Massachusetts Department of Environmental Protection

Source Water Assessment and Protection (SWAP) Report

for

Westfield Water Department

What is SWAP?

The Source Water Assessment and Protection (SWAP) Program, 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	Westfield Water Department
PWS Address	59 Court Street, City Hall
City/Town	Westfield, Massachusetts 01085
PWS ID Number	1329000
Local Contact	Mr. Charles Darling
Phone Number	(413) 572-6243

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
4. Appendices

Section 1: Description of the Water System

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.

Zone A: is the most critical for protection efforts. It is the area 400 feet from the edge of the reservoir and 200 feet from the edge of the tributaries (rivers and/or streams) draining into it.

Zone B: is the area one-half mile from the edge of the reservoir but does not go beyond the outer edge of the watershed.

Zone C: is the remaining area in the watershed not designated as Zones A or B.

The attached map shows Zone A and your watershed boundary.

System Susceptibility: **High**

Groundwater Sources

MA GIS Zone II ID #: 149 *Susceptibility:* High

Well Name	***Source ID#***
GP Well #1	1329000-01G
GP Well #2	1329000-02G
GP Well #7	1329000-07G
GP Well #8	1329000-08G

MA GIS Zone II ID #: 515 *Susceptibility:* High

Well Name	***Source ID#***
GP Well #3	1329000-03G
GP Well #4	1329000-04G

MA GIS Zone II ID #: 293 *Susceptibility:* High

GP Well #5	1329000-05G
GP Well #6	1329000-06G

Surface Water Sources

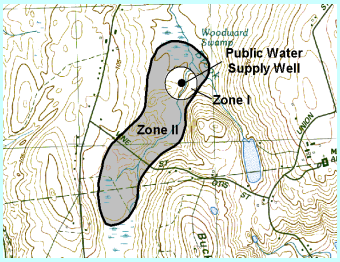
Source Name	*Susceptibility:* Moderate
Granville Reservoir	2153000-02S

Westfield is a mid-sized, residential and industrial city located in southwestern Massachusetts. Westfield Water Department receives its water from 8 wells and 1 reservoir. Westfield also purchases water from the Springfield Water & Sewer Commission supply. The Springfield system SWAP report will be forwarded to the Westfield water Department once it is completed.

The eight wells serving the Westfield Water Department are located in three different aquifers and therefore have different Zone II, recharge contribution areas. The aquifers utilized by the Westfield Water Department are part of a series of prolific, buried bedrock valley aquifer systems trending north-south. Portions of the aquifer flow north discharging into the Connecticut and Westfield River and some portions flow south discharging to the Westfield River. The aquifers were formed when bedrock valleys were filled with sand and gravel during the recession, (melting) of the glaciers approximately 14,000 years ago. The aquifer area north of the Westfield River is known as the Barnes Aquifer and the Broad Brook Basin of the Barnes Aquifer has been designated by EPA as a Sole Source Aquifer. Groundwater from the aquifer tapped by wells 01G, 02G, 07G, and 08G, flows south to the Westfield River while groundwater from the aquifer tapped by wells 03G and 04G, flows north to the Westfield River. There is no evidence of a protective clay

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.



layer above the aquifer utilized by Westfield's wells. Wells located in this type of aquifer are considered to be highly vulnerable to contamination due to the absence of hydrogeologic barriers (i.e. confining clay layer) that can prevent contaminant migration from activities on the land surface. In fact, parts of the aquifer utilized by well #3 and #4 have been contaminated with compounds used as a fumigant on agricultural fields in the past. Drinking water supplies may be treated to remove contaminants prior to distribution. The bedrock beneath the sand and gravel aquifer is mapped as Triassic arkose, sandstone and siltstone.

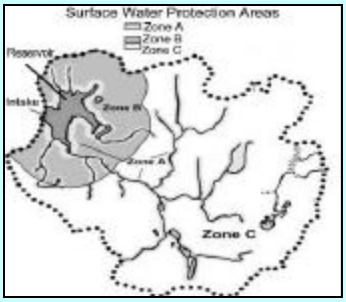
Zone II #149 for wells 01G, 02G, 07G, and 08G extends from Westfield into Holyoke and Southampton in the sand and gravel aquifer and is part of the Barnes Aquifer. The Zone II #515 for inactive wells 03G and 04G extends from Westfield into the town of Southwick. This aquifer is also utilized as a public water supply for West Springfield and Southwick. Parts of this aquifer have been contaminated with ethyl dibromide (EDB) a soil fumigant and gasoline additive used until the 1980s. West Springfield currently treats the water from their wells while Southwick's wells are not impacted by the contamination in the aquifer. Westfield is required to treat the water prior to reactivating wells 03G and 04G. DEP has approved plans submitted by the Westfield Water Department to install granular activated carbon (GAC) units to remove the EDB and chlorinate the water prior to distribution.

Inactive Wells 05G and 06G are located in a small, unconfined sand and gravel aquifer near the municipal boundary with Russell. The Zone II (#293) for wells 05G and 06G, is largely within Westfield, with a small portion of the aquifer extending into the town of Russell. Well 06G has a Zone I protective radius of 400 feet while Well 05G has a Zone I radius of 300 feet. Please refer to the attached map of the Zone II.

The watershed for the Granville Reservoir lies almost entirely within the Town of Granville. The majority of the watershed is located in the steep sloped highlands west of the reservoir on a bedrock geologic formation known as the North Granby Dome. The bedrock includes the Collinsville Formation, a sequence of schist, granitic gneiss, amphibolites and coticules, the Straits Schist and the Hartland Formation composed of various types of schist. The bedrock is primarily covered with a relatively thin layer of glacial till. Stratified drift (sand and gravel) deposits are mapped immediately surrounding the reservoir to the north, west and south and are associated with stagnant ice flows in the Dickinson-Holliston Brook area. Please refer to the attached map for an outline of the reservoir watershed.

What is a Watershed?

A watershed is the land area that catches and drains rainwater down-slope into a river, lake or reservoir. As water travels down from the watershed area it may carry contaminants from the watershed to the drinking water supply source. For protection purposes, watersheds are divided into protection Zones A, B and C.



The water from wells 01G, 02G, and 07G are pH adjusted for corrosion control. The water from the Granville Reservoir is filtered, disinfected, and treated for corrosion control. For current information on monitoring results and treatment, please contact the Public Water System contact person listed above in Table 1 for a copy of the most recent Consumer Confidence Report. Drinking water monitoring reporting data is also available on the web at http://www.epa.gov/safewater/ccr1.html

Section 2: Land Uses in the Protection Areas

The land uses within the Zone II and watershed protection area for Westfield's water supplies are a mixture of forest, residential, commercial and agricultural land uses with some small areas of industrial use (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. Activities in Zone I

2. Activities in Zone A
3. Residential Land Uses
4. Transportation Corridors
5. Hazardous Materials Storage and Use
6. Agricultural activities and Golf Course
7. Confirmed Oil or Hazardous Material Contamination Sites
8. Comprehensive Wellhead Protection Planning

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.

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

1. Activities in Zone I – The Zone I for each of the wells, except well #5, is a 400 foot radius around the wellhead. The Zone I radius for well #5 is 300 feet. Massachusetts drinking water regulation (310 CMR 22.00 Drinking Water) requires public water suppliers to own the Zone I, or control the Zone I through a conservation restriction. Westfield owns or controls the Zone I for wells 01G, 03G, 04G, 05G, 06G, 07G and 08G. Westfield does not own or control the Zone I for well 02G. Regulation limits activities in the Zone I to only those related to water supply. However, many public water supplies were developed prior to promulgation of the Department's regulation and contain non-water supply activities such as homes and public roads. The following non-water supply activities occur in the Zone Is of the system wells:

Well 02G - Two homes with on-site septic systems and two local roads are within the Zone I for Well 02G.

Well 07G - There is a mowed grassy area within the Zone I for Well 07G that acts as a buffer around Runway 33 for the City airport. There is also heavy illegal traffic around the wells resulting in vandalism of monitoring wells and the protective fencing.

Well 08G - A large beaver pond periodically has been flooded adjacent to the wellhead within the Zone I.

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 deicing within the Zone I.
- ✓ Prohibit any new non-water supply activities from Zone I.

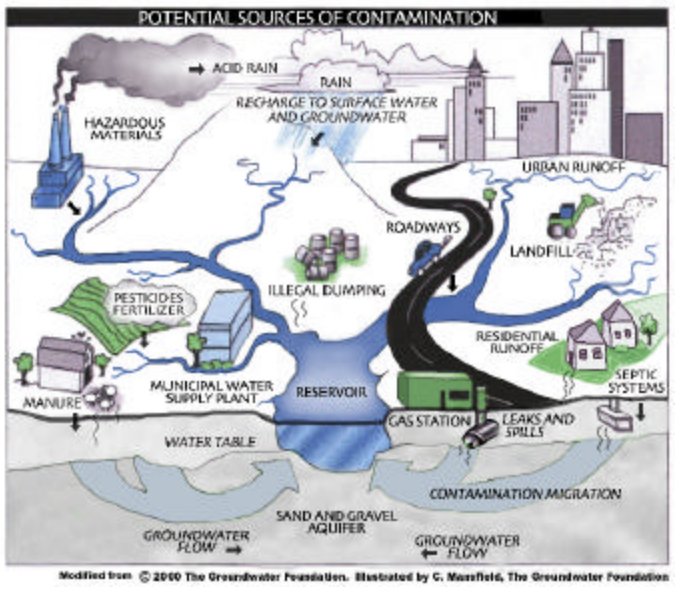


Figure 1: Sample watershed with examples of potential sources of contamination

- ✓ Increase patrols, educate the local population regarding the no trespassing policy and enforce no trespassing requirement. Anecdotally, other communities have had success in aggressively patrolling water supply areas, ticketing trespassers, pursuing violators and impounding vehicles used illegally on protected land.
- ✓ Monitor the extent of the beaver pond and take appropriate action to protect the wellhead from flooding.
- ✓ Consider a Memorandum of Understanding or a Right of First Refusal for Zone I land not currently owned or controlled. These legal agreements can secure the land uses for the future.

2. Activities in Zone A - A Zone A for a reservoir includes the area within 400 feet of the reservoir shore line and within 200 feet of either side of all streams and feeder ponds that flow into the reservoir. Because the Zone A is the area closest to

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 Watershed

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

Land Uses	Quantity	Threat	Zone II Number	Reservoir Watershed	Potential Contaminant Sources*
Agricultural					
Fertilizer Storage or Use	Numerous	M	515, 149	-	Leaks, spills, improper handling, or over-application of fertilizers
Livestock	Several	M	All	-	Manure, pesticides
Forestry Operation	1	M	515	-	Herbicides or pesticides, equipment maintenance materials: leaks, spills, or improper handling; road building
Pesticide Storage or Use	Numerous	H	515, 149	-	Leaks, spills, improper handling, or over-application of pesticides
Commercial					
Auto Repair/body Shops	9	H	149	-	Spills, leaks, or improper handling of automotive fluids, and solvents
Golf Courses	1	M	149	-	Over-application or improper handling of fertilizers or pesticides
Airport	1	H	149	-	Spills, leaks, or improper handling of petroleum fluids, and solvents, deicers
Junk Yards and Salvage Yards	1	H	149	-	Automotive chemicals, wastes, and batteries: spills, leaks, or improper handling
Landfill (closed)	1	H	149	-	There is an uninvestigated landfill at the east end of the runway. The other landfill on the west end of the runway has been removed. Leachate.
Medical Facilities	1	M	149	-	Automotive chemicals, wastes, and batteries: spills, leaks, or improper handling
Railroad Tracks and Yards	1	H	149	-	Over-application or improper handling of herbicides, leaks or spills of transported chemicals and maintenance chemicals; fuel storage
Sand & Gravel	2	M	149, 515	-	Spills, leaks, or improper handling of petroleum fluids, and solvents
Industrial					
Food Processors	1	L	515	-	Cleaners, other chemicals, microbial contaminants: spills, leaks, or improper handling or storage
Industry/Industrial Parks	2	H	149, 515	-	Industrial chemicals and metals: spills, leaks, or improper handling or storage

Land Uses	Quantity	Threat*	Zone II Number	Reservoir Watershed	Potential Contaminant Sources*
Machine/ Metalworking Shops	6	H	149, 515	-	Solvents and metal tailings: spills, leaks, or improper handling
Residential					
Fuel Oil Storage (at residences)	Numerous	M	All	Yes	Fuel oil: spills, leaks, or improper handling
Lawn Care / Gardening	Numerous	M	All	Yes	Pesticides: over-application or improper storage and disposal
Septic Systems / Cesspools	Numerous	M	All	Yes	Hazardous chemicals: microbial contaminants, and improper disposal
Miscellaneous					
Aquatic Wildlife	Numerous	H	-	Yes	Microbial contaminants
Clandestine Dumping	Few	H	149, 515	-	Improper use or storage of fuels and other chemicals
Schools	3	M	515	-	Laboratories, cleaning, automotive
Oil or Hazardous Material Sites	2	--	515	-	Tier Classified Oil or Hazardous Materials Sites are not ranked due to their site-specific character. Individual sites are identified in Appendix B.
Maintenance Depot	1	M	515	-	Deicing materials, automotive fluids, fuel storage, and other chemicals: spills, leaks, or improper handling or storage
Transmission Line Rights-of-Way: Electric	4	H/L	149, 515	Yes	Construction and corridor maintenance, over-application or improper handling of herbicides
Transportation Corridors	Numerous	H/M	All	Yes	Accidental leaks or spills of fuels and other hazardous materials, over-application or improper handling of pesticides
Underground Storage Tanks	Numerous	H	149	-	Spills, leaks, or improper handling or storage of hazardous materials and waste
Aboveground Storage Tanks	Numerous	M	149, 515	-	Spills, leaks, or improper handling or storage of hazardous materials and waste

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** - Where there are two rankings, the first is for surface water, the second for groundwater sources. 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.

the reservoir and its tributaries, land uses within the Zone A are of particular concern. Therefore, certain activities that could potentially threaten water quality if improperly managed are restricted by 310 CMR 22.20B. Activities that store, use, or dispose of hazardous materials can be potential sources of contamination if improperly managed. Wild animals and domestic pets can be carriers of waterborne diseases such as Giardia, Cryptosporidium, Salmonella, etc. The following activities occur in the Zone A of the system's reservoir:

Granville Reservoir (01S) - There is a local road and two or three private homes, that utilize onsite septic systems, in the Zone A of the reservoir. There is also evidence of extensive access by off road vehicles on both legal and illegal trails throughout the watershed, most notably near the reservoir.

Zone A Recommendations:

- ✓ To the extent possible, remove all prohibited activities from the Zone A to comply with DEP's Zone A requirements.
- ✓ Use BMPs for the storage, use, and disposal of hazardous materials such as water supply chemicals and maintenance chemicals.
- ✓ Storage of pesticides, fertilizers or road salt within the Zone A should be covered and contained.
- ✓ Keep any new prohibited activities out of the Zone A.
- ✓ Increase patrols and enforce no trespassing requirement.
- ✓ Consider a Memorandum of Understanding or a Right of First Refusal for Zone A land not currently owned or controlled. These legal agreements can secure the land uses for the future.

Top 5 Reasons to Develop a Local Wellhead and Surface Water Protection Plan

❶ Reduces Risk to Human Health

❷ Cost Effective! Reduces or Eliminates Costs Associated With:

- Increased 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 in a place people want to live and businesses want to locate.

3. Residential Land Uses – The Granville Reservoir watershed is predominantly wooded with the City owning 82% of the watershed. Approximately 14% of the combined Zone IIs and watershed consists of residential areas; only 1% of the watershed has residential development. The few residences in the watershed use septic systems while some of the areas in the Zone IIs have public sewers, and some use 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 (USTs and ASTs) can be potential sources of contamination due to leaks or spills of the fuel oil they store.
- **Stormwater** – Catch basins 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.

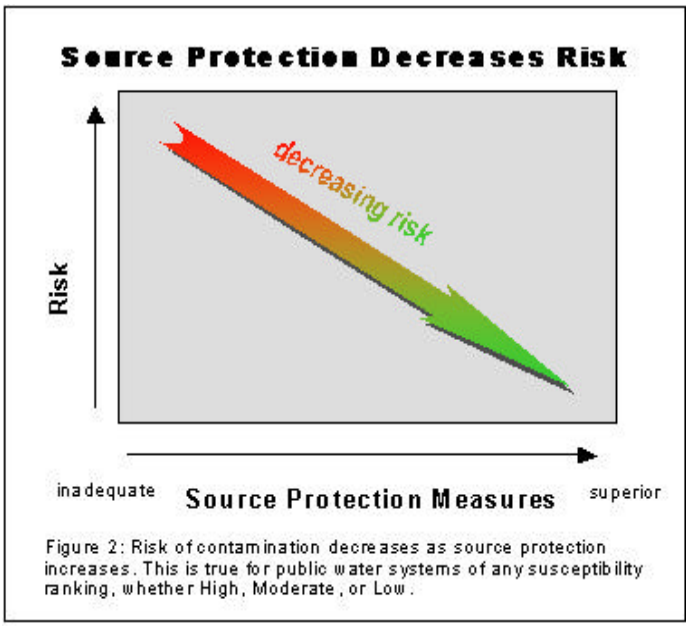


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

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.
- ✓ Continue working with City planners to control new and existing land uses and residential developments in the water supply protection areas.

4. Transportation Corridors - There are several local roads located throughout the watershed of the reservoir, including many dirt roads; there are numerous roads throughout the Zone IIs. Though most roadways in the reservoir watershed are low-use, even typical roadway maintenance and use pose a potentially significant source of contamination from accidents and washouts along the dirt road. Larger, heavily traveled roads pose a greater threat. De-icing materials, petroleum chemicals and other debris on roads are picked up by stormwater washed and discharge into the reservoirs. Uncontrolled erosion contributes sediment, various contaminants and pathogens into the reservoirs. Additionally, illegal dumping is evident along some of the roads accessible by street vehicles. Clandestine dumping is a significant threat to the water supplies. Roadways are frequent sites for illegal dumping of hazardous or other potentially harmful wastes.

There are numerous unpaved ways as well as legal (authorized) and illegal (unauthorized) trails throughout the watershed. Most of these roads and trails are not maintained at all or are minimally maintained. The resulting erosion poses a significant threat to water quality in areas that are proximal to feeder streams and the reservoir, potentially resulting in additional water treatment costs if it continues unchecked. Uncontrolled erosion contributes sediment, various contaminants and pathogens into the contributing waters and reservoirs. Access to the reservoir was observed and anecdotal information indicates evidence of camping near the reservoir and throughout the watershed. Unmanaged access may result in vandalism, illegal dumping and access to the reservoir resulting in water quality impairment.

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 the 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 to the Zone II.

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

The land uses within the Zone III are assessed only for sources that are shown to be groundwater under the direct influence of surface water.

The Water Department has retained a consultant to prepare a watershed management plan to address stormwater management and erosion control on City property and throughout the watershed. The plan is to prepare an inventory of the existing conditions within the watershed, and determine numerous areas of uncontrolled access and erosion problems and propose BMPs.

Catch basins 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 contaminants from automotive leaks, maintenance, washing, or accidents.

Railroad tracks run directly through one of the Zone IIs. Rail corridors serving passenger or freight trains are potential sources of contamination due to chemicals released during normal use, track maintenance, and accidents. Accidents can release spills of train engine fluids and commercially transported chemicals.

There is also an airport within one of the Zone IIs. The airport has military, commercial and industrial activities as well as a working airport. The same threats associated with other transportation, commercial and industrial uses apply to the airport. Airports pose additional threats from large quantities of fuel stored on site, oil water separators and stormwater runoff.

Transportation Corridor Recommendations:

- ✓ Regularly inspect the watershed and Zone IIs for illegal dumping and spills.
- ✓ Work with local emergency response teams to ensure that any spills within the protection areas can be effectively contained.
- ✓ Work with the municipality or State to have catch basins inspected, maintained, and cleaned on a regular schedule.

Regular street sweeping reduces the amount of potential contaminants in runoff. For information on DEP's Nonpoint Competitive Grants Program Upcoming Funding Opportunity refer to: http://www.state.ma.us/dep/brp/mf/mfpubs.htm#wpa.

- ✓ Work with local watershed groups to institute a Storm Drain Stenciling Program. For more information on how to develop a storm drain stenciling program go to http://www.earthwater-stencils.com.
- ✓ 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. For additional information, refer to the Stormwater Management Information at http://www.state.ma.us/dep/brp/ww/wwpubs.htm#storm.
- ✓ Promote BMPs for stormwater management and pollution controls.
- ✓ Work with local officials during their review of the railroad right of way Yearly Operating Plans to ensure that water supplies are protected during vegetation control.
- ✓ Notify host community officials of potential USDA funding for mitigation and prevention of runoff pollution through the Environmental Quality Incentives Program (EQIP). The USDA web site is www.ruraldev.usda.gov or call Paul D. Geoffroy, Rural Development Manager at the local office in Hadley at 413-585-1000 ex.4. Review the fact sheet available on line and call the local office (Amherst 413-253-4350) of the NRCS for assistance http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf.
- ✓ Investigate disposition of all roads, ways and "trails".
- ✓ Increase patrols of watershed land and enforce no trespassing.
- ✓ Evaluate all options for management of access to ways. Include evaluation of continuing the current practice of full access, closing roads to all traffic, closing road to all commercial traffic and limiting access only to residents with a locked gate and key for residents only.
- ✓ Evaluate existing conditions throughout the watershed with respect to current illegal use of watershed land. Determine where access is being gained and what are the destination points. Develop a strategy and management plan to eliminate or control access. Coordinate with the host communities for management strategies.

Additional Documents:

To help with source protection efforts, more information is available by request or online at www.state.ma.us/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

For More Information

Contact Catherine V. Skiba in DEP's Springfield Regional 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 and the town boards.

5. Hazardous Materials Storage and Use – Approximately 10 % of the Zone II for Westfield's wells is commercial or industrial land uses. Many areas presently are not served by municipal sewers. Many small businesses and industries use hazardous materials, produce hazardous waste products, and/or store large quantities of hazardous materials in UST/AST. 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. There may be businesses within the water supply protection areas that are not aware that they should be registered as hazardous waste generators. Very often businesses that generate very small quantities of hazardous waste are mot aware of the regulatory requirement.

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 local Boards of Health and 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.
- ✓ Educate local businesses on Massachusetts floordrain requirements. See brochure "Industrial Floor Drains" for more information.
- ✓ If it is needed, funding may be available for the school and bus terminal located in Southwick. The USDA has

various funding sources for government, non-government organizations and agricultural facilities in small communities through programs such as those listed on the USDA web site http://search.sc.egov.usda.gov/. Additional information is available on the web site www.ruraldev.usda.gov or call Paul D. Geoffroy, Rural Development Manager at the local office in Hadley at 413-585-1000 ex.4.

6. Agricultural Activities and Golf Course – The Zone IIs for the wells include agricultural land uses and golf courses. Pesticides and fertilizers have the potential to contaminate a drinking water source if improperly stored, applied, or disposed. If managed improperly, Underground and Aboveground Storage Tanks (USTs and ASTs) can be potential sources of contamination due to leaks or spills of the fuel oil they store. Very often farms and golf courses also store and use hazardous materials and generate hazardous waste through use and maintenance of equipment.

Agricultural Activities and Golf Course Recommendations:

- ✓ 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. Review the fact sheet available online and call the local office (Amherst 413-253-4350) of the NRCS for assistance http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf.
- ✓ Encourage the farmers and golf course managers to incorporate an Integrated Pest Management (IPM) approach into their pest management program. IPM is an ecologically-based approach to pest control that links together several related components, including monitoring and scouting, biological controls, mechanical and/or other cultural practices, and pesticide applications. By combining a number of these different methods and practices, satisfactory pest control can be achieved with less impact on the environment.
- ✓ Promote Best Management Practices (BMPs) for fuel oil storage, hazardous material handling, storage, disposal, and emergency response planning.
- ✓ Work with farmers, nurseries, and golf courses to ensure that pesticides and fertilizers are being stored within a structure designed to prevent runoff.
- ✓ 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/. 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 online and call the local office of the NRCS for assistance http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf. This may be appropriate for host communities.
- ✓ Work with hobby farmers by supplying them with information about protecting their own wells and the public water supply by encouraging the use of BMPs. Refer to http://www.state.ma.us/dep/brp/dws/dwspubs.htm and http://www.state.ma.us/dep/consumer/animal.htm#dwqual for additional resources.

7. Confirmed Oil or Hazardous Material Contamination Sites – The Zone II contains DEP Tier Classified Oil and/or Hazardous Material Release Sites indicated on the map as Release Tracking Numbers 1-0000288, 1-0014428, 1-0000536 and 1-0012886. 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 more information on these sites.

8. Protection Planning – Protection planning protects drinking water by managing the land area that supplies water to a well or reservoir. Currently, Westfield and Southwick do have water supply protection controls that meet DEP's Wellhead Protection regulation 310 CMR 22.21(2) and Surface Water Protection regulation 310 CMR 22.20 (b) and (c). Wellhead Protection and Surface Water Supply Protection Plans coordinate community efforts, identify protection strategies, establish a timeframe for implementation, and provid a forum for public participation. Westfield does have a Surface Water Supply Protection Plan but does not have a Wellhead Protection Plan. Westfield is an active member of the Barnes Aquifer Protection Committee (BAPC) that coordinates efforts for water supply protection among the communities of Southampton, Westfield and Easthampton served by and overlying the aquifer. The BAPC is facilitated through the regional planning agency.

There are also many private wells for commercial and residential uses located within the aquifer protection areas . The State has guidance for development of local controls to manage private wells and educate owners regarding protection of water supplies. The DEP Drinking Water Program staff can assist communities in development and adoption of local controls.

Protection Planning Recommendations:

- ✓ Consider formalizing some of the efforts started in BAPC through the development of a Wellhead Protection Plan and include the area of the Southwick wells. Establish a protection team with Southwick and refer to current measures used by BAPC and the website http://mass.gov/dep/brp/dws/protect.htm for a copy of DEP's guidance, "Developing a Local Wellhead Protection Plan."
- ✓ If local controls in all communities that serve as hosts to Westfield's water supplies do not regulate floor drains, be sure to include floor drain controls that meet 310 CMR 22.21(2) in all water supply protection planning.
- ✓ Work with City and Town boards to review and provide recommendations on proposed development within your water supply protection areas. Although there is only 18% of the watershed not owned by the City, work with the town of Granville to review information on build-out analyses for the town, see the Executive Office of Environmental Affairs' community preservation web site, http://commpres.env.state.ma.us/ and their planning efforts.
- ✓ Refer to the DEP website http://www.state.ma.us/dep/brp/dws/privwell.htm for private well guidelines and model regulations. The Department recommends methods for cataloguing existing wells and educating private well owners regarding supply protection.

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 these land uses. 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 and watershed 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:

- Aggressive land acquisition within the watershed for source protection,
- Pursuing the installation of sanitary sewers in existing residential areas within the City,
- Education about drinking water and source protection to elementary schools and the public,
- Extensive efforts to protect the Zone IIs through ordinances and active monitoring of hazardous waste generators and storage tanks (along with their removal) within the Zone II,
- Active involvement in review and comment on development plans within protection areas.

Source Protection Recommendations:

To better protect the sources for the future:

- ✓ Inspect the Zone Is and A regularly, and when feasible, remove any non-water supply activities.
- ✓ 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 IIs and to cooperate on responding to spills or accidents.
- ✓ Partner with local businesses to ensure the proper storage, handling, and disposal of hazardous materials.
- ✓ 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.

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 among 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 of the most effective means of protecting water supplies is local planning, including adoption of local controls to protect land use, regulations related to watersheds and ground water protection. These controls may include health regulations, discharge prohibitions, general ordinances, and zoning by-laws/ordinances 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 online and call the local office (Amherst 413-253-4350) of the NRCS for assistance http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf. The Department's Wellhead Protection Grant Program provides 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: if funds are available, each spring DEP posts a new Request for Response for the grant program (RFR).

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 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 and Zone A		
Does the Public Water Supplier (PWS) own or control the entire Zone I and/or Zone A?	**YES** 01G, 03G, 04G, 05G, 06G, 07G and 08G	Follow Best Management Practices (BMP's) that focus on good housekeeping, spill prevention, and operational practices to reduce the use and release of hazardous materials.
	N0 02G, 02S	To the extent possible, remove prohibited activities in Zone A to comply with DEP's Zone A requirements. City owns 82% of the watershed.
Are the Zone I and Zone A posted with "Public Drinking Water Supply" Signs?	**YES**	Additional economical signs are available from the Northeast Rural Water Association (802) 660-4988.
Are the Zone I and Zone A regularly inspected?	**YES**	Continue daily inspections of drinking water protection areas.
Are water supply-related activities the only activities within the Zone I?	**NO** 02G, 07G and 08G	Monitor non-water supply activities in Zone I (the electrical transmission line in the Zone I of 05G) and prohibited activities in Zone A, and investigate options for removing these activities. Plan to replace diesel drive generator at 01G with a propane generator.
Municipal Controls (Zoning Bylaws/Ordinances, Health Regulations, and General Bylaws/Ordinances)		
Does the municipality have Surface Water Protection Controls that meet 310 CMR 22.20C and Wellhead Protection Controls that meet 310 CMR 22.21(2) ?	**NO**	Continue working with the Planning Boards to compare land use controls to see that they meet current requirements of 310 CMR 22.21(2) and 310 CMR 22.20C. Refer to mass.gov/dep/brp/dws/ for model bylaws and health regulations, and current regulations.
Do neighboring communities protect the water supply protection areas extending into their communities?	**YES**	Work with the community of Southwick to assist and encourage them in the active protection of the Zone II lands.
Planning		
Does the PWS have a local surface water and wellhead protection plan?	**YES** - Surface **NO** - Wellhead	Develop a wellhead protection plan. Follow "Developing a Local Wellhead Protection Plan" 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 watershed and wellhead protection committee?	**NO**	Develop a committee to include representatives from citizens' groups, neighboring communities, and the business community. Include the town of Southwick.
Do the Boards of Health conduct inspections of commercial and industrial activities?	**NO**	Floor drain regulations are proposed. Conduct inspections in conjunction with DEP. For more guidance see "Hazardous Materials Management: A Community's Guide" at www.state.ma.us/dep/brp/dws/files/hazmat.doc. Work with your host communities for consistent management of hazardous materials.
Does the PWS provide watershed protection education?	**YES**	Currently, the only outreach is through the annual Consumer Confidence Report. Increase residential outreach through bill stuffers, school programs, Drinking Water Week activities, and coordination with local groups. Aim additional efforts at commercial, industrial and municipal uses within the Zone IIs and watershed. Work with Southwick in this effort.

APPENDIX B:
REGULATED FACILITIES WITHIN THE WATER SUPPLY PROTECTION AREA

DEP Permitted Facilities

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
34340	Rods Customs & Restorations	106b Foster Rd	Southwick	Generator of Hazardous Waste	Very Small Quantity Generator
131583	More Parts Of Southwick Inc	40 Sam West Rd	Southwick	Generator of Hazardous Waste	Very Small Quantity Generator
50494	Powder Mill Mid School	94 Powder Hill Rd	Southwick	Plant	Air Quality Permit
50583	Western Mass Rendering Co Inc	94 Foster Rd	Southwick	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
211896	Bus Maintenance Garage	Powder Mill Rd	Southwick	Sewer Connection or Groundwater Discharge	Industrial Waste Water to Sewer
280450	B & E Tool Company Inc	10 Hudson Drive	Southwick	Generator of Hazardous Waste	Small Quantity Generator
275553	Southwick Tolland Regional High School	93 Feeding Hills Rd	Southwick	Plant/ Generator of Hazardous Waste	Air Quality Permit/ Very Small Quantity Generator
281212	Moosehead Harvesting Corp	49 Sam West Rd	Southwick	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
283488	Whalley Precision Inc	28 Hudson Dr	Southwick	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
324974	Thomcast Communications Inc - Comark Div	104 Feeding Hills Road	Southwick	Generator of Hazardous Waste	Small Quantity Generator
	Al's Tire	918 Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Ames	1111 Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
	Air Flyte Inc	32 Airport Dr	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Barnes USAF: 104th Ang	175 Falcon Dr	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Berkshire Industries	109 Apremont Way	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Brookside Automotive	233 Union St	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Charis Air Corp	110 Airport Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Cloot's Auto Body	825 North Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Dennis Fire Protection	29 Char Dr	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Industrial Precision	1014 Southampton Rd	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Westfield Grinding Wheel	135 Apremont Way	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Whip City Auto Service	919 Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Yellow Freight	Falcon Dr	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Hyder's Safety Service Inc	979 Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Instrument Technology	33 Airport Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Northeastern Avionics	Barnes Airport	Westfield	Generator of Hazardous Waste	Small Quantity Generator

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
	J. Dirats Co	41 Airport Rd	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Jarvis Surgical Inc	53 Airport Rd	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Jason's Auto Restoration	988c Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	KADMachine	121 Summit Lock Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	L & B Freightliner	910 Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Mass Dem Hampden Ponds	North Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	McNairn Packaging	6 Elise St	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Monarch Company, Inc	34 Elise St	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	J & R Air	56 Airport Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Charm Auto Sales	962 Southampton Rd	Westfield	Generator of Hazardous Waste	Very Small Quantity Generator
	Oil Recovery Corp	415 North Rd	Westfield	Generator of Hazardous Waste	Small Quantity Generator
	Westfield Sand & Gravel	143 Papermill Rd	Westfield	Generator of Hazardous Waste	Small Quantity Generator

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.

Underground Storage Tanks

Facility Name	Address	Town	Description	Tank Type	Tank Leak Detection	Capacity (gal)	Contents
Saunder's Boat Livery Inc.	120 Congamond Rd	Southwick	Boat Livery	1 Wall	Approved In-Tank Monitor	4000	Gasoline
Yellow Freight System Inc (Sms)	160 Falcon Dr	Westfield	Trucking Co.	1 Wall	Approved In-Tank Monitor	10,000	Diesel
		Westfield		1 Wall	Approved In-Tank Monitor	5,000	Diesel
Barnes-Westfield Aviation Corpora		Westfield	South Hangar			2,000	Other
City Of Westfield	Airport Road	Westfield	Airport			1,000	Wast H2o
		Westfield				2,000	Gasoline
		Westfield		Aboveground (AST)		2,000	Diesel
	798 Apremont Way	Westfield					
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
1458 East Mountain Road	East Mtn. Cc	Westfield		AST		500	Gasoline
1458 East Mountain Road	East Mtn. Cc	Westfield		AST		330	Diesel

East Mountain Road	Residential	Westfield				1,000	Htg. Oil
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
East Mountain Road	Residential	Westfield				1,000	Htg. Oil
Servistar Ind. Way	Advocate Servicer, Inc.	Westfield		AST		10,000	Diesel
Servistar Ind. Way	Servistar Corporation	Westfield		Unpro. Steel		10,000	Htg Oil
Servistar Ind. Way	Servistar Corporation	Westfield		Unpro. Steel		10,000	Htg Oil
Southampton Road	Lavoie/Kober	Westfield		Steel		1,000	Htg Oil
Southampton Road	MAS	Westfield				1,000	Htg Oil
919 Southampton Road	Southampton Road Trust	Westfield				500	Htg Oil
Southampton Road	Industrial Precision	Westfield				2,000	Htg Oil
1111 Southampton Road	Westfield Development	Westfield		Double Wall		10,000	Htg Oil#4
1111 Southampton Road	Westfield Development	Westfield		Double Wall		10,000	Htg Oil#4
Buck Pond Road	Residential	Westfield				1,000	Htg Oil
Falcon Dr	104 FW Group	Westfield				4,000	
		Westfield				1,000	

		Westfield				2,500	
Holyoke Road	Residential	Westfield				1,000	Htg Oil
Holyoke Road	Residential	Westfield				1,000	Htg Oil
Holyoke Road	Residential	Westfield				2,000	Htg Oil
Long Pond Road	Residential	Westfield				500	Htg. Oil
856 North Road	Danielle's Pizza	Westfield				1,000	Htg Oil
975 North Road	Pezzini-House	Westfield				1,000	Htg Oil
North Road	Hampden Ponds	Westfield				1,000	Htg Oil
Northwest Road	Residential	Westfield				1,000	Htg Oil
Northwest Road	Residential	Westfield				1,000	Htg Oil
Northwest Road	Residential	Westfield				500	Htg 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 or the Westfield Fire Chief for information about tanks in Westfield.

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 facilit ies 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/sitelist.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
1-0000288	Barnes MAB Buck Ponds Rd	Westfield	Unlisted
1-0012886	918 Southampton Rd	Westfield	Oil
1-0014428	97 Feeding Hills Road	Southwick	Oil

For more location information, please see the attached map. The map lists the release sites by RTN.