Massachusetts Department of Environmental Protection

Source Water Assessment and Protection (SWAP) Report for

Lanesborough Fire & Water District

What is SWAP?

The Source Water Assessment Protection (SWAP) program, established under the federal Safe Drinking Water Act, requires every state to:

- inventory land uses within the recharge areas of all public water supply sources;
- assess the susceptibili ty 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 C onsumer Confidence Reports.

Table 1: Public Water System Information

PWS Name	Lanesborough Fire & Water District
PWS Address	Bridge Street, P.O. Box 1504
City/Town	Lanesborough
PWS ID Number	1148000
Local Contact	Mr. Theodore Nylic
Phone Number	(413) 499-5916

Introduction

We are all concerned about the quality of the water we drink. Drinking water supplies 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.

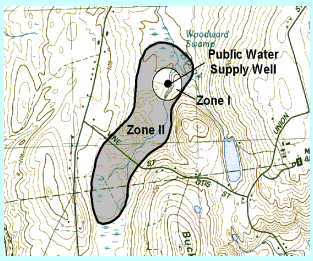
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

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

System Susceptibility ***High***

Zone II #: 476 ***Susceptibility:*** High

Well Names	***Source IDs***
GP Well #1 Bridge Street	1148000-01G
Well #2 Town Brook (Miner Road) Well	1148000-02G

The town of Lanesborough is a small, rural community in northwestern Massachusetts. Lanesborough was settled in the mid-1700's and developed into a small industrial and agricultural community in the 1800's. The Town is bordered on the east by part of the Hoosac Range and on the west by Potter Mountain of the Taconic Range. The ranges meet at the northern end of town through a series of lesser hills at the base of Mt. Greylock. Lanesborough is primarily within the Housatonic River valley with the southeast corner within the Hoosic/Hudson River valley. The town developed primarily in the valley that widens slightly to the south of town toward Pittsfield. Today, Lanesborough is predominantly rural and residential with the main development along Route 7. The Lanesborough Fire & Water District (the District) maintains two active water supply wells GP Well #1 Bridge Street Well (01G) and Well #2 (02G) Town Brook (Miner Road) Well.

Well #1 is a 12 x 18-inch diameter, gravel packed well, 52 feet deep installed in 1954 and is used as a back-up or supplemental source. Well #2, used as the main supply, is an 18 x 24-inch diameter, gravel packed well, approximately 57 feet deep installed in 1964. In 1997, Well #2 was rehabilitated due to a deteriorating screen and pump; a new 12-inch diameter screen was inserted in the original 18-inch screen with gravel installed between the new 12-inch and the original 18-inch screen. Wells #1 and #2 are located within the same, relatively narrow, unconfined, sand and gravel aquifer, along the Town Brook valley, west of Route 7. Since they are located within the same hydrogeologic regime, they also share the same Zone II contribution area, although Well #2 is located 4,600 feet downgradient from Well #1. The Town Brook aquifer is a semi-confined, (leaky-confined) sand and gravel aquifer.

The Town Brook aquifer is a glacially deepened, bedrock valley that was filled in with sand and gravel deposited during the recession (melting) of the glaciers some 12-18,000 years ago. Streams and rivers have reworked and eroded the glacial deposits and recent streams have deposited additional alluvial material. Boring logs, seismic data and maps of the valley area indicate fine to course sand and gravel deposits approximately 50 to 60 feet deep and in some areas up to 70 feet in depth. These deeper areas within the valley may be due to karst sinkholes in the bedrock. Boring log and seismic data indicate the silt and clay confining layer is discontinuous along the edges of the southern reaches of the valley and pinches out, even in the center of the valley north of Miner Road just south of Putnam Road. Therefore, the aquifer responds as a confined aquifer at Well #2 initially, but over time, the area of contribution, expands to the unconfined portion of the recharge area. Well #1 (Bridge Road Well) is in an unconfined portion of the aquifer with no protective clay layer. The clay layer was deposited during the glacial recession when a dam was formed blocking the melt water flow and causing the formation of a temporary lake; the clay layer represents the

lake bottom sediments. Eventually the dam was breeched and the lake drained. The effect of this hydrogeologic regime is that although the aquifer may be protected from some land uses immediately adjacent to the confining clay layer, the aquifer is vulnerable to contamination from activities conducted in the unconfined portions of the recharge area.

The bedrock in the area is a complex series of folded and faulted metamorphic rocks predominantly Berkshire schist in the highland and carbonate rocks of the Stockbridge group and quartzite in the valley floor and valley walls. A northerly plunging anticline lies beneath the valley floor. The Kitchen Brook dolomite is mapped along the southern portion of the valley at Well #1 and the Claredon Springs dolomite is mapped in the vicinity of Well #2; the Bascom formation dolomite is mapped north of the Claredon Springs formation. There is also a high angle reverse fault trending NNE/SSW along the western edge of the valley. It is speculated that the bedrock aquifer, as well as the overburden (water table) aquifer, may contribute considerable recharge to the aquifer under pumping conditions.

Each well has a Zone I protective radius of 400 feet immediately around the wellhead. The Zone II was delineated through the SWAP program by consultants for the Department utilizing geologic mapping and analytical modeling. Data for the analysis were gathered from extended duration pumping tests, boring logs and previous studies. The aquifer is considered to be highly vulnerable to contamination from activities conducted on the ground surface due to the absence or discontinuous nature of the hydrogeologic barriers (i.e. clay) that can prevent contaminant migration from activities on the land surface. Please refer to the attached map to view the boundaries of the Zone II.

The water is not currently treated but there is a stand-by chlorinator available if the need should arise to disinfect the water. For current information on water quality monitoring results, please contact the Public Water System contact person listed above in Table 1 for a copy of the most recent Consumer Confidence Report.

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

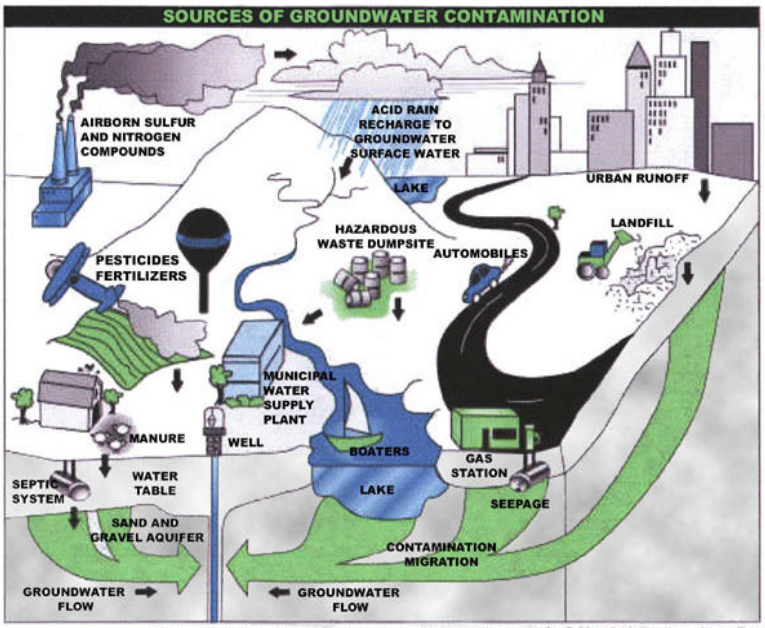
Contact your regional DEP office for more information on Source Protection and the Waiver Program.

Section 2: Land Uses in the Protection Areas

The land use within the Zone II of the Lanesborough Fire & Water District wells is a mixture of open land, wetland, forest, cropland, and residential, with a small portion of commercial 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. Non-conforming Zone I
2. Residential land uses
3. Hazardous materials storage and use



4. Transportation corridors
5. Agricultural activities
6. Confirmed hazardous waste release sites
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.

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.

1. Non-conforming Zone Is – The Zone I for each of the wells is a 400 foot radius around the wellhead. Currently, the Massachusetts drinking water regulation (310 CMR 22.00 Drinking Water) requires public water suppliers to own the Zone I, or control the Zone I through a conservation restriction, Memorandum of Understanding or other legal mechanism as approved by the DEP. The public water supplier does not own or control the entire Zone I for either of the wells. Only activities directly related to the water supply, or other non-threatening activities, as determined by the DEP, are allowed in the Zone I. Transportation corridors, and a portion of a farm are within the Zone Is. Numerous water sources were developed prior to the 400-foot Zone I requirement and are therefore grandfathered. The Department encourages grandfathered systems to acquire ownership or control of the Zone I. Activities within Zone Is are as follows:

Well #1 Bridge Street Well (01G): The District office, the District's garage, the tight tank for the bathroom and portions of a residential yard are all located within the Zone I of Well #1. The access road is not paved and there are floor drains in the garage that discharge to the ground. Vehicles, equipment and supplies, including small quantities of hazardous materials are stored in the garage. Although small quantities of hazardous materials (petroleum products) are stored in the garage, according to the District, there is no regular maintenance conducted on the vehicles at the garage. Hazardous materials that are improperly stored, used, or disposed, become potential sources of contamination. Hazardous materials should never be disposed of to a septic system or floor drain or allowed to spill directly to the ground. Floor drains located in areas that have the potential for hazardous materials to discharge to the ground are illegal. The DEP has required the District to address the floor drains and DEP recommends that the District develop a plan for hazardous materials handling for all equipment and materials that will remain in the garage. Vehicle washing is a restricted activity under the UIC regulations. Review the attached fact sheet for additional information about vehicle washing activities.

Well #2 Miner Road Well (02G): Miner Road is located within the Zone I of the source. The District applied for and was awarded a source water protection grant to fund the installation of a sedimentation basin and other Best Management Practices (BMPs) as part of a road improvement project conducted during 2001.

Zone I Recommendations:

- ✓ Remove all petroleum/hazardous products from the Zone I. Any products required to be on-site should be stored in containment and handled with extreme care and a management and spill control plan should be prepared.
- ✓ Address the floor drains in the garage in accordance with DEP requirements. Floor drains must either be seal in accordance with DEP regulations and procedures or connected to the tight tank. Inspect the garage floor to prevent accidental release to the ground and have emergency response and spill cleanup materials on hand.
- ✓ As part of the long term planning for the District, consider the feasibility of relocating the District garage.
- ✓ Keep any new non-water supply activities out of the Zone I.
- ✓ Continue your current efforts to purchase land and/ or negotiate a conservation restriction for land

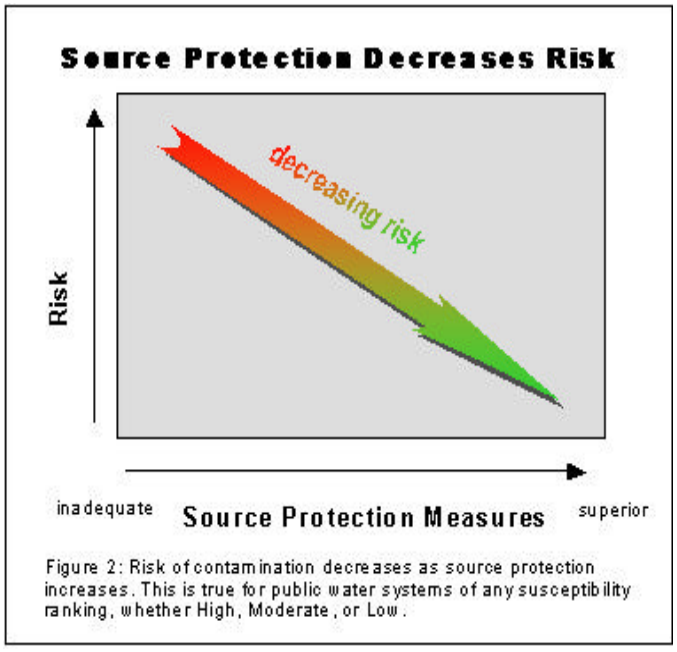


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

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

For more information, refer to Appendix B: Regulated Facilities within the Water Supply Protection Areas

Activities	Quantity	Threat*	Potential Source of Contamination
Agriculture			
Fertilizer/Pesticide Storage or Use	2	M/H	Fertilizers: leaks, spills, improper handling, or over-application
Livestock Operations (non-commercial)	5	M	Manure (microbial contaminants): improper handling
Residential			
Fuel Oil Storage (residential)	Numerous	M/H	Fuel oil: spills, leaks, or improper handling
Lawn Care / Gardening	Numerous	M	Pesticides: over-application or improper storage and disposal
Septic Systems / Cesspools	Numerous	M	Hazardous chemicals: microbial contaminants, and improper disposal
Commercial			
Gasoline Station	1	H	Materials stored in tanks: spills, leaks, or improper handling
Cemetery	1	M	Lawn fertilizers/pesticides, embalming
Service station/body shop	2	H	Hazardous materials: spills, leaks, or improper handling
Highway maintenance depot	1	M	Hazardous materials: spills, leaks, or improper handling
Miscellaneous			
Underground Storage Tanks	5 confirmed	H	Releases of products, spills, overfills
Transportation Corridors	Numerous	M	Corridor maintenance with pesticides, stormwater runoff, accidental release of hazardous materials
Confirmed Hazardous Waste/Oil Release Sites	2	**	RTN 1-12693, 1-000789, (1-0000106—RAO)
Stormwater Drains/ Retention Basins	Numerous	L	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns
Aboveground storage tanks	1	M	Spills, accidental release

Activities	Quantity	Threat*	Potential Source of Contamination
Miscellaneous			
Furniture Stripping	1	H	Solvents: spills, leaks, or improper handling
Very Small Quantity Generators	2	L	Stored materials: spills, leaks, or improper handling
Transformers	Several	L	MODF and possibly PCBs: spills, leaks, or improper handling. Contact the electric company to ensure no PCBs are within the transformers.

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 protection areas 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.

within the Zone I.

✓ Agreement Options - Until land is available for acquisition or restriction, attempt to obtain a Memorandum of Understanding and Right of First Refusal.

- A Memorandum of Understanding (MOU) is an agreement between the landowner and public water supplier in which the landowner agrees not to engage in specific threatening activities. The MOU should be specific to the land use or activity. For example, if the land is residential with a septic system, the owner could agree to not place chemicals, petroleum products, or other hazardous or toxic substances, including septic system cleaners, into the septic system, and agree that the system will be pumped at a specific frequency. As another example, the portions of fields within the Zone I would not have manure, fertilizers or pesticides spread on them. Understanding how an activity threatens drinking water quality is an important component of developing an effective MOU.
- A Right of First Refusal is a legal document that gives the water supplier the first chance to purchase land when it becomes available. Please refer to the example of the Right of First Refusal documents attached in the Appendices.

The Department recommends that the Water Department establishing a program for planning to acquire ownership or control of property within the areas critical to protecting water quality. If there is no other reasonable method to secure rights and protect these sources, the District may wish to consider taking necessary water supply land by eminent domain to protect the sources. This recommendation is not only for the existing sources but also should be considered for future development of sources if they are needed.

2. Residential Land Uses – Approximately 19% of the Zone II land use consists of residential areas. The Zone II area is not connected to municipal sewer and therefore utilize 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 A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMPs for common residential issues.

✓ Work with planners to control new residential developments in the water supply protection areas.

✓ Promote BMPs for stormwater management and pollution controls.

✓ Inventory the Zone II for residential USTs and outdoor ASTs. Encourage homeowners to provide containment for ASTs and remove USTs. Consider ways to partner with homeowners to encourage UST removal if you find that there are any residential USTs within the protection areas.

3. Hazardous Materials Storage and Use – Six percent of the land area within the Zone II is commercial land use. The District garage is located within the Zone I of the Bridge Street Well and small quantities of hazardous materials are stored in the garage, in containment. A gasoline station, the Fire Department, Police Department and Highway Department and several businesses that handle hazardous waste or materials are located within the Zone II. Many small businesses and industries use hazardous materials, produce hazardous waste products, and/or store large quantities of hazardous materials in UST/AST. As you are keenly aware, hazardous materials that are improperly stored, used, or disposed, become potential sources of contamination. Hazardous materials should never be disposed of to a septic system or floor drain or allowed to spill directly to the ground. As noted in Item 1.—vehicle washing is a restricted activity under the UIC regulations. Review the attached fact sheet for additional information about vehicle washing activities.

Hazardous Materials Storage and Use Recommendations:

✓ All hazardous materials should be removed from the garage and any that must remain should be stored in containment and used with caution to prevent an accidental release.

✓ Coordinate with the Fire Department to inventory all USTs and ASTs in the Zone II and Zone III areas. Consider developing a strategy to minimize the risk from hazardous materials stored in the protection areas. This may include a

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.

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

hazardous materials use and storage regulation in town and cost sharing for the removal of USTs.

✓ Continue current efforts to educate and work with local businesses on best management practices for protecting water supplies. Distribute the fact sheet "Businesses Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMP's for common business issues.

✓ Work with local businesses to ensure that the District is included in their emergency response plans for notification of any release that may impact the groundwater or surface water of the Town Brook. Partnerships between businesses, water suppliers, and communities enhance successful public drinking water protection practices.

✓ Educate and assist the community on promulgation of a hazardous materials handling and floordrain regulation and inspection program. Refer to the brochures regarding "Industrial Floor Drains" and Hazardous Waste Handling for more information.

4. Transportation Corridors - State highways and 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 into catchbasins. The final stormwater mitigation design on Miner Road was an improvement at that location.

Transportation Corridors and Stormwater Recommendations:

✓ Identify stormwater drains and the drainage system along all transportation corridors. Wherever possible, ensure that storm drain systems discharge stormwater outside of the Zone II. 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. Request that the MA Highway Department provide a copy of the storm drain plans for Rt. 7 to the local emergency response team.

✓ Contact the Town and State to ensure catchbasins are 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.

✓ Communicate with the Highway Department regarding all maintenance and stormwater improvements within the Zone I of the Miner Road well.

✓ Actively participate in and communicate with the Lanesborough Highway Department and the State Highway Department to ensure the use and maintenance of BMPs to protect the aquifer. Ensure that the state and local highway departments know the Zone II boundary to assist them in the proper design of BMPs.

5. Agricultural Activities – There are several farms (hobby, hay and crops) and agricultural activities (haying and non-commercial animals) throughout the Zone II. 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 supplies. In addition, farms and large commercial facilities often conduct their own maintenance on their equipment and have storage of hazardous materials and waste. There are several non-commercial (hobby) farms within the Zone II and Zone III areas.

Agricultural Activities Recommendation:

✓ If appropriate, work with the Department to negotiate a Conservation Restriction or Memorandum of Understanding for activities on farm land.

✓ Work with commercial farmers in your protection areas to make them aware of your water supply and to encourage the use of a USDA Natural Resources Conservation Service (NRCS) farm plan to protect water supplies. Review the fact sheet available online at http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf and call the local office of the NRCS in Pittsfield at (413) 443-6867 ext. 3 for assistance.

- ✓ Encourage farmers and property managers to incorporate an Integrated Pest Management (IPM) approach into their pest management program. IPM is an ecologically-based approach to pest control that links together several related components, including monitoring and scouting, biological controls, mechanical and/or other cultural practices, and pesticide applications. By combining a number of these different methods and practices, satisfactory pest control can be achieved with less impact on the environment.
- ✓ Promote the use of BMPs for fuel oil storage, hazardous material handling, storage, disposal, and emergency response planning.
- ✓ Work with farmers, and include nurseries to ensure that pesticides and fertilizers are being stored within a structure designed to prevent runoff. Farmers should be aware that state and federal regulations govern the use of pesticides in Zone II.
- ✓ The USDA has various funding sources for government agencies, non-government organizations and agricultural facilities through programs such as those listed on the USDA web site http://search.sc.egov.usda.gov/. One program in particular, the Environmental Quality Incentives Program (EQIP) may be utilized in a variety of projects from DPW stormwater management to farm nutrient management designed to protect surface and groundwater. Review the fact sheet available online at http://www.nrcs.usda.gov/programs/farmbill/2002/pdf/EQIPFct.pdf and call the local office of the NRCS for assistance .
- ✓ Work with hobby farmers by supplying them with information about protecting their own wells and the public water supply by encouraging the use of BMPs especially with regard to manure management. Refer to http://www.state.ma.us/dep/brp/dws/dwspubs.htm and http://www.state.ma.us/dep/consumer/animal.htm#dwqual for additional resources.

6. 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 1-0012693 and 1-0000789. Refer to the attached map and Appendix B for more information. A Release Action Outcome statement (RAO) indicating the site has been remediated was recently submitted for the site 1-0000106. Another site, 1-0012693, is been classified as a default Tier 1B site with the owner having established financial inability to remediated the site. The DEP has conducted some state funded clean-up actions at the site but additional work is required. Please refer questions to the Bureau of Waste Site Cleanup at the Springfield Regional Office of the DEP at (413) 784-1100.

Oil or Hazardous Material Contamination Sites Recommendation:

- ✓ Continue to participate in the monitoring of progress and commenting on the ongoing remedial action conducted at the confirmed release sites.

7. Comprehensive Wellhead Protection Planning – Currently, the Town of Lanesborough has water supply protection controls. However, they do not meet the minimum requirements of the Department's Wellhead Protection regulations 310 CMR 22.21(2). The Zone II report detailed recommendations for modifying the bylaws to be in compliance with 310 CMR 22.21(2). 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.

Activities within the Zone III may also pose a potential threat to the water supply. Specifically, under pumping conditions Town Brook contributes water to the aquifer. If stormwater, farm runoff or other accidental releases occur to the brook, they may pose a threat to water quality. This report does not include facilities located within the Zone III except the gasoline station. Please inventory activities along Rt. 7 to be aware of all potential threats.

Protection Planning Recommendations:

- ✓ Inventory facilities within the Zone III and incorporate any potentially high threat facilities into your Emergency Response Action Plan such as the gasoline stations and auto repair facilities that may be just outside of the Zone II or within the Zone III.
- ✓ Consider preparing a Wellhead Protection Plan. Establish a protection team that includes participation from Town officials 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".
- ✓ Refer the Planning Board to the recommendations detailed in the Zone II report for modifications to the local bylaws and regulations. Coordinate efforts with local officials to compare local wellhead protection controls with current MA Wellhead Protection Regulations 310 CMR 22.21(2) to adopt controls that meet requirements of that regulation. For more information on DEP land use controls see http://mass.gov /dep/brp/dws/protect.htm. The Department can assist you in these efforts.

- ✓ Local controls do not regulate floordrains; request that the Board of Health adopt floordrain controls and hazardous materials handling regulations.

Other land uses and activities within the Zone II are listed in Table 2. Refer to Table 2 and Appendix 2 for more information about these land uses.

Identifying potential sources of contamination is an important initial step in protecting your drinking water sources. Further local investigation will provide more in-depth information and may identify new land uses and activities that are potential sources of contamination. Once potential sources of contamination are identified, specific recommendations like those below should be used to better protect your water supply.

Section 3: Source Water Protection Conclusions and Recommendations

Current Land Uses and Source Protection:
As with many water supply protection areas, the system Zone II contains 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:

- Proactively pursuing funding to improve stormwater controls in the Zone I,
- Working with the Planning Board to adopt protective zoning bylaws to the town. Please continue that effort by requesting that the Planning Board adopt the recommendations included in the SWAP Zone II report and this report.

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; remove all hazardous materials from the Zone I.
- ✓ Continue monitoring the hazardous release sites in and adjacent to the Zone II.
- ✓ Educate residents on ways they can help you to protect drinking water sources.
- ✓ Continue working 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.
- ✓ Consider inventorying USTs within the Zone II and Zone III.
- ✓ Work with farmers in your protection areas to make them aware of your water supply and to encourage the use of a NRCS farm plan to protect water supplies.
- ✓ Develop and implement a Wellhead Protection Plan.

Conclusions:
These recommendations are only part of your ongoing local drinking water source protection. Additional source protection recommendations are listed in Table 3, the Key Issues above and Appendix A.

DEP staff, informational documents, and resources are available to help you build on this SWAP report as you continue to improve drinking water protection in your community. The Department's Wellhead Protection Grant Program and Source Protection Grant Program provide funds to assist public water suppliers in addressing water supply source protection through local projects. Protection recommendations discussed in this document may be eligible for funding under the Grant Program. If funds are available each spring DEP posts a new Request for Response for the grant program (RFR).

For More Information

Contact Catherine Skiba in DEP's Springfield Office at (413) 755-2119 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.

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 encourage 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 protection areas. 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 Areas
C. Confirmed Hazardous Materials/Oil Release Sites
D. Additional Documents on Source Protection

Table 3: Current Protection and Recommendations

Protection Measures	Status	Recommendations
Zone I		
Does the Public Water Supplier (PWS) own or control the entire Zone I?	**NO**	Follow Best Management Practices (BMP's) that focus on good housekeeping, spill prevention, and operational practices to reduce the use and release of hazardous materials. Continue working with land owners to negotiate a Conservation Restriction, Memorandum of Understanding and other forms of protection. Work with the DPW when they are proposing work in the Zone I.
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**	Prohibit other land uses within the Zone Is. Address the issues at the District garage related to the floor drains, hazardous materials handling and storage, and vehicle parking. Continue working with land owners to negotiate a Conservation Restriction and other forms of protection.
Municipal Controls (Zoning Bylaws, Health Regulations, and General Bylaws)		
Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21(2)?	**PARTIAL**	Modify protection measures as appropriate to fully comply with regulation.
Do neighboring communities protect the Zone II areas extending into their communities?	**N/A**	
Planning		
Does the PWS have a Wellhead Protection Plan?	**NO**	Prepare a plan following "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 the 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**	Include representatives from citizens' groups, neighboring communities, and the business community.
Does the Board of Health conduct inspections of commercial and industrial activities?	**NO**	For more guidance see "Hazardous Materials Management: A Community's Guide" at www.state.ma.us/dep/brp/dws/files/hazmat.doc Work with neighboring communities to adopt floor drain regulations and work with industries to protect water supplies.
Does the PWS provide wellhead protection education?	**YES**	Aim additional efforts at commercial, industrial and municipal uses within the Zone II and, as appropriate, Zone III.