Well owners with salt impacted wells have been notified by Smith College with a recommendation to contact their physician to determine if a high sodium diet is harmful to their health. Individuals with high blood pressure or other medical problems are often

on a sodium restricted diet. The Westfield City Council voted to direct the Westfield Department of Public Works to look into a reduced road salt program for this area, however, the DPW has not initiated any program as of yet. Due to other priorities and a lack of staff, the City of Westfield and the Town of Southampton have been unable to perform direct outreach to homeowners in this area. BAPAC has forwarded information to the Southampton Health Department about how to file a complaint with MassHighway about road salt contamination.

Barnes Aquifer Protection Advisory Committee Membership

The inter-municipal contract that created BAPAC specifies how many members are selected to the committee. The chief elected officials of each member community is to appoint three representatives and PVPC is to appoint one representative. BAPAC members for Fiscal Year 2008 were:

Easthampton Stuart Beckley, Planning Department
 Thomas Newton, Water Department
 Michael Czerwiec, Water Department
 Robert Newton, resident and Smith College Geology Department
 Chester Seklecki, Board of Health

Holyoke Jeff Burkott, Planning Department
 Alicia Zoeller, Conservation Commission
 John Barrett, Water Commission

Southampton Joseph Slattery, Water Department
 Mark Girard, Planning Department

Westfield Charles Darling, Water Department
 Kenneth Taylor, Conservation Commission

Pioneer Valley Planning Commission
 Anne Capra, Principal Planner, BAPAC Facilitator

Meetings

BAPAC met monthly from September 2007 to June 2008. Following is a brief summary of BAPAC meeting dates and key agenda items. Full minutes from BAPAC meetings are contained in Appendix A.

Monthly Meeting Summary

DATE	KEY AGENDA ITEMS
September 11, 2007	5 DRIs; Northampton Landfill Expansion and July 2007 water quality monitoring; MET Well Project; MA DPH Barnes Aquifer Cancer Study; FY07 Annual Report and FY08 Work Plan; Road Salt Contamination.
October 13, 2007	3 DRIs; MET Well Project; Road Salt Study; FY07 Annual Report and FY08 Work Plan.
November 13, 2007	2 DRIs; MET Well Project; Road Salt Study.
December 11, 2007	3 DRIs; MET Well Project; Road Salt Study.
January 8, 2008	4 DRIs; MET Well Project; Road Salt Study; Aquifer Protection Bylaw Updates.
February 5, 2008	4 DRIs; Road Salt Study; MET Well Project.
March 4, 2008	4 DRIs; Northampton Landfill Hannum Brook Report.
April 1, 2008	2 DRIs; BMPs for Groundwater Protection; Road Salt Study; MET Well Project.
May 13, 2008	5 DRIs; BMPs for Groundwater Protection; Road Salt Study; MET Well Project; Northampton Landfill Expansion.
June 3, 2008	1 DRI; BMPs for Groundwater Protection; Road Salt Study; MET Well Project; Northampton Landfill Expansion.

BAPAC ACCOMPLISHMENTS, JULY 2007 TO JUNE 2008

The following section summarizes the key issues BAPAC addressed and the accomplishments during Fiscal Year 2008.

Well Mapping in the Barnes Aquifer

BAPAC received a grant from the Massachusetts Environmental Trust to identify and map monitoring and domestic wells within the Zone II. Monitoring wells were identified through performing file review at MA DEP of all reportable releases of petroleum or hazardous materials (21E files). Well logs were copied for all wells and/or soil borings collected at each of the site and entered into a geodatabase developed Smith College. The geodatabase is currently being used to develop a detailed model of the Barnes Aquifer to forecast long-term aquifer capacity in the face of reducing recharge area, development, known contamination and increasing withdrawals.

Road Salt Impact Study on Domestic Wells

A fourth round of private well sampling to measure the impacts of road salt in the vicinity of Routes 10 and 202 in Westfield and Southamptton was conducted under the supervision of Robert Newton at Smith College in April of 2008. The results of the fourth sampling round are still pending. Three previous sampling rounds occurred in December 2004, September 2005 and March 2006.

Study Background

The purpose of the study is to survey the impact of road salt on domestic wells along Route 10 and North Road in Westfield, Southamptton and just over the border into Holyoke. The project was initiated by the Barnes Aquifer Protection Advisory Committee (BAPAC) in partnership with the Department of Geology at Smith College in December 2004. The project is also being sponsored by the Westfield Water Resources Department, Westfield Health Department, Southamptton Highway and Water Departments and the Southamptton Health Department.

The study has involved three rounds of domestic well sampling since 2004, as identified in Table 1, with a fourth round of sampling planned for the Spring of 2008. Sites were selected to generate a random sampling of locations within the study area and to track sodium chloride levels in wells with high concentrations during any one of the three rounds. BAPAC plans to expand the Spring 2008 sampling round to include all domestic wells along approximately one mile of Route 10 in Southamptton from the Westfield border toward the town center.

Study Results

As of the March 30, 2006 sampling date, 47% of wells sampled, or 16 out of 34, were determined to be impacted by road salt. Six of these salt-impacted wells were found to be severely impacted, having chloride concentrations in excess of 250 mg/L.

Table 1 Concentrations for Salt Impacted Wells in all Three Sampling Rounds

	Average (mg/L)*	Maximum (mg/L)*
Phase I – collected 12/15/04	Westfield = 26 sites, Holyoke=1 site	
Sodium	75.12	212.45
Chloride	138.92	429.68
<i>41% of wells salt impacted</i>		
Phase II – collected 9/21/05	Westfield=16 sites, Southampton=7 sites, Holyoke=1 site	
Sodium	108.89	346.06
Chloride	234.38	772.67
<i>58% of wells salt impacted</i>		
Phase III – collected 3/30/06	Westfield=22 sites, Southampton=8 sites, Holyoke=4 sites	
Sodium	66.18	244.52
Chloride	210.49	878.83
<i>47% of wells salt impacted</i>		

* This data is for salt impacted wells only and does not include those wells that were not determined to be above the 20 mg/L sodium or 250 mg/L chloride levels used to determine if a well has been impacted by road salt.

Not all sodium found in groundwater comes from road salt. Minerals containing sodium are common in the rocks of the local area. Natural weathering of these rocks will also release sodium into groundwater.

Therefore, to determine if wells were impacted by sodium chloride (NaCl), salt impacted, the concentration of chloride in the sample also had to exceed a critical value of 30.8 mg/L. This critical value is based on the concentration of chloride that would result if enough sodium chloride were dissolved to increase the sodium concentration by 20 mg/L. The Massachusetts Office of Research and Standards Guidelines (ORSG) has set the guideline for dissolved sodium at 20 mg/L. (There is no federal standard for sodium.) It is best to use chloride for the critical value to assess salt because, unlike sodium, there are no natural sources of chloride and the local rocks. This means that all sources of chloride in groundwater can be associated with road salt.

What does this mean?

People suffering from high blood pressure or heart disease should not consume water from the wells found to be salt impacted. These people should consult their physicians. All of the well owners that participated in the sampling rounds were notified of the results.

Corrective Actions

BAPAC notified the Westfield Health Department, Westfield Highway Department, Westfield City Council, Southampton Board of Health and the Southampton Highway

and Water Departments with the results of each sampling round. Route 10 is maintained by MassHighway for snow and ice, North Road is maintained by the City of Westfield.

On December 21, 2006, Professor Robert Newton from the Geology Department at Smith College presented the results of the study to the Westfield City Council. Thereafter, the City Council instructed the Department of Public Works to look into the City's snow and ice practices and evaluate alternatives to reduce the threat of contamination to private wells along North Road. Representatives from the Westfield Board of Public Works and Department of Public Works attended BAPAC's November 13, 2007 meeting and informed the committee that they had researched the issue and would be switching to a product called Cryotech NACC, an anhydrous grade sodium acetate approved by the FAA for airport runways and used at the airport in Westfield. This product would be applied along North Road and costs \$900/ton (as opposed to \$56/ton for sodium chloride).

Copies of MassHighway's Road Salt Complaint Policy was distributed to those affected well owners along Route 10. Mass Highway has a policy by which they potentially remediate wells that they have contaminated with road salt. The process takes up to one year of monthly sampling for MassHighway to determine if they are responsible. To date, 2 of the 6 severely impacted wells along Route 10 have filed Road Salt Complaints with MassHighway. Both of these property owners are on salt restricted diets as prescribed by their physicians.

On February 15, 2008, representatives from MassHighway's Environmental Division met with representatives from BAPAC, the City of Westfield, Town of Southampton and some of the affected well owners to discuss BAPAC's study, MassHighway's Road Salt Policy and potential remediation options for the affected wells upon completion of MassHighway's investigation into the complaints.

Developments of Regional Impact (DRI)

DRIs are defined as any development project which requires: a) state approval under the MEPA process, or b) local approval for a Special Permit, Site Plan Approval, Subdivision Approval, zoning amendment, or withdrawal of property from M.G.L. Chapters 61, 61A, or 61B. In its reviews, BAPAC assesses the potential for water pollution or other adverse impacts to the aquifer from the proposed project and recommends mitigating measures to prevent such impacts.

Municipal representatives in member communities are obligated to submit DRIs to BAPAC for review. This obligation is defined in the Memorandum of Agreement for Barnes Aquifer Protection signed by the chief elected official in each member community. During Fiscal Year 2008, BAPAC reviewed and commented on sixteen (16) DRIs: Westfield, 8; Southampton, 4; and, Easthampton, 2. Appendix B contains copies of submitted DRI comment letters.

Northampton Landfill Expansion

BAPAC continues to monitor the proposed expansion of the Northampton Landfill and advocate for the long-term protection of the Barnes Aquifer. Bob Newton of Smith College met with representatives from the City of Northampton, DEP, residents of Northampton and Senator Rosenburg at DEP's office in Boston to discuss the 2007 Hannum Brook Report by Stantec and perceived flaws in the report.

Southampton Receives American Water Works Association Award

During Drinking Water Week in May of 2008, Southampton was awarded the "Best Tasting Water in the Country" by American Water Works Association. Congratulations Southampton!!!

Fiscal Year 2008 DRI Reviews				
DRI / Date	Location of Project	Developer	Project Representative	Issues / Requested Info / Actions
WESTFIELD				
Auction House Special Permit, 785 North Road September 20, 2007	785 North Road	Mark Lavalley	D.L. Bean, Inc.	<ol style="list-style-type: none"> 1. Installation of Stormceptor, pretreatment of oil and grease, gate valve for basin isolation. 2. Macadam berm around parking lot.
Westfield DPW Road Salt Treatment October 18, 2007	Routes 10 and 202	N/A	John Sullivan, DPW Commissioner	<ol style="list-style-type: none"> 1. Winter Snow and Ice DVD and handbook. 2. BAPAC meeting request.
Pioneer Valley energy Center ENF January 9, 2008	Ampad Road	Pioneer Valley Energy Center	N/A	<ol style="list-style-type: none"> 1. Gate valve prior to infiltration. 2. No direct infiltration of untreated runoff. 3. Containment and pretreatment of stormwater in fuel delivery area. 4. Parking for fuel trucks must have treatment system. 5. Provide dispersion model for ULSD fuel. What additives will be in fuel for stabilization. 6. Describe air particulate dispersion model. 7. Describe evaluation procedure for stormwater treatment areas.
Chicopee Concrete February 6, 2008	Summit Lock Road	Chicopee Concrete	D.L. Bean, Inc.	<ol style="list-style-type: none"> 1. All driveways and storage areas must have stormwater capture and treatment. 2. Infiltration trench problematic. 3. Annual maintenance logs to Water Dept. 4. Un-manned facility – operations. 5. On-site fuel storage provisions.
L&B Trucking Special	910 Southampton	L&B Trucking	N/A	<ol style="list-style-type: none"> 1. Consider alternative to infiltration trench for

Permit February 6, 2008	Road			Zone II.
North Westfield Road Office Complex February 10, 2008	Lot C, Root Road	Bryan Balicki, Sage Engineering	N/A	<ol style="list-style-type: none"> 1. Floor drain should have a tight tank. 2. Condominium agreement to prohibit storage of hazardous materials including petroleum products. 3. Annual maintenance logs to Water Department.
Timberline Tree Service February 10, 2008	Lot D, Root Road	Ed Rafus, Timberline Tree Service	Bryan Balicki, Sage Engineering	<ol style="list-style-type: none"> 1. All driveways and storage areas must have stormwater capture and treatment. 2. Catchbasins problematic. 3. Stormceptor with gate valve needs to be on plans. 4. Floor drain in garage must be to tight tank. 5. Annual maintenance logs to Water Department.
Chicopee Concrete March 6, 2008	Summit Lock Road	Chicopee Concrete	D. L. Bean, Inc.	<ol style="list-style-type: none"> 1. All driveways and storage areas must have stormwater capture and treatment. 2. Infiltration trench problematic. 3. Annual maintenance logs to Water Department.
Westfield – Barnes Airport Master Plan ENF April 3, 2008		Westfield- Barnes Airport	Gale Associates	<ol style="list-style-type: none"> 1. Zone II not discussed. 2. Wells #7 and #8 not noted. 3. Zone I disturbance, consult Water Department.
Millenium Power Services	Summit Lock Road	Millenium Power Services	Heritage Surveys	<ol style="list-style-type: none"> 1. Stormceptor with gate valve needs to be on plans. 2. Annual maintenance logs to Water Department. 3. Special Permit condition should prohibit haz mat.

				<ol style="list-style-type: none"> 4. Special PERmti condition should prohibit floor drains. 5. Comply with Westfield Stormwater Ordinance.
SOUTHAMPTON				
Gilbert Road Common Driveway September 13, 2007	Gilbert Road	Edward H. Gwinner	Heritage Surveys	<ol style="list-style-type: none"> 1. Need stormwater treatment and infiltration BMPs. 2. Gate valve prior to recharging BMP. 3. 3. Berm roadway. 4. Alternative for sodium chloride. 5. Stormwater Operation and Maintenance Plan need. 6. Annual Maintenance logs to Highway Department. 7. EPA NPDES Construction General Permit needed.
Halon Preliminary Subdivision Plan November 14, 2007	Pequot Road	Keith Halon	N/A	<ol style="list-style-type: none"> 1. Need stormwater treatment and infiltration BMPs. 2. Gate valve prior to recharging BMP. 3. 3. Berm roadway. 4. Alternative for sodium chloride. 5. Stormwater Operation and Maintenance Plan need. 6. Annual Maintenance logs to Highway Department. 7. Homeowner's Association should restrict pesticides and herbicides.
Halon Preliminary Subdivision Plan May 22, 2008	Pequot Road	Keith Halon	N/A	Plan approval.

Bobcat Hollow June 11, 2008	Sampson Way and Bissonette Circle	Joseph Sampson	Sherman and Frydryk	<ol style="list-style-type: none"> 1. Reduce road width to reduce impervious area. 2. Deep sumps on catchbasins. 3. Gate valve prior to infiltration. 4. Bermed roadways. 5. Infiltrate roof runoff. 6. Homeowner's Association should restrict pesticides and herbicides. 7. Consider restricting lot development area.
EASTHAMPTON				
Complete Automotive February 6, 2008	O'Neill Street	Complete Automotive	N/A	<ol style="list-style-type: none"> 1. Detention basins and trench potential problematic depending on soils. 2. Stormwater should enter treatment basin as far away from outlet as possible.
Touchstone Farm Subdivision February 6, 2008	West Street	Unknown	Unknown	<ol style="list-style-type: none"> 1. Infiltration trench problematic in Zone II.

RECOMMENDATIONS FOR FISCAL YEAR 2009

1. Public Outreach and Education

Task	Strategy
Inform public about the results of the MET Well Mapping Project	Perform outreach about study results to the public including well owners within the affected areas and municipal officials.
Host a workshop for municipal officials	Seek funding and coordinate workshop to inform officials about aquifer, existing tools, and discuss strategies for better oversight of BMPs.
Maintain an updated BAPAC Website	Post current meeting minutes, press releases, and BMP information
Issue press releases about issues concerning the Barnes Aquifer	Continue to use the local newspapers as a means to inform the public about issues concerning the Barnes Aquifer and actions they can take to ensure its protection.
Perform education and outreach to homeowners along Routes 10 and 202 about salt contamination in private wells.	In coordination with Westfield Health Department and Southampton Board of Health, perform direct mailing with information about the health effects of high sodium levels in drinking water and precautions to be taken for high risk populations.
Continue BAPAC Green Award during national Drinking Water Week in May	Community representatives will nominate individuals or businesses that have made a significant contribution to the protection of or improvements to the aquifer. This award is an opportunity for publicity and a means to educate the public on ways in which they can protect the aquifer. Awards are contingent upon receipt of qualified nominees.

2. Identification and Reduction of Threats to the Aquifer

Task	Strategy
Continue to conduct reviews of Developments of Regional Impact (DRIs)	Seek timely DRI submittals from local communities for BAPAC review and comment.
Identify appropriate BMPs for aquifer recharge	Perform literature review on current stormwater treatment technologies and identify those that offer the greatest protection of the aquifer for each type of contaminant.
Identify and address existing sources of	Work with DEP and EPA Brownfields to

contamination in the aquifer	address existing sources of aquifer contamination. Closely monitor activities at the Barnes ANG Base.
Continue to identify and map monitoring wells in Barnes Aquifer Zone II and develop a plan for decommissioning the wells.	Identify and prioritize monitoring wells for proper decommissioning.
Reduce threat of road salt contamination to domestic wells along Route 10 and North Road	Work with Local Boards of Health and Highway Departments and MassHighway to develop strategies for reducing road salt contamination of domestic wells along Routes 10 and 202.
Support the adoption of updated Aquifer Protection Bylaws	Work with the Planning Boards in each community to seek adoption of updated bylaws based on submitted recommendations.

3. Establish Additional Funding Sources

Task	Strategy
Seek corporate sponsorship for BAPAC initiatives	Identify and contact businesses in the Barnes Aquifer region about sponsoring projects.
Seek grant funding for projects identified in goals	Utilize known state and federal grant programs. Use PVPC 501(c)(3) status to apply to foundations for funding. Seek EPA support based on the aquifer's Sole Source designation.

BAPAC Long-Term Work Plan

- 1) Sponsor public educational forums or presentations regarding aquifer protection.
- 2) Identify, prioritize, and map key recharge parcels in the Zone II of the Barnes Aquifer.
- 3) Continue to support Smith College's effort to develop and maintain a GIS database with groundwater well locations and associated analytical data.
- 4) Update and strengthen all municipal aquifer protection zoning
- 5) Support the City of Westfield's long-term aquifer monitoring program.
- 6) Research and collect scientific data in support of Developments of Regional Impact (DRIs) comments.
- 7) Determine the long-term capacity and yield of the aquifer.

- 8) Continually update and improve the BAPAC website and library.
- 9) Perform a second round of surface water monitoring and analysis.

PROPOSED BUDGET FOR FY 2009

	Hours	Cost*	% Total
Task 1 Administration/Report			
1a. Advisory Committee Facilitation (10 meetings)	40	2,200	
1b. Annual Report	2	100	
1c. Postage, copies, travel, printing		200	
<i>Subtotal</i>	42	2,500	31%
Task 2 Public Education and Outreach	20	1,100	14%
Task 3 Water Quality Assessment and ID of Threats to the Aquifer (including DRIs)	60	3,300	41%
Task 4 Establish Additional Funding Sources	20	1,100	14%
TOTAL	142	\$8,000	100%

*Cost estimates based on PVPC rate of \$55/hour (includes overhead at 111%)

APPENDICES

APPENDIX A: MEETING MINUTES

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE
DATE: 9/11/07 LOCATION: Hampton Ponds State Park, Westfield

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<u>X</u> W. Darling, Westfield
T. Newton, Easthampton	<u>X</u> R. Newton, Easthampton	<u>X</u> S. Beckley, Easthampton
<u>X</u> M. Czerwicz, Easthampton	J. Slattery, Southampton	<u>X</u> A. Capra, PVPC
<u>X</u> Mark Girard, Southampton	C. Seklecki, Easthampton	

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 4:45

1. SUBJECT: Review meeting notes from June 5, 2007

Meeting was cancelled due to a lack of quorum.

2. SUBJECT: Review Developments of Regional Impact

785 North Road, Westfield – A 50x80’ building addition is proposed for the former auction house located at this site. The project proposed to replace 2 leaching catchbasins in the existing parking lot with catchbasins that drain to a detention basin with a stone leaching trench. The property owner, Mark LaValley, has filed a UIC Class V Pre-Closure Notification Form with DEP for closing the two leaching catchbasins. BAPAC wasn’t sure if the stone trench in the detention basin is also considered a Class V injection well. BAPAC will submit a letter to the Planning Board recommending a Stormceptor and gate valve, berming the parking lot and an O&M Plan with annual reporting to the Westfield Water Department.

Tech Center, Emergency Management Center, Westfield – the backup natural gas generator for this facility has been delayed and the City is seeking to utilize a portable diesel generator for the interim. BAPAC will submit comments recommending that the generator be located on a paved and bermed surface able to contain spills via the gate valve prior to the Stormceptor. BAPAC also recommends the generator be placed on top of a spill tray to contain any drips that may occur during fueling.

Gilbert Road “Common Driveway”, Southampton – Edward H. Gwinner Jr. and his son presented a plan of the 1,300’ long common driveway, developed by Heritage Surveys, that he has constructed on his Gilbert Road property to provide access to 12 subdivided building lots. Mark Girard of the Southampton Planning Board presented a copy of the July 16, 2007 Zoning Board of Appeals decision regarding Mr. Gwinner’s request for a variance which required Mr. Gwinner to interact with BAPAC about the project. BAPAC has the following comments and will submit these to the Southampton ZBA:

- Best Management Practices (BMPs) should be constructed to capture runoff from the road, remove contaminants such as petroleum, salts, and heavy metals, and infiltrate clean recharge to the ground.
- A gate valve should be installed prior to the recharging BMP so that in the event of a release of a hazardous material, the recharge BMP can be separated from the system to prevent the hazardous material from contaminating groundwater.
- Roadways should be bermed so that all road runoff is directed to the treatment BMPs and does not sheet flow onto open areas where it can infiltrate untreated.

- Alternatives to sodium chloride should be used for ice and snow removal to prevent salt contamination of the aquifer.
- An Operation and Maintenance Plan should be developed and adopted by the homeowner's association for the BMPs. Annual reporting should be submitted to the Southampton Highway Department for review.

Additionally, the project should adhere to all applicable provisions of Southampton's Water Supply Protection District Bylaw and the recently adopted Erosion and Sediment Control Bylaw.

It also appears that this project should have sought a Construction General Permit from EPA under the federal regulation popularly known as NPDES Phase II Stormwater. All projects, private, public or other, that disturb one acre or more of land during construction must seek a NPDES Construction Permit from DEP/EPA. The Southampton Highway Department should be able to instruct Mr. Gwinner on how to file a Notice of Intent with DEP/EPA for a Construction Permit. Please be advised, this project is already in violation of this federal regulation and should seek compliance immediately. The primary requirement of the Construction Permit is a Stormwater Management Plan. This same Stormwater Management Plan should be sufficient for submittal to the ZBA, Conservation Commission, Planning Board, BAPAC and DEP/EPA for all permitting needs having to do with stormwater management.

In addition to the Southampton Highway Department providing guidance about seeking a NPDES Construction Permit, Mr. Gwinner's engineer Mark Reed at Heritage Survey should also be knowledgeable about the requirements of the NPDES Construction Permit. BAPAC has reviewed plans developed by Mr. Reed on several projects. Given his past interactions with BAPAC, Mr. Reed should also be very knowledgeable about BAPAC's recommendations for protecting the aquifer.

Barnes Air National Guard Base, ERP Site 2: Jet Fuel Storage/ Tank Sludge Disposal Area Phase V Inspection Monitoring Report July 1 to December 31, 2006 – DEP reviewed the above referenced submittal made by AMEC for the Base. The Phase V Inspection and Monitoring Report documents the operation, maintenance and monitoring of the biosparging remediation systems at the above referenced site. Three monitoring wells, MW-1, MW-2 and MW-7 experienced “rebound”, an increase in concentration, during the most recent sampling event in December 2006. To accelerate the rate of cleanup and eliminate future rebound, AMEC plans to initiate cycling or pulsing of the air supplied to the sparge wells to create more mixing of dissolved oxygen with groundwater.

Barnes Air National Guard Base, Draft Final Site Evaluation for Small Arms Range/Boresight Range and Practice Grenades Response Area – This report completed by URS Group identified two munition response areas as identified above. URS recommended a Comprehensive Site Evaluation Phase II including: 1) sampling to determine whether munition constituents had been released to the subsurface soil, and 2) geophysical mapping to assess the possibility of more discarded military munitions.

2. Northampton Landfill Expansion and July 2007 Water quality Monitoring

Bob Newton reviewed the August 22, 2007 letter from Fuss and O'Neill (FO) to Ned Huntley, Northampton DPW Superintendent regarding the July 2007 water quality monitoring program by FO at residences on Park Hill, Westhampton and Glendale Roads. FO concludes that based on the sampling data, there appears to be no evidence that private wells have been impacted by the landfill. Bob disagrees strongly with FO's conclusions and believes that there is strong evidence in the sampling results and after seeing the iron precipitate in Hannum Brook that there is a

leachate plume coming from the landfill. Bob also believes that FO's study was designed to only determine if the wells were safe for drinking as opposed to identifying the nature and extent of a leachate plume. Bob recommended that BAPAC submit a letter to Mayor Higgins requesting a meeting about FO's results and to request the City's permission to include the portion of the Maloney Well Zone II that extends into Northampton in the MET Well Project. The committee agreed and Anne will draft a letter.

3. MET Well Project

PVPC signed and returned the contract to MET. Unfortunately, the contract stated that all work must be completed by June 30, 2008. Anne left a message with MET to see if an extension was feasible. Bob is working on getting an intern from Smith College to pick up where Ruth left off. Anne is working through Bob Thompson at Westfield State College to get an intern from there.

4. MA Department of Public Health Barnes Aquifer Cancer Study

MA DPH issued their study of cancer incidence rates in the Barnes Aquifer. The study evaluated cancer occurrences within census tracts which did not correspond directly to the areas being serviced by the Barnes Aquifer prior to the detection of TCE in the aquifer. Bob Newton felt that this was likely to have skewed the results of the study which determined that there were not statistically higher rates of cancer within the study area that could be attributable to exposure TCE or PCBs. The study did find that those still drinking untreated well water within the areas known to be contaminated with TCE may be at risk for future occurrences of cancer.

5. FY07 Annual Report and FY08 Work Plan

Anne has not completed the FY07 Annual Report but will have it for the next meeting. For the FY08 Work Plan, the committee identified the following priorities:

- MET Well Mapping and Outreach Project
- Road Salt Outreach to Westfield DPW and Southampton Highway Department
- Continue to seek corporate sponsorship of BAPAC programming
- Grants –
 - Continue to seek funding for a municipal training workshop. May need to be incorporated in Phase II of Well Mapping project.
 - Well Mapping Outreach and Implementation for municipal water supply.
 - Second round of surface water sampling.

Since we have been unable to receive grants for the municipal official workshop, Anne recommended asking C&S Wholesale if we could use their \$1,000 minigrant toward copying expenses incurred at DEP during file review in the well mapping project.

6. Road Salt Contamination

The committee would like Anne to draft a letter to the Westfield Board of Public Works (John Sullivan, Chair) and Southampton Board of Selectmen seeking cooperation in implementing a reduced road salt program. Bob will print a copy of the most recent salt study sampling and results for inclusion with the letter. BAPAC should also follow up with a letter to the Boards of Health and homeowners with information on how to contact MassHighway to seek a replacement well.

Next Meeting:

Tuesday, October 9, 2007 @ 3:30 PM
Hampton Ponds State Park, Westfield

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 10/13/07

LOCATION: Hampton Ponds State Park, Westfield

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<input checked="" type="checkbox"/> W. Darling, Westfield
T. Newton, Easthampton	<input checked="" type="checkbox"/> R. Newton, Easthampton	S. Beckley, Easthampton
<input checked="" type="checkbox"/> M. Czerwicz, Easthampton	J. Slattery, Southampton	<input checked="" type="checkbox"/> A. Capra, PVPC
<input checked="" type="checkbox"/> Mark Girard, Southampton	C. Seklecki, Easthampton	

Others Present: Edward Gwinner, Sr. and female guest

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 4:45

1. SUBJECT: Review meeting notes from September 11, 2007

Meeting minutes adopted unanimously.

2. SUBJECT: Review Developments of Regional Impact

Gilbert Road "Common Driveway", Southampton – According to Mark Girard, no building permits have been issued for these parcels. Mr. Gwinner addressed the committee stating that he was disappointed that the board did not come out to his property for a site visit and asked for a copy of the 9/11/07 meeting minutes. Anne Capra gave him a copy of the meeting minutes.

Westfield Pavilion DEIR, Westfield – Anne will check with MEPA on the status of the DEIR.

Pequot Road Subdivision, Southampton – Mark Girard said that a property owner on Pequot Road is seeking to release 3 parcels totaling 60+acres from Chapter 61A . Mark suspects that the property owner will seek to subdivide this land for residential development although no plans have come before the Planning Board for review at this time. A second parcel of 13.45 acres in the same area has a signed purchase and sale agreement. These parcels abut the other Chapter 61A lands and will likely be subdivided although no plans have been submitted to the Planning Board at this time.

3. MET Well Project

Bob Newton has a new intern from Smith College working on the project. The intern was at a state agency office in Boston collecting well log data, presumably at the well driller's registry at the Department of Conservation and Recreation. Bob believes he has all of the data needed for Easthampton and Southampton. For Westfield, still need to perform file review at DEP and get digital map of water lines as shapefile for GIS. Bob is not sure if file review at DEP has been completed for Holyoke.

Next steps – Anne needs to write a letter to Mayor Higgins of Northampton requesting their cooperation and participation in the project by providing mapped water line data, locations of domestic and monitoring wells within the Zone II or Barnes Aquifer region, any water quality data that is available for those wells and any surface water data for the same area.

4. Road Salt Study

Joan Correll of 1277 Southamton Road in Westfield sent a letter to John Sullivan, Chair of the Board of Public Works, requesting information about the City of Westfield's plans for reducing road salt use in her neighborhood. Ms. Correll's well is salt contaminated. She has also sent a letter to Michael Lonergan at MassHighway requesting assistance remediating her well. Woody requested that BAPAC submit a letter to John Sullivan supporting Ms. Corell's claims and request a meeting to discuss the City's plans to address this problem. The Westfield City Council instructed the Board of Public Works to look into this issue after Bob Newton's presentation to them in January 2007. Anne will draft and circulate for comment.

Mark Girard has spoken with Ed Cauley about the salt study. Mark has also forwarded contact information for MassHighway's salt remediation program to several Southamton homeowners (three) with affected wells along College Highway.

5. FY07 Annual Report and FY08 Work Plan

A copy of the Draft FY07 Annual Report was passed out for review. The committee reviewed and edited the FY08 Workplan together. Anne will make edits and distribute the FY07 Annual Report as a .pdf document this year instead of spending money for printing.

Next Meeting:

Tuesday, November 13, 2007 @ 3:30 PM
Hampton Ponds State Park, Westfield

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 11/13/07

LOCATION: Hampton Ponds State Park, Westfield

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	<input checked="" type="checkbox"/> J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<input checked="" type="checkbox"/> W. Darling, Westfield
T. Newton, Easthampton	<input checked="" type="checkbox"/> R. Newton, Easthampton	S. Beckley, Easthampton
<input checked="" type="checkbox"/> M. Czerwicz, Easthampton	J. Slattery, Southampton	<input checked="" type="checkbox"/> A. Capra, PVPC
<input checked="" type="checkbox"/> Mark Girard, Southampton	C. Seklecki, Easthampton	

Others Present: Keith Halon, Southampton; Steve DeCoursey and Scott Rogers, Bohler Engineers; Russ Slayback, Leggette, Brashears and Graham, Inc.; Jim Mulveen and John Sullivan, Westfield

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 5:00

1. SUBJECT: Review meeting notes from October 13, 2007

Meeting minutes adopted unanimously.

2. SUBJECT: Review Developments of Regional Impact

Westfield Pavilion DEIR, Westfield – Steve DeCoursey and two other representatives of Bohler Engineering presented the plans for the Westfield Pavilion Project and responded to BAPAC’s comments on the DEIR. The project proponent, National Retail Corporation, has hired a hydrogeologist to focus on stormwater and its relationship to Broad Brook and the municipal wells. They have met with DEP at the Western Regional Office to discuss their comments and are schedule to meet with the Barnes Airport on Friday. A topographic survey of the site is currently underway and will be used for design alternatives presented in the FEIR.

Mr. DeCorsi presented a revised design plan for the project that included provisions for recharge in the form of rain gardens throughout the parking areas with no pretreatment for oil/grease, salt, or heavy metals, a series of detention basins along the perimeter of the property, and direct infiltration of roof runoff in a perforated pipe under the parking lots. BAPAC would like to see all treatment systems with pretreatment before infiltration and to have the ability to isolate the infiltration systems with a gate valve in the event of a hazardous spill. The proponent will also delineate zones of capture for the wells and evaluate the potential effect of the project on the wells.

BAPAC’s comments included: 1) develop an O&M Plan for the project; 2) evaluate thermal impacts of project to Broad Brook and wetlands; 3) utilize alternatives to NaCl for snow and ice; 4) install monitoring wells and develop regular testing program; and, 5) closely evaluate groundwater travel time to municipal wells from site, particularly Well #1.

Pequot Road Subdivision, Southampton – Mark Halon, property owner, presented an approved Preliminary Subdivision Plan detailing 3 lots. The plan included a detention basin but it was located at an elevation higher than the catchbasin that was to drain to it. The road will become a town road with a Homeowner’s Association for maintenance of the stormwater system. BAPAC requests roads are bermed so all runoff is directed to treatment system.

3. MET Well Project

Mayor Higgins of Northampton responded to BAPAC's letter and will schedule a meeting to share data. Bob's intern collected data from the state Well Drillers Registry but the data does not tie into a specific lot or parcel. Wells were drilled before the houses were built.

4. Road Salt Study

Jim Mulveena, Acting Westfield DPW Superintendent and John Sullivan from the Westfield Board of Public Works came to present that Westfield will be using an alternative to NaCl for ice and snow along Route 202 called Cryotech NAAC. It is 97% Sodium acetate (NaAc) and meets FAA standards for deicing on runways which is why it is used by the Barnes Airport. Anne suggested looking into MassHighway's program for low-salt that involves a series of protocols including monitoring road pavement temperature and pre-wetting. The DPW has looked into this and feels that it will be too expensive. The Cryotech will cost \$900/ton as opposed to salt at \$56/ton.

Next Meeting:

Tuesday, December 13, 2007 @ 3:30 PM
Hampton Ponds State Park, Westfield

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 12/11/07

LOCATION: Hampton Ponds State Park, Westfield

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<input checked="" type="checkbox"/> W. Darling, Westfield
T. Newton, Easthampton	<input checked="" type="checkbox"/> R. Newton, Easthampton	S. Beckley, Easthampton
<input checked="" type="checkbox"/> M. Czerwicz, Easthampton	J. Slattery, Southampton	<input checked="" type="checkbox"/> A. Capra, PVPC
<input checked="" type="checkbox"/> Mark Girard, Southampton	C. Seklecki, Easthampton	

Others Present: _____, Easthampton Aquifer Committee; Ed Cauley, Southampton Highway Department

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 4:40

1. SUBJECT: Review meeting notes from November 13, 2007

Meeting minutes adopted unanimously.

2. SUBJECT: Review Developments of Regional Impact

Westfield Pavilion DEIR, Westfield – The project consultant Steve DeCoursey of Bohler Engineering contacted Anne Capra to request that BAPAC submit a letter to DEP supporting the need for infiltration of stormwater at the site. Mr. DeCoursey said they had met with DEP-WERO and DEP wasn't sure that infiltration at the site was the best strategy. DEP said they would want proof that the City and BAPAC both thought it was the best option. Anne told Mr. DeCoursey that it wasn't possible for BAPAC to do that at this time given the questions that BAPAC still has about the design of the project. Anne reiterated BAPAC's comments submitted on the DEIR and said that at this time BAPAC is concerned about the possible impact of the project on the aquifer and Broad Brook.

ANR Lot Subdivision, Old County Road and White Loaf Road, Southampton – Mark Girard had requested that the project proponent come before BAPAC to have the plans reviewed for the creation of several Approval Not Required (ANR) road frontage lots. However, BAPAC does not review ANR lot plans. Mr. Girard thought that the project might have erosion and sediment control issues and need a Stormwater Plan under the town's newly adopted Stormwater Bylaw. BAPAC has no jurisdiction or review authority under the town's Stormwater Bylaw and thus declined to comment on the plans. Ed Cauley said that if the project does need Stormwater Permit review, it will be provided by the Highway Department and Planning Board.

Pioneer Valley Energy Center, Ampad Road, Westfield – a proposal for a natural gas fired power plant on Ampad Road in Westfield will be filing an Environmental Notification Form (ENF). Anne will contact the proponent about attending the January BAPAC meeting.

3. MET Well Project

Bob has been working with an intern to review and enter the well logs collected from DCR into the GIS database. They need to go through the files collected from DEP to determine if 21E files were reviewed for each of the four (4) towns. Bob is relatively sure that files were not reviewed for Northampton yet. Mayor Higgin's office has scheduled to meet with Anne, bob and Stuart on

Wednesday, December 12th to discuss getting data from them for the study. Bob will present a progress report to the committee at the January 8th meeting. Bob is still in need of information from Westfield including a list of water customers and a digital map of water mains.

4. Road Salt Study

Ed Cauley reported on Southampton's snow and ice program. The Southampton Highway Department uses a 4:1 sand to salt mix. As the temperature drops, they increase the amount of salt in the mix. Magnesium chloride is added at temperatures below 20 degrees Fahrenheit.

Mark Girard reported that he has forwarded information to Southampton well owners about how to contact MassHighway to file a complaint for salt contamination. Southampton is interested in discussing options for extending municipal water along Route 10 to the Westfield line. Anne will contact MassHighway to set up a meeting to discuss the possibility of a cost-share for installing new water mains. It makes more sense to expand the municipal line rather than replace several wells.

5. Other Business

The BAPAC website hasn't been updated in some time. Anne will get meeting minutes from this fiscal year posted.

Next Meeting: NOTE NEW LOCATION

Tuesday, January 8, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 1/8/08
Easthampton

LOCATION: Easthampton Municipal Office Building,

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	J. Burkott, Holyoke
J. Boardman, Westfield	<input checked="" type="checkbox"/> K. Taylor, Westfield	<input checked="" type="checkbox"/> W. Darling, Westfield
T. Newton, Easthampton	<input checked="" type="checkbox"/> R. Newton, Easthampton	<input checked="" type="checkbox"/> S. Beckley, Easthampton
<input checked="" type="checkbox"/> M. Czerwiec, Easthampton	J. Slattery, Southampton	<input checked="" type="checkbox"/> A. Capra, PVPC
<input checked="" type="checkbox"/> Mark Girard, Southampton	<input checked="" type="checkbox"/> C. Seklecki, Easthampton	

Others Present: Darleen Buttrick, Easthampton Aquifer Committee; Gail Fohenberger, Westfield resident; Nora Bernier, Easthampton resident; Matthew Palmer, Energy Management Inc.

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 4:40

1. SUBJECT: Review meeting notes from December 11, 2007

Meeting minutes adopted unanimously.

2. SUBJECT: Review Developments of Regional Impact

Doody Ave, Easthampton – A consultant representing some neighbors opposed to a proposed 8 unit residential project had called to get information about the location of the Zone II and Easthampton’s Aquifer Protection District Zoning. Stuart Beckley noted that this project has been withdrawn. Anne stated that the currently, there is a discrepancy between the delineation for the newly approved Zone II for the Maloney Well and the City’s Aquifer Protection Overlay Zoning District. The City is working on a revision to its zoning bylaw so that it coincides with the DEP Approved Zone II. The proposed project is located within the Maloney Well Zone II which is currently not covered by the City’s Aquifer Protection Overlay District.

Stuart asked if BAPAC will want to review all proposed projects in the new Zone II. The committee unanimously said that it would. Because the new Zone II covers almost all of town, this means that BAPAC will reviewing almost all of the projects in Easthampton.

Pioneer Valley Energy Center, Ampad Road, Westfield – Matthew Palmer, P.E. from Energy Management Inc., project manager for the Pioneer Valley Energy Center, gave a presentation about the proposal for a natural gas fired power plant on a 35 acres parcel on Ampad Road in Westfield and the filed Environmental Notification Form (ENF). The proposed 400-megawatt (MW) natural gas energy facility (with ultra-low sulfur distillate fuel as a back-up) will generate more than 100 MW of electricity. The project will require an environmental impact report (EIR). Fuel delivery for the back up system will be up to 10 trucks (8,000 gallons) per day during peak usage in winter.

Although the project is not within the Zone II for any of the City’s wells, it is over a high yielding aquifer that discharges toward Well #2. Mark Girard requested the DEIR include an air particulate dispersion model what types of additives will be added to the ULSD fuel for stabilization. BAPAC also concerned with stormwater treatment and infiltration on site. BAPAC

recommends for all industrial land uses that there is no infiltration without pretreatment including equipment storage areas, parking lots and vehicle ques.

Chicopee Concrete Services, Westfield – A concrete batching plant will be submitting plans for a proposed project on Summit Lock Road for review at our next meeting. The proposed project location is over the Southampton aquifer.

Westfield Pavilion, Westfield – The Westfield City Council has approved a “development agreement” for the project. The project is still under MEPA review and a Final EIR has not yet been issued.

3. Road Salt Study

Anne sent a letter to Al Stegemann at MassHighway requesting a meeting to discuss permanent solutions for remediating the salt contaminated wells along Route 10 in Westfield and Southampton. Bob is willing to do a fourth round of sampling in April/May. Possibly add more houses to this round to expand study.

4. MET Well Project

Bob now has all the data for Easthampton, Southampton and Northampton. We still need data for Westfield and Holyoke. Anne will follow up with Woody to get Westfield’s data. Anne and Bob need to review the 21E files that have been collected by the intern to determine what towns still need file review at DEP.

5. Aquifer Protection Bylaw Updates

All of the community’s have been given the recommended bylaw changes. Holyoke is in the process of updating its bylaws and will take the recommendations into consideration. Stuart passed out a copy of Easthampton’s proposed update that includes the new Aquifer Protection District II (APD) to cover the Maloney Well Zone II. The Southampton Planning Board has not yet acted on the recommended changes to its bylaw.

6. Other Business

Both Westfield and Southampton are planning to undertake the development of a Master Plan in the coming year.

Next Meeting: NOTE NEW LOCATION

Tuesday, February 5, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 2/5/08
Easthampton

LOCATION: Easthampton Municipal Office Building,

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	<u>X</u> J. Burkott, Holyoke
J. Boardman, Westfield	<u>X</u> K. Taylor, Westfield	<u>X</u> W. Darling, Westfield
T. Newton, Easthampton	<u>X</u> R. Newton, Easthampton	<u>X</u> S. Beckley, Easthampton
<u>X</u> M. Czerwicz, Easthampton	J. Slattery, Southampton	<u>X</u> A. Capra, PVPC
<u>X</u> Mark Girard, Southampton	C. Seklecki, Easthampton	

Others Present: Darleen Buttrick, Easthampton Aquifer Committee; Rob Levesque, Rob Levesque Associates; Roger Ball and Todd Jarosz, Southampton Water Department; Dave Bean, D.L. Bean, Inc.; Lou and Jason Ouellette, Chicopee Concrete.

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 4:45

1. SUBJECT: Review meeting notes from January 8, 2008

Meeting minutes adopted unanimously.

2. SUBJECT: Review Developments of Regional Impact

L&B Trucking, 910 Southampton Road, Westfield – Rob Levesque of Rob Levesque Associates presented plans for a proposed 120' x 100' building expansion and parking lot upgrade for an existing repair and sales center for tractor trailers. The facility is currently a pre-existing non-conforming use under Westfield's Aquifer Protection Ordinance. The project proponent will be seeking a waiver from the Zoning Board of Appeals to allow a greater than 50% impervious cover and the continuation of an automotive sales and service use.

The site currently has 4.4 acres of gravel parking lot with no systems for stormwater treatment. Runoff either infiltrates directly, untreated, or drains to the rear of the property toward Arm Brook. The 100' buffer to Arm Brook extends onto the property. The proponent plans to upgrade the gravel parking lot by paving it and including subsurface treatment and infiltration of stormwater. Levesques is seeking to permit the work with in the buffer area as a Riverfront Area Redevelopment Project under the MA Wetlands Protection Act.

Given that this is a preexisting use with no existing treatment for stormwater and the protection of groundwater at a high potential pollutant load land use, BAPAC would like to see the parking lot paved and all stormwater run through a treatment system. BAPAC is concerned about the subsurface system and its ability to remove pollutants such as metals and salt. Maintenance is critical to any systems success. Maintenance logs should be submitted to the Westfield Water Resources Department annually.

Chicopee Concrete Services, Westfield – Dave Bean of D.L. Bean Inc. presented plans for a proposed concrete batching plant on Summit Lock Road over the Southampton aquifer. The proposed site plan includes a 30' wide trap rock gravel driveway, concrete bins for aggregate storage, a concrete apron around the batch plant area with a catchbasin and Stormceptor, a grassy area in the middle of the site, a detention basin with an infiltration trench and a dust collector.

The proposed dust collector for the batch plant appears to be an appropriate management practice for reducing fine particulate releases to the air and surround area. Nonetheless, the nature of this business is to maintain on-site storage of sand and other aggregate that if not managed properly, could clog the proposed stormwater treatment system. Infiltration trenches are prone to clogging and malfunction. They are most appropriate for infiltrating particle-free water such as that from a rooftop. Similarly, runoff from the road will infiltrate directly to the ground, untreated, if the road is not paved.

BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system be submitted to the Water Resources Department. As a potentially un-manned facility, it is unclear who will be responsible for closing the gate valve to the detention basin if the system were to malfunction and result in a spill. During large jobs, it is possible that front end loaders or other machinery may be kept on site for the duration of the job thus necessitating on-site storage of fuel. Provision for any on-site fuel storage must meet tertiary containment standards as specified in Westfield's Water Resources Protection Ordinance.

Complete Automotive, O'Neill Street, Easthampton

This project is a proposal for a 6,000 square foot new building for automotive repair, inspection and rental of office space. The project would require roughly 3,000 cu.yds. of fill to level parking area. The stormwater treatment system proposed for the site includes a swale system collecting runoff draining onto the site, deep sump catchbasin with outlet hood, sediment forebay and extended detention basin with stone trench and an overflow that appears to be directed to a drainage channel on a neighboring property. The general area of the proposed project is underlined with clay with a high water table. The location for the proposed project is located within the newly delineated Maloney Well Zone II and will soon be regulated by an amended Easthampton Aquifer Protection District. not been provided with the results of any soil borings for the specific location, it is questionable whether the detention basin and trench will drain adequately. The proponent should submit additional information to support proper functioning of the system as designed given possible site constraints. It also appeared that stormwater entered the detention basin directly from under the driveway, close to the outlet. In order to maximize treatment and infiltration, all stormwater should enter the basin as far from the outlet as possible.

Touchstone Farm, West Street, Easthampton

The proposed site plans are for a six lot subdivision proposed for Touchstone Farm on West Street in Easthampton. The location for the proposed project is located within the newly delineated Maloney Well Zone II and will soon be regulated by an amended Easthampton Aquifer Protection District. The proposed stormwater treatment system includes the creation of a swale around the perimeter of the property collecting sheet flow from the property. The swale drains to a detention basin with an infiltration trench. Although the infiltration trench is being constructed with pretreatment (vegetated swale), infiltration trenches are most appropriate for uncontaminated rooftop water in Zone IIs according to the Massachusetts DEP Stormwater Handbook. Infiltration trenches promote rapid infiltration of stormwater which reduces any potential for increased removal of pollutants through the detention basin. BAPAC recommends the proponent consider an alternative infiltration system that offers treatment appropriate for a Zone II.

3. Road Salt Study

A meeting is scheduled with MassHighway for Friday, February 15, 2008 at 1:00pm at Southampton Town Hall to discuss the results of the salt study and Southampton's interest in a cost-share with the Department for extension of the municipal water main to the Westfield town line or possibly into Westfield.

4. MET Well Project

No new data has been collected. The outreach surrounding the road salt issues is considered part of the scope of work for this project.

5. Other Business

Southampton has submitted \$1,683 for FY08 dues do to a lack of municipal funds. Anne requested the committee grant Southampton a hardship waiver in the amount of \$317 for FY08 and the committee voted unanimously in favor. The MET grant funds this year are subsidizing the work of BAPAC and will help off set this shortfall.

Next Meeting: NOTE NEW LOCATION

Tuesday, February 5, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 3/4/08
Easthampton

LOCATION: Easthampton Municipal Office Building,

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	<u>X</u> J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<u>X</u> W. Darling, Westfield
T. Newton, Easthampton	<u>X</u> R. Newton, Easthampton	<u>X</u> S. Beckley, Easthampton
<u>X</u> M. Czerwicz, Easthampton	<u>X</u> J. Slattery, Southampton	<u>X</u> A. Capra, PVPC
<u>X</u> Mark Girard, Southampton	C. Seklecki, Easthampton	

Others Present: Darleen Buttrick, Easthampton Aquifer Committee; Dave Bean, D.L. Bean, Inc.; Leo and Jason Ouellette, Chicopee Concrete; Attorney Michael Powers, Chicopee Concrete; Mathew Roman, Westfield; Frank Dearinis, Bryan Balicki, Jon Solecki, Sage Engineering; Ed Rafern, Timberline Tree, Westfield; and, Melissa Harrison, Lafarge.

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 5:15

1. SUBJECT: Review meeting notes from February 5 , 2008

Meeting minutes adopted unanimously.

2. SUBJECT: Review Developments of Regional Impact

Chicopee Concrete Services, Westfield – Dave Bean of D.L. Bean Inc. presented revised plans for a proposed concrete batching plant on Summit Lock Road over the Southampton aquifer and responded to BAPAC’s comments dated March 6, 2008. According to Mr. Bean, there would only be a vehicle stored on-site during large jobs and would not require on-site storage of fuel. Re-fueling of vehicles would be done from a fuel truck that would come on site and fill vehicles on the concrete pad that drains to the contained stormwater treatment system. If a vehicle does need to be stored on-site for a few days, it would be kept inside the garage of the batch plant.

Although previously stated by Mr. Bean that the plant would have the ability to be unmanned, the plant would never be operated unmanned because a driver for the truck would always be on-site. The plant is intended to be a satellite office for expansion in the growing Westfield area market. According to Mr. Bean, although previously stated that for large jobs up to 85 trucks per day could be coming through the plant, that is very unlikely and there will probably on be a few trucks per day. Given these statements, Mr. Bean asked that the committee reconsider their recommendation that the driveway be paved.

Anne stated her concerns with the use of an infiltration trench at a facility that would have multiple sources of particulate generation such as the unpaved driveway and aggregate storage and transport. Infiltration trenches are most appropriate for particulate free runoff. Although the detention basin is proposed with pre-treatment in the form of a catchbasin and Stormceptor, the site and unpaved driveway are graded to drain to the detention basin. Mr. Bean pointed out that sediment is not a hazardous material and not an issue for groundwater contamination. Anne noted that a system that promotes rapid infiltration is of concern in the aquifer and questioned its need. Mr. Bean said that it was need to drain the basin during the winter months to prevent ice buildup.

Second, BAPAC has always recommended pretreatment prior to infiltration for all runoff associated with a commercial and / or industrial site. Direct infiltration in the vicinity of road, driveway, parking lot or work area that contains vehicles that have the potential to leak hydraulic fluids and other automotive fluids has never been acceptable to BAPAC. Joe said he felt that the small number of vehicles on the site each day may not necessitate paving the driveway.

Because of time constraints, BAPAC told Mr. Bean that we would discuss his presentation and submit comments to the Planning Board. He requested that we give him our comments then but we noted that we had not reached consensus and that the issues needed to be discussed further.

Timberline Tree Services, Root Road, Westfield

Bryan Balicki of Sage Engineering presented a proposal for the construction of a 4,500 square foot building and site layout on two-acres for the storage and transfer of logs for commercial processing. The building would be used as a garage and office. The rest of the site, except for a 60' paved apron at the road, would be unpaved, hard pack process material, and used for short-term log storage. The site is graded to the center where there are to deep sump catchbasins draining to a Stormceptor draining to a detention basin at the rear of the property. The committee questioned the used of catchabins in unpaved areas. The business currently does not do any maintenance of its own equipment and plans to continue to send its vehicles off-site for maintenance.

This project presents similar issues as Chicopee Concrete in that it is an industrial use of a site with equipment that has the potential to leak automotive fluids directly into the ground. BAPAC recommends that all areas where vehicles will be working and stored be paved and drained to a contained catchment area with pretreatment for oil, grease, metals and sediment prior to infiltration.

Root Road Office and Storage Complex, Westfield

The proposed project involves the construction of a new 23,256 square foot building to be divided into six 3,876 square foot units for storage with some office space. Stormwater drains to the rear of the site via a drain line with deep sump catchbasins to a sediment forebay with plunge pool and swale. Mr. Balicki stated that the infiltration system is preceded by a Stormceptor for pretreatment.

There was some discussion about whether or not the garage portion of the facility would have a floor drain. If it is to have a floor drain, it should drain to a tight tank with pretreatment. Direct infiltration of a floor drain in a Zone II is prohibited under Title V and DEP's Underground Injection Control Program. If there is not to be a floor drain, a condition of the Special Permit to be recorded with the deed should state that there will not be any vehicle maintenance at this facility in perpetuity. The Special Permit should be specific to this owner and use. As a new construction facility, the Planning Board must consider future uses and operations that might occur under a change of owner if a garage is present and act to ensure permanent long-term protective measures are in place to reduce the risk of aquifer contamination.

The units will be condominium-style ownership with a condominium association agreement. The Agreement should be part of the Special Permit and should contain provisions prohibiting the storage of hazardous materials, including petroleum products, and other vehicles. BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system to the Westfield Water Resources Department.

East Meadow Estates, Southampton

Anne received a call about this project from a Southampton resident. The resident stated that a final subdivision plan had been approved by the Planning Board and the road had been built. However, that EPA (?) was now investigating the allegations that the property owner had

installed a drainage pipe which drained a wetland, thus allowing the site to pass Conservation Commission review as not being within a jurisdictional wetland.

Mark Girard noted that the Planning Board had requested peer review of the stormwater drainage system and calculations proposed for the project by Heritage Survey by Tighe and Bond. The Planning Board is currently reviewing Tighe and Bonds report and will be scheduling to meet with the project applicant. The ACOE is also investigating the allegations about the drainage pipe.

3. Best Management Practices for Groundwater Protection

Project developers have been questioning some of BAPAC's comments, particularly in Westfield. These recent challenges, combined with the pending expansion of Easthampton's Aquifer Protection Overlay District have prompted the committee to review the types of best management practices that are appropriate for aquifer protection. Westfield has adopted a Stormwater Ordinance that relies on DEP's Stormwater Handbook for BMP specifications and performance standards. Southampton has also adopted a Stormwater Bylaw with the same provisions. Woody recommended that BAPAC adopt the Stormwater Handbook as an official guidance document for our comments since our comments have generally been consistent with the Stormwater Handbook regarding its provisions for aquifer protection. The committee would like the opportunity to review the revised Stormwater Policy and Handbook before voting on this. Anne will send out copies of the revised policy that DEP circulated at an info session in Easthampton a few weeks ago. The newly revised policy and handbook were promulgated on January 2, 2008 but are still not available on DEP's website. Coming soon....We will take up discussion of this at the March 25, 2008 meeting.

4. Road Salt Study

Tabled till March 25, 2008.

5. MET Well Project

Tabled till March 25, 2008

6. Other Business

Bob has reviewed the December 2007 Hannum Brook Report by Stantec regarding the Northampton Landfill. The data included in the report conflicts with some of the statements made about the data, particularly that there have not been increasing trends in iron and manganese. Bob charted the data included in table format in the report and it does appear to show an increasing trend. Bob has also found studies in scientific journals citing the presence of arsenic floc in landfill leachate. Arsenic floc appears to be present in and around Hannum Brook and one well in particular is contaminated from it. Bob has a meeting with Ned Huntley of the Northampton DPW on March 5th to discuss his review of the study and has been invited to attend a meeting at DEP arranged by Senator Rosenburg also about the project. The committee voted unanimously to have Bob represent BAPAC at these meetings.

Next Meeting: NOTE NEW LOCATION

Tuesday, March 25, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 4/1/08 **LOCATION:** Easthampton Municipal Office Building, Easthampton

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	<u>X</u>	J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<u>X</u>	W. Darling, Westfield
T. Newton, Easthampton	<u>X</u> R. Newton, Easthampton	<u>X</u>	S. Beckley, Easthampton
<u>X</u> M. Czerwicz, Easthampton	J. Slattery, Southampton	<u>X</u>	A. Capra, PVPC
<u>X</u> Mark Girard, Southampton	C. Seklecki, Easthampton		

Others Present: Darleen Buttrick, Easthampton Aquifer Committee; Mark Reed, Heritage Survey.

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 5:00

1. Adoption of March 4 and 25, 2008 Meeting Minutes

Minutes of March 4th adopted unanimously. Minutes for March 25th adopted with the following changes in attendance: Jeff Burkott not present; for Other Present – omit everyone but Darlene Buttrick.

2. Review Developments of Regional Impact

Millenium Power Services, Summit Lock Road, Westfield

Mark Reed from Heritage Survey presented plans for the proposed project that involves the construction of a new building on a 4.748 acre site for valve and actuator repair, field and shop machining, certified welding and rotary equipment repair. The proposal is a resubmission due to expired Special Permit and Site Plan Review approvals. Stormwater management will be contained on-site with pretreatment through five Stormceptors draining to two detention basins with forebays. Roof runoff from the galvanized metal roof will also be directed to the Stormceptors prior to discharge to the detention basin.

BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system to the Westfield Water Resources Department. Gate valves should be installed prior to the detention basins to allow for isolation of a hazardous release in the parking lot. Although it is our understanding that the facility will not generate or store hazardous waste, BAPAC recommends that this be a condition of the Special Permit to prevent such uses in the future under a change of ownership. As this is a new construction, the prohibition of floor drains should also be stated in the Special Permit. Since all stormwater is being treated onsite and the project will disturb greater than one acre of land, the project must also comply with all provisions of the City's Stormwater Ordinance.

Barnes Airport ENF

The ENF neglects to mention that the project location is within the Zone I and Zone II of the Barnes Aquifer. Under "List Local or Federal Permits and Approvals", the application lists only Site Plan Approval. Later in the Form, they mention that the construction of the new hangars will require an Aquifer Protection Special Permit from the city. The Special Permit should be noted on the first page with all other permits and approvals. The ENF also omits under local permits the need for an Order of Conditions from the Conservation Commission which has already been procured.

Drawing No. 1 Airport Master Plan Improvements and Drawing No. 2 Existing Facilities Plan do not include the City of Westfield's municipal wells #7 and #8 which are located immediately to the

southeast of Runway 15-33 just outside of the airport fence and within the wetland area that has been delineated on both of these plans. BAPAC would like the presence of these wells acknowledged on these plans and made record as part of the Environmental Notification Form.

Pertinent to the health of Wells #7 and #8 are groundwater monitoring wells located on airport property also to the southeast of Runway 15-33. The monitoring wells were installed with the cooperation of the Westfield Airport Commission upstream of Wells #7 and #8 to detect any contamination that could occur from airport uses before it reached the municipal water distribution system.

Because the proposed airport improvements will occur within the Zone I and II, BAPAC requests that the proponent consider comments from the Westfield Water Resources Department and the Barnes Aquifer Protection Advisory Committee (BAPAC) prior to completing final design and obtain Water Resources Department approval for any work occurring in the Zone I.

Woody Darling reported that operators for the Water Department witnessed a skidder inside an area that appeared to be wetlands near wells #7 and #8. Tree clearing has already occurred along Route 202 and at the southeast end of the property in what appears to be the Zone I without consulting the Westfield Water Resources Department. Anne will contact the Westfield Conservation Commission to find out about the status of the wetland permit.

3. Best Management Practices for Groundwater Protection

A copy of the proposed revisions to the Massachusetts Stormwater Management Standards were sent with the March 25th meeting notice. The committee would like Anne to send the link to DEP's website where the full version of the Stormwater Policy including recommended BMPs are available so that they can review them for the next meeting. Also, PVPC will perform research to determine the most current technologies in use for aquifer protection in terms of stormwater management. The results of this research will be presented at the June meeting.

4. Road Salt Study – Spring 2008 Sampling Round

Westfield and Southamptton have provided their list of sampling addresses to Bob. The schedule for the sampling round will be as follows:

- Mail letters to homeowners on Friday April 25th notifying them of upcoming sampling round - Anne draft letter and Bob mail.
- Tuesday, May 6th – Westfield Water Department and Mark Girard drop off bottles at sampling locations
- Wednesday, May 7th – Westfield Water Department and Mark Girard collect sample bottles and get to Bob at Smith College for analysis.

Two of the properties along Route 10 in Southamptton have submitted salt complaints to MassHighway. Anne needs to send BAPAC letterhead to Bob for printing the letters.

5. MET Well Project

Anne and Bob will meet on Thursday May 1st to review the status of data collection. Anne will submit a contract extension request to MET for September 1, 2008.

Next Meeting: NOTE NEW LOCATION

Tuesday, May 13, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 5/13/08
Easthampton

LOCATION: Easthampton Municipal Office Building,

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	J. Burkott, Holyoke
J. Boardman, Westfield	<u>X</u> K. Taylor, Westfield	<u>X</u> W. Darling, Westfield
T. Newton, Easthampton	<u>X</u> R. Newton, Easthampton	S. Beckley, Easthampton
<u>X</u> M. Czerwicz, Easthampton	J. Slattery, Southampton	<u>X</u> A. Capra, PVPC
<u>X</u> Mark Girard, Southampton	C. Seklecki, Easthampton	

Others Present: Darleen Buttrick, Easthampton Aquifer Committee; Catherine Halon, Keith Halon and Ron Hunt.

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 5:10

1. Adoption of April 1, 2008 Minutes

Meeting adopted unanimously with the following exception: Darleen Buttrick was not present at the April 1, 2008 meeting.

2. Review of Developments of Regional Impact

L&B Truck Service, Westfield – Planning Board approved the plans and referred consideration about the need for tertiary containment of a subsurface oil and water separator to BAPAC. BAPAC doesnot require tertiary containment of oil and water separator-type BMPs.

Chicopee Concrete, Westfield – D.L. Bean submitted revised plans with the batch plant and associated operating areas located approximately 50-60’ away from Summit Lock Road with a bituminous concrete driveway and plant area lined with a Cape Cod berm. The proponent decided to locate the plant closer to the road to offset the cost of paving the much longer driveway proposed in an earlier site plan.

A resident contacted Anne Capra inquiring of Material Safety Data Sheets for the project. At this time, none have been provided to BAPAC however, prior to the issuance of a Certificate of Occupancy by the Building Inspector, the owner must submit a complete list of hazardous materials used and stored on the premises including MSDS to Fire Department, Board of Health, Water Department and Planning Board as a condition of the Special Permit issued by the Planning Board.

Halon Estates Subdivision, Southampton – Keith and Catherine Halon and their architect Ron Hunt presented the plans. The site is a 3 ¼ acre lot proposed for subdivision into 3 lots with a 500’ road. The site is largely Class A soils with a low spot in the middle of the property that is proposed for a detention pond. Deep sump catchbasins and a Stormceptor are proposed for the road. The subdivision will be serviced by town water and private septic systems. The Town has agreed to take ownership of the road and maintain the catchbasins and Stormceptor. The Planning Board is requiring that a homeowner’s association be formed to assume maintenance responsibility for the detention pond. The Town will have the ability to maintain the detention basin and bill the homeowner’s association for this service if the association is negligent on their obligations. There will also be deed restrictions with each lot prohibiting the use of chemical fertilizers and herbicides.

BAPAC will submit a letter to the Planning Board by the May 28th meeting stating that the project meets our standards for residential subdivisions.

Gilbert Road Common Driveway, Southampton – This is a 13 lot subdivision that proceeded with building a what the developer called a common driveway without subdivision approval by the Planning Board. Two houses have been built in the development but the Town plans to deny Certificate of Occupancies to each of them until the development complies with the Southampton's Stormwater Bylaw and develops a stormwater management plan for the development. Currently, all stormwater from the road sheet flows from the road onto the surrounding area and no stormwater treatment infrastructure has been built.

East Meadow Estates Subdivision, Southampton – Plans for this project are under peer review by Tighe and Bond with analysis to be presented to the Planning Board at their May 28th meeting.

3. Best Management Practices for Aquifer Protection

The Westfield Planning Board has not been requiring leaching cells within the Water Resources Protection District as long as the project is not in the vicinity of the airport. The Planning Board has been writing into their permits that the City has the right to require a leaching cell be installed after the project is built if the detention basins are not draining within an acceptable amount of time.

BAPAC has adopted DEP's revised Stormwater Policy and Handbook as the guidance for BAPAC's comments on stormwater treatment and infiltration. This policy is also referenced in Southampton's Erosion and Sediment Control Bylaw and Westfield's Stormwater Ordinance. Anne will check with Holyoke and Easthampton to see what they have adopted for a stormwater ordinance to meet NPDES Phase II requirements and whether or not they have also cited DEP's Stormwater Handbook as guidance on BMPs and design standards.

PVPC is currently conducting a literature search to provide a list of appropriate structural BMPs for treating several pollutants prior to infiltration including road salt, nutrients, metals, petroleum products, other automotive fluids and hazardous materials. PVPC will present a summary of their literature review at the June 3rd meeting.

4. Road Salt Study

The fourth round of private well sampling as part of the Route 10 and 202 Road Salt Contamination Study has been performed. Residences at 126 distinct addresses were sent a letter informing them of the sampling round the first week of May. Sampling bottles were dropped off at all of these addresses on May 6th and 89 full bottles were collected on May 7th by the Westfield and Southampton Water Departments and delivered to Smith College for analysis. It will take several weeks for results to be available. Bob Newton will run a full suite of tests including the metals lead and arsenic.

Woody received a call that some sample bottles blew away and were crushed by a dump truck. Woody will contact this property owner, and his neighbors, and arrange for another sampling. Some data sheets were not completely filled out or even returned with each of the bottles collected so some property owners will not receive test results. Once results are in, Bob will send mailing labels and letters to Anne for mailing.

5. MET Well Project

PVPC requested a contact extension until September 1st to better accommodate the academic calendar year. Bob Newton and one of his students, Nick Newcomb, have significantly improved Bob's model of the Barnes Aquifer. They have modeled the TCE plume to the Hendrick Street wellfield and will use the generated plume to determine at-risk wells in Southampton, Holyoke and Westfield. They have also modeled the aquifer divide. They have not run the model all the way south

to the Barnes Airport in Westfield. The model includes data collected from the monitoring wells at the two closed landfills in Easthampton and the Glendale Road Landfill in Northampton.

DEP has submitted a Request for Information to Bob Newton seeking that the model be made available to them for peer review including all of the input parameters and model runs utilized. Nick Newcomb entered the model in the Massachusetts Water Resources Conference and won first prize in the poster category. Bob has proposed to DEP that not only DEP perform peer review but that top modelers from around the country be invited to review the model, as well as the model DEP has used in the TCE investigation. Bob has asked DEP, the City of Northampton and Smith College to co-sponsor the event. He has not received confirmation from any sponsors but has interest from modelers and is actively seeking funding to support this forum. The event would likely be held in the Fall of 2008.

Westfield State College has referred a potential GIS intern candidate to help complete the geodatabase. Bob and Anne will interview him on May 20th.

The Target development in Westfield will be extending the water main north on Route 10 to the Purple Onion. There are no proposals for installing city water along Route 202 in Westfield, The Southampton side of the Pequot Pond area has town water.

6. Northampton Landfill Expansion Status

An article in the Hampshire Gazette reported that a law suit has been filed by neighbors of the landfill against the City of Northampton claiming that the methane-fired power plant on the site is a violation of the City's zoning code. The article reported that the City has retained outside council to respond to the suit.

7. Other Business

Congratulations Southampton!!! Southampton has been award the "Best Tasting Water in the Country" by the American Water Works Association. This prestigious honor makes it all worthwhile!

Next Meeting: NOTE NEW LOCATION

Tuesday, June 3, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

MINUTES OF
BARNES AQUIFER PROTECTION ADVISORY COMMITTEE

DATE: 6/3/08 **LOCATION:** Easthampton Municipal Office Building, Easthampton

MEMBERS AND DESIGNEES PRESENT:

J. Barrett, Holyoke	A. Zoeller, Holyoke	<input checked="" type="checkbox"/>	J. Burkott, Holyoke
J. Boardman, Westfield	K. Taylor, Westfield	<input checked="" type="checkbox"/>	W. Darling, Westfield
T. Newton, Easthampton	<input checked="" type="checkbox"/> R. Newton, Easthampton	<input checked="" type="checkbox"/>	S. Beckley, Easthampton
<input checked="" type="checkbox"/> M. Czerwiec, Easthampton	J. Slattery, Southampton	<input checked="" type="checkbox"/>	A. Capra, PVPC
<input checked="" type="checkbox"/> Mark Girard, Southampton	C. Seklecki, Easthampton		

Others Present: Keith Terry, Sherman and Frydryk Co.; Patty Gambarini, PVPC

TIME OF CALL TO ORDER: 3:30

TIME OF ADJOURNMENT: 5:00

1. Adoption of May 13, 2008 Minutes

Minutes adopted unanimously.

2. Review of Developments of Regional Impact

Bobcat Hollow Subdivision, Bissonette Circle, Southampton – Keith Terry presented Preliminary Subdivision Plans on behalf of the project proponent Joseph Sampson for a 53-acre parcel between White loaf and County Roads. The proposed development includes a 35-lot residential subdivision along two connecting roads – Sampson Way and Bissonette Circle Extension. Roads are 26' wide with catchbasins and three “stormwater management easement areas”. All utilities will be set underground and the Highway Department has request Stormceptors prior to each discharge/infiltration point. A Homeowners Association will be formed and will own and be responsible for the “stormwater management easement areas”. Ownership of the road will be turned over to the Town and the Highway Department will maintain the catchbasins and the Stormceptors.

All opportunities to reduce impervious surfaces over the aquifer should be a priority. BAPAC is interested in a reduced road width to 22' as has been successfully permitted in Easthampton on similar projects. The Massachusetts Low Impact Development Toolkit cites that a 20' road width on a cul de sac with 1' shoulders on each side provides sufficient turning radius for a 20-30' long emergency vehicle. Reduced road width can also have a traffic calming effect in residential neighborhoods.

All catchbasins should have a 4' depth. A gate valve should be installed prior to the stormwater management areas so that in the event of a release of a hazardous material, the recharge BMP can be separated from the system to prevent the hazardous material from contaminating groundwater. Bermed roadways so that all road runoff is directed to the treatment BMPs and does not sheet flow onto open areas where it can infiltrate untreated. Clean roof runoff should be allowed to sheet flow over vegetated areas or plumbed into drywells for infiltration. Restriction of the use of chemical herbicides and pesticides on the property to prevent contamination of the aquifer should be included in the Homeowner Association agreement. A copy of the Homeowners Association's stormwater BMP maintenance plan and schedule of maintenance activities should also be provided to the Planning Board and Highway Department.

Mr. Terry noted the difficulty of using Southampton's Open Space Residential Development bylaw due to siting constraints of building and septic, BAPAC asks the Planning Board to consider the

value to the aquifer, wildlife, and the neighborhood of providing some open space. We recommend a covenant restricting lawn size to no more than 50% of the undeveloped lot. This restriction could be applied to create contiguous natural areas to serve as wildlife corridors. Residential development, although necessary for growth, should be created to accommodate existing wildlife rather than eradicate it. This restriction should be made part of the approved Definitive Subdivision Plan and noted in the Homeowner Association agreement.

3. Best Management Practices for Aquifer Protection

Patty Gambarini presented the results of a literature search on the performance on 13 different types of BMPs relative to aquifer protection. The committee would like follow up information on the following BMPS: gravel wetlands, Stormceptor, tree planters, porous pavement, and ADS water quality unit. The committee would also like to do a site visit for a Stormceptor. Committee reps are encouraged to identify sites in their community to visit and Anne will coordinate the site visit with the property owner. Anne will also contact Rinker in Westfield about visiting a Stormceptor site through them.

4. Road Salt Study

Bob Newton reported that samples are being processed and results can be expected in approximately two weeks.

5. MET Well Project

Anne has begun working on the final report. Bob will submit information to Anne describing the model.

6. Northampton Landfill Expansion Status

A public forum is being coordinated for sometime in July. Bob will be using the landfill as the focus of a class project this Fall on geophysics and seismology.

Next Meeting:

Tuesday, September 9, 2008 @ 3:30 PM

Easthampton Municipal Offices, 50 Payson Avenue, Easthampton

APPENDIX B: DEVELOPMENTS OF REGIONAL IMPACT (DRI)

September 20, 2007

Anthony Petrucelli, Chair
Westfield Planning Board
City Hall
59 Court Street
Westfield, MA 01085

Reference: 785 North Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the Special Permit application for a 50' x 80' building addition at 785 North Road in Westfield owned by Mark Lavalley. BAPAC reviewed plans dated August 8, 2007 developed by D.L. Bean, Inc at their meeting on September 11, 2007. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed project consists of a 50'x80' addition to an existing building known as the Auction House. Two leaching catchbasins will be replaced with catchbasins that drain to a detention basin with a stone trench. BAPAC recommends that a Stormceptor and gate valve prior to the detention basin be included to provide for oil and grease control prior to infiltration. In the event of a hazardous release on-site, the gate valve allows the contaminant to be contained prior to the infiltration system. Similarly, BAPAC recommends a macadam berm around the parking lot to direct all runoff into the stormwater treatment system.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec
Vice-Chair

cc: Charles Darling, Westfield Water Department

June 11, 2008

Mark Girard, Chair
Planning Board
Town of Southampton
P.O. Box 276
Southampton, MA 01073

Reference: Bobcat Hollow, Bissonette Circle, Southampton

Dear Mr. Girard:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the Preliminary Subdivision Plan submitted by Joseph Sampson for a 53-acre parcel between White loaf and County Roads. Keith Terry of Sherman and Frydryk presented the plans to BAPAC at their June 3rd meeting. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed development includes a 35-lot residential subdivision along two connecting roads – Sampson Way and Bissonette Circle Extension. Roads are 26' wide with catchbasins and three “stormwater management easement areas”. All utilities will be set underground and the Highway Department has requested Stormceptors prior to each discharge/infiltration point. A Homeowners Association will be formed and will own and be responsible for the “stormwater management easement areas”. Ownership of the road will be turned over to the Town and the Highway Department will maintain the catchbasins and the Stormceptors.

Given our understanding of the project, BAPAC has the following comments:

- All opportunities to reduce impervious surfaces over the aquifer should be a priority. Therefore, we ask that the width of the road be reduced to 22'. The Massachusetts Low Impact Development Toolkit cites that a 20' road width on a cul de sac with 1' shoulders on each side provides sufficient turning radius for a 20-30' long emergency vehicle. A diagram of this road dimensioning is attached.

Wide roads not only reduce infiltration but promote cars to travel at higher speeds. Given that this is a residential neighborhood, reducing the road width can have a traffic calming effect and create a safer environment for children and pedestrians.

- All catchbasins should have a 4' depth.
- A gate valve should be installed prior to the stormwater management areas so that in the event of a release of a hazardous material, the recharge BMP can be separated from the system to prevent the hazardous material from contaminating groundwater;
- We recommend bermed roadways so that all road runoff is directed to the treatment BMPs and does not sheet flow onto open areas where it can infiltrate untreated.
- Clean roof runoff should be allowed to sheet flow over vegetated areas or plumbed into drywells for infiltration.
- Restriction of the use of chemical herbicides and pesticides on the property to prevent contamination of the aquifer should be included in the Homeowner Association agreement.

- A copy of the Homeowners Association's stormwater BMP maintenance plan and schedule of maintenance activities should also be provided to the Planning Board and Highway Department.
- While the developer's engineer noted the difficulty of using Southampton's Open Space Residential Development bylaw due to siting constraints of building and septic, BAPAC asks the Planning Board to consider the value to the aquifer, wildlife, and the neighborhood of providing some open space. We recommend a covenant restricting lawn size to no more than 50% of the undeveloped lot. This restriction could be applied to create contiguous natural areas to serve as wildlife corridors. Residential development, although necessary for growth, should be created to accommodate existing wildlife rather than eradicate it. This restriction should be made part of the approved Definitive Subdivision Plan and noted in the Homeowner Association agreement.

Thank you for the opportunity to comment.

Sincerely,

Charles Darling, Chair

cc: Sherman and Frydrk, 3 Converse Street, Suite 203, Palmer, MA 01069
Joseph Sampson, 419 Springfield Road, Westfield, MA 01085

February 6, 2008

Anthony Petrucelli, Chair
Westfield Planning Board
City Hall
59 Court Street
Westfield, MA 01085

Reference: Chicopee Concrete, Summit Lock Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plan for Chicopee Concrete Service located on a 3.44 acre parcel on Summit Lock Road in Westfield. The proponent's engineer Dave Bean of D.L. Bean Inc. presented plans to BAPAC at their February 5, 2008 meeting. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed site plan includes a 30' wide trap rock gravel driveway, concrete bins for aggregate storage, a concrete apron around the batch plant area with a catchbasin and Stormceptor, a grassy area in the middle of the site and a detention basin with an infiltration trench. The following are our comments:

- All roadways, driveways, delivery and receiving locations, and material storage areas should be paved and bermed so that all stormwater runoff from these pollutant generating areas is directed to pre-treatment prior to infiltration. The proposed site plan allows direct infiltration through a 30'-wide trap rock gravel (TRG) driveway with any sheet flow from that area as well as the paved apron around the batch plant directed to an open grassy area in the middle of the site.
- Although the infiltration trench is being constructed with pretreatment (Stormceptor), infiltration trenches should be avoided in high potential pollutant loading areas and used *only* for uncontaminated rooftop water in Zone IIs according to the Massachusetts DEP Stormwater Handbook. Infiltration trenches promote rapid infiltration of stormwater which reduces the potential for increased pollutant removal through the detention basin floor. Therefore, BAPAC requests that the applicant be held to the highest treatment standards for stormwater infiltration and consider alternative treatment systems appropriate for high potential pollutant loading land uses and Zone IIs.
- The proposed dust collector for the batch plant appears to be an appropriate management practice for reducing fine particulate releases to the air and surrounding area. Nonetheless, the nature of this business is to maintain on-site storage of sand and other aggregate that if not managed properly, could clog the proposed stormwater treatment system. Infiltration trenches are prone to clogging and malfunction. They are most appropriate for infiltrating particle-free water such as that from a rooftop.
- BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system be submitted to the Water Resources Department.
- As a potentially un-manned facility, it is unclear who will be responsible for closing the gate valve to the detention basin if the system were to malfunction and result in a spill.
- During large jobs, it is possible that front end loaders or other machinery may be kept on site for the duration of the job thus necessitating on-site storage of fuel. Provision for any

on-site fuel storage must meet tertiary containment standards as specified in Westfield's Water Resources Protection Ordinance.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec
Vice-Chair

cc: Charles Darling, Water Resources Department
Dave Bean, D.L. Bean, Inc. 40 School Street, Westfield, MA 01085

March 6, 2008

Anthony Petrucelli, Chair
Westfield Planning Board
City Hall
59 Court Street
Westfield, MA 01085

Reference: Chicopee Concrete, Summit Lock Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plan for Chicopee Concrete Service located on a 3.44 acre parcel on Summit Lock Road in Westfield. The proponent's engineer Dave Bean of D.L. Bean Inc. presented revised plans to BAPAC at their March 4, 2008 meeting and responded to our comments dated February 6, 2008. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed site plan includes a 30' wide trap rock gravel driveway, concrete bins for aggregate storage, a concrete apron around the batch plant area with a catchbasin and Stormceptor, a grassy area in the middle of the site that in the revised plan is proposed as a small ponding area for sheet flow runoff from the driveway and aggregate storage area, and a detention basin with an infiltration trench.

The City of Westfield is truly blessed with an abundant and clean water supply which is one of the reasons it has been able to steadily attract new businesses and homeowners in recent years. Because the City's zoning permits industrial uses within the recharge area to the Barnes Aquifer, it is absolutely imperative that the highest standards for groundwater protection are required, constructed and maintained at these facilities. Chicopee Concrete Services has been a family owned and operated business since the 1950s. The City of Westfield should be pleased to have attracted this reputable company to the area to meet the growing needs of the greater Westfield community, and it is these same growing needs that have brought this company to your doorstep that is of greatest concern to BAPAC.

The truck traffic at this facility may be minimal within the first few years of operation but as business grows, which is the intention of any expanding company, traffic will increase. Such traffic includes not only delivery vehicles coming and going from the site but those used on-site as part of the actual operation for moving aggregate from the storage area to the batch processing plant. From the perspective of groundwater protection, this means more vehicles contributing metals, hydraulic fluids, petroleum, and deicing chemicals to stormwater runoff which becomes groundwater recharge. Therefore, it is absolutely critical that there is no direct infiltration of untreated runoff on land uses with high potential pollutant loads including the proposed industrial use. BAPAC requests that all roadways, driveways, delivery and receiving locations and material storage areas be paved and bermed so that all stormwater runoff from these pollutant generating areas be directed to pre-treatment prior to infiltration.

BAPAC recognizes the additional expense that this will cause the proponent. It may be possible for the applicant to redesign the site layout to reduce the amount of driveway and still adhere to

an aesthetic standard respectful of the neighborhood. BAPAC recommends that the proponent reconsider the need for an infiltration trench which could provide cost savings.

BAPAC continues to question the use of an infiltration trench at this location for three reasons: 1) the use is likely to generate high sediment loading from the gravel driveway and the aggregate storage area and can lead to clogging which is the number one problem with infiltration trenches; 2) soils in this area are highly permeable which generally do not necessitate the need to expedite infiltration; and, 3) rapid infiltration in a Zone II is not preferable as it prevents any additional pollutant load attenuation by soil in the detention basin floor to be bypassed. Infiltration trenches are best used for uncontaminated rooftop runoff.

Long-term maintenance of stormwater facilities is very important to ensure their continued design standards. BAPAC requests that annual maintenance logs be submitted to the Westfield Water Resources Department.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec
Vice-Chair

cc: Charles Darling, Water Resources Department
Dave Bean, D.L. Bean, Inc. 40 School Street, Westfield, MA 01085

February 6, 2008

Jason Duda, Chair
Easthampton Planning Board
50 Payson Avenue
Easthampton, MA 01027

Reference: Complete Automotive, O'Neill Street, Easthampton

Dear Mr. Duda:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plans for the construction of a 6,000 square foot building for an automotive repair, inspection and rental operation with some office space. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves. The location for the proposed project is located within the newly delineated Maloney Well Zone II and will soon be regulated by an amended Easthampton Aquifer Protection District. As such, BAPAC has the following comments.

The stormwater treatment system proposed for the site includes a swale system collecting runoff draining onto the site, deep sump catchbasin with outlet hood, sediment forebay and extended detention basin with stone trench and an overflow that appears to be directed to a drainage channel on a neighboring property. It is BAPAC's understanding that the general area of the proposed project is underlined with clay with a high water table. Having not been provided with the results of any soil borings for the specific location, the following comment is based on that assumption. It is questionable whether the detention basin and trench will drain adequately. The proponent should submit additional information to support proper functioning of the system as designed given possible site constraints.

It also appeared that stormwater entered the detention basin directly from under the driveway, close to the outlet. In order to maximize treatment and infiltration, all stormwater should enter the basin as far from the outlet as possible.

Thank for your consideration and the opportunity to comment.

Sincerely,

Charles Darling, Chair

cc: Stuart Beckley, Easthampton Planning Department
Tom Newton, Easthampton Water Department

September 13, 2007

Zoning Board of Appeals
Town of Southampton
P.O. Box 276
Southampton, MA 01073

Reference: Gilbert Road “Common Driveway”

Dear Chairman:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the “common driveway” constructed off Gilbert Road in Southampton on the property of Edward H. Gwinner Jr. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

Mr. Gwinner and his son attended the September 11, 2007 BAPAC meeting and presented a plan of the 1,300’ long so-called common driveway constructed to access 12 lots planned for residential development. Mark Girard of the Southampton Planning Board presented a copy of the July 16, 2007 Zoning Board of Appeals decision regarding Mr. Gwinner’s request for a variance.

BAPAC is an advisory committee whose role is to review proposed design plans and provide comments geared toward seeking maximum protection of the Barnes Aquifer in terms of water quality and quantity. The plan presented by Mr. Gwinner did not include any systems for stormwater treatment or infiltration. Therefore, BAPAC has the following general recommendations for consideration:

- Best Management Practices (BMPs) should be constructed to capture runoff from the road, remove contaminants such as petroleum, salts, and heavy metals, and infiltrate clean recharge to the ground.
- A gate valve should be installed prior to the recharging BMP so that in the event of a release of a hazardous material, the recharge BMP can be separated from the system to prevent the hazardous material from contaminating groundwater.
- Roadways should be bermed so that all road runoff is directed to the treatment BMPs and does not sheet flow onto open areas where it can infiltrate untreated.
- Alternatives to sodium chloride should be used for ice and snow removal to prevent salt contamination of the aquifer.
- An Operation and Maintenance Plan should be developed and adopted by the homeowner’s association for the BMPs. Annual reporting should be submitted to the Southampton Highway Department for review.

Additionally, the project should adhere to all applicable provisions of Southampton’s Water Supply Protection District Bylaw and the recently adopted Erosion and Sediment Control Bylaw.

It also appears that this project should have sought a Construction General Permit from EPA under the federal regulation popularly known as NPDES Phase II Stormwater. All projects, private, public or other, that disturb one acre or more of land during construction must seek a NPDES Construction Permit from DEP/EPA. The Southampton Highway Department should be able to instruct Mr. Gwinner on how to file a Notice of Intent with DEP/EPA for a Construction

Permit. Please be advised, this project is already in violation of this federal regulation and should seek compliance immediately. The primary requirement of the Construction Permit is a Stormwater Management Plan. This same Stormwater Management Plan should be sufficient for submittal to the ZBA, Conservation Commission, Planning Board, BAPAC and DEP/EPA for all permitting needs having to do with stormwater management.

In addition to the Southampton Highway Department providing guidance about seeking a NPDES Construction Permit, Mr. Gwinner's engineer Mark Reed at Heritage Survey should also be knowledgeable about the requirements of the NPDES Construction Permit. BAPAC has reviewed plans developed by Mr. Reed on several projects. Given his past interactions with BAPAC, Mr. Reed should also be very knowledgeable about BAPAC's recommendations for protecting the aquifer.

Please feel free to contact our BAPAC facilitator Anne Capra at the Pioneer Valley Planning Commission at (413) 781-6045 if you have any further questions.

Sincerely,

Charles Darling, Chair

cc: Edward H. Gwinner, Jr.
Mark Reed, Heritage Survey
Mark Girard, Southampton Planning Board
Edward Cauley, Southampton Highway Department

November 14, 2007

Mark Girard, Chair
Planning Board
Town of Southampton
P.O. Box 276
Southampton, MA 01073

Reference: Halon Preliminary Subdivision, Pequot Road

Dear Mr. Girard:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the approved Preliminary Subdivision Plan submitted by Mr. Keith Halon for his property on Pequot Road. The plan included the subdivision of land into 3 lots, approximately 30,000 square feet each, for the construction of single-family residential housing. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The plan presented by Mr. Halon included two catchbasins located at the approximate low point in the road and connected to a detention basin by a pipe. However, the detention basin as drawn on the plan is located at a higher elevation than the catchbasins which would prevent water from ever reaching the detention basin. Therefore, BAPAC has the following general recommendations for consideration:

- Best Management Practices (BMPs) should be constructed to capture runoff from the road, remove contaminants such as petroleum, salts, and heavy metals, and infiltrate clean recharge to the ground. Deep sump catchbasins and detention basins with pretreatment systems for oil and grease separation and isolation are generally acceptable for this type of development.
- A gate valve should be installed prior to the recharging BMP so that in the event of a release of a hazardous material, the recharge BMP can be separated from the system to prevent the hazardous material from contaminating groundwater.
- Roadways should be bermed so that all road runoff is directed to the treatment BMPs and does not sheet flow onto open areas where it can infiltrate untreated.
- Alternatives to sodium chloride should be used for ice and snow removal to prevent salt contamination of the aquifer.
- An Operation and Maintenance Plan should be developed and adopted by the homeowner's association for the BMPs. Annual reporting should be submitted to the Southampton Highway Department for review.
- The homeowner's association should also restrict the use of chemical herbicides and pesticides on the property to prevent contamination of the aquifer.

Additionally, the project should adhere to all applicable provisions of Southampton's Water Supply Protection District Bylaw and the recently adopted Erosion and Sediment Control Bylaw.

As a subdivision collectively disturbing greater than one acre of land, under Southampton's recently adopted Erosion and Sediment Control Bylaw, this project will require a Stormwater

Permit. The conditions of the Stormwater Permit should be referenced in the deed for each of the individual lots as they are sold.

Thank you for the opportunity to comment.

Sincerely,

Charles Darling, Chair

cc: Edward Cauley, Southampton Highway Department

May 22, 2008

Mark Girard, Chair
Planning Board
Town of Southampton
P.O. Box 276
Southampton, MA 01073

Reference: Halon Preliminary Subdivision, Pequot Road

Dear Mr. Girard:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the Definitive Subdivision Plan submitted by Mr. Keith Halon for his property on Pequot Road and presented to BAPAC at their May 13, 2008 meeting. The plan included the subdivision of land into 3 lots, approximately 30,000 square feet each, for the construction of single-family residential housing. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The plan has incorporated BAPAC's previous comments for aquifer protection including:

- Deep sump catchbasins and a detention basin preceded by a Stormceptor;
- A gate valve prior to the detention basin so that in the event of a release of a hazardous material, the recharge BMP can be separated from the system to prevent the hazardous material from contaminating groundwater;
- Bermed roadways so that all road runoff is directed to the treatment BMPs and does not sheet flow onto open areas where it can infiltrate untreated;
- The formation of a homeowner's association for the maintenance of the detention basin; and,
- Restriction of the use of chemical herbicides and pesticides on the property to prevent contamination of the aquifer per the homeowner association agreement.

Thank you for the opportunity to comment.

Sincerely,

Charles Darling, Chair

cc: Keith and Catherine Halon, 37 Broadway Street, Westfield, MA 01085

February 6, 2008

Anthony Petrucelli, Chair
Westfield Planning Board
City Hall
59 Court Street
Westfield, MA 01085

Reference: Special Permit Application for L&B Trucking, 910 Southampton Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the Special Permit application for a 100' x 120' building addition at 910 Southampton Road in Westfield owned by L&B Trucking as an existing repair and sales center for tractor trailer trucks. The proponents engineer presented plans to BAPAC at their February 5, 2008 meeting. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

It is our understanding that the area planned for the building expansion and paved parking lot is currently a compacted gravel parking lot for tractor trailers with no systems for stormwater treatment. Stormwater currently infiltrates the gravel parking lot without treatment and/or sheet flows to Arm Brook and the associated wetland at the rear of the lot. The proponent is seeking to expand a non-conforming use (motor vehicle repair facility) under Westfield's Water Resource Protection District and increase the impervious surface above 15% of the site.

Given that the use is existing with no best management practices in place for groundwater protection, BAPAC supports the applicant's plans to install a stormwater treatment system for the site. However, BAPAC generally does not support infiltration on sites defined by the Massachusetts Stormwater Policy as having a higher potential pollutant load including vehicle repair facilities. Additionally, the proposed stormwater system includes a subsurface infiltration trench. Although the infiltration trench is being constructed with pretreatment (Stormceptor), infiltration trenches should be avoided in high potential pollutant loading areas and used *only* for uncontaminated rooftop water in Zone IIs according to the Massachusetts DEP Stormwater Handbook. Therefore, BAPAC requests that the applicant be held to the highest treatment standards for stormwater infiltration and consider alternative treatment systems appropriate for high potential pollutant loading land uses and Zone IIs.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec
Vice-Chair

cc: Charles Darling, Water Resources Department

April 4, 2008

Anthony Petrucelli, Chair
Westfield Planning Board
59 Court Street
Westfield, MA 01085

Reference: Millenium Power Services, Summit Lock Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plan for Millenium Power Services on Summit Lock Road in Westfield. Mark Reed of Heritage Surveys presented plans to BAPAC at their April 1, 2008 meeting. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed project involves the construction of a new building on a 4.748 acre site for valve and actuator repair, field and shop machining, certified welding and rotary equipment repair. The proposal is a resubmission due to expired Special Permit and Site Plan Review approvals. Stormwater management will be contained on-site with pretreatment through five Stormceptors draining to two detention basins with forebays. Roof runoff from the galvanized metal roof will also be directed to the Stormceptors prior to discharge to the detention basin.

The following are our comments:

- BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system to the Westfield Water Resources Department.
- Gate valves should be installed prior to the detention basins to allow for isolation of a hazardous release in the parking lot.
- Although it is our understanding that the facility will not generate or store hazardous waste, BAPAC recommends that this be a condition of the Special Permit to prevent such uses in the future under a change of ownership.
- As this is a new construction, the prohibition of floor drains should also be stated in the Special Permit.
- Since all stormwater is being treated onsite and the project will disturb greater than one acre of land, the project must also comply with all provisions of the City's Stormwater Ordinance.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec
Vice-Chair

cc: Charles Darling, Water Resources Department
Mark P. Reed, Heritage Surveys, P.O. Box 1, Southampton

February 10, 2008

Anthony Petrucelli, Chair
Westfield Planning Board
City Hall
59 Court Street
Westfield, MA 01085

Reference: North Westfield Office Complex, Lot C Root Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plan for North Westfield Office Complex located on a 2 acre parcel on Lot C on Root Road in Westfield. The project developer, Bryan Balicki of Sage Engineering, presented plans to BAPAC at their February 4, 2008 meeting. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed project involves the construction of a new 23,256 square foot building to be divided into six 3,876 square foot units for storage with some office space. Stormwater drains to the rear of the site via a drain line with deep sump catchbasins to a sediment forebay with plunge pool and swale. MR. Balicki stated that the infiltration system is preceded by a Stormceptor for pretreatment however it is not readily discernible on the plans dated February 21, 2008.

The following are our comments:

- There was some discussion about whether or not the garage portion of the facility would have a floor drain. If it is to have a floor drain, it should drain to a tight tank with pretreatment. Direct infiltration of a floor drain in a Zone II is prohibited under Title V and DEP's Underground Injection Control Program. If there is not to be a floor drain, a condition of the Special Permit to be recorded with the deed should state that there will not be any vehicle maintenance at this facility in perpetuity. The Special Permit should be specific to this owner and use. As a new construction facility, the Planning Board must consider future uses and operations that might occur under a change of owner if a garage is present and act to ensure permanent long-term protective measures are in place to reduce the risk of aquifer contamination.
- The units will be condominium-style ownership with a condominium association agreement. The Agreement should be part of the Special Permit and should contain provisions prohibiting the storage of hazardous materials, including petroleum products, and other vehicles.
- BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system to the Westfield Water Resources Department.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec

Vice-Chair

cc: Charles Darling, Water Resources Department
Bryan Balicki, Sage Engineering LLC
199 Servistar Industrial Way, Suite 2, Westfield, MA

January 9, 2008

Secretary Robert W. Golledge, Jr
Executive Office of Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Reference: Review comments on Environmental Notification Form for Pioneer Valley Energy Center, Westfield

Dear Secretary Golledge:

The Barnes Aquifer Protection Advisory Committee (BAPAC) has the following review comments on the above reference project proposed for Ampad Road in Westfield. Although the proposed project is outside of the City of Westfield's Aquifer Protection Overlay District, the site is within a high yielding aquifer. It was omitted for inclusion in the City's overlay district because there are no municipal wells with Zone IIs for that portion of the aquifer. However, as a potentially high-yielding productive aquifer, great care should be taken to evaluate the potential impacts of the proposed project on the aquifer. The Barnes Aquifer provides water to over 60,000 people in the communities of Westfield, Easthampton, Southampton and Holyoke.

Therefore, BAPAC would like the Draft Environmental Impact Report to take into consideration the following questions:

- What is the dispersion model for the ULSD fuel from the site in the event of a failure of the 1 million gallon storage tank at full capacity?
- What additives will be mixed with the ULSD fuel for stabilization? What effects do these additives have on drinking water?
- What types of air particulates will be emitted? What is the dispersion model for particulates from the stack?
- What type of "evaluation for stormwater in containment areas" will be provided prior to discharge as stated in the ENF?

In addition, BAPAC has the following comments regarding stormwater management and recharge:

- A gate valve should be provided prior to any and all infiltrating systems. This valve provides containment of a spill to prevent infiltration and contamination of the aquifer.
- Runoff from the entire site, including all equipment, parking, storage and fueling areas, should be contained in a stormwater treatment system to prevent direct infiltration of untreated stormwater. The ENF states that "portions of the proposed site cover will be pervious to allow for infiltration of rainfall including proposed equipment areas, which will consist of ¾ inch clear crushed stone placed to a depth of 6 inches." BAPAC strongly discourages this practice on industrially developed sites.
- Design of the fuel delivery area must also include containment and pretreatment of stormwater, including a gate valve on the drain line.
- During peak fuel usage, there may be ten or more fuel truck deliveries per day. The parking area for these vehicles also needs to be considered in the design of a contained stormwater treatment system.

Thank you for considering our comments.

Sincerely,

Michael Czerwiec, Vice-Chair

cc: Mathew A. Palmer, Pioneer Valley Energy Center Project Manager
Charles Darling, Water Resources Department, Westfield

February 10, 2008

Anthony Petrucelli, Chair
Westfield Planning Board
City Hall
59 Court Street
Westfield, MA 01085

Reference: Timberline Tree Services, Root Road, Westfield

Dear Mr. Petrucelli:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plan for Timberline Tree Services located on a 2 acre parcel on Lot D on Root Road in Westfield. The proponent consultant Bryan Balicki of Sage Engineering presented plans to BAPAC at their February 4, 2008 meeting. BAPAC is composed of representatives from the four jurisdictions in which the Barnes Aquifer is located. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves.

The proposed site plan includes the new construction of a 4,500 square foot metal building to be used as a garage and office for a tree services company. The business focuses primarily on the removal of large trees in dense neighborhoods. The remainder of the site will be used to short-term storage of graded logs until sale and transfer to mills for processing. The business owner Mr. Ed Rafus stated that there will be no maintenance of vehicles, fuel storage or refueling of vehicles on-site. Roughly $\frac{3}{4}$ of the site will be covered in a processed hardpack material to be used as a driveway, parking and storage area for the logs. A 60' wide paved tracking area will be placed at the driveway entrance. Stormwater will be managed and treated via two deep sump catchbasins located down the center of the hardpack driveway draining to a sediment forebay with a plunge pool and swale.

The following are our comments:

- All roadways, driveways, delivery and receiving locations, and material storage areas should be paved and bermed so that all stormwater runoff from these pollutant generating areas is directed to pre-treatment prior to infiltration. The proposed site plan allows direct infiltration through hardpacked gravel all over the site. BAPAC is primarily concerned with the potential hazard associated with ruptured and leaking hydraulic fluids, gasoline and oil from equipment used in the unloading and transfer of the logs.
- Locating catchbasins on unpaved surfaces is generally not recommended due to the high potential sediment loading. Without diligent removal of sediment from the basins on a regular basis, the sumps could feasibly fill to capacity after only a few storms.
- At BAPAC's meeting, Mr. Balicki stated that the catchbasins were draining to a Stormceptor for pretreatment prior to the infiltration system however the Stormceptor is not noted on the plans dated February 6, 2008. The presence of the Stormceptor should be confirmed and included in the plans approved for the Special Permit. A gate valve to isolate the infiltration system should also be installed to prevent contamination in the event of a hazardous material spill.
- There was some discussion about whether or not the garage portion of the facility would have a floor drain. If it is to have a floor drain, it should drain to a tight tank with pretreatment. Direct infiltration of a floor drain in a Zone II is prohibited under Title V

and DEP's Underground Injection Control Program. If there is not to be a floor drain, a condition of the Special Permit to be recorded with the deed should state that there will not be any vehicle maintenance at this facility in perpetuity. The Special Permit should be specific to this owner and use. As a new construction facility, the Planning Board must consider future uses and operations that might occur under a change of owner if a garage is present and act to ensure permanent long-term protective measures are in place to reduce the risk of aquifer contamination.

- BAPAC recommends that the owner submit annual maintenance logs for the stormwater management system to the Westfield Water Resources Department.

Thank for your consideration and the opportunity to comment.

Sincerely,

Michael Czerwiec
Vice-Chair

cc: Charles Darling, Water Resources Department
Bryan Balicki, Sage Engineering LLC
199 Servistar Industrial Way, Suite 2, Westfield, MA 01085

February 6, 2008

Jason Duda, Chair
Easthampton Planning Board
50 Payson Avenue
Easthampton, MA 01027

Reference: Touchstone Farm, West Street, Easthampton

Dear Mr. Duda:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to provide our comments regarding the proposed site plans for the six lot subdivision proposed for Touchstone Farm on West Street in Easthampton. The committee was created in 1989 to address developments of regional impact that are proposed within the aquifer to ensure that drinking water resources remain safe for the more-than 60,000 people that it serves. The location for the proposed project is located within the newly delineated Maloney Well Zone II and will soon be regulated by an amended Easthampton Aquifer Protection District. As such, BAPAC has the following comments.

The proposed stormwater treatment system includes the creation of a swale around the perimeter of the property collecting sheet flow from the property. The swale drains to a detention basin with an infiltration trench. Although the infiltration trench is being constructed with pretreatment (vegetated swale), infiltration trenches are most appropriate for uncontaminated rooftop water in Zone IIs according to the Massachusetts DEP Stormwater Handbook. Infiltration trenches promote rapid infiltration of stormwater which reduces any potential for increased removal of pollutants through the detention basin. BAPAC recommends the proponent consider an alternative infiltration system that offers treatment appropriate for a Zone II.

Thank for your consideration and the opportunity to comment.

Sincerely,

Charles Darling, Chair

cc: Stuart Beckley, Easthampton Planning Department
Tom Newton, Easthampton Water Department

October 18, 2007

John Sullivan, Chair
Westfield Public Works
City Hall
59 Court Street
Westfield, MA 01085

Reference: Road Salt Impact on Barnes Aquifer

Dear Mr. Sullivan:

I am writing you on behalf of the Barnes Aquifer Protection Advisory Committee (BAPAC) to inquire about the Department of Public Works efforts to mitigate the impacts of winter road salting practices on the Barnes Aquifer during the coming winter season. BAPAC is also in receipt of a letter sent to you by Joan Corell of 126 Western Circle regarding the condition of her well as a result of road salting practices.

As you are aware, BAPAC member Robert Newton of Smith College presented the results of his study on the impact of wells from road salting practices along Routes 10 and 2020 in Westfield and Southamptton to the Westfield City Council at their December 21, 2006 meeting. The City Council referred this matter to the Board of Public Works for follow up. As the winter season approaches, BAPAC hopes that the Public Works Department has given this issue some consideration and has developed practices for reduced salt application.

Enclosed is a DVD and handbook distributed by the Baystate Roads Program and utilized as part of MassHighway's snow and ice program for reduced road salting statewide. I hope you will find this information useful. BAPAC highly recommends contact the Baystate Roads Program and or Paul Brown, Director of Snow and Ice operations for MassHighway, for further guidance about best management practices.

Last, BAPAC would like to request your attendance at one of our upcoming meetings to discuss the issues discussed herein. Our next meeting is Tuesday, November 13, 2007 at 3:30 PM at the Hampton Ponds State Park in Westfield. Please contact BAPAC Facilitator Anne Capra at (413) 781-6045 to about whether or not you will be able to join us.

Thank you for your attention to this matter.

Sincerely,

Michael Czerwicz, Vice-Chair

Enclosures

cc: Charles Darling, Westfield Water Department
Charles Medeiros, Acting Mayor of Westfield
Daniel Reardon, Westfield Health Department
Barbara Swords, Westfield City Councilor
Ed Cauley, Southamptton Highway Department
John Corell, 126 Western Circle, Westfield, MA

April 3, 2008

Secretary Ian A. Bowles
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Reference: Airport Master plan Improvements at Westfield-Barnes Airport, Westfield, MA

Dear Secretary Bowles:

The Barnes Aquifer Protection Advisory Committee (BAPAC) has the following review comments on the above referenced project proposed for the Westfield-Barnes Airport, Westfield Massachusetts. The airport is within the Zone II to the Barnes Aquifer, an important regional aquifer providing water to over 60,000 people in the communities of Westfield, Easthampton, Southamptton and Holyoke.

The ENF neglects to mention that the project location is within the Zone I and Zone II of the Barnes Aquifer. Under "List Local or Federal Permits and Approvals", the application lists only Site Plan Approval. Later in the Form, they mention that the construction of the new hangars will require an Aquifer Protection Special Permit from the city. The Special Permit should be noted on the first page with all other permits and approvals. The ENF also omits under local permits the need for an Order of Conditions from the Conservation Commission which has already been procured.

Drawing No. 1 Airport Master Plan Improvements and Drawing No. 2 Existing Facilities Plan do not include the City of Westfield's municipal wells #7 and #8 which are located immediately to the southeast of Runway 15-33 just outside of the airport fence and within the wetland area that has been delineated on both of these plans. BAPAC would like the presence of these wells acknowledged on these plans and made record as part of the Environmental Notification Form.

Pertinent to the health of Wells #7 and #8 are groundwater monitoring wells located on airport property also to the southeast of Runway 15-33. The monitoring wells were installed with the cooperation of the Westfield Airport Commission upstream of Wells #7 and #8 to detect any contamination that could occur from airport uses before it reached the municipal water distribution system.

Because the proposed airport improvements will occur with in the Zone I and II, BAPAC requests that the proponent consider comments from the Westfield Water Resources Department and the Barnes Aquifer Protection Advisory Committee (BAPAC) prior to completing final design and obtain Water Resources Department approval for any work occurring in the Zone I.

Thank you for the opportunity to comment.

Sincerely,

Michael Czerwiec, Vice-Chair

cc: Dave Billips, Superintendent, Westfield Water Resources Department
Armand J. Dufresne, Gale Associates, 15 Constitution Drive, Bedford, NH 03110-6042

