Massachusetts Department of Environmental Protection
Source Water Assessment and Protection (SWAP) Report
for

Easthampton Water Department

What is SWAP?

The Source Water Assessment Program (SWAP), established under the federal Safe Drinking Water Act, requires every state to:

- inventory land uses within the recharge areas of all public water supply sources;
- assess the susceptibility of drinking water sources to contamination from these land uses; and
- publicize the results to provide support for improved protection.

Susceptibility and Water Quality

Susceptibility is a measure of a water supply's potential to become contaminated due to land uses and activities within its recharge area.

A source's susceptibility to contamination does *not* imply poor water quality.

Water suppliers protect drinking water by monitoring for more than 100 chemicals, disinfecting, filtering, or treating water supplies, and using source protection measures to ensure that safe water is delivered to the tap.

Actual water quality is best reflected by the results of regular water tests. To learn more about your water quality, refer to your water supplier's annual Consumer Confidence Reports.

Table 1: Public Water System Information

PWS Name	Easthampton Water Department
PWS Address	109 Hendricks Street
City/Town	Easthampton
PWS ID Number	1087000
Local Contact	Mr. Thomas Newton
Phone Number	413-529-1422

Introduction

We are all concerned about the quality of the water we drink. Drinking water wells may be threatened by many potential contaminant sources, including storm runoff, road salting, and improper disposal of hazardous materials. Citizens and local officials can work together to better protect these drinking water sources.

Purpose of this report:
This report is a planning tool to support local and state efforts to improve water supply protection. By identifying land uses within water supply protection areas that may be potential sources of contamination, the assessment helps focus protection efforts on appropriate best management practices (BMPs) and drinking water source protection measures.

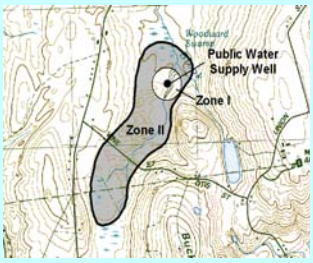
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

This report includes the following sections:

1. Description of the Water System
2. Land Uses within Protection Areas
3. Source Water Protection Conclusions and Recommendations
4. Appendices

What is a Protection Area?

A well's water supply protection area is the land around the well where protection activities should be focused. Each well has a Zone I protective radius and a Zone II protection area.



Glossary

Aquifer: An underground water-bearing layer of permeable material that will yield water in a usable quantity to a well.

Hydrogeologic Barrier: An underground layer of impermeable material (i.e. clay) that resists penetration by water.

Recharge Area: The surface area that contributes water to a well.

Zone I: The area closest to a well; a 100 to 400 foot radius proportional to the well's pumping rate. This area should be owned or controlled by the water supplier and limited to water supply activities.

Zone II: The primary recharge area for the aquifer. This area is defined by hydrogeologic studies that must be approved by DEP. Refer to the attached map to determine the land within your Zone II.

Section 1: Description of the Water System

System Susceptibility ***High***

Recharge Area = MA GIS Zone II ID # 564 and # 201 ***Susceptibility: High***

Source Name:	***Source ID***
Maloney Well	1087000-07G

MA GIS Zone II ID# 235 ***Susceptibility: High***

Source Name:	***Source ID***
Hendrick Street Wellfield	1087000-04G
Pines Well	1087000-05G
Nonotuck Park Well	1087000-08G
Brook Street Well	1087000-09G

Easthampton is a small, residential and industrial city in the Connecticut River valley of western Massachusetts. The Easthampton Water Department utilizes water entirely from ground water sources within the Barnes Aquifer. The Barnes Aquifer has been designated as a Sole Source Aquifer by the Environmental Protection Agency. The Hendricks Street Wellfield, the oldest component of the system, was developed in 1908, consists of 106 driven wells of various depths and has an approved withdrawal rate of 1.2 million gallons per day (MGD). The Pines Well, built in 1962, is a 10-inch gravel developed well, with an approved withdrawal rate of 1 MGD. The Pines Well (05G) is located approximately 150 feet from the western portion of the Hendrick Street Wellfield (04G). The Nonotuck Park Well (08G) is a replacement well for the original Nonotuck well, which is now listed as an emergency source only. The replacement well went on line in 1995 and is an 18 by 24-inch diameter gravel packed well with an approved withdrawal rate of 1.14 MGD. The Brook Street Well (09G) was completed in 1998 in the central part of town and is a 24 by 36-inch diameter, gravel packed well with an approved yield of 1.2 MGD withdrawal. The Zone I for the Hendrick Street wellfield is a radial distance of 250 feet from the outer perimeter of the wellpoints resulting in an oval shaped Zone I. The remaining wells each have a Zone I radius of 400 feet. The Pines Well, Brook Street, Hendrick Street and Nonotuck Park sources are located within approximately 1 mile of each other and the Zone II (#235) includes all of those sources. Please refer to the Zone II map.

The Maloney Well is located approximately 2 miles north, (downgradient) of the other Easthampton sources. The Maloney Well is an 18-inch diameter, gravel developed artesian well installed in 1976 with an approved withdrawal rate of 1.7 MGD. Due to high manganese levels, the Maloney Well is used primarily to supplement the system under high demand. The Zone II for the Maloney Well was delineated as part of the SWAP program. The Zone II (#564) for the Maloney well incorporates a large area as it is at the mouth of three buried valley aquifers that merge and discharge to the Connecticut River valley just east of the Maloney Well site. The Maloney well also has a Zone I radius of 400 feet.

The aquifer utilized by Easthampton is part of the Barnes Aquifer, an extensive sand and gravel aquifer that has been designated by the EPA as a "Sole Source Aquifer". The aquifer extends through Holyoke, Westfield, Southampton and Easthampton. The regional Barnes Aquifer Protection Committee consists of representatives of each of the communities, academia and the regional planning agency to promote education about and protection of the aquifer on a regional basis. As noted, the contribution area for the Maloney well is quite extensive due to the well's location downgradient of the convergence of three large, buried valley aquifers that discharge to the Connecticut River valley near the Oxbow. The recharge area includes an aquifer that flows from the northwest and merges with the Barnes aquifer before discharging to the Connecticut River basin. The aquifers are glacially deepened bedrock valleys that were filled with sand and gravel during the glacial recession (melting) some 10,000 years ago. Glacial Lake Hitchcock was formed throughout much of the Connecticut River valley leaving some areas with an extensive clay confining unit. The Maloney well is a located in an area that has a thick, confined clay layer above the sand and gravel aquifer utilized by that well. However, the confining clay unit thins outs near the boundaries of the valley and does not exist to the south and west of the Maloney well. The confining unit does underlie much of the center of Easthampton, the most densely developed section of the Zone II.

Although some portions of the aquifer are protected from activities and land use on the ground surface by the clay layer, the aquifer is considered to be highly vulnerable to contamination because the hydrogeologic barrier (i.e. clay) is not continuous throughout the developed recharge area. Please refer to the attached map to view the boundaries of the Zone II.

Water from the Pines Well and Hendrick Street Wellfield is treated by aeration to remove Trichloroethylene (TCE) an industrial solvent, then chlorinated for disinfection prior to distribution. An extensive, on-going investigation of the contamination has being conducted by the Department and the City. For further information about that investigation, contact the Department's Bureau of Waste Site Cleanup at the Springfield Office at (413) 784-1100. For current information on monitoring results and treatment processes, please refer questions to the Public Water System contact person listed above in Table 1 for a copy of the most recent Consumer Confidence Report.

Benefits of Source Protection

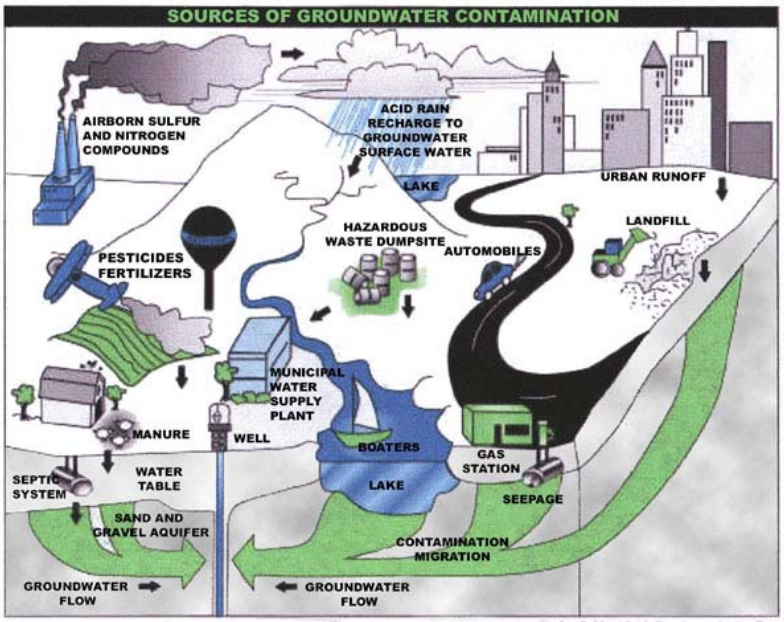
Source Protection helps protect public health and is also good for fiscal fitness:

- Protects drinking water quality at the source
- Reduces monitoring costs through the DEP Waiver Program
- Treatment can be reduced or avoided entirely, saving treatment costs
- Prevents costly contamination clean-up
- Preventing contamination saves costs on water purchases, and expensive new source development

Contact your regional DEP office for more information on Source Protection and the Waiver Program.

Section 2: Land Uses in the Protection Areas

The Zone II areas for Easthampton's water supplies are a mixture of residential, agricultural, commercial, and industrial land uses (refer to attached map for details). Land uses and activities that are potential sources of contamination are listed in Table 2, with further detail provided in the Table of Regulated Facilities and Table of Underground Storage Tanks in Appendix B.



Key Land Uses and Protection Issues include:

1. Non-conforming Zone I
2. Residential land uses
3. Transportation corridors
4. Hazardous materials storage and use
5. Confirmed oil or hazardous material contamination sites
6. Comprehensive wellhead protection planning
7. Agricultural activities
8. Wastewater Treatment Facility
9. Right-of-Way

The overall ranking of susceptibility to contamination for the system is high, based on the presence of several high threat land uses within the water supply protection areas, as seen in Table 2.

What are "BMPs?"

Best Management Practices (BMPs) are measures that are used to protect and improve surface water and groundwater quality. BMPs can be structural, such as oil & grease trap catch basins, nonstructural, such as hazardous waste collection days or managerial, such as employee training on proper disposal procedures.

1. Non-conforming Zone Is – The Zone I for each of the wells is a 400 foot radius around the wellhead. The Zone I for the wellfield is a 250 foot radial distance from the perimeter of the well points. Massachusetts drinking water regulations (310 CMR 22.00 Drinking Water) require public water suppliers to own the Zone I, or control the Zone I through a conservation restriction. Only water supply activities are allowed in the Zone I. However, many public water supplies were developed prior to the Department's regulations and contain non-water supply activities such as homes and public roads as well as other land not owned by the water supplier. Wells 06G and 08G have only recreational activities within the Zone I. The Zone Is for sources 04G and 05G are not entirely owned or controlled by the water supplier and contain residential areas and roadways as well as a sewer line and storm drain. The residential area is served by public sewers; the sewer lines and storm drains that run through the Zone I area are sleeved to protect the aquifer from leaks. Although the City does not own the entire Zone I of source 09G, there is a Conservation Restriction on that land. The Zone I for the Maloney well includes a small area that was previously owned by and utilized by an industry. The City currently owns the parcel, including the Zone I area and has recently received a Brownsfield grant to investigate the site. Although only a very small area of the site lies within the Zone I, the remainder of the parcel lies within the Zone II of the Maloney well. In addition to the activities associated with the industry, there is a wellfield, outside of the Maloney Well Zone I that was utilized by the facility. The field is only partially intact but little is know about the wellfield. According to the City Planner, further investigations and recommendations regarding the site are forthcoming. For further information regarding the area, contact the City Planning Department.

Zone I Recommendations:

- ✓ To the extent possible, remove all non-water supply activities from the Zone Is to comply with DEP's Zone I requirements.
- ✓ Use BMPs for the storage, use, and disposal of hazardous materials such as water supply chemicals and maintenance chemicals.
- ✓ Do not use or store pesticides, fertilizers or road salt or any other chemicals within the Zone I.
- ✓ Keep any new non-water supply activities out of the Zone I.
- ✓ Contact the property owners to be sure they are aware that they are within the Zone I and Zone II of the well(s). Provide information about BMPs.
- ✓ Consider options for future acquisitions of land.

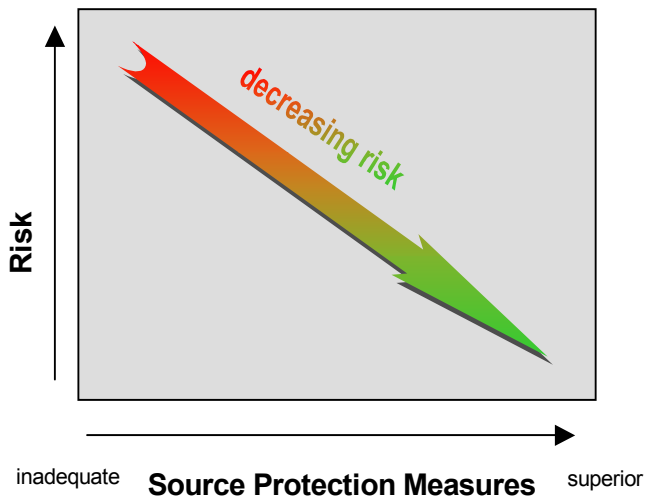


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

(Continued on page 8)

Potential Source of Contamination vs. Actual Contamination

The activities listed in Table 2 are those that typically use, produce, or store contaminants of concern, which, if managed improperly, are potential sources of contamination (PSC).

It is important to understand that a release may never occur from the potential source of contamination provided facilities are using best management practices (BMPs). If BMPs are in place, the actual risk may be lower than the threat ranking identified in Table 2. Many potential sources of contamination are regulated at the federal, state and/or local levels, to further reduce the risk.

Table 2: Land Use in the Protection Areas (Zones I and II)

For more information, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area

Land Uses	Quantity	Threat	Zone II	Potential Contaminant Sources*
Agricultural				
Fertilizer/Pesticide Storage or Use Orchards/crops	Numerous	M	Both	Fertilizers/Pesticides: leaks, spills, improper handling, or over-application
Dairy Farm	2	M	564	Manure (microbial contaminants): improper handling
Livestock Operations other than dairy	Numerous	M	Both	Manure (microbial contaminants): improper handling
Manure Storage or Spreading	Numerous	H	Both	Manure (microbial contaminants): improper handling
Forestry Operation—Sawmill	1	M	564	Equipment maintenance
Commercial				
Body Shops	3	H	Both	Vehicle paints, solvents, and primer products: improper management
Gas Stations	6	H	Both	Automotive fluids and fuels: spills, leaks, or improper handling or storage
Service Stations/ Auto Repair Shops/ Excavating/Construction Companies	16	H	Both	Automotive fluids and solvents: spills, leaks, or improper handling
Bus and Truck Terminals	1	H	Both	Fuels and maintenance chemicals: spills, leaks, or improper handling
Cemeteries	6	M	Both	Over-application of pesticides: leaks, spills, improper handling; historic embalming fluids
Dry Cleaners	1	H	Both	Solvents and wastes: spills, leaks, or improper handling
Funeral Homes	5	L	Both	Hazardous chemicals: spills, leaks, or improper handling
Golf Courses	1	M	564	Fertilizers or pesticides: over-application or improper handling
Laundromats	2	L	Both	Wash water: improper management

Table 2 Continued

Activities	Quantity	Threat*	Zone II	Potential Source of Contamination
Printer And Blueprint Shops	2	M	Both	Printing inks and chemicals: spills, leaks, or improper handling or storage
Repair Shops (small engine and appliances)	2	H	Both	Engine fluids, lubricants, and solvents: spills, leaks, or improper handling or storage
Medical Facilities	8	M	Both	Biological, chemical, and radioactive wastes: spills, leaks, or improper handling or storage
Sand And Gravel Mining/Washing	3	M	Both	Heavy equipment, fuel storage, clandestine dumping: spills or leaks
Industrial				
Asphalt and Concrete Plants	2 Asphalt, 1 Concrete	M	Both	Hazardous chemicals and wastes: spills, leaks, or improper handling or storage
Fuel Oil Distributors	3	H	Both	Fuel oil: spills, leaks, or improper handling or storage
Furniture stripping/ refinishing	1	H	564	Hazardous chemicals: spills, leaks, improper handling or storage
Hazardous Materials Storage	Numerous	H	Both	Hazardous materials: spills, leaks, or improper handling or storage
Lagoons and Pits	1 (Closed)	-	564	Liquid wastes: improper seepage or overflows
Industry/Industrial Parks	1	H	564	Industrial chemicals and metals: spills, leaks, or improper handling or storage
Machine/Metalworking Shops	10	H	Both	Solvents and metal tailings: spills, leaks, or improper handling
Plastic Processors	2	H	Both	Solvents, resins and process wastes: spills, leaks, or improper handling or storage
RCRA TSDF Facilities	Numerous	H	Both	Hazardous wastes: spills, leaks, or improper handling or storage
Residential				
Fuel Oil Storage (at residences)	Numerous USTs	H	Both	Fuel oil: spills, leaks, or improper handling
Lawn Care / Gardening	Numerous	M	Both	Pesticides: over-application or improper storage and disposal
Septic Systems / Cesspools	Numerous	M	Both	Hazardous chemicals: microbial contaminants, and improper disposal
Miscellaneous				
Aboveground Storage Tanks	Numerous	M	Both	Materials stored in tanks: spills, leaks, or improper handling
Aquatic Wildlife	Present	L	Both	Microbial contaminants
Landfills	3 (1 Active)	H	564	Potential for seepage of leachate

Table 2 Continued

Activities	Quantity	Threat*	Zone II	Potential Source of Contamination
Miscellaneous				
Large Quantity Hazardous Waste Generators	Numerous	H	564	Hazardous materials and waste: spills, leaks, or improper handling or storage
NPDES Locations	1	L	564	Hazardous material and wastes: improper disposal
Confirmed Oil or Hazardous Material Release Sites	18	--	Both	Tier Classified Oil or Hazardous Materials Sites are not ranked due to their site-specific character. Individual sites are identified in Appendix B.
Road and Maintenance Depots	1	M	Both	Deicing materials, automotive fluids, fuel storage, and other chemicals: spills, leaks, or improper handling or storage
Schools	3	M	Both	Fuel oil, laboratory, art, photographic, machine shop, and other chemicals
Small quantity hazardous waste generators	Numerous	M	Both	Hazardous materials and waste: spills, leaks, or improper handling or storage
Stormwater Drains/ Retention Basins	Numerous	L	Both	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns
Electric/Natural gas - Line Rights-of-Way	2	L	Both	Corridor maintenance pesticides: over-application or improper handling; construction
Transportation Corridors	Numerous	M	Both	Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or im-
Underground Storage Tanks	Numerous (>	H	Both	Stored materials: spills, leaks, or improper handling
Utility Substation Transformers	2	L	Both	Chemicals and other materials including PCBs: spills, leaks, or improper handling
Very Small Quantity Hazardous Waste Generator	Numerous	L	Both	Hazardous materials and waste: spills, leaks, or improper handling or storage
Wastewater Treatment Plant/Collection Facility/ Lagoon	1	M	564	Treatment chemicals or equipment maintenance materials: improper handling or storage; wastewater: improper management
Water Treatment Sludge Lagoon	1	M	Both	Sludge and wastewater: improper management
Junk/Salvage Yard	5	H	564	Automotive chemicals, waste, and batteries: spill, leaks or improper handling

Notes:
1. When specific potential contaminants are not known, typical potential contaminants or activities for that type of land use are listed. Facilities within the watershed may not contain all of these potential contaminant sources, may contain other potential contaminant sources, or may use Best Management Practices to prevent contaminants from reaching drinking water supplies.
2. For more information on regulated facilities, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area information about these potential sources of contamination.
3. For information about Oil or Hazardous Materials Sites in your protection areas, refer to Appendix C: Tier Classified Oil and/or Hazardous Material Sites.

*** THREAT RANKING** - The rankings (high, moderate or low) represent the relative threat of each land use compared to other PSCs. The ranking of a particular PSC is based on a number of factors, including: the type and quantity of chemicals typically used or generated by the PSC; the characteristics of the contaminants (such as toxicity, environmental fate and transport); and the behavior and mobility of the pollutants in soils and groundwater.

(Continued from page 4)

2. Residential Land Uses – Approximately 30% of the Zone II #235 consists of residential areas; the other Zone IIs have about 23% of land utilized as residential. While much of the Zone II area located within Easthampton is served by the municipal sewer system, all of the Southampton areas and most of the Northampton areas use on-site septic systems. If managed improperly, activities associated with residential areas can contribute to drinking water contamination. Common potential sources of contamination include:

- **Septic Systems** – Improper disposal of household hazardous chemicals to septic systems is a potential source of contamination to the groundwater because septic systems lead to the ground. If septic systems fail or are not properly maintained they can be a potential source of microbial contamination.
- **Household Hazardous Materials** - Hazardous materials may include automotive wastes, paints, solvents, pesticides, fertilizers, and other substances. Improper use, storage, and disposal of chemical products used in homes are potential sources of contamination.
- **Heating Oil Storage** - If managed improperly, Underground and Aboveground Storage Tanks (UST and AST) can be potential sources of contamination due to leaks or spills of the fuel oil they store.
- **Stormwater** – Catchbasins transport stormwater from roadways and adjacent properties to the ground. As flowing stormwater travels, it picks up debris and contaminants from streets and lawns. Common potential contaminants include lawn chemicals, pet waste, and contaminants from automotive leaks, maintenance, washing, or accidents.

Residential Land Use Recommendations:

- ✓ Educate residents on best management practices (BMPs) for protecting water supplies. Distribute the fact sheet "Residents Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMPs for common residential issues.
- ✓ Work with planners to control new residential developments in the water supply protection areas.
- ✓ Promote BMPs for stormwater management and pollution controls.
- ✓ Continue proactive inspection of areas within the Zone II and continue supporting the removal of USTs and upgrading of septic systems or connection to the municipal sewer. Be sure communities are aware that they can utilize municipal incentive programs to fund removal of USTs, upgrade septic systems as well as remove lead paint from residential properties.

3. Transportation Corridors – Many state routes run through the Zone IIs of the wells. Local roads are common throughout the Zone IIs. Roadway construction, maintenance, and typical highway use can all be potential sources of contamination. Accidents can lead to spills of gasoline and other potentially dangerous transported chemicals. Roadways are frequent sites for illegal dumping of hazardous or other potentially harmful wastes. De-icing salt, automotive chemicals and other debris on roads are picked up by stormwater and wash in to catchbasins.

Transportation Corridor Recommendations:

- ✓ Identify stormwater drains and the drainage system along transportation corridors. Wherever possible, ensure that drains discharge stormwater outside of the Zone IIs.
- ✓ Work with the Town and State to have catchbasins inspected, maintained, and cleaned on a regular schedule. Street sweeping reduces the amount of potential contaminants in runoff.
- ✓ Work with local emergency response teams in Northampton, Holyoke and Northampton to ensure that any spills

within the Zone IIs can be effectively contained.

- ✓ If storm drainage maps are available, review the maps with emergency response teams. If maps aren't yet available, work with town officials to investigate mapping options such as the upcoming Phase II Stormwater Rule requiring some communities to complete stormwater mapping.
- ✓ Notify City and town officials of potential USDA funding for mitigation and prevention of runoff pollution through the Environmental Quality Incentives Program (EQIP).

4. Hazardous Materials Storage and Use – A small percentage of the land area within the Zone IIs is commercial or industrial land uses. Many small businesses and industries use hazardous materials, produce hazardous waste products, and/or store large quantities of hazardous materials in UST/AST (see Appendix B for a list of registered facilities). If hazardous materials are improperly stored, used, or disposed, they become potential sources of contamination. Hazardous materials should never be disposed of to a septic system or floor drain leading directly to the ground.

Hazardous Materials Storage and Use Recommendations:

- ✓ Educate local businesses on best management practices for protecting water supplies. Distribute the fact sheet "Businesses Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMP's for common business issues.
- ✓ Work with the Board of Health and local businesses to register those facilities that are unregistered generators of hazardous waste or waste oil. Partnerships between businesses, water suppliers, and communities enhance successful public drinking water protection practices.
- ✓ Work with your local fire department and the Board of Health to review emergency response plans and to coordinate response actions.
- ✓ Educate local businesses on Massachusetts floordrain requirements. See brochure "Industrial Floor Drains" for more information.
- ✓ The USDA has various funding sources for government, non-government organizations and agricultural facilities through programs such as those listed on the USDA web site http://search.sc.egov.usda.gov/.

Top 5 Reasons to Develop a Local Wellhead Protection Plan

❶ Reduces Risk to Human Health

❷ Cost Effective! Reduces or Eliminates Costs Associated With:

- Increased groundwater monitoring and treatment
- Water supply clean up and remediation
- Replacing a water supply
- Purchasing water

❸ Supports municipal bylaws, making them less likely to be challenged

❹ Ensures clean drinking water supplies for future generations

❺ Enhances real estate values – clean drinking water is a local amenity. A community known for its great drinking water is a place people want to live and businesses want to locate.

5. Presence of Oil or Hazardous Material Contamination Sites – The Zone IIs contain DEP Tier Classified Oil and/or Hazardous Material Release Sites indicated on the map as Release Tracking Numbers 1-0000549, 1-0000129, 1-0000291, 1-0013737, 1-0000264, 1-0011448, 1-0000674, 1-0012049, 1-0000064, 1-0000066, 1-0013515, 1-0000608, 1-0000512, 1-0013956, 1-0012881, 1-0000514, 1-0011448, 1-0000264, 1-0000639, and 1-0000723. Refer to the attached map and Appendix 3 for more information.

Oil or Hazardous Material Contamination Sites Recommendation:

- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites. Contact the Bureau of Waste Site Cleanup for further information regarding those sites.

6. Agricultural Activites – There are several farms within the Zone IIs. Approximately 20% of the land use within each of the Zone IIs is cropland and pastureland. Pesticides and fertilizers have the potential to contaminate a drinking water source if improperly stored, applied, or disposed. If not contained or applied properly, animal waste from barnyards, manure pits and field application are potential sources of contamination to ground and surface water.

Agricultural Activities Recommendation:

- ✓ Work with farmers in your protection areas to make them aware of your water supply and to encourage the use of a US Natural Resources

Conservation Service (NRCS) farm plan to protect water supplies.

- ✓ Commercial facilities may be eligible for funding BMPs through the Department of Food and Agriculture or the Work and NRCS. Contact the NRCS about the Environmental Quality Incentives Program (EQIP).

7. Protection Planning – Currently, although the City has water supply protection controls, the entire Zone II and recharge areas are not protected by controls that meet DEP's Wellhead Protection regulations 310 CMR 22.21(2). Protection planning protects drinking water by managing the land area that supplies water to a well. A Wellhead Protection Plan coordinates community efforts, identifies protection strategies, establishes a timeframe for implementation, and provides a forum for public participation. There are resources available to help communities develop a plan for protecting drinking water supply wells.

Protection Planning Recommendations:

- ✓ Develop a Wellhead Protection Plan. Establish a protection team, and refer them to http://mass.gov/dep/brp/dws/protect.htm for a copy of DEP's guidance, "Developing a Local Wellhead Protection Plan".
- ✓ Coordinate efforts with local officials in Northampton and Southampton to compare local wellhead protection controls with current MA Wellhead Protection Regulations 310 CMR 22.21(2). Work through the Barnes Aquifer Protection Committee and with the DEP to encourage all host communities to adopt controls that meet 310 CMR 22.21(2). For more information on DEP land use controls see http://mass.gov /dep/brp/dws/protect.htm.
- ✓ Work with the barnes Aquifer Protection Committee, DEP and the local boards to review if all communities regulate floordrains; be sure to include floordrain controls that meet 310 CMR 22.21(2).

8. Wastewater Treatment Plant – The Zone II contains the Easthampton Wastewater Treatment Plant that discharges to the Connecticut River near Interstate I-91 in Easthampton. The facility also has a wet weather discharge within the Zone II of the Maloney well. However there is a confining clay layer in that vicinity. Activities associated with wastewater treatment involve storage and use of hazardous materials such as chlorine and fuel oil. Municipal wastewater contains contaminants including bacteria, viruses, metals and volatile chemicals. Spills, leaks or mismanagement of wastewater, hazardous materials and storm water at the plant is a potential source of contamination.

Wastewater Treatment Plant Recommendations:

- ✓ Ensure wastewater treatment facility is operated and maintained according to DEP requirements.
- ✓ Work to have stormwater drains and the drainage system around the wastewater treatment plant mapped.
- ✓ Work with plant to be sure that best management practices are used for proper handling of materials and in containing spills and leaks.
- ✓ Work with plant to be sure emergency planning includes notification for Easthampton Water Department.
- ✓ Ensure that the all of the plant's storage tanks have containment and are maintained and monitored properly.

9. Right-of-Way – There are three different utility rights of way within the Zone IIs: natural gas, electric and sewer pipeline. The risk for the sewer pipeline is from a possible rupture of the line, potentially allowing the contents to enter into the water supply. Normal maintenance of any right-of-way, including electrical line rights-of-way, can introduce contaminants to a water supply through herbicide application for vegetation control. The over-application or improper handling of herbicides is a potential source of contamination.

Right-of-Way Recommendations:

What is a Zone III?

A Zone III (the secondary recharge area) is the land beyond the Zone II from which surface and ground water drain to the Zone II and is often coincident with a watershed boundary.

The Zone III is defined as a secondary recharge area for one or both of the following reasons:

1. The low permeability of underground water bearing materials in this area significantly reduces the rate of groundwater and potential contaminant flow.

2. The groundwater in this area discharges to a surface water feature such as a river, rather than discharging directly into the aquifer.

Additional Information

To help with source protection efforts, more information is available by request or online at mass.gov/dep/brp/dws including:

1. Water Supply Protection Guidance Materials such as model regulations, Best Management Practice information, and general water supply protection information.

2. MA DEP SWAP Strategy

3. Land Use Pollution Potential Matrix

4. Draft Land/Associated Contaminants Matrix

Contact Catherine V. Skiba in DEP's Springfield Office at (413) 755-2119 for more information and assistance on improving current protection measures.

Copies of this report have been provided to the public water supplier, City and abutting community boards.

- ✓ Review the natural gas pipeline and electricity right-of-way Yearly Operating Plan to ensure Best Management Practices are implemented with regard to vegetation control in the Zone II, and that the utility has accurate information regarding the locations of the wells and the Zone I. Review the maps the utilities use, and provide them with up-to-date maps if necessary.
- ✓ Work with your local fire department to review emergency response plans. Updates to this plan should include the utility rights-of-way and coordination with the owner/operator of the utilities using the right-of-way.
- ✓ Continue working with the DPW regarding maintenance of the sewer line and storm drains.

Other land uses and activities within the Zone II that are potential sources of contamination are included in Table 2. Refer to Appendix B for more information about some of these land uses. One issue that the city has been aware of and has been tracking is the number of non-commercial USTs within the aquifer. As noted in Appendix B, there are approximately 275 USTs in the aquifer in Easthampton. This does not include those in other communities within the aquifer. Easthampton has been tracking the progress of the removal of these tanks. Continue tracking USTs and consider funding options for assisting in the removal of the tanks.

Identifying potential sources of contamination is an important initial step in protecting your drinking water sources. Further local investigation will provide more in-depth information and may identify new land uses and activities that are potential sources of contamination. Once potential sources of contamination are identified, specific recommendations like those below should be used to better protect your water supply.

Section 3: Source Water Protection Conclusions and Recommendations

Current Land Uses and Source Protection:
As with many water supply protection areas, the system Zone IIs contain potential sources of contamination. However, source protection measures reduce the risk of actual contamination, as illustrated in Figure 2. The water supplier is commended for taking an active role in promoting source protection measures in the Water Supply Protection Areas through:

- Sleeved sewer lines
- Sleeved storm drains
- Active participation in the Barnes Aquifer Protection Committee
- Inventorying and actively supporting removal of USTs in the Barnes Aquifer.
- Proactive and knowledgeable about activities within the Zone II areas and pursue mitigation of threats

Source Protection Recommendations:
To better protect the sources for the future:

- ✓ Inspect the Zone I regularly, and when feasible, remove any non-water supply activities.
- ✓ Continue working with the Aquifer Protection Committee and through other effort, to educate residents on ways they can help you to protect drinking water sources.
- ✓ Work with emergency response teams to ensure that they are aware of the stormwater drainage in your Zone II and to cooperate on responding to spills or accidents.
- ✓ Continue your partnership with local businesses to ensure the proper storage, handling, and disposal of hazardous materials.
- ✓ Coordinate and implement a plan for Easthampton and surrounding communities to remove underground storage tanks to protect the unconfined aquifer from contamination.
- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites.
- ✓ Work with farmers in your protection areas to make them aware of your water supply and to encourage the use of a NRCS farm plan to protect water supplies.
- ✓ Develop and implement a Wellhead Protection Plan.
- ✓ Work with the City Planning Department to target and prioritize assessment of properties within the Zone II.
- ✓ Continue working with the Board of Health to conduct inspections and implement hazardous materials strategies.
- ✓ Continue efforts to encourage other municipalities to protect the aquifer.

Conclusions:
These recommendations are only part of your ongoing local drinking water source protection. Additional source protection recommendations are listed in Table 3, the Key Issues above and Appendix A.

➢ **Partner with Local Businesses:**
Since many small businesses and industries use hazardous materials and produce hazardous waste products, it is essential to educate the business community about drinking water protection. Encouraging partnerships between businesses, water suppliers, and communities will enhance successful public drinking water protection practices.

➢ **Educate Residents:**
If managed improperly, household hazardous waste, septic systems, lawn care, and pet waste can all contribute to groundwater contamination. Hazardous materials include automotive wastes, paints, solvents, pesticides, fertilizers, and other substances. If a septic system fails or is not properly maintained, it could be a potential source of microbial contamination. Animal waste is also a source of microbial contamination.

➢ **Provide Outreach to the Community:**
Public education and community outreach ensure the long-term protection of drinking water supplies. Awareness often generates community cooperation and support. Residents and business owners are more likely to change their behavior if they know where the wellhead protection recharge area is located; what types of land uses and activities pose threats; and how their efforts can enhance protection.

➢ **Plan for the Future:**
One and of the most effective means of protecting water supplies is local planning, include adoption of local controls to protect land use, regulations related to watersheds and ground water protection. These controls may include health ordinances/regulations, discharge prohibitions, general ordinances, and zoning by laws that prohibit or control potential sources of contamination within the protection areas.

➢ **Other Funding Sources:**
Other grants and loans are available through the Drinking Water State Revolving Loan Fund, the Clean Water State Revolving Fund, and other sources. For more information on grants and loans, visit the Bureau of Resource Protection's Municipal Services web site at: http://mass.gov/dep/brp/mf/mfpubs.htm. The USDA also has various funding sources for government, non-government organizations and agricultural facilities through programs such as those listed on the USDA web site http://search.sc.egov.usda.gov/nrcs.asp?qu=eqip&ct=NRCS. One program in particular, the Environmental Quality Incentives Program (EQIP) may be utilized in a variety of projects from DPW stormwater management to farm nutrient management designed to protect surface and groundwater. Review the fact sheet available on line and call the local office of the NRCS for assistance http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf.

DEP staff, informational documents, and resources are available to help you build on this SWAP report as you continue to improve drinking water protection in your community. The Department's Wellhead Protection Grant Program and Source Protection Grant Program provide funds to assist public water suppliers in addressing water supply source protection through local projects. Protection recommendations discussed in this document may be eligible for funding under the Grant Program. Please note: each spring DEP posts a new Request for Response for the grant program (RFR).

The assessment and protection recommendations in this SWAP report are provided as a tool to encourage community discussion, support ongoing source protection efforts, and help set local drinking water protection priorities. Citizens and community officials should use this SWAP report to spur discussion of local drinking water protection measures. The water supplier should supplement this SWAP report with local information on potential sources of contamination and land uses. Local information should be maintained and updated periodically to reflect land use changes in the Zone II. Use this information to set priorities, target inspections, focus education efforts, and to develop a long-term drinking water source protection plan.

Section 4: Appendices

A. Protection Recommendations
B. Regulated Facilities within the Water Supply Protection Area
C. Table of Tier Classified Oil and/or Hazardous Material Sites within the Water Supply Protection Areas
D. Additional Documents on Source Protection

Table 3: Current Protection and Recommendations

Protection Measures	Status	Recommendations
Zone I		
Does the Public Water Supplier (PWS) own or control the entire Zone I?	**YES** (except 04G)	Follow Best Management Practices (BMPs) that focus on good housekeeping, spill prevention, and operational practices to reduce the use and release of hazardous materials. Pursue acquiring control of Zone I lands not owned by the supplier by purchase or conservation restriction.
Is the Zone I posted with "Public Drinking Water Supply" Signs?	**YES**	Additional economical signs are available from the Northeast Rural Water Association (802) 660-4988.
Is the Zone I regularly inspected?	**YES**	Continue monthly inspections of drinking water protection areas. Increase frequency when possible.
Are water supply related activities the only activities within the Zone I?	**YES** (05G, 07G, 09G) **NO** (04G, 06G, 08G)	Continue monitoring activities in Zone I. Consider Right of first refusal, purchase of conservation restriction, etc.
Municipal Controls (Zoning Regulations, Health Regulations, and General Ordinances/By laws)		
Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21 (2)?	**YES**	The City's Zoning Ordinance meets DEP's wellhead protection requirements. Refer to www.state.ma.us/dep/brp/dws/ for model by laws, health regulations, and current regulations.
Do neighboring communities protect the water supply protection areas extending into their communities?	**PARTIAL**	Holyoke, Westfield and Easthampton have wellhead protection ordinances. Work with Northampton to include your wellhead protection areas in their water supply protection controls. Request that Southampton to implement protection and include Easthampton's Zone II. Contact the Town Boards and the BPAC. DEP may be of assistance to you.
Planning		
Does the PWS have a local Wellhead Protection Plan?	**NO**	Work with the Barnes Aquifer Protection Committee to create comprehensive watershed plans. For more guidance, follow "Developing a Local Wellhead Protection Plan" and other guidance available at: www.state.ma.us/dep/brp/dws.
Does the PWS have a formal "Emergency Response Plan" to deal with spills or other emergencies?	**YES**	Augment plan by developing a joint emergency response plan with fire department, Board of Health, DPW, and local and state emergency officials. Coordinate emergency response drills with local teams.
Does the municipality have a wellhead protection committee?	**YES**	Include representatives from citizens' groups, neighboring communities, and the business community as committee members.
Does the Board of Health conduct inspections of commercial and industrial activities?	**YES**	Easthampton does have a floor drain regulation. Other communities may not. For more guidance, see "Hazardous Materials Management: A Community's Guide" at www.state.ma.us/dep/brp/dws/files/hazmat.doc
Does the PWS provide wellhead protection education?	**PARTIAL**	Aim education efforts at schools and commercial, industrial, and municipal uses within the Zone II. Work through BPAC to access host communities.

APPENDIX B:
REGULATED FACILITIES WITHIN THE WATER SUPPLY PROTECTION AREAS

DEP Permitted Facilities

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class	Facility Description
130782	Tubed Products, Inc.	44 O'Neil Street	Easthampton	Hazardous Waste Generator	Large Quantity	Industry
				Oil Waste Generator	Small Quantity	
				Air Handler	Major (BM1000)	
130780	National Nonwovens	180 Pleasant Street	Easthampton	Hazardous Waste Generator	Small Quantity	Industry
				Air Handler	Minor Synthetics (SM150)	
				Oil Waste Generator	Very Small Quantity	
26963	National Nonwovens	Mechanics Street	Easthampton	Hazardous Waste Generator	Small Quantity	Industry
				Air Handler	Minor Synthetics (SM150)	
				Toxic User	Large Quantity	
				Oil Waste Generator	Small Quantity	
25961	The October Company, Inc.	O'Neil Street	Easthampton	Hazardous Waste Generator	Small Quantity	Industry
				Oil Waste Generator	Very Small Quantity	
				Air Handler	Major Synthetics (SM1000)	

				Toxic User	Large Quantity	
133906	Gazette Printing Company, Inc.	58 O'Neil Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Printers
27990	Peter Rapid Cleaners	38 Union Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Dry Cleaners
31055	A & B Auto Sales	156 Northampton Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Auto Sales & Repair
				Oil Waste Generator	Very Small Quantity	
133907	Rock Valley Tool, Inc.	54 O'Neil Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	
				Oil Waste Generator	Small Quantity	
35459	Fedor Oldsmobile Pontiac, Inc	228 Northampton Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Auto Sales & Repair
				Oil Waste Generator	Small Quantity	
130785	The October Company, Inc.	51 Ferry Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Industry
				Oil Waste Generator	Very Small Quantity	
				Toxic User	Large Quantity	
				Plant	RES Application Approved	
36572	The Town of Easthampton	30 Northampton Street	Easthampton	Hazardous Waste Generator	Small Quantity	
10018	Easthampton DPW	30 Northampton Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Town DPW

				Oil Waste Generator	Small Quantity	
132014	Cernak Buick, Inc.	102-104 Northampton Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Auto Sales & Repair
37256	M & L Plastics	50 Terrace View	Easthampton	Hazardous & Oil Waste Generators	Very Small Quantities	Plastic Manufacturing
130781	Phillip Manufacturing Company	19 Ward Avenue	Easthampton	Air Handler	Minor (BM450)	Manufacturing
130786	Easthampton Dye Work	1 Cottage Street	Easthampton	Air Handler	Minor (BM150)	Industry
132648	Industrial Properties	1 Ferry Street	Easthampton	Plant	RES Application Approved	Industrial Park
50669	Riverside Industries	1 Cottage Street	Easthampton	Air Handler	Minor (BM150)	Industry
				Oil Waste Generator	Very Small Quantity	
135711	Pride Convenience, Inc.	60 Union Street	Easthampton	Oil Waste Generator	Very Small Quantity	Service Station
				Fuel Dispenser	Fuel Dispenser	
954	Easthampton Water Treatment Plant	90 Ferry Street	Easthampton	Surface Water Discharge (NPDES)	Major	Wastewater Treatment
				Oil Waste Generator	Very Small Quantity	
126211	Easthampton Mobil	124 Northampton Street	Easthampton	Fuel Dispenser	Fuel Dispenser	Gas Station
132647	Easthampton Landfill	Oliver Street	Easthampton	Landfill	Solid Waste	Landfill
178246	7-Eleven #22397	97-101 Union Street	Easthampton	Fuel Dispenser	Fuel Dispenser	Gas Station/ Convenience Store

				Hazardous Waste Generator	Small Quantity	
137001	Main Street Service	317 Main Street	Easthampton	Fuel Dispenser	Fuel Dispenser	Service Station
132015	Magnat Corporation	52 O'Neil Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Industry
205565	Stonington Corporation	45 Ferry Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Industry
136998	M & M Fuel Company	19 Parsons Street	Easthampton	Handler	BLW-HW	Fuel Distributor
132013	JPS Elastomerics Corporation	412 Main Street (Route 10)	Easthampton	Surface Water Discharge (NPDES)	Minor	
275434	Joseph J. Knapik	25 Mount Tom Avenue	Easthampton	Toxic User	TURP	
328235	October Company, Inc. – Chemetal Division	39 O'Neil Street	Easthampton	Air Handler	Minor Synthetics (SM150)	Industry
				Oil Waste Generator	Very Small Quantity	
				Hazardous Waste Generator	Very Small Quantity	
333062	Eastworks LLP	116 Pleasant Street	Easthampton	Air Handler	BM1000	Industry
343983	Cottage Street Motors, Inc.	47 Cottage Street	Easthampton	Fuel Dispenser	Fuel Dispenser	Service Station
				Oil Waste Generator	Very Small Quantity	
344531	Yankee Plastics, Inc.	142 Pleasant Street	Easthampton	Air Handler	Minor (BM150)	
				Hazardous Waste Generator	Very Small Quantity	

345410	Palmer Paving Corporation	23 Arthur Street	Easthampton	Air Handler	BM1000	Asphalt Manufacturer
				Hazardous Waste Generator	Small Quantity	
364135	Easthampton East Street Landfill	East Street	Easthampton	Landfill	Non-notifier	
*MV4135270800	Advance Auto #1367	112 Union Street	Easthampton	Oil Waste Generator	Small Quantity	Auto Repair
*MAV000002622	Bay State Auto Body	15 Pleasant Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Auto Body
*MAV000002886	Burt Ford Tractor, Inc.	1 Lovefield Street	Easthampton	Oil Waste Generator	Very Small Quantity	Tractor Sales
*MAV000001319	D & D Auto Parts and Machines	9 Northampton Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Engine Repair
**MAD982754673	Dietz Construction Corporation	134 Lovefield Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Construction Company
*MAV000013447	Dr. James Hayden, DVM	410 Main Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Veterinarian
*MAV000009101	Dr. Joseph Zilewicz	5 Campus Lane	Easthampton	Hazardous Waste Generator	Very Small Quantity	Medical Facility
*MAV000002683	Dr. Thomas M. Cleary	350 Main Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Medical Facility
*MV4135271232	E S P Auto	15 Pleasant Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	
*MAV000018383	Easthampton Tire Outlet	141 Northampton Street	Easthampton	Oil Waste Generator	Very Small Quantity	
*MAV000016095	Hampshire Chrysler - Plymouth	150 Northampton Street	Easthampton	Oil Waste Generator	Small Quantity	Auto Sales & Repair
*MAV000015929	John T. Simone	29 Carillon Circle	Easthampton	Hazardous Waste Generator	Very Small Quantity	

**MAD000842724	JPS Elastomerics Corporation	412 Main Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Industry
*MAV000015108	K & M Cycle	97 Glendale Street	Easthampton	Hazardous and Oil Waste Generators	Very Small Quantities	Cycle Sales and Repair
*MAV000017898	Main Street Service	317 Main Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Auto Repair
*MAV000001950	Matt's Garage	61 South Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Auto Repair
				Oil Waste Generator	Small Quantity	
*MV4135273445	National Nonwovens, Putnam Plant	110 Pleasant Street	Easthampton	Hazardous & Oil Waste Generators	Very Small Quantity	Industry
**MAD982202277	Nick's Auto Body	2 Hill Avenue	Easthampton	Hazardous Waste Generator	Very Small Quantity	Body Shop
*MV4135275401	Nick's Auto Body, Inc.	164 Northampton Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	Body Shop
**MAD981206980	Paramount Auto Body	51 Holyoke Street	Easthampton	Hazardous and Oil Waste Generators	Very Small Quantities	Body Shop
*MV4135270291	Richard's Fuel, Inc./ Richard's Plumbing & Heating	79 R Union Street	Easthampton	Hazardous and Oil Waste Generators	Very Small Quantities	
*MV4135273430	Strong Corporation	40 O'Neil Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	
				Oil Waste Generator	Small Quantity	
*MAV000008438	Sunset Motors	9 Florence Road	Easthampton	Oil Waste Generator	Very Small Quantity	
*MV4135272127	VCA, Inc.	1 Cottage Street	Easthampton	Hazardous Waste Generator	Very Small Quantity	
	Northampton Landfill	Glendale Road	Northampton	Landfill	Solids	Landfill

**MAD981892847	Joseph Misterka, Inc.	339 Westhampton Road	Northampton	Hazardous Waste Generator	Small Quantity	
*MAV000006205	Ames Department Store #0375	Townline Shops, College Highway	Southampton	Oil Waste Generator	Very Small Quantity	Department Store
*MAV000002851	Dr. Hans Beer, DMD	16 Pomeroy Meadow Road	Southampton	Hazardous Waste Generator	Very Small Quantity	Medical Facility
*MV4135271556	Easthampton Harley-Davidson	17 College Highway	Southampton	Hazardous Waste Generator	Very Small Quantity	Motorcycle Sales and Service
*MV4135271570	Johnson Metal Products	6 Line Street	Southampton	Oil Waste Generator	Very Small Quantity	Metal fabricator
*MV4135272000	Marmon/Keystone Corporation	1 Clark Street	Southampton	Hazardous & Oil Waste Generators	Very Small Quantities	
**MAD981061872	Mid Town Motors	151 College Highway	Southampton	Hazardous & Oil Waste Generators	Very Small Quantities	
*MAV000016910	Mohawk Machine Shop	37 Pleasant Street	Southampton	Hazardous Waste Generator	Very Small Quantity	Appliance Repair
	Skyline Screen Printing	15 Middle Street	Southampton	Hazardous Waste Generators	Very Small Quantity	Printer Shop
*MAV000006712	Southampton Family Chiropractor	166 College Highway	Southampton	Hazardous Waste Generators	Very Small Quantity	Medical Facility
**MAD991288549	Southampton Sanitary Engineering Company	168 County Road	Southampton	Hazardous & Oil Waste Transporters	Transporters	Waste Transport
*MAV000011536	Tom's Truck Repair Service	42 Whiteloaf Road	Southampton	Hazardous & Oil Waste Generators	Very Small Quantities	Truck Repair
**MAD000844720	Town of Southampton Landfill	Moosebrook Road	Southampton	Oil Waste Generator	Small Quantity	Landfill
**MAV000011082	Agway Distribution Center	323 Lockhouse Road	Westfield	Hazardous Waste Generators	Very Small Quantity	Distribution
178213 *MAD985297274	Westfield Electroplating Co	340 Lockhouse Rd	Westfield	Hazardous Waste Generators	Small Quantity	Electroplating

* Massachusetts Identification Number
** EPA Identification Number
*** Scheduled to be cleaned up

Commercial Registered Underground Storage Tanks – U.S. Fire Service

This list does not include non-commercial and residential facilities. An inventory of the Barnes Aquifer Protection Area was conducted during the early 1990's and updated as the tanks are removed. According to that inventory, there still are nearly 275 USTs remaining in Easthampton not included in this table. This does not include those that may be located in Southampton, Northampton and Holyoke.

Facility Name	Address	Town	Description	Tank Type	Tank Leak Detection	Capacity (gal)	Contents
180 Pleasant Street LLC	180 Pleasant Street	Easthampton		1 Wall	Interstitial Space Monitor	30000	Fuel Oil
7-Eleven #22397	97 Union Street	Easthampton	Convenience, Gas Station	1 Wall	Approved In-Tank Monitor	10000	Gasoline
				1 Wall	Approved In-Tank Monitor	10000	Gasoline
				1 Wall	Approved In-Tank Monitor	10000	Gasoline
Cernak Buick, Inc.	102 – 104 Northampton Street	Easthampton	Auto Sales	1 Wall	Approved In-Tank Monitor	2000	Gasoline
Cernak Fuel Corporation	Mountainview Street	Easthampton	Fuel Distributor	1 Wall	Approved In-Tank Monitor	30000	Fuel Oil
				1 Wall	Interstitial Space Monitor	10000	Fuel Oil
				1 Wall	Approved In-Tank Monitor	2000	Kerosene
				1 Wall	Approved In-Tank Monitor	2000	Gasoline
Cernak Fuel Corporation (continued)	Mountainview Street	Easthampton	Fuel Distributor	1 Wall	Approved In-Tank Monitor	10000	Diesel

				AST	--	275	Fuel Oil
				AST	--	300	Off Road Fuel
Easthampton Dye Works, Inc.	1 Cottage Street	Easthampton	Industry	2 Wall	Interstitial Space Monitor	10000	Fuel Oil
F.L. Roberts & Co., Inc. #415	124 Northampton Street	Easthampton	Industry	2 Wall	Interstitial Space Monitor	15000	Gasoline
				2 Wall	Interstitial Space Monitor	10000	Gasoline
				2 Wall	Interstitial Space Monitor	5000	Diesel
Fedor Oldsmobile Pontiac, Inc.	228 Northampton Street	Easthampton	Auto Sales	2 Wall	Approved In-Tank Monitor	4000	Gasoline
				2 Wall	Interstitial Space Monitor	2000	Fuel Oil
G & D Properties, Inc.	47 Cottage Street	Easthampton		1 Wall	Approved In-Tank Monitor	4000	Gasoline
				1 Wall	Approved In-Tank Monitor	8000	Gasoline
				1 Wall	Approved In-Tank Monitor	4000	Gasoline
				1 Wall	Approved In-Tank Monitor	8000	Gasoline
Main Street Service	317 Main Street	Easthampton	Service Station	1 Wall	Approved In-Tank Monitor	10000	Gasoline
				1 Wall	Approved In-Tank Monitor	8000	Gasoline
				1 Wall	Approved In-Tank Monitor	8000	Gasoline

National Nonwovens	23 Mechanic Street	Easthampton	Industry	1 Wall	Interstitial Space Monitor	10000	Fuel Oil
				1 Wall	Interstitial Space Monitor	10000	Fuel Oil
Pride Convenience, Inc.	60 Union Street	Easthampton		2 Wall	Interstitial Space Monitor	15000	Gasoline
				2 Wall	Interstitial Space Monitor	18000 (Dual Tank)	Gasoline/Diesel
Stanhome, Inc.	116 Pleasant Street	Easthampton		*Empty*	*Must be recertified*	20000	Fuel Oil
Strong Corporation	Lovefield Street	Easthampton	Industry	1 Wall	Approved In – Tank Monitor	10000	Diesel
Cumberland Farms	130 College Hgwy	Southampton	Gasoline Station	1 Wall	Approved In – Tank Monitor	8000	Gasoline
				1 Wall	Approved In – Tank Monitor	8000	Gasoline
				1 Wall	Approved In – Tank Monitor	8000	Gasoline
Southampton Highway	Fomer Road	Southampton	Highway Dept.	2 Wall	Interstitial Space Monitor	4000	Diesel
				2 Wall	Interstitial Space Monitor	4000	Gasoline
Xtra Mart	247 College Hgwy	Southampton	Gasoline Station	1 Wall	Approved In – Tank Monitor	4000	Gasoline
				1 Wall	Approved In – Tank Monitor	10000	Gasoline
				1 Wall	Approved In – Tank Monitor	10000	Gasoline
G & D	Cottage Street	Easthampton	Motor Sales			4000	Gasoline
						4000	Gasoline

						8000	Gasoline
						8000	Gasoline
Ultramar Petroleum, Inc.	Easthampton Road	Northampton				25000	Empty
Westfield Electroplating Co	340 Lockhouse Rd	Westfield	Industry	1 Wall		10000	Fuel Oil

For more information on underground storage tanks, visit the Massachusetts Department of Fire Services web site: http://www.state.ma.us/dfs/ust/ustHome.htm

Note: This appendix includes only those facilities within the water supply protection area(s) that meet state reporting requirements and report to the appropriate agencies. Additional facilities may be located within the water supply protection area(s) that should be considered in local drinking water source protection planning.

APPENDIX C – Table of Tier Classified Oil and/or Hazardous Material Sites within the Water Supply Protection Areas

DEP's datalayer depicting oil and/or hazardous material (OHM) sites is a statewide point data set that contains the approximate location of known sources of contamination that have been both reported and classified under Chapter 21E of the Massachusetts General Laws. Location types presented in the layer include the approximate center of the site, the center of the building on the property where the release occurred, the source of contamination, or the location of an on-site monitoring well. Although this assessment identifies OHM sites near the source of your drinking water, the risks to the source posed by each site may be different. The kind of contaminant and the local geology may have an effect on whether the site poses an actual or potential threat to the source.

The DEP's Chapter 21E program relies on licensed site professionals (LSPs) to oversee cleanups at most sites, while the DEP's Bureau of Waste Site Cleanup (BWSC) program retains oversight at the most serious sites. This privatized program obliges potentially responsible parties and LSPs to comply with DEP regulations (the Massachusetts Contingency Plan – MCP), which require that sites within drinking water source protection areas be cleaned up to drinking water standards.

For more information about the state's OHM site cleanup process to which these sites are subject and how this complements the drinking water protection program, please visit the BWSC web page at http://www.state.ma.us/dep/bwsc. You may obtain site -specific information two ways: by using the BWSC Searchable Sites database at http://:www.state.ma.us/dep/bwsc/sitellst.htm, or you may visit the DEP regional office and review the site file. These files contain more detailed information, including cleanup status, site history, contamination levels, maps, correspondence and investigation reports, however you must call the regional office in order to schedule an appointment to view the file.

The table below contains the list of Tier Classified oil and/or Hazardous Material Release Sites that are located within your drinking water source protection area.

Table 1: Bureau of Waste Site Cleanup Tier Classified Oil and/or Hazardous Material Release Sites (Chapter 21E Sites) - Listed by Release Tracking Number (RTN)

RTN	Release Site Address	Town	Contaminant Type
1-0000549	Easthampton Road	Northampton	
1-0014504	150 Northampton Street	Easthampton	Oil
1-0000674	19 Liberty Street	Easthampton	
1-0012049	124 Northampton Street	Easthampton	Oil
1-0000064	32 Union Street	Easthampton	
1-0000066	Loudville Road	Easthampton	

Table 1: Bureau of Waste Site Cleanup Tier Classified Oil and/or Hazardous Material Release Sites (Chapter 21E Sites) Listed by Release Tracking Number (RTN)
Continued

1-0013515	Wemelko Way	Easthampton	Hazardous Material
1-0000608	101-109 Pleasant Street	Easthampton	
1-0000512	Arthur Street	Easthampton	
1-0012881	19 Parsons Street	Easthampton	Oil
1-0000514	13-15 Pleasant Street	Easthampton	
1-0000639	Off Hendricks Street	Easthampton	
1-0000723	Ferry Street	Easthampton	
1-0013737	82 Pequot Road	Southampton	Hazardous Material
1-0000264	6 Coleman Rd	Southampton	
1-0011448	247 College Hwy	Southampton	Oil And Hazardous Material
1-0013568	297 Apremont Highway	Holyoke	Hazardous Materials
1-0013736	94A Apremont Highway	Holyoke	Hazardous Materials
1-0013735	30 Dupuis Road	Holyoke	Hazardous Materials

For more location information, please see the attached map. The map lists the release sites by RTN. Refer to DEP BWSC for additional information.