

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

#### **Templeton Municipal Light & Water Plant**

#### 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 suscepti bility 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	Templeton Municipal Light & Water Plant			
PWS Address	2 School Street			
City/Town	Baldwinville, Massachusetts			
PWS ID Number	2294000			
Local Contact	Ronald Davan			
Phone Number	(978) 939-5323			

#### 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.

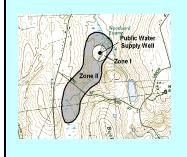
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

#### 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 waterbearing 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 proporti onal 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 #: 390 Susceptibility: High

Well Names	Source IDs
Otter River Well	2294000-01G
Birch Hill Well #1	2294000-04G
Birch Hill Well #2	2294000-05G
Sawyer Street Well	2294000-06G

The Town of Templeton receives its water supply from four wells in one Zone II. The wells are Well #01G (Otter River well); Well 04G (Birch Hill Well #1); Well 05G (Birch Hill Well #2) and Well 06G (Sawyer Street Well). The Otter River well is located approximately 1,600 feet west of the Otter River. The well was installed in 1950 and is 55 feet deep. The Birch Hill wells are located within the Army Corps of Engineers Birch Hill Flood control area. Birch Well #1 is a 50 foot deep gravel packed well installed in 1971. Birch Hill Well #2 is a 62.5 foot deep gravel packed well that was installed in 1974. Well #1 is located on the eastern bank of Trout Brook, while Well #2 is located on the western bank of Trout Brook. Each well is located approximately 100 feet from the Brook. The Sawyer Street well is a gravel packed well located in East Templeton at the northern end of Sawyer Street. The well was installed in 1985, and is 90 feet deep. Each well has a Zone I of 400 feet. 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.

The wells are treated to remove chlorinated volatile organic compounds and 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 are also available on the web at http://www.epa.gov/safewater/ccr1.html.

#### **Section 2: Land Uses in the Protection Areas**

The Zone II for Templeton extents into Gardner and Winchendon. The Zone II is a mixture of forest, residential, light commercial, and light 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. 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 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 I:** A dirt road used by the public is located in the Zone I of the Otter River well.

#### **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.
- ✓ Keep any new non water supply activities out of the Zone I.
- **2. Residential Land Uses** Approximately 11% of the Zone II consists of residential areas. Some of the areas have public sewers, 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 (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:**

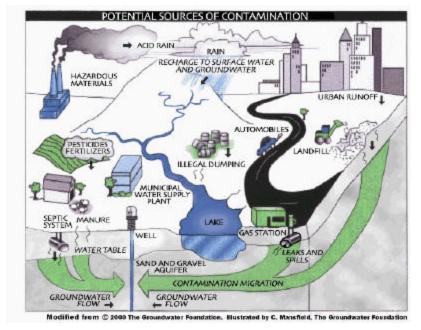
Educate residents on best management practices (BMPs) for protecting water supplies. Distribute the fact sheet "Residents Protect Drinking Water" available in Appendix A and on www. mass.gov/dep/brp/dws/protect.htm, which provides BMPs for common residential issues.

## 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.



- ✓ 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** - Route 2 runs through the Zone II just west of Templeton's town line with Gardner. Local roads are common throughout the Zone II. 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. Deicing salt, automotive chemicals and other debris on roads are picked up by stormwater and wash in to catchbasins.

Railroad tracks run directly through the water supply protection areas. 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.

#### **Transportation Corridor Recommendations:**

- ✓ Identify stormwater drains and the drainage system along transportation corridors. 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.
- ✓ Work with local officials during their review of the railroad right of way Yearly Operating Plans to ensure that water supplies are protected during

#### What are "BMPs?"

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

#### For More Information

Contact Josephine Yemoh-Ndi in DEP's Worcester 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.

vegetation control.

# **4. Hazardous Materials Storage and Use** – Two percent of the land area within the Zone II 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.

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#### Source Protection Decreases Risk

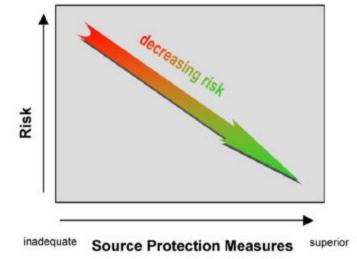


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

#### 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, <u>if managed improperly</u>, 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	Threat*	Potential Source of Contamination		
Agricultural					
Manure Storage or Spreading	1	Н	Manure (microbial contaminants): improper handling		
Commercial					
Auto Repair Shops	4	Н	Automotive fluids, vehicle paints, and solvents: spills, leaks, or improper handling		
Bus and Truck Terminals	1	Н	Fuels and maintenance chemicals: spills, leaks, or improper handling		
Car/Truck/Bus Washes	2	L	Vehicle wash water, soaps, oils, greases, metals, and salts: improper management		
Cemeteries	4	M	Over-application of pesticides: leaks, spills, improper handling; historic embalming fluids		
Gas Stations/ Service Stations	3	H Automotive fluids and fuels: spills, leaks, or improper or storage			
Golf Courses	1	M	Fertilizers or pesticides: over-application or improper handling		
Laundromats	1	L	Wash water: improper management		
Medical Facilities	1	М	Biological, chemical, and radioactive wastes: spills, leaks, or improper handling or storage		
Railroad Tracks And Yards	1	Н	Herbicides: over-application or improper handling; fuel storage, transported chemicals, and maintenance chemicals: leaks or spills		
Repair Shops (Engine, Appliances, Etc.)	1	Н	Engine fluids, lubricants, and solvents: spills, leaks, or improper handling or storage		
Sand And Gravel Mining/Washing	6	М	Heavy equipment, fuel storage, clandestine dumping: spills or leaks		

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

Activities	Quantity	Threat*	<b>Potential Source of Contamination</b>		
Industrial					
Asphalt, Coal Tar, And Concrete Plants	1	M	Hazardous chemicals and wastes: spills, leaks, or improper handling or storage		
Fuel Oil Distributors	2	Н	Fuel oil: spills, leaks, or improper handling or storage		
Hazardous Waste Storage, Treatment and Recycling	1	Н	Hazardous materials: spills, leaks, or improper handling or storage		
Machine/Metalworking Shops	1	Н	Solvents and metal tailings: spills, leaks, or improper handling		
Paper Manufacturers	1	Н	Bleaches, dyes, waste products, and other chemicals: spills, leaks, or improper handling or storage		
Petroleum Storage Facilities / Fossil Fuel Power Plants	2	Н	Petroleum products and equipment maintenance chemicals: spills, leaks, or improper handling or storage		
Residential					
Fuel Oil Storage (at residences)	Several	М	Fuel oil: spills, leaks, or improper handling		
Lawn Care / Gardening	Several	M	Pesticides: over-application or improper storage and disposal		
Septic Systems / Cesspools	Several	М	Hazardous chemicals: microbial contaminants, and improper disposal		
Miscellaneous					
Aquatic Wildlife	3	L	Microbial contaminants		
Composting Facilities	1	L	Organic material, animal waste, and runoff: storage and improper handling		
Fishing/Boating	3	L	Fuel and other chemical spills, microbial contaminants		
Landfills and Dumps	1	Н	Seepage of leachate		
NPDES Locations	2	L	Hazardous material and wastes: improper disposal		
Oil or Hazardous Material Sites	5		Tier Classified Oil or Hazardous Materials Sites are not rank due to their site-specific character. Individual sites are identifin Appendix B.		
Schools, Colleges, and Universities	2	M	Fuel oil, laboratory, art, photographic, machine shop, and other chemicals: spills, leaks, or improper handling or storage		

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

Activities	Quantity	Threat*	Potential Source of Contamination		
Miscellaneous (cont'd)					
Small quantity hazardous waste generators	2	М	Hazardous materials and waste: spills, leaks, or improper handling or storage		
Stormwater Drains/ Retention Basins	Many	L	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns		
Transportation Corridors	1	М	Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or improper handling		
Underground Storage Tanks	3	Н	Stored materials: spills, leaks, or improper handling		
Very Small Quantity Hazardous Waste Generator	3	L	Hazardous materials and waste: spills, leaks, or improper handling or storage		
Waste Transfer/ Recycling Station	1	М	Water contacting waste materials: improper management, seepage, and runoff		
Wastewater Treatment Plant/Collection Facility/	2	M	Treatment chemicals or equipment maintenance materials: improper handling or storage; wastewater: improper		

#### Table 2 Notes:

- 1. When specific potential contaminants are not known, typical potential contaminants or activities for that type of land use are listed. Facilities within the watershed may not contain all of these potential contaminant sources, may contain other potential contaminant sources, or may use Best Management Practices to prevent contaminants from reaching drinking water supplies.
- 2. For more information on regulated facilities, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area information about these potential sources of contamination.
- 3. For information about Oil or Hazardous Materials Sites in your protection areas, refer to Appendix C: Tier Classified Oil and/or Hazardous Material Sites.
- \* THREAT RANKING The rankings (high, moderate or low) represent the relative threat of each land use compared to other PSCs. The ranking of a particular PSC is based on a number of factors, including: the type and quantity of chemicals typically used or generated by the PSC; the characteristics of the contaminants (such as toxicity, environmental fate and transport); and the behavior and mobility of the pollutants in soils and groundwater.

#### (Continued from page 4)

- 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 II contains DEP Tier Classified Oil and/or Hazardous Material Release Sites indicated on the map as Release Tracking Numbers 2-012656, 2-11246, 2-11141, 2-00133 and 2-11301. 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.

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**6. 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:**

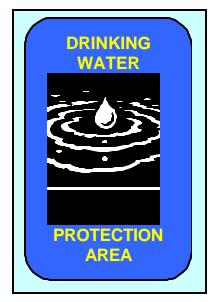
- ✓ Update and implement the Wellhead Protection Plan. Establish a protection team, and refer them to http://mass.gov/dep/brp/dws/protect.htm for a copy of DEP's guidance, "Developing a Local Wellhead Protection Plan".
- ✓ Coordinate efforts with local officials to compare local wellhead protection controls 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 CM R 22.21(2).
- ✓ Work with town boards to review and provide recommendations on proposed development within your water supply protection areas. To obtain 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/.

Other land uses and activities within the Zone II that have include auto repair shops; gas stations; golf courses; asphalt, coal tar, or concrete plants; schools; and machine/metalworking shops. 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.

## Top 5 Reasons to Develop a Local Wellhead Protection Plan

- Reduces Risk to Human Health
- **Q** 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
- Supports municipal bylaws, making them less likely to be challenged
- Ensures clean drinking water supplies for future generations
- 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.



## Section 3: Source Water Protection Conclusions and Recommendations

#### **Current Land Uses and Source Protection:**

As with many water supply protection areas, the system Zone II 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 taking an active role in surveying Zone Is and moving the Sand and Gravel Mining operation out of the Zone I of the Sawyer Street well.

#### **Source Protection Recommendations:**

To better protect the sources for the future:

- ✓ Continue to inspect the Zone I 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

**Table 3: Current Protection and Recommendations** 

<b>Protection Measures</b>	Status	Recommendations		
Zone I				
Does the Public Water Supplier (PWS) own or control the entire Zone I?	YES	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, He	alth Regula	tions, and General Bylaws)		
Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21(2)?	NO	The Town "Aquifer Protection District" bylaw meets DEP's best efforts 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?	NO	Work with neighboring municipalities to include Zone IIs in their wellhead protection controls.		
Planning				
Does the PWS have a Wellhead Protection Plan?	YES	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?	NO	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?	NO	Aim additional efforts at commercial, industrial and municipal uses within the Zone II.		

- 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.
- ✓ 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 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

#### 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:

- 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

## 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
33351	HOOKS AUTO BODY	RTE 2A ATHOL RD	TEMPLETON	Generator of Hazardous Waste	Very Small Quantity Generator
360072	JBM SERVICES INC	686 PATRIOTS RD	TEMPLETON	PLANT	Air Quality Permit
329347	PEOPLES FUEL INC	400 STATE RD	TEMPLETON	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil/PCBs
329347	PEOPLES FUEL INC	400 STATE RD	TEMPLETON	Fuel Dispenser	Fuel Dispenser
282051	SMART AUTOMOTIVE SERVICE	14 SO MAIN ST	TEMPLETON	Generator of Hazardous Waste	Very Small Quantity Generator of Waste Oil/PCBs
282051	SMART AUTOMOTIVE SERVICE	14 SO MAIN ST	TEMPLETON	Generator of Hazardous Waste	Very Small Quantity Generator of Waste Oil/PCBs
39797	TEMPLETON LANDFILL	KING PHILLIP TRAIL	TEMPLETON	Sanitary Landfill	Landfill
132467	TEMPLETON POTW	RESERVOIR ST	BALDWINVILLE	Generator of Hazardous Waste	Below Hazardous Waste Regulated Levels
39797	TEMPLETON RECYCLING CENTER	RTE 202	TEMPLETON	Generator of Hazardous Waste	Small Quantity Generator of Hazardous Waste
132467	TEMPLETON WWTP	RESERVOIR STREET	BALDWINVILLE	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
35906	TOLMAN CONSTRUCTION SERVICE	1 OLD ROYALSTON RD	TEMPLETON	Groundwater Discharge	Below Industrial Wastewater Regulated

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
				Toxic Use Reduction Filer	Below Use Reduction Regulated Levels
				Transporter of Hazardous Waste	Transporter of Hazardous Waste
				PLANT	Below Air Quality Regulated Levels
				Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
				Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste

#### **Underground Storage Tanks**

Facility Name	Address	Town	Description	Tank Type	Tank Leak Detection	Capacity (gal)	Contents
TEMPLETON WASTE WATER TREATMENT PLANT	RESERVOIR STREET	BALDWINVILLE	OTHER	1 WALL	Inventory Record Keeping	1500	Diesel
VERIZON NEW ENGLAND INC.	BALDWINVILLE ROAD	BALDWINVILLE	UTILITY	1 WALL	Inventory Record Keeping	5000	Fuel Oil

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

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

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

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

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

For more information about the state's OHM site cleanup process to which these sites are subject and how this complements the drinking water protection program, please visit the BWSC web page at <a href="http://www.state.ma.us/dep/bwsc">http://www.state.ma.us/dep/bwsc</a>. You may obtain site -specific information two ways: by using the BWSC Searchable Sites database at <a href="http://www.state.ma.us/dep/bwsc/sitelist.htm">http://www.state.ma.us/dep/bwsc/sitelist.htm</a>, 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
2-12656	7 FIRST STREET	TEMPLETON	Oil
2-11246	17 STATE ROAD	TEMPLETON	Oil
2-11141	BIRCH HILL DAM	TEMPLETON	Hazardous Material
2-11301	WINCHENDON ROAD	TEMPLETON	Oil
2-00133	ATHOL ROAD	TEMPLETON	Oil/Hazardous Material

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