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

Aquarion Water Company

What is SWAP?

The Source Water Assessment 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	Aquarion Water Company
PWS Address	24 Providence Street
City/Town	Millbury, Massachusetts
PWS ID Number	2186000
Local Contact	Eileen Commane
Phone Number	(781) 982-7579

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.

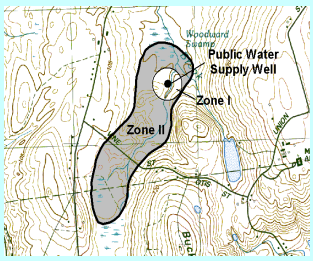
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

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

Zone II #: 428 ***Susceptibility:*** High

Well Names	***Source IDs***
Millbury Ave. Dug Well	2186000-01G

Zone II #: 427 ***Susceptibility:*** High

Well Names	***Source IDs***
Oak Pond Well	2186000-02G

Zone II #: 426 ***Susceptibility:*** High

Well Names	***Source IDs***
Jacques Well #1	2186000-03G
Jacques Well #2	2186000-04G

Millbury's AQUARION Water Co. gets its water supply from four wells: Millbury Ave. well is well #01G; Oak Pond well is well #02G; Jacques Well #1 is #03G; and Jacques Well #2 is #04G. The Jacques wells are located in the north central section of town, along the west bank of the Blackstone River. Jacques well #1 was installed in 1966 to a depth of 44.5 feet and Jacques Well #2 was installed in 1965 to a depth of 60 feet. The Oak Pond Well is located in the northern part of Millbury along the north shore of Dorothy Pond. The Qak Pond well was installed in 1957 to a depth of 34 feet. The Millbury Avenue well is located in the eastern section of Millbury between Dorothy Pond and the Blackstone River, immediately to the west of Dorothy Pond. The Millbury Avenue well was installed in 1894 to a depth of 35 feet. The well as been determined to be under the influence of surface water. A Groundwater Under the Influence well (GWUI) is one for which a significant percentage of the water drawn from the well is considered to be induced flow from surface water bodies (streams, rivers, ponds, and wetlands). A GWUDI source could potentially be impacted by contaminants that are transported by surface water features and surface water run-off located within the entire Zone III.

Each well has a Zone I of 400 feet. All four wells are located within a long relatively narrow stratified drift aquifer associated with the Blackstone River and its tributary. The wells withdraw groundwater from the unconsolidated saturated sand and gravel deposits overlying the glacially scoured bedrock valley and valley walls. The wells are located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers (i.e. clay) that can prevent contaminant migration. Please refer to the attached map to view the boundaries of the Zone II.

All four wells are treated with potassium hydroxide for pH adjustment, calcium hypochlorite for disinfection, and sodium hexametaphosphate for iron and

manganese removal. 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 are also available on the web at http://www.epa.gov/safewater/ccr1.html.

Section 2: Land Uses in the Protection Areas

The four wells for Aquarion Water Company are located in three (3) separate Zone IIs. The Zone II for Wells 02G, 03G and 04G extends into the city of Worcester. The Zone IIs are a mixture of residential, 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. Inappropriate activities in Zone I
2. Residential land uses
3. Transportation corridors
4. Hazardous materials storage and use
5. Oil or hazardous material contamination sites
6. Agricultural activities
7. Comprehensive wellhead protection planning

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.

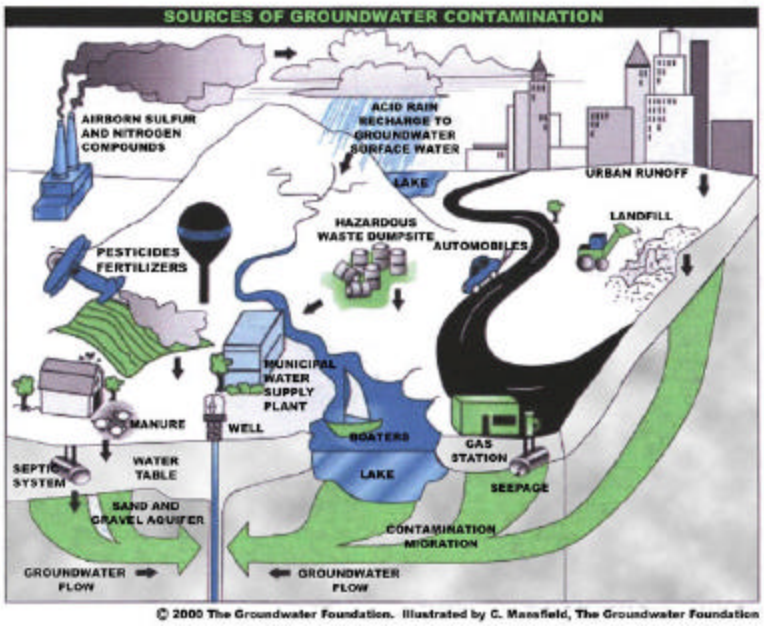
1. Inappropriate Activities in Zone Is – The Zone I for each of the wells is a 400 foot radius around the wellhead. Massachusetts drinking water regulations (310 CMR 22.00 Drinking Water) requires public water suppliers to own the Zone I, or control the Zone I through a conservation restriction. The four (4) Zone Is for the wells are not owned or controlled by the public water system. 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. The following non water supply activities occur in the Zone Is of the system wells:

Zone Is: All the wells except Well 02G have highways and local roads within the Zone I; Well 01G and 02G have homes within their Zone Is. The homes are on sanitary sewer. Well 01G has unauthorized recreation (biking) in 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



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.

maintenance chemicals.

- ✓ Do not use or store pesticides, fertilizers or road salt within the Zone I.
- ✓ Keep any new non water supply activities out of the Zone I.

2. Residential Land Uses – Approximately 28% of the Zone IIs consists of residential areas. Approximately 90% of the area have public sewers, and so the remaining 10% 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 (UST and AST) 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.

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.

3. Transportation Corridors – Except for Well # 01G, Route 20, 90, and 146 run through the Zone 11s for the remaining 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.

(Continued on page 7)

For More Information

Contact Josephine Yemoh-Ndi in DEP's Wilmington Office at (508) 849-4030 for more information and assistance on improving current protection measures.

Copies of this report have been provided to the public water supplier, board of health, and the town.

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.

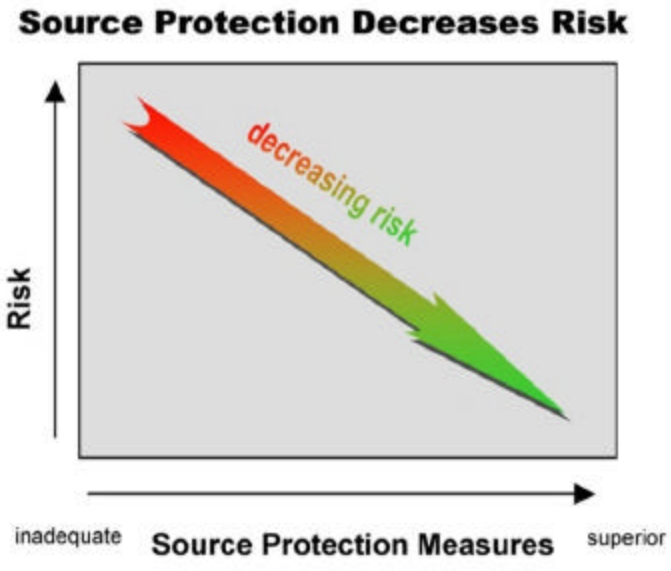


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

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

Activities	Quantity	Zone II	Threat*	Potential Source of Contamination
Agricultural				
Fertilizer Storage or Use	1	426	M	Fertilizers: leaks, spills, improper handling, or over-application
Livestock Operations	1	426	M	Manure (microbial contaminants): improper handling
Manure Storage or Spreading	1	426	H	Manure (microbial contaminants): improper handling
Nurseries	1	426	M	Fertilizers, pesticides, and other chemicals: leaks, spills, improper handling, or over-application
Pesticide Storage or Use	1	426	H	Pesticides: leaks, spills, improper handling, or over-application
Commercial				
Car/Truck/Bus Washes	1	426	L	Vehicle wash water, soaps, oils, greases, metals, and salts: improper management
Body Shops	1-2	All	H	Vehicle paints, solvents, and primer products: improper management
Gas Stations	3	426	H	Automotive fluids and fuels: spills, leaks, or improper handling or storage
Service Stations/ Auto Repair Shops	2 & 3	427 & 426	H	Automotive fluids and solvents: spills, leaks, or improper handling
Cemeteries	2	426	M	Over-application of pesticides: leaks, spills, improper handling; historic embalming fluids
Dry Cleaners	1	426	H	Solvents and wastes: spills, leaks, or improper handling
Funeral Homes	2	426	L	Hazardous chemicals: spills, leaks, or improper handling
Furniture Stripping and Refinishing	1	426	H	Hazardous chemicals: spills, leaks, or improper handling
Junk Yards and Salvage Yards	1	427 & 426	H	Automotive chemicals, wastes, and batteries: spills, leaks, or improper handling
RCRA TSDF Facilities	1	426	H	Hazardous wastes: spills, leaks, or improper handling or storage

Activities	Quantity	Zone II #	Threat*	Potential Source of Contamination
Residential				
Fuel Oil Storage (at residences)	Several	All	M	Fuel oil: spills, leaks, or improper handling
Lawn Care / Gardening	Several	All	M	Pesticides: over-application or improper storage and disposal
Septic Systems / Cesspools	Few	427 & 428	M	Hazardous chemicals: microbial contaminants, and improper disposal
Miscellaneous				
Aquatic Wildlife	---	All	L	Microbial contaminants
NPDES Locations	2	426	L	Hazardous material and wastes: improper disposal
Oil or Hazardous Material Sites	19	426	--	Tier Classified Oil or Hazardous Materials Sites are not ranked due to their site-specific character. Individual sites are identified in Appendix B.
Small quantity hazardous waste generators	3	426	M	Hazardous materials and waste: spills, leaks, or improper handling or storage
Stormwater Drains/ Retention Basins	Several	All	L	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns
Tire Dumps	1	427	M	Tires: improper handling or management
Transmission Line Rights-of-Way - Type:_Electric	1	428 &426	L	Corridor maintenance pesticides: over-application or improper handling; construction
Transportation Corridors	6	427 & 426	M	Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or improper handling
Underground Storage Tanks	4	426	H	Stored materials: spills, leaks, or improper handling
Waste Transfer/ Recycling Station	1	427	M	Water contacting waste materials: improper management, seepage, and runoff
Wastewater Treatment Plant/ Collection Facility/ Lagoon	1	426	M	Treatment chemicals or equipment maintenance materials: improper handling or storage; wastewater: improper management
Water Treatment Sludge Lagoon	1	426	M	Sludge and wastewater: improper management

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.

Wherever possible, ensure that drains discharge stormwater outside of the Zone II.

- ✓ Work with the Town and State to have catch basins inspected, maintained, and cleaned on a regular schedule. Street sweeping reduces the amount of potential contaminants in runoff.
- ✓ Work with local emergency response teams to ensure that any spills within the Zone II 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.

4. Hazardous Materials Storage and Use – Five percent 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. 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 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.
- ✓ Educate local businesses on Massachusetts floordrain requirements. See brochure "Industrial Floor Drains" for more information.

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 2-0989, 2-00861, 2-11977, 2-0184, 2-0986, 2-0988, 2-0408, 2-12574, 2-12565, 2-12840, 2-0990, 2-0999, 2-12572, 2-13084, 2-13357, 2-12469, 2-13508, 2-0983, 2-12681, 2-10399, 2-12231, 2-0930, 2-12983, and 2-14408. Refer to the attached map and Appendix 3 for more information.

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

Oil or Hazardous Material Contamination Sites Recommendation:

- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites.

6. Agricultural Activites – There is a greenhouse, manure storage, nursery, and a resident who owns a horse in the Zone II for Wells #03G and 04G. 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 those within in your protection areas to make them aware of your water supply and to encourage the use of BMPs for fertilizers, manure, and pesticides.

(Continued on page 9)

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?	**NO**	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.
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 Zone I regularly inspected?	**YES**	Continue daily inspections of drinking water protection areas.
Are water supply-related activities the only activities within the Zone I?	**NO**	Continue monitoring non-water supply activities in Zone Is.
Municipal Controls (Zoning Bylaws, Health Regulations, and General Bylaws)		
Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21(2)?	**NO**	The Town does not have an "Aquifer Protection District" bylaw that meets DEP's requirements for wellhead protection. Refer to www.state.ma.us/dep/brp/dws/ for model bylaws and health regulations, and current regulations.
Do neighboring communities protect the Zone II areas extending into their communities?	**YES**	Work with neighboring municipalities to include Zone IIs in their wellhead protection planning.
Planning		
Does the PWS have a Wellhead Protection Plan?	**NO**	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 wellhead protection committee?	**YES**	Establish committee; include representatives from citizens' groups, neighboring communities, and the business community.
Does the Board of Health conduct inspections of commercial and industrial activities?	**YES**	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?	**YES**	Aim additional efforts at commercial, industrial and municipal uses within the Zone II.

7. Protection Planning – Currently, the Town does not have water supply protection 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 to compare local wellhead protection controls with current MA Wellhead Protection Regulations 310 CMR 22.21 (2). If there are no local controls or they do not meet the current regulations, 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.
- ✓ If local controls do not regulate floordrains, be sure to include floordrain controls that meet 310 CMR 22.21(2).

Other land uses and activities within the Zone II that have include auto repair shops, gas stations, and railroad track, machine shop, printer blueprint shop and waster water treatment plant. Refer to Table 2 and Appendix 2 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 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:

Instituting a company policy of collecting more samples than is required by DEP.

Source Protection Recommendations:

To better protect the sources for the future:

- ✓ 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 II 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.

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 into the Zone II.
2. The groundwater in this area discharges to a 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.

Additional Documents:

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

- ✓ 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.

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).

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 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 IIs. 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

APPENDIX B:
REGULATED FACILITIES WITHIN THE WATER SUPPLY PROTECTION AREA
FOR MILLBURY WATER DEPARTMENT

DEP Permitted Facilities

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
215420	ENVIRON. TANK DISPOSAL INC	366 GREENWOOD ST	Millbury	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil/PCBs
50985	GRANGER LYNCH CORP	18 MCCRACKEN RD	Millbury	PLANT	Air Quality Permit
50985	GRANGER LYNCH CORP	18 MCCRACKEN RD	Millbury	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
39512	MILLBURY LANDFILL	RIVERLIN RD	Millbury	Sanitary Landfill	Sanitary Landfill
40032	MILLBURY TRANSFER STA	RIVERLIN RD	Millbury	Small Transfer Station	Transporter or Hazardous Waste
40032	MILLBURY TRANSFER STA	RIVERLIN RD	Millbury	Generator of Hazardous Waste	Air Quality Permit
132526	NEW ENG. NEWSPAPER SUP	49 RAILROAD AVE	Millbury	PLANT	Air Quality Permit
317444	ULLMAN PRINTING & GRAPHICS	436 GREENWOOD ST.	Millbury	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
132269	BLACKSTONE SLUDGE LF	RTE 20	Millbury	Chargeable Landfill	Landfill
132269	BLACKSTONE	RTE 20	Millbury	Generator of Hazardous Waste	Air Quality Permit

1078	BLACKSTONE	RTE 20	Millbury	Surface Water Facility	Surface Water Discharge
132526	NEW ENG. NEWSPAPER SUP	49 RAILROAD AVE	Millbury	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil/PCBs
132526	NEW ENG. NEWSPAPER SUP	49 RAILROAD AVE	Millbury	Toxic Use Reduction Filer	Large Quantity Toxic User

Underground Storage Tanks

Facility Name	Address	Town	Description	Tank Type	Tank Leak Detection	Capacity (gal)	Contents
TOWN OF MILLBURY	186 N. MAIN ST.	MILLBURY	MUNICIPAL	CATHOTIC	N/A	300	DIESEL
MASS. HIGHWAY DEPT	51 BALLARD	WORCESTER	MUNICIPAL	2 WALL	INTERSTITIAL MINITORING	10000	GASOLINE
MASS. HIGHWAY DEPT	51 BALLARD	WORCESTER	MUNICIPAL	2 WALL	INTERSTITIAL MINITORING	1000	WASTE OIL
MASS. HIGHWAY DEPT	51 BALLARD	WORCESTER	MUNICIPAL	1 WALL	INVENTORYL RECORD KEEPING	1000	FUEL OIL
SUNOCO	527 SOUTHWEST CUTOFF	WORCESTER	GAS STATION	2 WALL	INTERSTITIAL MINITORING	10000	GASOLINE
VALU-GAS	1255 MILLBURY	WORCESTER	GAS STATION	1 WALL	CATHODIC	10000	GASOLINE
VALU-GAS	1255 MILLBURY	WORCESTER	GAS STATION	1 WALL	CATHODIC	8000	DIESEL

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/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
2-0000989	744 MILLBURY ST.	WORCESTER	Oil/Hazardous Material
2-0000861	51 BALLARD ST.	WORCESTER	Hazardous Material
2-0011977	INT. RTE 146 & RTE 20	MILLBURY	Oil/Hazardous Material
2-0000184	1074 MILLBURY ST.	WORCESTER	Oil/Hazardous Material
2-0000986	544 MILLBURY ST.	WORCESTER	Hazardous Material
2-0000988	510 MILLBURY ST.	WORCESTER	Oil
2-0000408	30 BALLARD ST.	WORCESTER	Oil/Hazardous Material
2-0012574	735-737 MILLBURY ST	WORCESTER	Oil

2-0012565	RTE 146	MILLBURY	Oil/Hazardous Material
2-0012840	RTE 146	MILLBURY	Oil/Hazardous Material
2-0000990	320-321 NORTH MAIN ST..	MILLBURY	Oil/Hazardous Material
2-0000999	320-321 NORTH MAIN ST.	MILLBURY	Oil/Hazardous Material
2-0012572	463 MILLBURY ST.	WORCESTER	Oil/Hazardous Material
2-0013084	MILLBURY ST.	WORCESTER	Oil/Hazardous Material
2-0013357	320-321 NORTH MAIN ST.	MILLBURY	Hazardous Material
2-0012469	35 BALLARD ST.	WORCESTER	Oil/Hazardous Material
2-0013508	RTE 146	MILLBURY	Oil/Hazardous Material
2-0000983	45 BALLARD ST.	WORCESTER	Oil/Hazardous Material
2-0012681	51 BALLARD ST.	WORCESTER	Oil/Hazardous Material
2-0010399	45 BALLARD ST.	WORCESTER	Oil/Hazardous Material
2-0012231	490 MILLBURY ST.	WORCESTER	Oil/Hazardous Material
2-0000930	450-496 MILLBURY ST.	WORCESTER	Oil/Hazardous Material
2-0012983	164 SOUTHWEST CUTOFF	WORCESTER	Oil
2-0014408	50 RTE 20	MILLBURY	Oil

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