



**Massachusetts Department of Environmental Protection**  
**Source Water Assessment and Protection (SWAP) Report**  
**For**  
**Stiles and Hart Brick Company**

**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.

**SWAP and  
Water Quality**

Susceptibility of a drinking water source does *not* imply poor water quality. Actual water quality is best reflected by the results of regular water tests.

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

Prepared by the  
Massachusetts Department of  
Environmental Protection,  
Bureau of Resource Protection,  
Drinking Water Program

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**Table 1: Public Water System (PWS) Information**

<b>PWS NAME</b>	Stiles and Hart Brick Company
<b>PWS Address</b>	127 Cook Street
<b>City/Town</b>	Bridgewater, MA 02324
<b>PWS ID Number</b>	4042003
<b>Local Contact</b>	Lincoln Andrews
<b>Phone Number</b>	508-697-6928

<b>Well Name</b>	<b>Source ID#</b>	<b>Zone I (in feet)</b>	<b>IWPA (in feet)</b>	<b>Source Susceptibility</b>
Well # 1	01G	100	415	High

**Introduction**

We are all concerned about the quality of the water we drink. Drinking water wells may be threatened by many potential sources of contamination, including septic systems, 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. Department of Environmental Protection (DEP) staff is available to provide information about funding and other resources that may be available to you.

**This report includes:**

1. Description of the Water System
2. Discussion of Land Uses in the Protection Areas
3. Recommendations for Protection
4. Attachments, including a Map of the Protection Areas

### 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 an Interim Wellhead Protection Area (IWPA).

- **The Zone I** is the area that should be owned or controlled by the water supplier and limited to water supply activities.
- **The IWPA** is the larger area that is likely to contribute water to the well.

In many instances the IWPA does not include the entire land area that could contribute water to the well. Therefore, the well may be susceptible to contamination from activities outside of the IWPA that are not identified in this report.

### What is Susceptibility?

Susceptibility is a measure of a well's potential to become contaminated due to land uses and activities within the Zone I and Interim Wellhead Protection Area (IWPA).

## 1. Description of the Water System

The well provides drinking water to the Stiles and Hart Brick Company. The well has a Zone I of 100 feet and an Interim Wellhead Protection Area (IWPA) of 415 feet. The IWPA provides an interim protection area for a water supply well when the actual recharge area has not been delineated. The actual recharge area to the well may be significantly larger or smaller than the IWPA. The well is located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers that can prevent contaminant migration. Please refer to the attached map for land uses that are located within the Zone I and IWPA.

The well serving the facility has no treatment at this time. DEP requires public water suppliers to monitor the quality of the water. For current information on monitoring results and treatment, please contact the public water system 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 via EPA's Envirofacts website at [http://www.epa.gov/enviro/html/sdwis/sdwis\\_query.html](http://www.epa.gov/enviro/html/sdwis/sdwis_query.html).

## 2. Discussion of Land Uses in the Protection Areas

**Key issues include the following.**

1. Zone I Issues (maintenance building, parking lot, road)
2. Manufacturing Facility; DEP Tier Classified Oil or Hazardous Material Release Sites; Very Small Quantity Generator of Waste Oil or PCBs; Very Small Quantity Generator of Hazardous Waste
3. Septic System
4. Above Ground Diesel Fuel Storage Tank
5. Transportation Corridor
6. Aquatic Wildlife

**Table 2: Table of Activities within the Water Supply Protection Areas**

Potential Contaminant Sources	Zone I	IWPA	Threat	Potential Concern
Manufacturing Facility (DEP Tier Classified Oil or Hazardous Material Release Sites; Very Small Quantity Generator of Waste Oil or PCBs and Hazardous Waste)	Yes	Yes	H	leaks or spills of chemicals, wastes and other materials
Septic System	No	Yes	M	hazardous chemicals; microbial contaminants; improper disposal
Above Ground Diesel Fuel Storage Tank	No	Yes	M	leaks or spills of fuels
Parking Lot; Roadway	Yes	Yes	M	storm runoff containing contaminants; leaks or spills from vehicles; vehicular accidents
Aquatic Wildlife	Yes	Yes	L	microbial contaminants

\* For more information on Contaminants of Concern associated with individual facility types and land uses please see the SWAP Draft Land Use / Associated Contaminants Matrix on DEP's website - [www.state.ma.us/dep/brp/dws/](http://www.state.ma.us/dep/brp/dws/).

## 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 that resists penetration by water.

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

The overall ranking of susceptibility to contamination for the well is HIGH based on the presence of at least one HIGH threat within the Zone I and IWPA.

1. **Zone I**– The public water system owns or controls the Zone I, posts water supply awareness signs and conducts inspections. A maintenance building, parking lot and road are located within the Zone I. The public water system does not meet DEP's Zone I requirements because of these non-water supply activities within the Zone I.

### Recommendations

- ✓ As much as possible, keep non-water supply activities out of the Zone I.
- ✓ Continue to conduct regular inspections of the Zone I.
- ✓ Do not use pesticide, fertilizers or de-icing materials within the Zone I.

2. **Office Building and Brick Manufacturing Plant** are located within the IWPA. The facility is also the site of DEP Tier Classified Oil or Hazardous Material Releases. It is also a Very Small Quantity Generator of Waste Oil or PCBs and a Very Small Quantity Generator of Hazardous Waste.

### Recommendations

- ✓ Use BMPs for handling, storing, using and disposing of chemicals and wastes.
- ✓ Reduce the use of chemicals if possible.
- ✓ Train employees in spill prevention and other water supply protection measures.

3. **Septic System**– The septic system for the facility is located within the IWPA.

### Recommendation

- ✓ Inspect and maintain the septic system regularly.

4. **Above Ground Diesel Fuel Storage Tank** – There is a diesel fuel tank within the IWPA.

### Recommendation

- ✓ Inspect and maintain any containment structures.

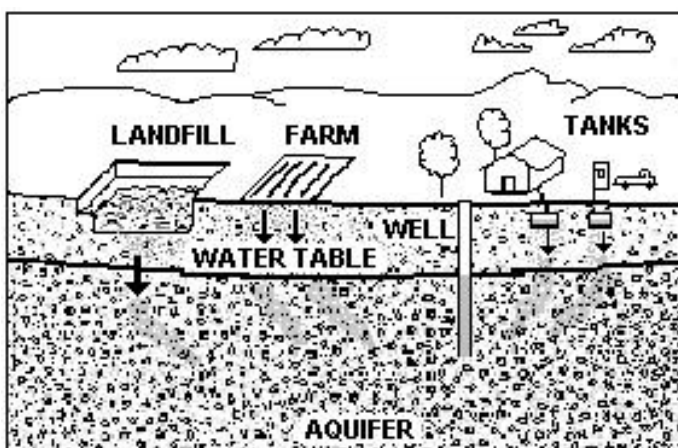


Figure 1: Example of how a well could become contaminated by different land uses and activities.

5. **Parking Lot and Roadway** – A road runs through the Zone I and the IWPA. 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 and washing. Spills from vehicular accidents can also contaminate public drinking water sources.

### Recommendation

- ✓ Wherever possible, ensure that drains discharge to outside the Zone I and IWPA.

6. **Aquatic Wildlife** – There is an open water body within, and several nearby, the IWPA. Aquatic birds frequent the Zone I and IWPA.

### Recommendation

- ✓ Discourage birds from loafing in the Zone I.

#### For More Information

Contact Isabel Collins in DEP's Lakeville Office at (508) 946-2726 for more information and for assistance in improving current protection measures.

#### Additional Documents

To help with source protection efforts, more information is available by request or online at [www.state.ma.us/dep/brp/dws](http://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; and
4. Draft Land/Associated Contaminants Matrix.

Copies of this assessment have been made available to the public water supplier and town boards.

### 3. Recommendations for Protection

Implementing protection measures will reduce the well's susceptibility to contamination. Facility operators should review and adopt the key recommendations above and in the following sections.

#### Priority Recommendations:

##### Zone I

- ✓ Keep non-water supply activities out of the Zone I.
- ✓ Inspect the Zone I.

#### Training and Education

- ✓ Train employees on the proper use, handling, storage and disposal of chemicals and wastes.

#### Facilities Management

- ✓ Do not use or store pesticides, fertilizers or road salt within the Zone I.
- ✓ Inspect and maintain the septic system in the IWPA.
- ✓ Inspect and maintain spill containment structures.

#### Planning

- ✓ Update the emergency response plan at least annually.

#### Funding

The Department's Wellhead Protection Grant Program provides funds to assist public water suppliers in addressing wellhead protection through local projects. Protection recommendations discussed in this document may be eligible for funding under that program. For additional information, please refer to DEP's web site. Other funding opportunities are described in *Grant and Loan Programs: Opportunities for Watershed Protection, Planning and Implementation* at <http://www.state.ma.us/dep/brp/mf/files/glprgm.pdf>.

Citizens and community officials should use this SWAP report to encourage discussion of local drinking water protection measures.

### 4. Attachments

- Map of the Public Water Supply (PWS) Protection Area
- Recommended Source Protection Measures fact sheet
- Source Protection Sign Order Form