

COMMONWEALTH OF MASSACHUSETTS

PLYMOUTH, ss

SUPERIOR COURT DEPARTMENT
DOCKET NO. 2383-CV-00362-C

JEREMY GILLESPIE et al.,)
)
Plaintiffs,)
)
v.)
)
MORSE BROS, LLC, RYCO)
EXCAVATING, INC., RYCO)
LEASE AND REPAIR INC., and)
OIVA HANNULA & SONS, INC.,)
)
Defendants.)
_____)

AFFIDAVIT OF BRENDAN MOQUIN

I, Brendan Moquin, on oath state as follows:

1. I am the Controller of Morse Brothers, Inc. (“Morse Brothers”). I have responsibility for overseeing Morse Brothers’ operations, including compliance with various federal, state, and local environment, land use, and other laws and regulations.
2. Morse Brothers has been growing cranberries in Massachusetts for over 60 years.
3. Morse Brothers has owned and operated a cranberry bog at the property at 250 Lingan Street, Halifax, Massachusetts (the “Halifax Property”) for approximately 46 years.
4. The Property is used and has been used exclusively in connection with the growing of cranberries.
5. Cranberry growing and cranberry bogs rely on the crucial organic material available in the bog. Unlike typical farming where soil is tilled and crops grown through annual growing seasons, cranberries thrive on the undisturbed organic soils below the surface. This

natural resource is maintained and preserved through the application of a loamy soil confinement layer, and the routine application of 6-8 inches of sand as a top layer. This sand layer serves important functions in water flow and retention, crop growth, and reducing depletion of the organic soils beneath. By applying sand, growers can reduce the demand for the application of pesticides, herbicides, and fertilizers, as well as maintain the longevity and use of the bog.

6. The soil maintenance described above is part of the best practices for cranberry bog management and consistent with guidance from the U.S. Department of Agriculture's Natural Resource Conservation Services (NRCS), among others.

7. As part of its ongoing efforts to employ best management practices in its operations, Morse Brothers prepares and updates a Farm Conservation Plan (the "Farm Plan"). The Farm Plan documents Morse Brothers' compliance with NRCS recommended standards and specifications of its existing conservation practices for land under agricultural use, and is submitted to the NRCS.

8. Morse Brothers has and continues to work closely with several other government agencies in connection with its operations. For example, Morse Brothers withdraws water for irrigation from Monponsett Pond. That withdrawal is done pursuant to a Massachusetts Water Management Act Permit, No. 4252110, issued and enforced by the Massachusetts Department of Environmental Protection pursuant to M.G.L. c. 21G. Because of the use of water from Monponsett Pond, Morse Brothers is directly impacted by and has a vested interest in, the water quality of Monponsett Pond. Therefore, when the Town of Halifax treats Monponsett Pond with herbicides to inhibit the growth of algae in the public swimming area, the Town is required to advise Morse Brothers pursuant to Massachusetts Wetlands Protection Act, M.G.L. c. 131, §40. Exhibit A hereto is a copy of such a notice.

9. As noted in the Complaint, portions of the Halifax Property are located in a “Zone II” source water protection area. Pursuant to the Federal Safe Drinking Water Act, 42 U.S.C. §300f-j, Massachusetts communities are required to delineate and assess the risks to sources of drinking water. Morse Brothers has been involved in that process with the Town and DEP, and works with the Town and DEP to ensure that its operations do not have an adverse impact on drinking water. Mass DEP implements and enforces the drinking water protection program in accordance with the Federal Safe Drinking Water Act and various Massachusetts statutes, pursuant to 310 CMR 22. A copy of the current DEP water supply protection report for the Town of Halifax is attached as Exhibit B, and available at <https://www.mass.gov/doc/halifax-water-department-swap-report/download>.

10. As noted in the Complaint, **in 2022, Morse Brothers submitted an earth removal permit to the Town of Halifax for a proposed renovation project.** Because the renovation was for cranberry growing at the Halifax Property, **an earth removal permit was not required in light of the various applicable state agricultural exemptions.** Nonetheless, given the scale of the project, in order to engage the Town and assuage or address any concerns regarding the work, Morse Brothers submitted an application.

11. The response of a group of residents, comprised of some of the plaintiffs in this case, was swift and hostile. Similar to the assertions in this case, certain residents made various allegations of activities at the property that were wholly untrue or largely exaggerated.

12. **Morse Brothers withdrew that earth removal permit application.**

13. Morse Brothers has never engaged in and is not engaging in any of the work that was the subject of the 2022 earth removal permit.

14. Following the withdrawal of the 2022 permit, Morse turned its attention to renovating and upgrading two of its other smaller bogs nearby, in Middleboro, Massachusetts and Hanson, Massachusetts.

15. At Morse Brothers' Middleboro property, we received a USDA grant to upgrade a 5-acre bog. With the assistance of that grant, we removed the old vines, graded the bog, installed a new irrigation system, and applied fresh sand from the Halifax Property.

16. As mentioned above, when a cranberry bog is renovated, sand is a critical top layer. Best practices require 6-8 inches of sand. This sand serves crucial functions in improving water flow, prohibiting cranberry growth while inhibiting unwanted growth, reducing the need for pesticides and herbicides, and retaining and preserving nutrients while reducing the need for reliance on added fertilizers.

17. The Halifax Property has soils available from which sand can be separated and used to maintain other cranberry bogs. As part of the Middleboro renovation, we transported sand from the Halifax property. We applied a 6-inch sand layer to obtain the benefits of the sand layer, while reducing transportation costs.

18. At the Hanson property, we renovated approximately 24 acres. That property required the application of a new confinement layer. The confinement layer is another critical part of the cranberry ecosystem. The confinement layer is a dark loamy base layer used to retain water and nutrients below the layer, and retain those resource inputs applied above the layer.

19. All of these renovation activities were for the purpose of, directly related to, and necessary for, the cultivation of cranberries as part of Morse Brothers' ongoing business operations. All of those renovations have conformed to and have applied best management practices.

20. Following our withdrawal of the 2022 earth removal permit, the Halifax Board of Selectmen continued to field concerns from residents, which largely related to the trucking of the sand from Halifax to our other bogs in Hanson and Middleboro. Attached as Exhibit C, is a copy of an email from Plaintiff Jeremy Gillespie to Town officials expressing his complaints. As a result of these concerns, on April 24, 2023, the Town performed a site inspection with me, along with two members of the Halifax Conservation Commission and the Town of Halifax Health Department.

21. On April 25, 2023, the chair of the Halifax Board of Selectmen, John Bruno, reported back to the Board and the Town regarding that inspection and other reviews by various Town officials, including the Water Department and others. Mr. Bruno reported that there was no interaction between Morse Brothers' operations and the Town's drinking water, or any adverse impacts or contamination of any water or other resources. Mr. Bruno further reported correctly that Morse Brothers is not engaged in any earth removal or any operations in violation of Town ordinance or other laws. A true copy of the video recording of that Board of Selectmen hearing is provided herewith.

22. The Massachusetts DEP also fielded a number of complaints from these Halifax residents. In response, on April 19, 2023, Massachusetts DEP officials performed an investigation and site visit.

23. Mass DEP confirmed, among other things, that there was no unlawful excavation or other activity on site, that no contaminated materials were being brought onto or stored on the site, that our Farm Plan was up to date, and, according to Mass DEP's Drinking Water Program Chief, Jim McLaughlin, "nothing at the site gave [him] cause for concern." A true copy of Mr. McLaughlin's site visit summary is attached as Exhibit D.

24. In connection with the renovation projects, no soil, sand, gravel, manure or similar material has been brought onto Halifax Property.

25. Morse brothers has not been and is not engaged in any subsurface excavation, mining or other activity at its Halifax Property.

26. Plaintiffs' allegation that there are no monitoring wells on the Halifax Property is untrue. There are monitoring wells on the property. These were installed in connection with the 2022 permit application to measure the water table.

27. Plaintiffs' allegation that we are "actively transporting unchecked material to the site" is untrue. As noted above, Morse Brothers has transported sand *from* the Halifax Property to maintain other cranberry bogs, but does not bring material *onto* the Halifax Property. We certainly have never brought "manure mixtures" or any "potentially contaminated iron and manganese bottom scrapings" onto the Halifax Property. Manure is not used in cranberry growing as it poses a health risk for human consumption. Plaintiffs make this allegation with reference to what appear to be a collection of maps at Exhibit C of the Complaint, but I cannot discern from what source Plaintiffs have mistakenly concluded that such materials would ever be brought on the site.

28. The Complaint makes reference to "current stream flow" from Monponsett Pond onto the Halifax Property. There is not a "stream flow" onto the Halifax Property. As discussed, Morse Brothers withdraws water via a pumping system from Monponsett Pond pursuant to a Mass DEP-issued Water Management Act withdrawal permit, which is reviewed and renewed every 5 years with the DEP.

29. An injunction prohibiting Morse Brothers from conducting activities on its properties would be catastrophic to our business and the natural resources we rely on.

30. As I described, moving and applying sand and soil is an integral and crucial component of the best management of cranberry growing. The organic matter underlying our bogs are our lifeblood and are preserved and maintained through careful resource use, which includes the maintenance of confinement and sand layers. Further, to improve the management of older bogs requires the movement of soils to upgrade more efficient irrigation systems and, again, ensure the proper layering of resources for growing.

31. The Halifax Property produces approximately 18,200 barrels (bbls) or about 1,820,000 pounds of cranberries a year. This equates to approximately \$820,000 in revenue per year that would be lost during the pendency of this case if an injunction is entered.

32. Moreover, Morse Brothers has various management contracts, including with defendant Oiva Hannula & Sons, which obligate Morse Brothers to pay approximately \$530,000 per year related to the Halifax Property which would be lost if activities were not permitted on the site.

33. If Morse Brothers cannot move sand at the Halifax Property for maintenance of its other bogs, those operations will also suffer. Morse Brothers operates a portfolio of approximately 300 total acres of cranberry growing. The total crop in 2022 was 59,300 bbls equating to approximately \$2,668,500 in revenue.

34. Importantly the harm to Morse Brothers would not be limited to the period of inactivity, but would cause permanent harms to its crops and resources. Unmaintained with proper sand and soil management, cranberry vines permanently lose productive yield and suffer other degraded health. Because new bogs require several growing seasons to mature, the bogs require constant maintenance to remain productive.

35. Furthermore, the inability to maintain bogs will irreparably deplete the underlying resources. Unprotected, the rich organic matter on which the cranberries grow is depleted of nutrients and the resources unsustainable for future growing.

36. Absent the use of sand and soils to manage the resource in accordance with best practices, the bogs would require additional application and cost of pesticides, insecticides, herbicides and fertilizers.

SIGNED UNDER PENALTIES OF PERJURY THIS 8th DAY OF JUNE 2023.

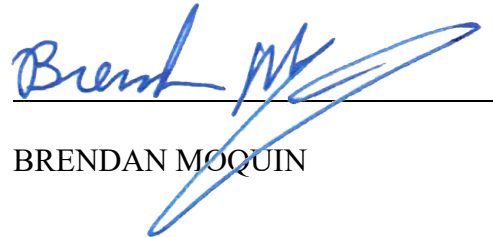

BRENDAN MOQUIN

EXHIBIT A

SOLitude Lake Management
590 Lake Street
Shrewsbury, MA 01545

**NOTIFICATION TO ABUTTERS UNDER THE
MASSACHUSETTS WETLANDS PROTECTION ACT
CHAPTER 131, SECTION 40**

In accordance with the 2nd paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following:

- A. The name of the applicant is: Town of Halifax Board of Selectman
- B. The Applicant has filed a Notice of Intent with the Halifax Conservation Commission, seeking to work within an Area Subject to Protection under the Massachusetts Wetlands Protection Act (General Laws Chapter 131, Section 40).

Description of Project: An integrated Aquatic Management Program at Monponsett Ponds to monitor, assess and implement measures for control of non-native/nuisance aquatic vegetation, specifically with the use of USEPA/State registered aquatic herbicides/algacides.

- C. The location where the activity is proposed East and West Monponsett Ponds
- D. Copies of the Notice of Intent may be examined at the Halifax Conservation Commission office during their normal business hours. For more information, call the Conservation Commission at (781) 590-3872 . Copies of the Notice of Intent are available (for a fee) from the applicant's representative (SOLitude Lake Management) by calling (508) 865-1000 between the hours of 8 AM and 4 PM (Monday through Friday).
- E. Questions regarding this Notice of Intent may be directed to the applicant's representative (SOLitude Lake Management) by calling (508) 865-1000 between the hours of 8 AM and 4 PM (Monday through Friday)
- F. The Halifax Conservation Commission will hold a public hearing on **March 23** via zoom meeting. Zoom information will be posted on their website.

NOTE: Notice of this public hearing, including date, time and place:

- 1) Will be published at least five (5) days in advance in the local newspaper
- 2) Will be posted in the City Hall not less than forty-eight (48) hours in advance of the public hearing.

NOTE: You may also contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call the Northeast Regional Office at (978) 694-3200.



EXHIBIT B



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

Halifax Water Department

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>	Halifax Water Department
<i>PWS Address</i>	499 Plymouth Street
<i>City/Town</i>	Halifax, Massachusetts 02338
<i>PWS ID Number</i>	4118000
<i>Local Contact</i>	Richard Clark, Superintendent
<i>Phone Number</i>	(781) 293-1733

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.

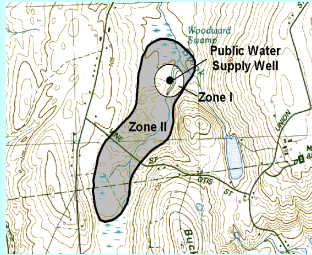
This report includes the following sections:

1. Description of the Water System
2. Land Uses within Protection Areas
3. Source Water Protection Conclusions and Recommendations
4. Appendices

Section 1: Description of the Water System

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.

Zone II #: 368

Susceptibility: Moderate

Well Names	Source IDs
Richmond Park Well #1	4118000-01G
Richmond Park Well #2	4118000-02G

Zone II #: 609

Susceptibility: High

Well Names	Source IDs
YMCA Well Site #3	4118000-03G

The Halifax Water Department receives its water from three gravel packed wells located in two Zone II source water protection areas, (see tables above). The Water Department is in the process of receiving approval for a fourth well to be located near the current YMCA Well #3, an assessment for this source is not included in this report. Each well has a Zone I of 400 feet. The wells are located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers (i.e. clay) that can prevent contaminant migration. Please refer to the attached map to view the boundaries of the Zone Is and Zone IIs.

All of the water receives some treatment before entering the distribution system. Water from the YMCA Well has potassium hydroxide added for corrosion control and chlorine added as a disinfectant. The Richmond Park Wells have potassium permanganate added for iron and manganese removal, sodium hydroxide added for corrosion control and chlorine added as a disinfectant. 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 IIs for Halifax are dominated by forest, residential and woody perennial (cranberry bogs) land uses. 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 Issues
2. Residential land uses
3. Transportation corridors
4. Hazardous materials storage and use
5. Agricultural activities
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 Issues – 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 three Zone Is for the wells are owned or controlled by the public water system. Only water supply activities are allowed in the Zone I. However, many public water supplies were developed prior to the Department's regulations and contain non water supply activities such as homes and public roads. The following non water supply activities occur in the Zone Is of the system wells:

Zone I Recommendations:

- ✓ To the extent possible, remove any 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 – Residential land use is common in the Zone IIs. None of the areas have public sewers, and so all use septic systems. If managed improperly, activities associated with residential areas can contribute to drinking water contamination. Common potential sources of contamination include:

- **Septic Systems** – Improper disposal of household hazardous chemicals to septic systems is a potential source of contamination to the groundwater because septic systems lead to the ground. If septic systems fail or are not properly maintained they can be a potential source of microbial contamination.
- **Household Hazardous Materials** - Hazardous materials may include automotive wastes, paints, solvents, pesticides, fertilizers, and other substances. Improper use, storage, and disposal of chemical products used in homes are potential sources of contamination.
- **Heating Oil Storage** - If managed improperly, Underground and Aboveground Storage Tanks (UST and AST) can be potential sources of contamination due to leaks or spills of the fuel oil they store.

- **Stormwater** – Catch basins transport stormwater from roadways and adjacent properties to the ground. As flowing stormwater travels, it picks up debris and contaminants from streets and lawns. Common potential contaminants include lawn chemicals, pet waste, and contaminants from automotive leaks, maintenance, washing, or accidents.

Residential Land Use Recommendations:

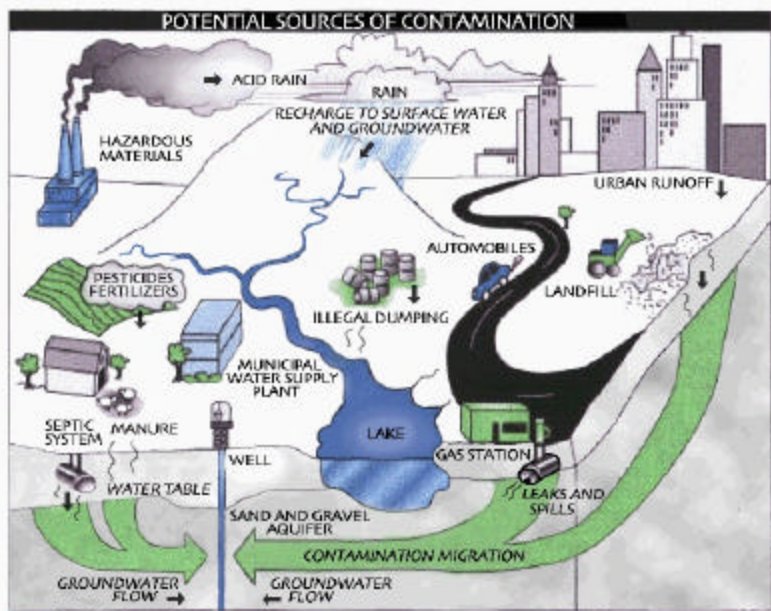
- ✓ Educate residents on best management practices (BMPs) for protecting water supplies. Distribute the fact sheet "Residents Protect Drinking Water" available in Appendix C and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMPs for common

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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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 106 runs through the Zone II for the Richmond Park Wells. Local roads are located in both 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:

- ✓ Wherever possible, ensure that drains discharge stormwater outside of the Zone I.
- ✓ Identify stormwater drains and the drainage system along transportation corridors. If maps aren't yet available, work with town officials to investigate mapping options such as the upcoming Phase II Stormwater Rule requiring some communities to complete stormwater mapping.
- ✓ Work with local emergency response teams to ensure that any spills within the Zone II can be effectively contained. Review storm drainage maps with emergency response teams.
- ✓ Work with the Town and State to best manage stormwater in the Zone II. Best management practices include street sweeping, vegetative swales, and regular catch basin inspection, cleaning and maintenance.
- ✓ Work with local officials during their review of the railroad right of way Yearly Operating Plans to ensure that water supplies are protected during vegetation control.

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.

4. Hazardous Materials Storage and Use –

Although no commercial or industrial land uses were identified during the assessment of Halifax's, activities associated with commercial and industrial land use are often the greatest concern when evaluating water supply protection. 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

(Continued on page 6)

Source Protection Decreases Risk

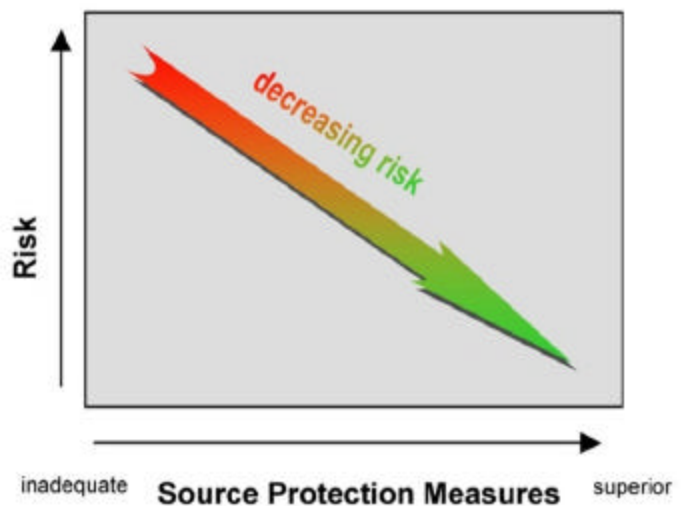


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

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
Agricultural				
Fertilizer Storage or Use	1	M	609	Fertilizers: leaks, spills, improper handling, or over-application (cranberry bog)
Pesticide Storage or Use	1	H	609	Pesticides: leaks, spills, improper handling, or over-application (cranberry bog)
Commercial				
Cemeteries	1	M	368	Over-application of pesticides: leaks, spills, improper handling; historic embalming fluids (historic)
Residential				
Fuel Oil Storage (at residences)	numerous	M	Both	Fuel oil: spills, leaks, or improper handling
Lawn Care / Gardening	numerous	M	Both	Pesticides: over-application or improper storage and disposal
Septic Systems / Cesspools	numerous	M	Both	Hazardous chemicals: microbial contaminants, and improper disposal
Miscellaneous				
Fishing/Boating	some	L	Both	Fuel and other chemical spills, microbial contaminants
Stormwater Drains/ Retention Basins	some	L	Both	Debris, pet waste, and chemicals in stormwater from roads, parking lots, and lawns
Transportation Corridors	1	M	368	Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or improper handling
Water Treatment Sludge Lagoon	2	M	Both	Sludge and wastewater: improper management

Notes:

- 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.
- 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.
- 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.

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.

6. Agricultural Activities – There are a number of cranberry bogs in the Zone II for the YMCA Well #3. Pesticides and fertilizers have the potential to contaminate a drinking water source if improperly stored, applied, or disposed.

Agricultural Activities Recommendation:

- ✓ 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.
- ✓ 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/>.

7. Protection Planning – Currently, Halifax reports that it has water supply protection controls that meet DEP’s Wellhead Protection regulations 310 CMR 22.21(2), however the DEP does not have records to indicate that final copies of the bylaws, protection district overlay maps and floordrain control regulations were submitted to DEP for approval. Protection planning protects drinking water by managing the land area that supplies water to a well. A Wellhead Protection Plan coordinates community efforts, identifies protection strategies, establishes a timeframe for implementation, and provides a forum for public participation. There are resources available to help communities develop a plan for protecting drinking water supply wells.

Protection Planning Recommendations:

- ✓ Use your Protection Team to implement the goals outlined in your Wellhead

Top 5 Reasons to Develop a Local Wellhead Protection Plan

- ➊ Reduces Risk to Human Health
- ➋ 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
- ➌ Supports municipal bylaws, making them less likely to be challenged
- ➍ Ensures clean drinking water supplies for future generations
- ➎ 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 Plan.
- ✓ Submit local wellhead protection controls to DEP, include bylaws, overlay maps and floordrain regulations. For more information on DEP land use controls see <http://mass.gov/dep/brp/dws/protect.htm>.
- ✓ If local controls do not regulate floordrains, be sure to include floordrain controls that meet 310 CMR 22.21(2).
- ✓ Work with town boards to review and provide recommendations on proposed development within your water supply protection areas. To obtain information on build-out analyses for the town, see the Executive Office of Environmental Affairs' community preservation web site, <http://commpres.env.state.ma.us/>.

Refer to Table 2 and Appendix A for more information about other 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.

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 any 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/NO	The Town "Aquifer Protection District" bylaw meets DEP's requirements for wellhead protection. Contact Catherine Sarafinas of DEP to ensure all requirements are in place for formal DEP approval.
Do neighboring communities protect the Zone II areas extending into their communities?	NA	Work with neighboring municipalities and consider including their Zone IIs in your wellhead protection controls.
Planning		
Does the PWS have a Wellhead Protection Plan?	YES	Use your Wellhead Protection Committee to implement the goals of your Wellhead protection Plan.
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	Consider expanding the committee to include representatives from citizens' groups and the business community.
Does the Board of Health conduct inspections of commercial and industrial activities?	YES	For more guidance see "Hazardous Materials Management: A Community's Guide" at www.state.ma.us/dep/brp/dws/files/hazmat.doc
Does the PWS provide wellhead protection education?	YES	Aim additional efforts at commercial, industrial and municipal uses within the Zone II.

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 in the Water Supply Protection Areas through:

- Ownership of all the Zone I lands for Halifax's groundwater sources .
- Partnering with other Town Boards to assure that water supply protection is incorporated into their decision making.
- Developing a Wellhead Protection Plan.
- Establishing a Wellhead Protection Committee.
- Diligently patrolling the Zone Is and Zone IIs to identify potential problems before they can impact the water supply.

Source Protection Recommendations:

To better protect the sources for the future:

- ✓ Continue regular Zone I inspections 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.
- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites.
- ✓ 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.

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

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

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

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
No DEP Tier Classified Sites were identified during the assessment.			

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.

EXHIBIT C

From: Jeremy gillespie <gillespietown@yahoo.com>

Sent: Monday, April 3, 2023 12:04 PM

To: Evans, Kathy <Kathy.Evans@halifax-ma.org>; Lane, Edward <Edward.Lane@halifax-ma.org>; Steve Goodman <sgoodman1976.sg@gmail.com>

Cc: Valery, Bob <Bob.Valery@halifax-ma.org>; Haddad, Cody <Cody.Haddad@halifax-ma.org>; Troup, Amy <Amy.Troup@halifax-ma.org>; Macfaun, Steven <Steven.Macfaun@halifax-ma.org>; Selig, Jonathan <Jonathan.Selig@halifax-ma.org>; Bruno, John <John.Bruno@halifax-ma.org>; Nessralla, Naja <Naja.Nessralla@halifax-ma.org>; Adam Sloat <asloat@gmail.com>; Cheryl Howell <milo7474@yahoo.com>; MARK JACQUES <mark781@comcast.net>; Dana Cataldo <dana.cataldo@gmail.com>; james.m.mclaughlin@state.ma.us; John.Meyers@mass.gov

Subject: Complaint 250 Lingan St. - Wetlands Protection Act Violations/Halifax Aquifer Protection Overlay Zoning District Violations

I would like to file a complaint against the owners of 250 Lingan street.

1. Mining in an aquifer protection overlay district.
2. Removing earth without a permit, approved site plan, boundary markers, monitoring wells, erosion controls, engineering review etc.
3. Dumping of unknown fill materials that likely contain pollutants, possibly including manure, within our aquifer protection zoning overlay district
4. Excavation below the 7ft high groundwater elevation (Halifax By-law); excavation below the 4ft high groundwater elevation (MassDEP DIV II WPA Regulation requirement)
5. Earth removal within the DIV II WPA and Class A Public Water Supply Zoning Districts and it's tributaries in excess of 50 CYU (Not permitted)
6. Dumping of unknown material within the 100 ft & 50 ft buffer to an Atlantic White Cedar Swamp (wetlands)
7. Dumping of waste including tires, tree stumps, animal waste, trash, & old piping within the aquifer protection zoning overlay district.

I'm sure there are more violations. The standing water on-site is already growing filamentous algae and this standing water will be a breeding ground for bacteria as the weather warms, as it is stagnant and exposed to sunlight. It's my opinion an emergency site visit is in order.

There should be 9 pictures attached.

Sincerely,

Jeremy Gillespie
9 Richview Ave.
Halifax, MA 02338
Cell:781-422-4037

EXHIBIT D

From: McLaughlin, James M (DEP) <james.m.mclaughlin@state.ma.us>

Sent: Tuesday, June 6, 2023 8:44 AM

To: Mike Dubuc <mikedubuc@morsebro.com>

Cc: Brendan Moquin <brendanmoquin@morsebro.com>

Subject: RE: MBI - Resident Complaint - Inspection Report

Hi Mike & Brendan,

I knew I had written up the site visit, I just didn't send it to you. Here are my observations from that day.

I conducted a site visit at the Morse bogs in Halifax in the morning of April 19, 2023 in response to the numerous complaints received by DEP.

- Attendees: Brendan Moquin, Morse Brothers, Inc., Controller; William Lindsay, Halifax Water Department Superintendent
- Mr. Moquin described the history in much greater detail than I'm capable of relating. Basically, they're following the rules and have met with the Select Board, ConCom, Health agent, Fire, Police and Water.
- Morse has excavated material to reduce hills on site, but they have not gone below the level of the surrounding dike roads.
- Piles of graded stone, loam and sand are stored on site, typical for a cranberry operation. Material has been moved off site to other bogs, and some more material will be moved. There is no manure onsite as has been alleged.
- No solid waste was observed. A couple of small pieces of broken PVC pipe were observed.
- The existing old varieties of cranberry vines are not producing and Morse has plans to renovate the bogs within the footprint of the bogs with some squaring off.
- A 5 acre bog may be dug out for tailwater recovery to reduce reliance on West Monponsett Pond, but that project is not finalized yet.
- Morse has an up-to-date Conservation (Farm) Plan.
- Work planned outside of the existing bog footprint is still undetermined, but it is on the opposite side of the bog from the Town's YMCA wells.
- We discussed the "4-foot to groundwater table within a Zone II" provision of the Drinking Water Regulations. Mr. Moquin explained that his consultant, lawyers & Cape Cod Cranberry Growers' Association have case history regarding that provision that existing farming activities have a grandfathering. I agreed that this made sense within the existing bog footprint, but advised Mr. Moquin to be absolutely certain of the legal allowances & requirements if embarking on the potential projects outside of the footprint.
- Mr. Lindsay did not have any concern that the site posed any hazard to the YMCA wells.
- My observation of the site is that it was very clean and well maintained in comparison to other bogs I've been to over the past 22 years (or by any other measure).
- Nothing at the site gave me cause for concern. I encourage review under the Wetlands Act and any other applicable rules.

Jim McLaughlin
Drinking Water Program Chief
MassDEP-SERO
20 Riverside Drive
Lakeville, MA 02347

508-946-2805