Rhode Island Department of HEALTH

PROTECT YOUR DRINKING WATER

Safe and healthy lives in safe and healthy communities

Eleanor Slater Hospital/Zambarano Unit

Pollution Risk Assessment Results

The **Eleanor Slater Hospital/Zambarano Unit** (PWSID 1647516) is a community water system located in Burrillville that serves approximately 750 patients and staff daily through 20 service connections. The water system draws surface water from Wallum Lake. Water is treated for corrosion control, filtered, and disinfected, then discharged to a storage tank before being released to the distribution network. The last sanitary survey was November 3, 2000. For further information contact Scott George at 2090 Wallum Lake Road, Pascoag, RI 02859.

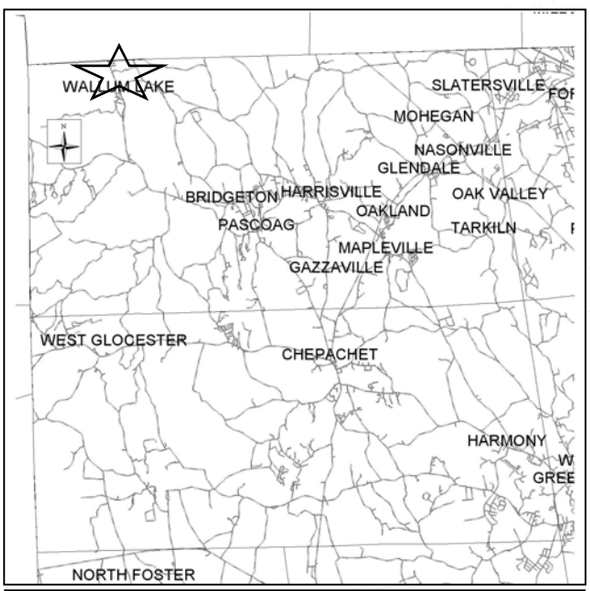
Treatment:
Sodium hypochlorite is added to the water to provide disinfection. Sodium hydroxide is added to minimize corrosion.

The Source Protection Area for this water system is the entire drainage basin for Wallum Lake, with an area of about 1500 acres. It is about 3¼ miles North to South and 1¼ mile East to West, and extends about 1¼ mile into the town of Douglas, MA. The West side is mostly forested wetlands, with institutional and low to moderate density residential development on the East side.

Sample Summary (for the previous five years)

- ▲ A violation for total coliform was issued. Re-sampling revealed that the problem had been corrected.
- ▲ Nitrate levels have been consistently low.
- ▲ There were two violations of the total trihalomethanes standard. A violation indicates that the sample exceeded the amount deemed acceptable by the US EPA. For more information, contact the water system.

This report summarizes assessment results for this water system. The assessment identifies both known and potential sources of pollution occurring in the source protection area, and ranks the water source based on the likelihood of future contamination. The goal of this study is to help water suppliers, local officials, residents and consumers to learn more about source water protection. Because water quality is directly related to land use activities, everyone living or working in the source protection area has a role to play in keeping local water supplies safe.



Susceptibility To Contamination		
Low	√ Moderate	High

Note: A ranking of **MODERATE** means that the water could become contaminated one day. Protection efforts are important to assure continued water quality.

POLLUTION RISKS:

- ▲ Wallum Lake is managed for recreation on the Massachusetts side of the state border.
- ▲ Several roads are located near the source, increasing the risk of hazardous material spills and contamination by road salt.
- ▲ There are underground storage tanks on the hospital property.

PROTECTION OPPORTUNITIES:

- ▲ The majority of the source protection area consists of undeveloped forestland.
- ▲ The towns can implement land use controls and programs to protect this source protection area from future high-intensity development.
- ▲ Best management practices can be used by the hospital in using, storing and disposing of potential contaminants.
- ▲ Residents can follow the guidelines on the back to reduce the impact of common household contaminants.

Source Water

The focus of these assessments is on public drinking water supply "source" areas—the *wellhead protection area* that recharges a well or the *watershed* that drains to a surface water reservoir. Source water is untreated water from streams, lakes, reservoirs, or underground aquifers that is used to supply drinking water.

Source Water Assessments were conducted by the R.I. Department of Health in collaboration with the University of Rhode Island Cooperative Extension (URI CE) under the Rhode Island Source Water Assessment Program. This is part of a national initiative, established under the 1996 Amendments to the Federal Safe Drinking Water Act (SDWA), to foster more comprehensive protection of drinking water supplies at the local, state, and national levels.

Table 1. High-intensity land uses identified within the source water protection area that have the potential to contaminate drinking water.

Land Use Category	Associated Contaminants[1]	% of Protection Area
% Residential	Nutrients, Pathogens, VOCs, SOCs	22.5%
% Commercial, Industrial, Institutional	VOCs, SOCs, Solvents, Inorganics	0.5%
% Intensive Agriculture	Nutrients, Pathogens, VOCs, SOCs	1.5%

[1]Potential contaminants include nutrients (nitrates and phosphorus from fertilizers and human and animal waste); pathogens (bacteria, viruses, and other microorganisms that can cause disease); volatile organic compounds (VOCs) found in fuels and solvents; synthetic organic compounds (SOCs), such as pesticides and plastics; and inorganics, including metals and other substances that can harm human health in high concentrations.

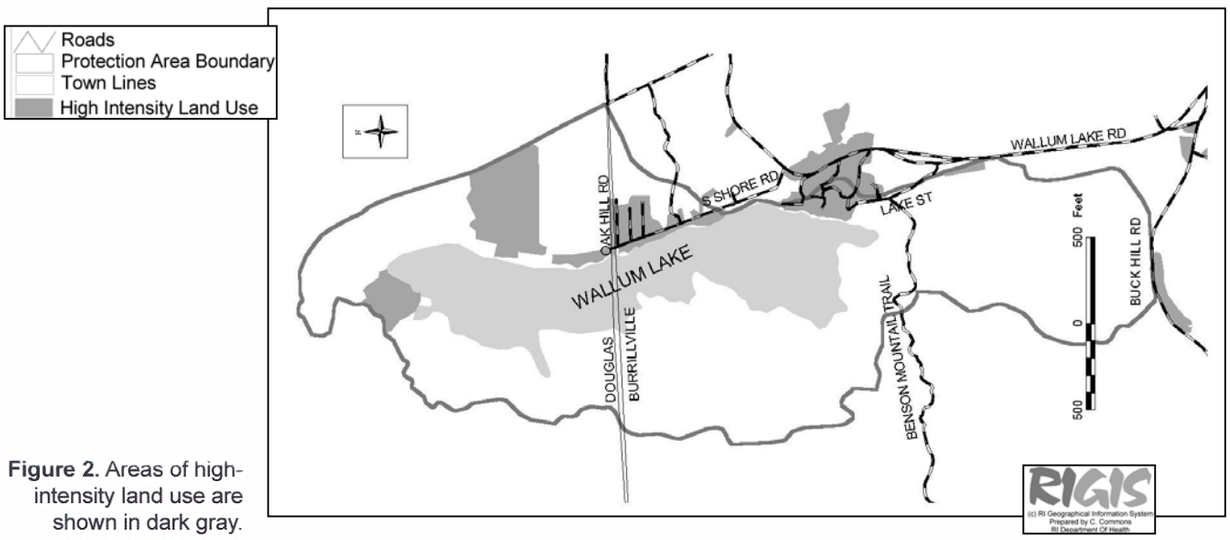


Figure 2. Areas of high-intensity land use are shown in dark gray.

What You Can Do To Protect Water Quality

Public Water Suppliers:

- Implement all recommendations in the latest Sanitary Survey.
- Protect undeveloped land within the wellhead or watershed protection area. Work with municipal boards and government as needed to implement land use protection measures and education programs.
- Post signs alerting public to Wellhead or Watershed Protection Area.
- Inspect water supply and protection area regularly for potential pollution sources.

Municipal Boards and Government:

- Develop a groundwater protection plan and ordinance and supporting protective zoning regulations, such as limits of paved surface areas within new developments.
- Incorporate groundwater and source water protection goals into the Comprehensive Plan.
- Implement on-site wastewater management or sewer maintenance plans and ordinances.
- Develop programs for land acquisition, conservation easements, or other critical lands protection.
- Adopt a stormwater management plan and ordinance.
- Establish a community education and outreach program that promotes residential pollution prevention and best management practices for the Public Works Department.

Residents:

- Inspect septic systems annually and pump as needed.
- Replace/repair cesspools and failing septic systems.
- Reduce fertilizer and pesticide use.
- Reduce stormwater runoff by limiting paved surface areas and maintaining good vegetative cover.
- Pick up after your pets.
- Properly use, store, and dispose of hazardous products.
- Properly maintain motor vehicles and fuel storage tanks. Consider replacing underground storage tanks with properly contained above-ground tanks.
- Check all municipal laws that may apply.

Farmers and Landowners: *Develop conservation plans on agricultural and forest lands that:*

- Reduce soil erosion, sediment, and stormwater runoff.
- Address proper nutrient, manure, pest, and irrigation water management.
- Address proper fuel storage and equipment maintenance.
- Conserve water, improve soil health, and protect surrounding natural resources.
- Check all federal and state laws that apply.

Commercial and Industrial Businesses:

Adhere to all laws, regulations, and recommended practices for:

- Hazardous waste management
- Above- and underground storage tanks
- Wastewater discharge
- Floor drains
- Proper training for all employees

For More Information

R.I. Department of Health, Office of Drinking Water Quality,
(401) 222-6867, www.healthri.org/environment/dwq/Home.htm
URI CE Home*A*Syst Program (401) 874-5398, www.uri.edu/ce/wq
URI CE Nonpoint Education for Municipal Officials (401) 874-2138, www.uri.edu/ce/wq
Local Municipal Boards and Government, contact town/city hall
R.I. DEM Office of Water Resources (401) 222-4700, www.state.ri.us/DEM/programs/benviron/water/index.htm.
USDA Natural Resources Conservation Service and Conservation District Offices,
(401) 828-1300, www.ri.nrcs.usda.gov

UNIVERSITY OF Rhode Island

Report templates produced by Rhode Island Sea Grant (2003).