



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

<i>PWS Name</i>	Dennis Water District
<i>PWS Address</i>	80 Old Bass River Rd
<i>City/Town</i>	Dennis, Massachusetts
<i>PWS ID Number</i>	4075000
<i>Local Contact</i>	David Larkowski
<i>Phone Number</i>	(508) 398-3351

### 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.

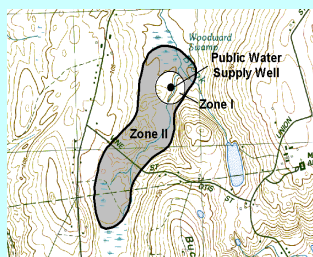
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

#### 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

*Susceptibility: High*

<i>Zone II #:</i>	<i>Well Names</i>	<i>Source IDs</i>
15	AIRLINE ROAD # 7	4075000-08G
15	AIRLINE ROAD # 8	4075000-09G
15	AIRLINE ROAD # 10	4075000-11G
15	OLD CHATHAM ROAD # 12	4075000-13G
15	OLD CHATHAM ROAD # 1	4075000-02G
15	OLD CHATHAM ROAD # 2	4075000-03G
15	OLD CHATHAM ROAD # 3	4075000-04G
253	WELL #18	4075000-18G
323	WELL #11	4075000-12G
323	WELL #6	4075000-07G
323	WELL #4	4075000-05G
354	PUMPING STATION #19	4075000-19G
354	TEST WELL 92-95	4075000-20G
409	WELL #14	4075000-15G
409	WELL #15	4075000-16G
438	WELL #5	4075000-06G
438	MAIN STATION	4075000-01G
439	WELL #9	4075000-10G
440	WELL #16	4075000-17G

The eighteen wells for the Dennis Water District are located in eight Zone II areas. While all of the wells are located within the Town of Dennis, portions of the Zone II areas extend in to the Towns of Brewster and Harwich. Each of the 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 I and Zone II.

Water from the wells is pH adjusted 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 the Dennis Water District are a mixture of forested, residential, 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. Inappropriate activities in Zone I
2. Residential land uses
3. Transportation corridors
4. Hazardous materials storage and use
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. Of the eighteen (18) Zone Is for the wells, 11 are entirely 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:

**Main Station 4075000-01G** - The main station wellfield Zone I includes the District's headquarters building and vehicle maintenance area, and Route 6.

**Well #5 4075000-06G** - The Well #5 Zone I includes Route 134.

**Well #9 4075000-10G** - The Well #9 Zone I includes a few private homes.

**Old Chatham Wells #1, #2, and #3 4075000-02G, 03G, and 04G** - The Zone I for Old Chatham Wells #1, #2, and #3 include local roads.

**Well #4 and Well #11 4075000-05G and 12G** - Old Bass River Road passes through the Zone I for the wells.

**Zone I Recommendations:**

- ✓ To the extent possible, remove all non water supply activities from the Zone Is to comply with DEP's Zone I requirements.
- ✓ Use BMPs for the storage, use, and disposal of hazardous materials such as water supply chemicals and maintenance chemicals.
- ✓ Do not use or store pesticides, fertilizers or road salt within the Zone I.
- ✓ Keep any new non water supply activities out of the Zone I.

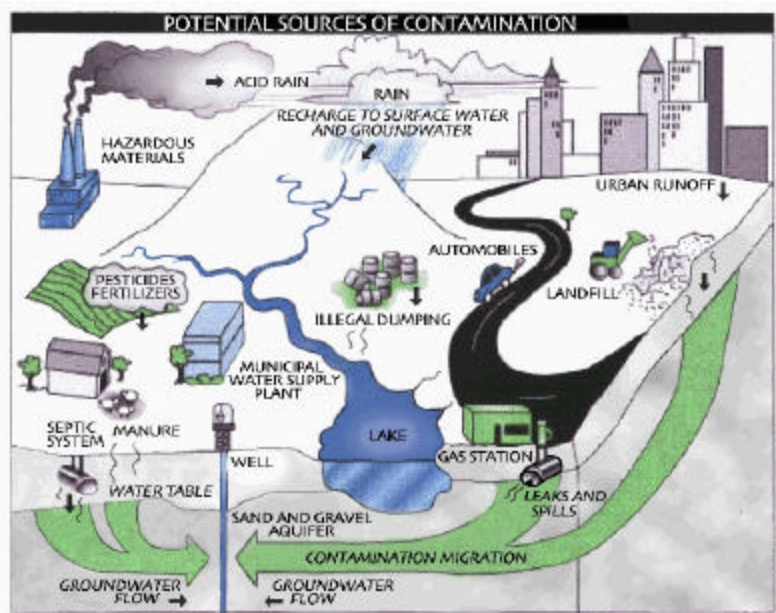
**2. Residential Land Uses** – Approximately 24% of the total Zone II area consists of residential areas. Most of the areas use septic systems. If managed improperly, activities associated with residential areas can contribute to drinking water contamination. Common potential sources of contamination include:

**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.



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- **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.

#### 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.

#### 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](http://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>.

#### 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.

**3. Transportation Corridors** - Route 6 and Route 134 run through the Zone II. 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. 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 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

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#### Source Protection Decreases Risk

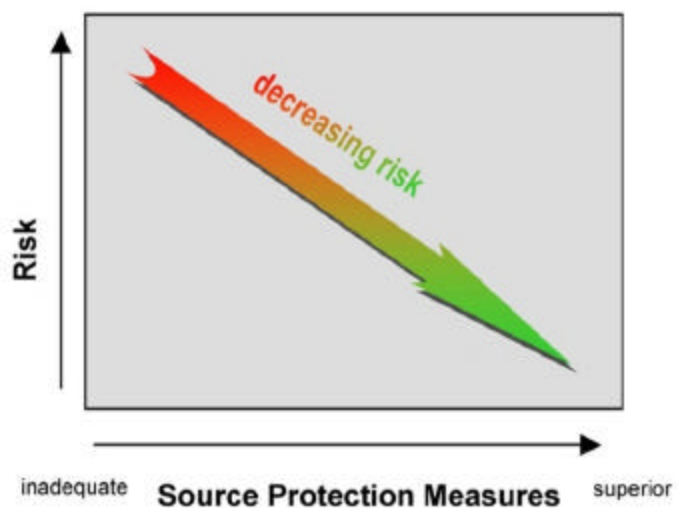


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

### 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, 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
<b>Agricultural</b>				
Fertilizer Storage or Use	1	M	#253, #354	Fertilizers: leaks, spills, improper handling, or over-application
Landscaping	1	M	#253, #354	Fertilizers and pesticides: leaks, spills, improper handling, or over-application
Livestock Operations	1	M	#15	Manure (microbial contaminants): improper handling
Pesticide Storage or Use	Few	H	#15, #408, #409, #253,	Pesticides: leaks, spills, improper handling, or over-application
<b>Commercial</b>				
Body Shops	2	H	#253, #354, #408, #15	Vehicle paints, solvents, and primer products: improper management
Service Stations/ Auto Repair Shops	3	H	#323, #253, #354	Automotive fluids and solvents: spills, leaks, or improper handling
Boat Yards/Builders	1	H	#253, #354	Fuels, paints, and solvents: spills, leaks, or improper handling
Bus and Truck Terminals	1	H	#15	Fuels and maintenance chemicals: spills, leaks, or improper handling
Golf Courses	2	M	#15, #323, #253, #354,	Fertilizers or pesticides: over-application or improper handling
Laundromats	1	L	#253, #354	Wash water: improper management
Medical Facilities	3	M	#408	Biological, chemical, and radioactive wastes: spills, leaks, or improper handling or storage
Repair Shops (Engine, Appliances, Etc.)	1	H	#323	Engine fluids, lubricants, and solvents: spills, leaks, or improper handling or storage
Sand And Gravel Mining/Washing	2	M	#253, #354, #408, #15	Heavy equipment, fuel storage, clandestine dumping: spills or leaks

\*See Table 2 notes on page 10.



**Table 2: Land Use in the Protection Areas (Zones I and II) - continued**

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

Activities	Quantity	Threat*	Zone II#	Potential Source of Contamination
<b>Industrial</b>				
Hazardous Materials Storage	1	H	#253, #354	Hazardous materials: spills, leaks, or improper handling or storage: (Plumbing Supply)
Industry/Industrial Parks	2	H	#253, #354, #15	Industrial chemicals and metals: spills, leaks, or improper handling or storage
Machine/Metalworking Shops	1	H	#253, #354	Solvents and metal tailings: spills, leaks, or improper handling
<b>Residential</b>				
Fuel Oil Storage (at residences)	100+	M	All	Fuel oil: spills, leaks, or improper handling
Lawn Care / Gardening	100+	M	All	Pesticides: over-application or improper storage and disposal
Septic Systems / Cesspools	100+	M	All	Hazardous chemicals: microbial contaminants, and improper disposal
<b>Miscellaneous</b>				
Aboveground Storage Tanks	1	M	#253, #354	Materials stored in tanks: spills, leaks, or improper handling
Aquatic Wildlife	Few	L	All	Microbial contaminants
Road And Maintenance Depots	1	M	#15	Deicing materials, automotive fluids, fuel storage, and other chemicals: spills, leaks, or improper handling or storage
Schools, Colleges, and Universities	1	M	#15, #439	Fuel oil, laboratory, art, photographic, machine shop, and other chemicals: spills, leaks, or improper handling or storage
Small quantity hazardous waste generators	6	M	All	Hazardous materials and waste: spills, leaks, or improper handling or storage
Stormwater Drains/Retention Basins	Many	L	All	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns
Transmission Line Rights-of-Way	2	L	All except #253	Corridor maintenance pesticides: over-application or improper handling; construction
Transportation Corridors	1	M	#408, #15	Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or improper handling
Underground Storage Tanks	2	H	#323, #409	Stored materials: spills, leaks, or improper handling
Very Small Quantity Hazardous Waste Generators	8	L	All	Hazardous materials and waste: spills, leaks, or improper handling or storage

\*See Table 2 notes on page 10

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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** – One 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 C and on [www.mass.gov/dep/brp/dws/protect.htm](http://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. Agricultural Activities** - There are several cranberry bogs, a blueberry farm, and horse pasture within the Zone II. The commercial production of these crops usually requires input of fertilizer and pesticides. 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 Recommendations:**

- ✓ Work with farmers in your protection areas to make them aware of your water supply and to encourage the use of a US Natural Resources Conservation

Service farm plan to protect water supplies.

- ✓ Ensure that farmers within the Zone II maintain a pesticide license or certification with the Massachusetts Department of Food and Agriculture including all applicable training and recertification courses and follow applicable Best Management Practices as published by the University of Massachusetts Cranberry experiment station.
- ✓ Work with farmers to investigate grants and loans designed to protect surface and groundwater. See <http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf> for more information on the USDA Environmental Quality Incentives Program (EQIP). Information on the MA Department of Food Agriculture’s Agricultural Environmental Enhancement Program (AEEP) is available on the web at <http://www.state.ma.us/dfa/programs/aEEP/>.

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

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**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.



**Table 3: Current Protection and Recommendations**

<b>Protection Measures</b>	<b>Status</b>	<b>Recommendations</b>
<b>Zone I</b>		
Does the Public Water Supplier (PWS) own or control the entire Zone I?	<b>SOME</b>	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?	<b>YES</b>	Additional economical signs are available from the Northeast Rural Water Association (802) 660-4988.
Is Zone I regularly inspected?	<b>YES</b>	Continue daily inspections of drinking water protection areas.
Are water supply-related activities the only activities within the Zone I?	<b>NO</b>	Continue monitoring non-water supply activities in Zone Is.
<b>Municipal Controls</b> (Zoning Bylaws, Health Regulations, and General Bylaws)		
Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21(2)?	<b>YES</b>	The Town "Aquifer Protection District" bylaw meets DEP's requirements for wellhead protection. Refer to <a href="http://www.state.ma.us/dep/brp/dws/">www.state.ma.us/dep/brp/dws/</a> for model bylaws and health regulations, and current regulations.
Do neighboring communities protect the Zone II areas extending into their communities?	<b>SOME</b>	Continue to work with Harwich and Brewster to include Zone II areas in their wellhead protection controls.
<b>Planning</b>		
Does the PWS have a Wellhead Protection Plan?	<b>NO</b>	Develop a wellhead protection plan. Follow "Developing a Local Wellhead Protection Plan" available at: <a href="http://www.state.ma.us/dep/brp/dws/">www.state.ma.us/dep/brp/dws/</a> .
Does the PWS have a formal "Emergency Response Plan" to deal with spills or other emergencies?	<b>YES</b>	Update and 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?	<b>NO</b>	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?	<b>YES</b>	For more guidance see "Hazardous Materials Management: A Community's Guide" at <a href="http://www.state.ma.us/dep/brp/dws/files/hazmat.doc">www.state.ma.us/dep/brp/dws/files/hazmat.doc</a>
Does the PWS provide wellhead protection education?	<b>YES</b>	Aim additional efforts at commercial, industrial and residential uses within the Zone II.



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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 they do not meet the most 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>.
- ✓ 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 include auto repair shops, body shops, and schools. Refer to Table 2 and Appendix A 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 through:

- Protecting 875 acres of the Zone II areas.
- Working with the town to protect Zone II areas from surrounding towns that extend in to the Town of Dennis.
- Working with the Board of Health to inspect commercial facilities.
- Providing a quarterly newsletter to consumers that includes source protection.

**Source Protection Recommendations:**

To better protect the sources for the future:

- ✓ 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 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.
- ✓ Work with farmers in your protection areas to make them aware of your water

#### **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](http://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

- ✓ 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 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 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

#### 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 A: 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 B: 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.

## APPENDIX A:

### REGULATED FACILITIES WITHIN THE WATER SUPPLY PROTECTION AREA

#### DEP Permitted Facilities

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
27988	DENNIS EQUIPMENT CO	970 RTE 134	EAST DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
295491	ORLEANS CAMERA AND VIDEO	500 RTE 134 PATRIOTS SQUARE	SOUTH DENNIS	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
33759	RAINBOW AUTOBODY	451 OLD CHATHAM ROAD	DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
33888	NORTHSIDE AUTOBODY	360 HOKUM ROCK ROAD	DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
133832	AUTO CARE CENTER	372 HOKUM ROCK ROAD	DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
33942	DENNISPORT AUTOMATIC COIN LAUNDRY	13 HALL ST	DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
301511	CAPE AREA TRANSPORTATION SYSTEM	222 OLD CHATHAM RD	SOUTH DENNIS	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
				Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
321421	MIKE & SONS SERVICE CENTER	291 HOKUM ROCK RD	DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste
				Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
321423	OTTOWERKS	591 HOKUM ROCK RD	DENNIS	Generator of Hazardous Waste	Very Small Quantity Generator of Hazardous Waste

DEP Facility Number	Facility Name	Street Address	Town	Permitted Activity	Activity Class
				Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
321170	PATRIOTS SQUARE SHOPPING CENTER	492 RTE 134	DENNIS	Groundwater Discharge	Major Groundwater Discharge
321465	DENNIS DPW	30 CROWELL RD	DENNIS	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs
321463	PKM GENERAL CONTRACTING	313 HOKUM ROCK RD	DENNIS	Generator of Hazardous Waste	Small Quantity Generator of Waste Oil or PCBs

For 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)

<b>RTN</b>	<b>Release Site Address</b>	<b>Town</b>	<b>Contaminant Type</b>
There are no DEP Tier Classified sites identified within the Dennis Zone IIs at this time.			

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