

Groundwater Resources and You!

Thursday, March 6th at 7pm at the
Community Development Department

Pierce Rigrod, Environmental Analyst
Source Protection Program
Drinking Water & Groundwater Bur.
NH Dept. of Environmental Services
(603) 271-0688

Why is water important?

“It supports and is vital to a healthy environment, individuals, communities and the state economy. In short, New Hampshire lives on water. (NH Lives on Water, 2012, Governor’s Sustainability Commission)

“Water is our most valuable natural asset, and if we manage it well, our water offers New Hampshire a competitive advantage. “

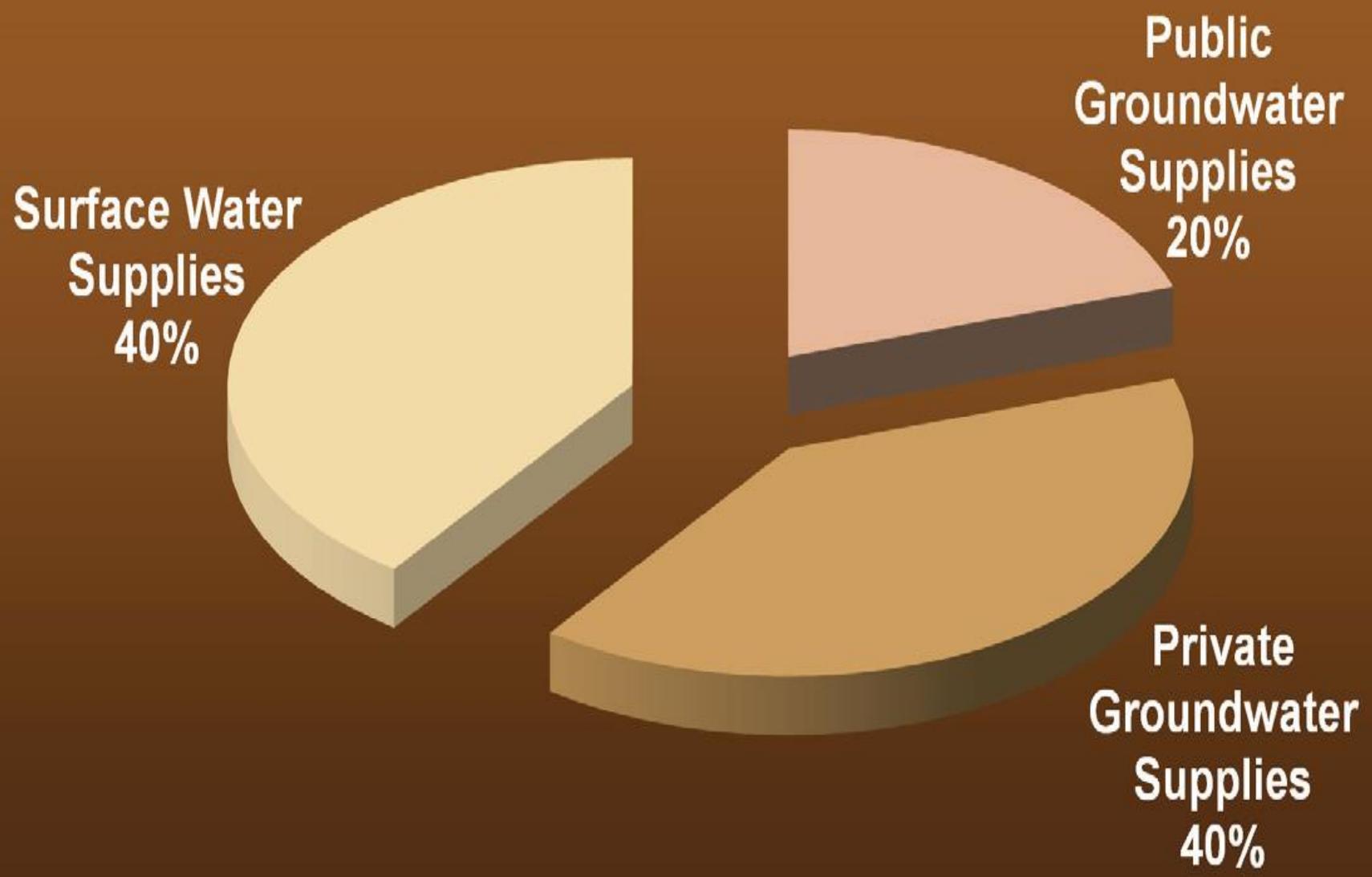


December
2012

New Hampshire
Water Sustainability Commission -
Final Report

Established by Executive Order 2011-02
By Governor John H. Lynch

Sources of Drinking Water in New Hampshire



Origins(?) of Source Water Protection

SECRETARY'S REPORT.

PROTECTION OF WATER SUPPLIES.

Probably there is no subject pertaining to the health of a community more vital than that of securing a suitable water supply and protecting it from contamination.

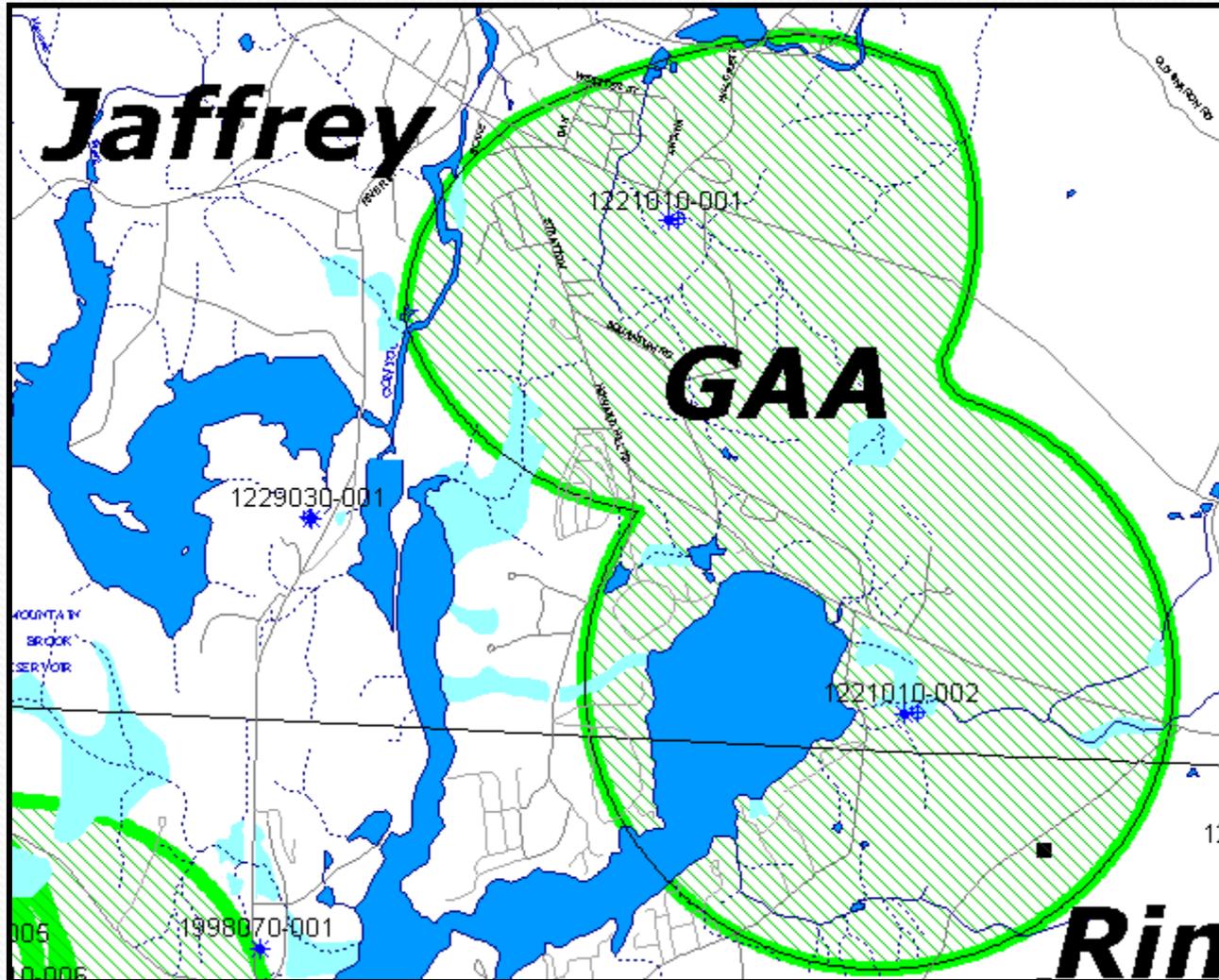
Extensive experiments and scientific investigation within a few years have revealed the dangers to human life that are liable to occur from the use of a polluted drinking-water. It is known from sad experience that a single case of typhoid fever may infect the water supply of a city to the extent of causing hundreds of cases of this disease. Outbreaks of typhoid fever have so frequently been traced to infected drinking-water that this is now regarded as the most prolific source of the disease. This has been the chief factor in promoting the introduction of public water supplies, not only in our cities, but also in many smaller communities of the state.

How the State of NH protects groundwater?

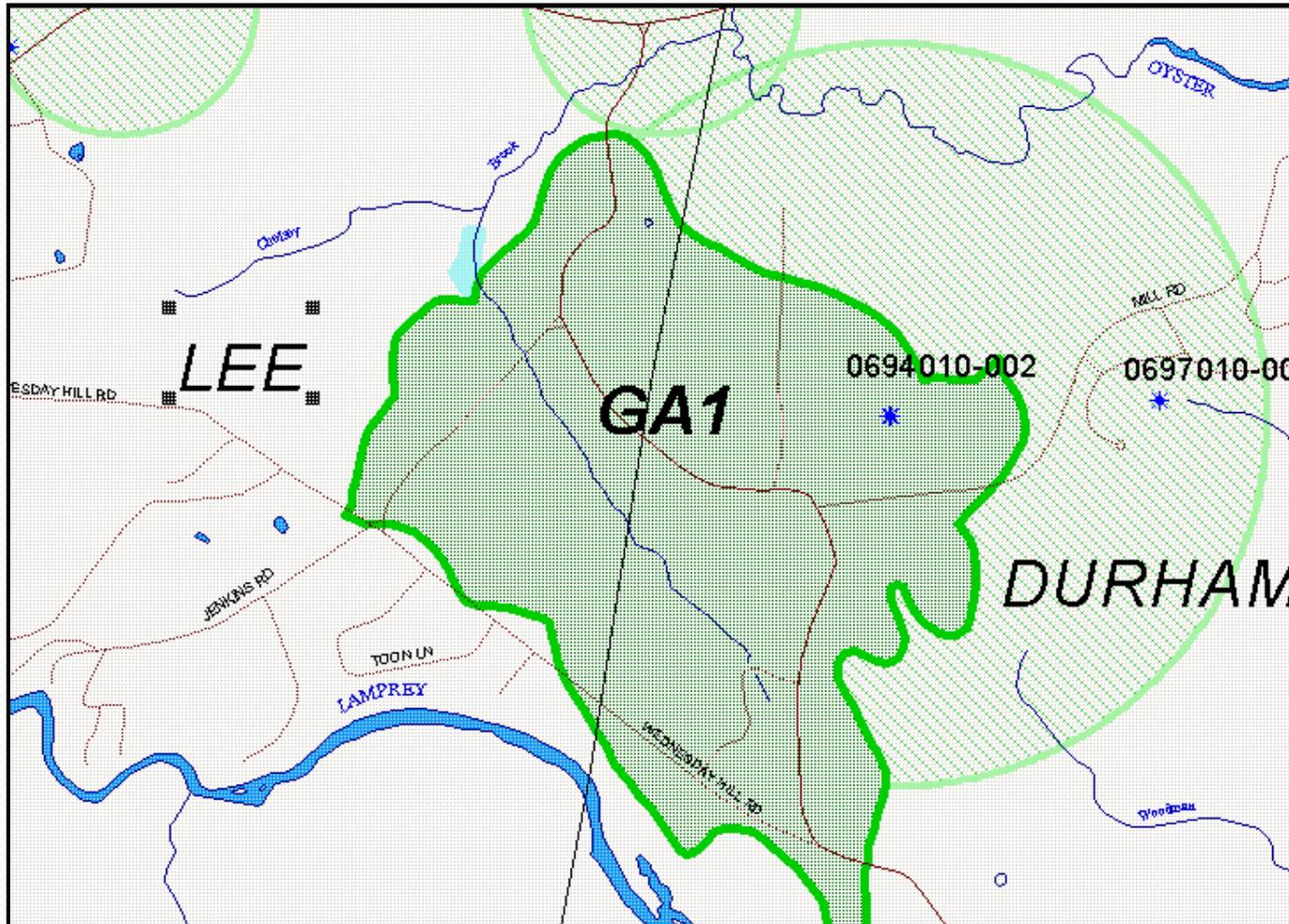
Approach to Groundwater Protection

- ✓ Identify the groundwater resource area(s) that contribute water to public water supply wells and high-value aquifers.
- ✓ Conserve the most sensitive areas immediately around public water supply wells.
- ✓ Prohibit high-risk activities through land use local controls within areas that contribute water to a drinking water supply.
- ✓ Manage land use activities to ensure they follow BMPs according to state rules, specifically Env-Wq 401, Best Management Practices for Groundwater Protection.
- ✓ Regularly notify PCSs of BMP requirements and build public awareness of the value of clean groundwater as a community resource.
- ✓ Institute water conservation and efficiency measures.
- ✓ Provide compelling public education for residents concerning the use of substances that could contaminate groundwater as well as management and disposal options.

Wellhead Protection Areas



Protect Aquifers (State Reclassification)



What can municipalities, homeowners and businesses can do to protect groundwater?

“Before dictating what a municipality should do to protect an aquifer, one would have to see what would work best with the city’s context, ordinances, education, or a combination of both.

Public Education

Annual NH Drinking Water Festival



Public Education: Distributing Flyers

- Distribute well testing flyer
- Host workshops on well testing
- Help us spread the word on a regular basis



Protect Your Family

Test Your Well's
Water Quality Today



A Guide to Water Quality
Testing for Private Wells
in New Hampshire



Proteja su Familia

Verifique la Pureza de su
Pozo Artesiano - Hoy!



*Guía para el análisis de la
calidad de agua de los pozos
artesianos o privados*

New Hampshire Department of
Environmental Services
y
US Environmental Protection Agency
Region 1, New England

Windham Private Well Test Results 2011-2013 (State Lab only)

	Arsenic (mg/L)	Uranium (ug/L)	Radon (pci/L)	total Coliform (P-A/100mL)
MCL or other standard	0.010	30	2000 (Recommended action level)	
total	36	30	16	56
detections	25	22	16	12
>MCL or other standard	7	0	12	12
hi	0.0755	28	5000	
avg	0.0122	3.95	3042	
>MCL or other standard (%)	19%	0%	75%	21%

Zoning Protection (.e.g., limit high-risk uses)



MODEL Groundwater Protection Ordinance

Revised April 2010



Adopt Regulations that Promote Clean Infiltration through Low Impact Development



11-04-2013: Southerly view of screened compost overlain by river stone.

Please notify Laconia DPW if any information is missing from this field report or has been interpreted differently

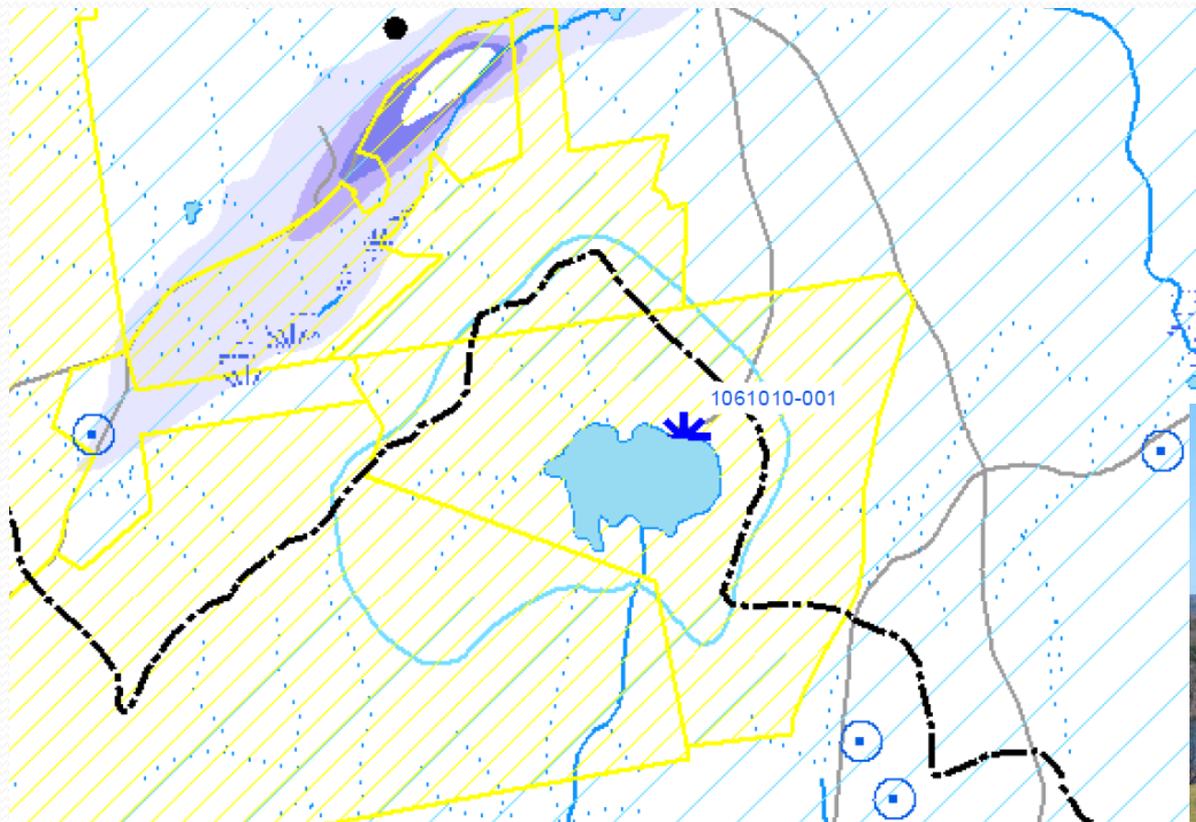
Management of Potential Contamination Sources

BMP inspections minimize the release of substances that may...

- ✓ Harm human health
- ✓ Contaminate groundwater
- ✓ Increase treatment cost & liability
- ✓ Result in loss of water supply (replacement cost)
- ✓ Lead to state or federal regulatory actions

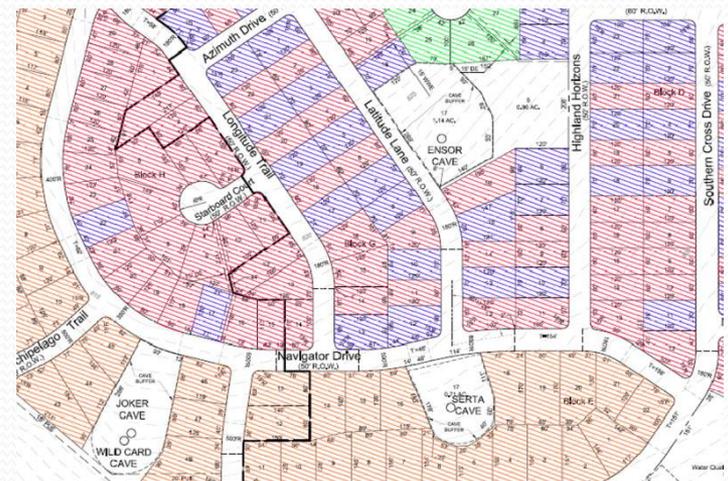


Promote Land Conservation Around Public Water Supply Sources



What about in the future?

- New development depends on available potable water
- Planners have the authority to coordinate development with extension of public services
- Land use regulations can profoundly improve plans and affect water demand and recharge



Plaistow Economic Development Committee

WATER AS A CRITICAL RESOURCE

- ◉ Stateline Plaza in Plaistow is connected to the City of Haverhill' municipal water and wastewater system.
- ◉ As part of the agreement, **NO** additional buildings may be connected and **NO** additional restaurants can occupy the current retail space.
- ◉ Remainder of Plaistow on private septic systems and private artesian water wells.
- ◉ *The lack of public water and wastewater systems significantly limits economic development and job creation.*
- ◉ *Lack of water and sewer has resulted in:*
 - *Limited commercial use of properties along Route 125 (uniformity)*
 - *Lack of diversity in commercial, retail, and economic investments*
 - *Staggering additional costs and risks associated with failed commercial septic systems*
- ◉ ***Investing in water/wastewater infrastructure is an important public health and economic development tool.***



Water Sustainability Commission's Vision Statement

New Hampshire's water is essential for the people and ecosystems that draw their life from it. The vision of this Commission is a renewed commitment and partnership between and among the state, its municipalities, its residents, its businesses, other stakeholders and the federal government. The purpose of this partnership is to collaborate on investments, management policies, practices and tools that ensure clean, plentiful and affordable water that meets both societal and ecological needs while protecting water for future generations.

Pierce Rigrod, Environmental Analyst
Source Protection Program
Drinking Water & Groundwater Bur.
NH Dept. of Environmental Services
(603) 271-0688

