Water: Too Much or Too Little? What you can do to protect & conserve

Alyson McCann, Water Quality Program Coordinator University of Rhode Island Cooperative Extension Dept. of Natural Resources Science 401.874.5398 alyson@uri.edu Riwelltesting.org

Presentation Topics

- Water Too Much, Too Little?
- Private Well Water Protection
- Septic System Maintenance
- Stormwater Runoff
- Water Conservation



Resources: Riclimatechange.org

Extension's Water Quality Program

- URI Home*A*Syst
- URI NEMO (Non-point Education for Municipal Officials)
- New England On-Site Wastewater Training Center
- URI Watershed Watch



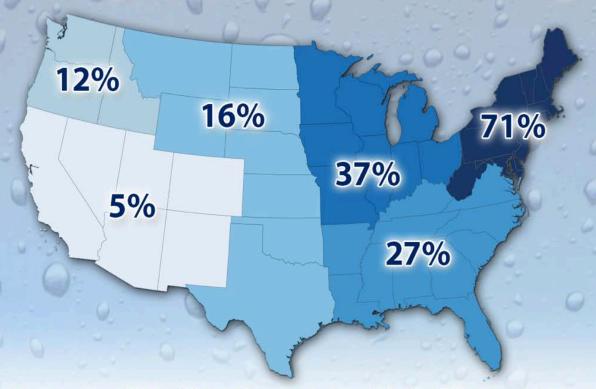
Resource: www.uri.edu/ce/wq

Background

- ✓ The Northeast has experienced greater increase in extreme precipitation events very wet and very dry
- ✓ Increase severity of storms & heat waves
- Droughts may be more intense
- ✓ Coastal & river flooding
- ✓ Public health, agriculture, transportation, communications & energy systems face climate change-related challenges

From NOAA Technical Report, 2013.

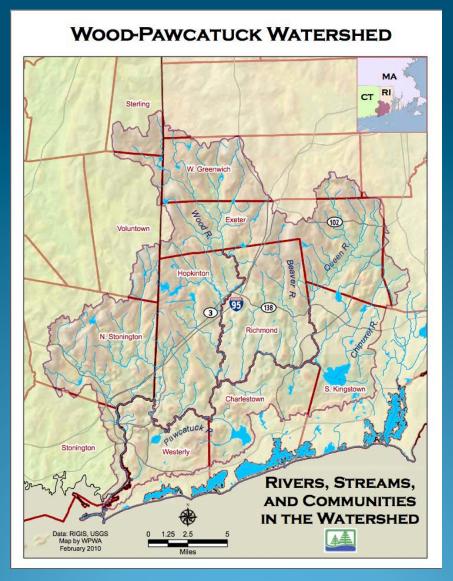
Heavy Downpours Increasing



Percent increase from 1958 to 2012 in the amount of precipitation falling in very heavy events. Very Heavy Precipitation is defined as the heaviest 1% of all daily events from 1958-2012.



A Watershed – rich in water resources



A Watershed – rich in water resources

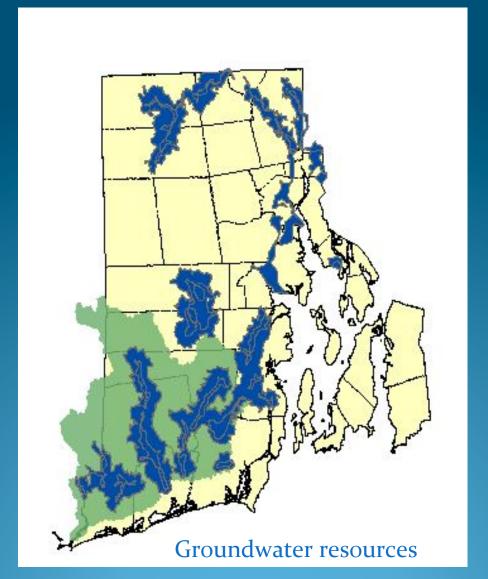




Photo credit: Laurel Street at Potter Hill Dam. Danielle R. Aube, 3_31_2010



Summary from 1st lecture

- Preserve & restore integrity of natural areas in the watershed
- Be prepared
- Get out of low-lying areas



Invest in Water Quality



Invest in Water Quality





Private Well Protection

- Regular Testing
- Proper maintenance, construction & siting



Resource: riwelltesting.org

Well Water Protection Learn:

- ✓ Where the well is located on your property.
- ✓ What is going on around the well.
- ✓ What type of well you have.
- ✓ What the water test results mean.



When to test



- ▼ Follow the Well Testing Schedule
- ✓ If the well flooded disinfect, then test
- ✓ If you notice a change in the taste, color, or smell

Resource: riwelltesting.org

Maintenance Issues

- ✓ Wellhead is at least 18" above the ground.
- ✓ Well cap is on tight and sealed.
- ✓ Well casing is grouted and water tight.
- ✓ Well is located away from potential pollution sources.
- ✓ Work on well should be done by a registered well driller/pump installer
- Keep stormwater runoff away from your well



Minimum Distances from Potential Sources of Pollution



Sewer Line

50 feet



Road Surface





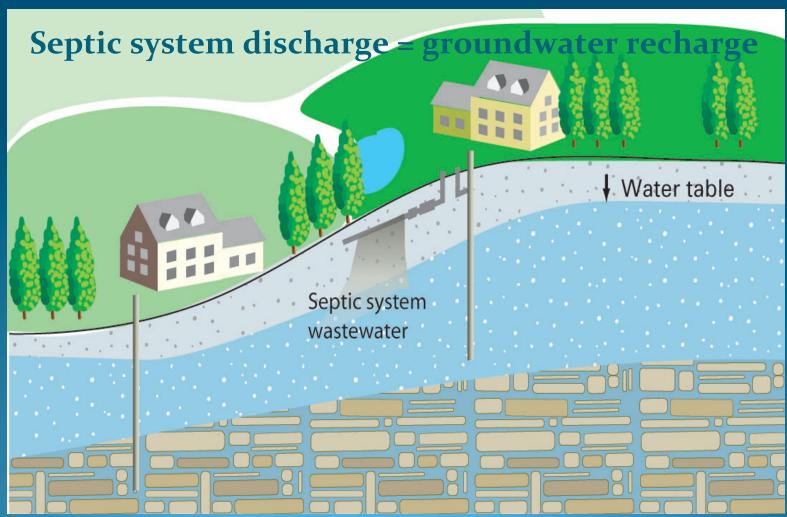


Septic System Drainfield



Animals

How can a septic system affect groundwater and well water quality?



Septic System Maintenance

- ✓ Have system inspected and pumped as needed
- ✓ Only household wastewater down the drain

Watershed Communities with Wastewater Management Program

- Charlestown
- Exeter
- Hopkinton
- North Kingstown
- Richmond
- South Kingstown



Resources: www.uri.edu/ce/wq/OWT/Factsheets

http://www.dem.ri.gov/programs/benviron/water/finance/non/pdfs/munisep.pdf

Stormwater Solutions

- ✓ Protects & conserves water resources
- ✓ Is your yard a sponge?



Rain barrel

Resource: ristormwatersolutions.org

Rain garden CE Outreach Center web.uri.edu/ceoc/

Water Conservation

- Saves Money
- Saves Energy
- Reduces Pollution
- Helps to Reduce Effects of Drought

Resource: riwelltesting.org

Outdoor Water Conservation

- ✓ Fescue to the Rescue
 - Requires less water, fertilizer & pesticides
 - ✓ Drought tolerant
- ✓ Mow high 2 to 3 inches
- ✓ Use a rain gauge 1" per week is rule of thumb
- ✓ Slow, deep waterings are best
- Use drought tolerant plants
- Mulch, add compost

Indoor Water Conservation

- Your turn what are your indoor water conservation practices?
- Check and fix leaks
- Install water conservation fixtures and appliances



Stay Involved / Get Involved

- Volunteer
 - Water Quality monitors are eyes & ears of the watershed
 - Data identify problems & high quality resources that afford protection
 - Connect with your community's stormwater program

✓ Support efforts to preserve and restore integrity of natural areas

in the watershed

- ✓ Invest in Water Quality
- ✓ Your Thoughts & Suggestions

Thank you!

