**Massachusetts Department of Environmental Protection**

**Source Water Assessment and Protection (SWAP) Report**

**for**

# Barnstable Fire District

### 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*** | Barnstable Fire District |
| ***PWS Address*** | 18 41 Phinney's Lane |
| ***City/Town*** | Barnstable, Massachusetts |
| ***PWS ID Number*** | 4020000 |
| ***Local Contact*** | Jon Erickson |
| ***Phone Number*** | (508) 428-6691 |

## 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.

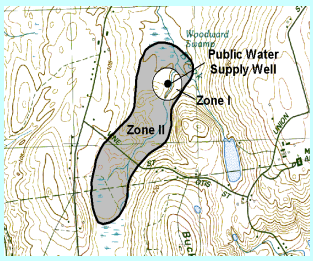
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

**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 #:*** 308 ***Susceptibility:*** High

| ***Well Names*** | ***Source IDs*** |
|---|---|
| GP Well #1 | 4020000-01G |

***Zone II #:*** 311 ***Susceptibility:*** High

| ***Well Names*** | ***Source IDs*** |
|---|---|
| GP Well #2 | 4020000-02G |

***Zone II #:*** 129 ***Susceptibility:*** High

| ***Well Names*** | ***Source IDs*** |
|---|---|
| GP Well #3 | 4020000-03G |
| GP Well #4 | 4020000-04G |

Barnstable Fire District (the District) relies on four groundwater wells to supply its customers with drinking water. The wells are located throughout the District; Well #1 is located on Phinney's Lane, Well #2 is located on Breeds Hill, and Wells #3 and #4 are located on Route 132. Each well has a Zone I of 400 feet. The four wells are located in three Zone II protection areas. Well #1 is located in Zone II #308, Well #2 is located in Zone II #311 and Wells #3 and #4 are located in Zone II #129. 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 Is and Zone IIs.

All four of the District's wells have hexametaphosphate added for corrosion control, and in addition, Wells #3 and #4 receive potassium hydroxide for pH adjustment to assist in corrosion control. Well #2 is treated with aeration for the purpose of iron 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

A mixture of forest, residential and mining land uses dominates the Zone IIs for the District with small areas of 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 A.

**Key Land Uses and Protection Issues include:**

1. Zone I Protection
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. Zone I Protection –** 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 Zone Is for the wells are owned or controlled by the public water system and meet DEP's requirements. 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: Well #1 4020000-01G** – A local road is located along the very edge of the Zone I.

**Zone I Recommendations:**

- ✓ Ensure that stormwater from the road adjacent to the Zone I for Well #1 is properly managed and, if possible, discharges outside of the Zone I area.
- ✓ Continue to keep all non water supply activities out of the Zone Is to comply with DEP's Zone I requirements.
- ✓ Use BMPs for the storage, use, and disposal of hazardous materials such as water supply chemicals and maintenance chemicals.
- ✓ Do not use or store pesticides, fertilizers or road salt within the Zone I.
- ✓ Keep any new non water supply activities out of the Zone I.

## Benefits of Source Protection

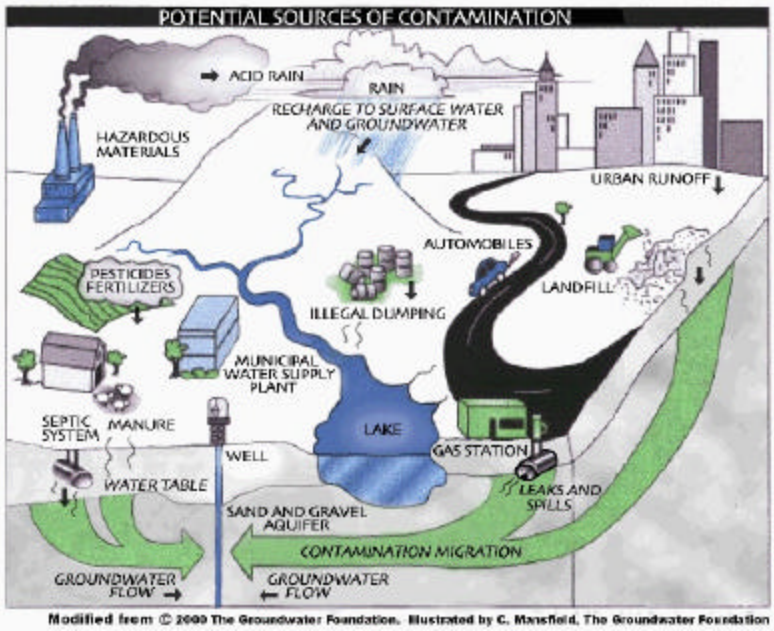
Source Protection helps protect public health and is also good for fiscal fitness:

- 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.

**2. Residential Land Uses –** Approximately 28% of the Zone IIs consist of residential areas. About 30% of the area uses public sewer and so many use on site septic systems. If managed improperly, activities associated with residential areas can contribute to drinking water contamination. Common potential sources of contamination include:

- **Septic Systems** – Improper disposal of household hazardous chemicals to septic systems is a potential source of contamination to the groundwater because septic systems lead to the ground. If septic systems fail or are not properly maintained they can be a potential source of microbial contamination.
- **Household Hazardous Materials** - Hazardous materials may include automotive wastes, paints, solvents,



pesticides, fertilizers, and other substances. Improper use, storage, and disposal of chemical products used in homes are potential sources of contamination.

- **Heating Oil Storage** - If managed improperly, Underground and Aboveground Storage Tanks (UST and AST) can be potential sources of contamination due to leaks or spills of the fuel oil they store.
- **Stormwater** – 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 C 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. Visit DEP's web site for additional information and assistance at http://www.state.ma.us/dep/brp/wm/nonpoint.htm.

**3. Transportation Corridors -** Route 6 runs through the Zone IIs for Wells #1, #3 and #4 and Route 132 runs through all three Zone IIs. Local roads are common throughout all of the Zone IIs. Roadway construction, maintenance, and typical highway use can all be potential sources of contamination. Accidents can lead to spills of gasoline and other potentially dangerous transported chemicals. Roadways are frequent sites for illegal dumping of hazardous or other potentially harmful wastes. De-icing salt, automotive chemicals and other debris on roads are picked up by stormwater and wash in to catchbasins.

**Transportation Corridor Recommendations:**

- ✓ Identify stormwater drains and the drainage system along transportation corridors. Wherever possible, ensure that drains discharge stormwater outside of the Zone Is.
- ✓ 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** – Although less than five percent of the land area within the Zone IIs is commercial or industrial

*(Continued on page 7)*

### 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.

### For More Information

Contact Isabel Collins in DEP's Lakeville Office at (508) 946-2726 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.

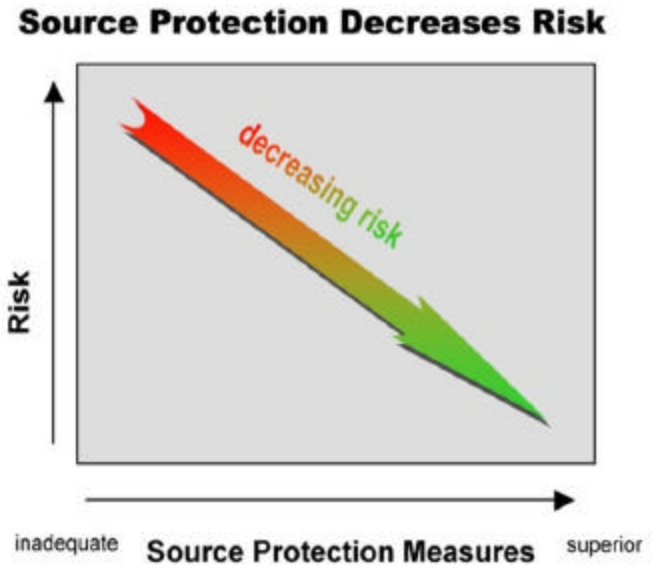



Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

**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 A: Regulated Facilities within the Water Supply Protection Area

| Activities | Quantity | Threat* | Zone II# | Potential Source of Contamination |
|---|---|---|---|---|
| **Agricultural** | | | | |
| Fertilizer Storage or Use | 1 | M | #129 | Fertilizers: leaks, spills, improper handling, or over-application (Golf Course) |
| Landscaping | 2 | M | #129 & #308 | Fertilizers and pesticides: leaks, spills, improper handling, or over-application |
| Pesticide Storage or Use | 1 | H | #129 | Pesticides: leaks, spills, improper handling, or over-application (Golf Course) |
| **Commercial** | | | | |
| Airports | 1 | H | #311 | Fuels, de-icers, salt, and other hazardous chemicals: spills, leaks, or improper handling |
| Body Shops | 2 | H | #311 | Vehicle paints, solvents, and primer products: improper management |
| Gas Stations | 2 | H | #129 & #311 | Automotive fluids and fuels: spills, leaks, or improper handling or storage |
| Service Stations/ Auto Repair Shops | 3 | H | #129 & #311 | Automotive fluids and solvents: spills, leaks, or improper handling |
| Boat Yards/Builders | 1 | H | #129 | Fuels, paints, and solvents: spills, leaks, or improper handling |
| Bus and Truck Terminals | 1 | H | #129 | Fuels and maintenance chemicals: spills, leaks, or improper handling |
| Golf Courses | 1 | M | #129 | Fertilizers or pesticides: over-application or improper handling |
| Laundromats | 1 | L | #311 | Wash water: improper management |
| Paint Shops | 1 | H | #129 & #311 | Paints, solvents, other chemicals: spills, leaks, or improper handling or storage |
| Repair Shops (Engine, Appliances, Etc.) | 3 | H | #308 & #311 | Engine fluids, lubricants, and solvents: spills, leaks, or improper handling or storage |
| Sand And Gravel Mining/Washing | 2 | M | #308 & #311 | Heavy equipment, fuel storage, clandestine dumping: spills or leaks |

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

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

| Activities | Quantity | Threat* | Zone II# | Potential Source of Contamination |
|---|---|---|---|---|
| **Industrial** | | | | |
| Asphalt, Coal Tar, And Concrete Plants | 1 | M | #308 | Hazardous chemicals and wastes: spills, leaks, or improper handling or storage |
| Food Processors | 1 | L | #311 | Cleaners, other chemicals, microbial contaminants: spills, leaks, or improper handling or storage |
| Industry/Industrial Parks | 1 | H | #311 | Industrial chemicals and metals: spills, leaks, or improper handling or storage |
| Machine/ Metalworking Shops | 1 | H | #311 | Solvents and metal tailings: spills, leaks, or improper handling |
| **Residential** | | | | |
| Fuel Oil Storage (at residences) | Numerous | M | All | Fuel oil: spills, leaks, or improper handling |
| Lawn Care / Gardening | Numerous | M | All | Pesticides: over-application or improper storage and disposal |
| Septic Systems / Cesspools | Numerous | M | All | Hazardous chemicals: microbial contaminants, and improper disposal |
| **Miscellaneous** | | | | |
| Aboveground Storage Tanks | 2 | M | #129 & #308 | Materials stored in tanks: spills, leaks, or improper handling |
| Aquatic Wildlife | several | L | #129 | Microbial contaminants |
| Fishing/Boating | several | L | #129 | Fuel and other chemical spills, microbial contaminants |
| Small quantity hazardous waste generators | 3 | M | #308 | Hazardous materials and waste: spills, leaks, or improper handling or storage |
| Stormwater Drains/ Retention Basins | several | L | All | Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns |
| Road And Maintenance Depots | 1 | M | 311 | Deicing materials, automotive fluids, fuel storage, and other chemicals: spills, leaks, or improper handling or storage |
| Transmission Line Rights-of-Way | 1 | L | All | Corridor maintenance pesticides: over-application or improper handling; construction |
| Transportation Corridors | several | M | All | Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or improper handling |
| Underground Storage Tanks | 8 | H | All | Stored materials: spills, leaks, or improper handling |
| Very Small Quantity Hazardous Waste Generator | 4 | L | #129 & #311 | Hazardous materials and waste: spills, leaks, or improper handling or storage |
| Oil or Hazardous Material Sites | 2 | -- | #129 & #311 | Tier Classified Oil or Hazardous Materials Sites are not ranked due to their site-specific character. Individual sites are identified in Appendix B. |

* Notes for Table 2 can be found on page 10.

*(Continued from page 4)*
land use, the activities associated with this land use can have significant impacts on water supplies. 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 C 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 II areas contain a DEP Tier Classified Oil and/or Hazardous Material Release Site indicated on the map as Release Tracking Number 4-0000937. Refer to the attached map and Appendix B 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.

**6. Protection Planning –** Currently, the Town has 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.

**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.


**Protection Planning Recommendations:**

- ✓ Review your Wellhead Protection Plan and update to reflect current protection needs. Use your protection team to make updates and implement goals of the Wellhead Protection Plan. 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). For more information on DEP land use controls see http://mass.gov / dep/brp/dws/protect.htm.
- ✓ 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 IIs include auto repair shops, gas stations, sand and gravel mining, a golf course and underground storage tanks. Refer to Table 2 and Appendix A for more information about these land uses.

## Table 3: Current Protection and Recommendations

| Protection Measures | Status | Recommendations |
|---|---|---|
| **Zone I** | | |
| Does the Public Water Supplier (PWS) own or control the entire Zone I? | **YES** | 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? | **YES** | 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)? | **YES** | Update Wellhead Protection Controls as needed. Refer to www.state.ma.us/dep/brp/dws/ for current model bylaws and health regulations. |
| Do neighboring communities protect the Zone II areas extending into their communities? | **NA** | Work with Barnstable to include Zone IIs from neighboring communities in their wellhead protection controls. |
| **Planning** | | |
| Does the PWS have a Wellhead Protection Plan? | **YES** | Use protection committee to implement the goals of wellhead protection plan. Update as needed. Available resources include "Developing a Local Wellhead Protection Plan" 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** | Use Barnstable's Water Quality Advisory Committee to implement goals of wellhead protection plan. |
| 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 IIs. |

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 District's 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:

- Supporting and cooperating with the town to enact local controls that are more protective than DEP's source protection requirements.
- Being actively involved in decisions about land use planning that will impact Zone II recharge areas.
- Providing wellhead protection education to the golf course and consumers.

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

- ✓ Continue to inspect the Zone Is regularly.
- ✓ 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.
- ✓ Update local bylaws and Wellhead Protection Plan as needed.

**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 C.

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. 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

### 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

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

**Notes for Table 2 (continued from page 6):**

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.

## DEP Permitted Facilities

| DEP Facility Number | Facility Name | Street Address | Town | Permitted Activity | Activity Class | Facility Description |
|---|---|---|---|---|---|---|
| 28812 | Classic Coachworks Inc. | 138 Thornton Dr. | Barnstable | HANDLR | VSQG | Very Small Quantity Generator of Hazardous Waste |
| 29856 | Hyannis Porsche Audi Inc. | Rte 132 and Phinney's Lane | Barnstable | HANDLR | SQG | Small Quantity Generator of Hazardous Waste |
| 34277 | Hyannis Restoration | 119 Thornton Dr. | Barnstable | HANDLR | VSQG | Very Small Quantity Generator of Hazardous Waste |
| 54361 | Aggregate Industries Northeast Region | Off Phinny's Lane | Barnstable | PLANT | BM450 | Air Quality Permit |
| 54401 | Cape Cod Aggregates Corp. | Hyannis Sand Dr. | Hyannis | HANDLR | SQG | Small Quantity Generator of Hazardous Waste |
| 54696 | Cape Cod Aggregates Corp | 40 Ready Mix Dr. | Barnstable | PLANT | BM450 | Air Quality Permit |
| 54767 | Sencorp Systems Inc. | 400 Kidds Hill Rd. | Hyannis | PLANT | BM150 | Air Quality Permit |
| 54768 | Cape Cod Potato Chip Co. | 100 Breeds Hill Rd. | Hyannis | DISCH | IWWSC | Industrial Waste Water to Sewer |
| 193398 | All Cape Machine Shop | Thornton Dr Building 23 | Hyannis | HANDLR | VSQG | Very Small Quantity Generator of Hazardous Waste |
| 212459 | Auburn Wire Inc. | 75 Perseverance Way | Hyannis | TURPRT | BLW-TU | Below Toxics Use Reduction Regualtions |
| 215448 | Sears Roebuck & Co 2323 | 1336 Phinny's Lane | Barnstable | HANDLR | SQG | Small Quantity Generator of Hazardous Waste |
| 290191 | Mama's Laundry | 152 Breeds Hill Rd. | Barnstable | DISCH | IWWSC | Industrial Waste Water to Sewer |
| 298291 | Excel Switching Corp. | 255 Independence Dr. | Hyannis | HANDLR | VSQG | Very Small Quantity Generator of Hazardous Waste |
| 299831 | Shepley Wood Products Inc. | 216 Thornton Dr. | Barnstable | PLANT | BM1000 | Air Quality Permit |

## DEP Permitted Facilities Continued

| DEP Facility Number | Facility Name | Street Address | Town | Permitted Activity | Activity Class | Facility Description |
|---|---|---|---|---|---|---|
| 305649 | Sears 7223 | 1336 Phinny's Lane | Barnstable | HANDLR | SQG | Small Quantity Generator of Hazardous Waste |
| 311737 | Town of Barnstable | 1200 Phinny's Lane | Hyannis | FULDSP | FULDSP | Fuel Dispenser |
| 368013 | ExxonMobil Oil Corp | 1449 Route 132 | Hyannis | HANDLR | VSQG | Very Small Quantity Generator of Hazardous Waste |
| 368013 | ExxonMobil Oil Corp | 1449 Route 132 | Hyannis | FULDSP | FULDSP | Fuel Dispenser |

Regulated Facilities information continues on following page.

## Underground Storage Tanks

| Facility Name | Address | Town | Tank Material | Tank Type | Tank Leak Detection | Capacity (gal) | Contents |
|---|---|---|---|---|---|---|---|
| BARNSTABLE POLICE DEPARTMENT ID #1063 | 1200 PHINNEYS LN | HYANNIS | Reinforced | 1 Wall | A | 6000 | Gasoline |
| | | | Reinforced | 1 Wall | | 500 | Gasoline |
| | | | Reinforced | 1 Wall | | 1000 | |
| CUMBERLAND FARMS #2187 ID #1107 | ROUTE 132 & BEARSE WAY | HYANNIS | Reinforced | 1 Wall | A | 10000 | Gasoline |
| | | | Reinforced | 1 Wall | A | 10000 | Gasoline |
| | | | Reinforced | 1 Wall | A | 10000 | Gasoline |
| | | | Reinforced | 1 Wall | A | 10000 | Diesel |
| HYANNIS SAND AND GRAVEL ID #1055 | 40 READY MIX DR | HYANNIS | Reinforced | 2 Wall | A | 10000 | Diesel |
| | | | Reinforced | 2 Wall | A | 2500 | Gasoline |
| MOBIL SS # 11730 ID #1104 | 1449 ROUTE 132 | HYANNIS | Reinforced | 2 Wall | I | 10000 | Gasoline |
| | | | Reinforced | 2 Wall | I | 10000 | Gasoline |
| | | | Reinforced | 2 Wall | I | 12000 | Gasoline |
| | | | Reinforced | 2 Wall | I | 1000 | Waste Oil |
| NUVENT INC ID #1116 | 31 THORNTON DR | HYANNIS | Steel | | | 275 | Fuel Oil |
| TEXACO SERVICE LOC #11-143-0180 ID #1106 | 1140 IYANOUGH RD | HYANNIS | Reinforced | 1 Wall | A | 12000 | Gasoline |
| | | | Reinforced | 1 Wall | A | 10000 | Gasoline |
| | | | Reinforced | 1 Wall | A | 10000 | Gasoline |
| | | | Reinforced | 1 Wall | A | 8000 | Diesel |
| | | | Reinforced | 1 Wall | I | 550 | Waste Oil |

## Underground Storage Tanks Continued

| Facility Name | Address | Town | Tank Material | Tank Type | Tank Leak Detection | Capacity (gal) | Contents |
|---|---|---|---|---|---|---|---|
| SUN ISLAND DELIVERY ID #700 | 10 HADAWAY RD | HYANNIS | Reinforced | 2 Wall | I | 8000 | Diesel |
| | | | Reinforced | 2 Wall | I | 6000 | 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 B – 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 |
|---|---|---|---|
| 4-0000937 | 100 BREEDS HILL RD | BARNSTABLE-HYANNIS | Hazardous Material |
| 4-0016597* | 10 HADAWAY RD | BARNSTABLE-HYANNIS | Hazardous Material |

For more location information, please see the attached map. The map lists the release sites by RTN.
* Site recently classified, not reflected in current GIS map.