



A New Perspective: Improving the Environment from your Back Yard



Your Name

URI Master Gardener

University of Rhode Island Outreach Center

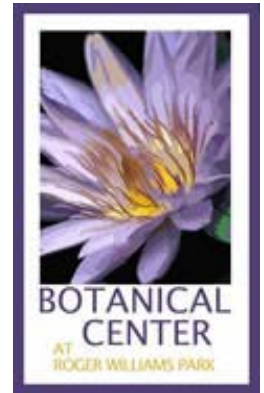
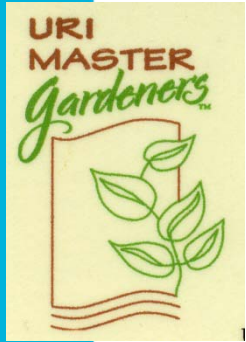


URI Outreach Center

College of the Environment and Life Sciences



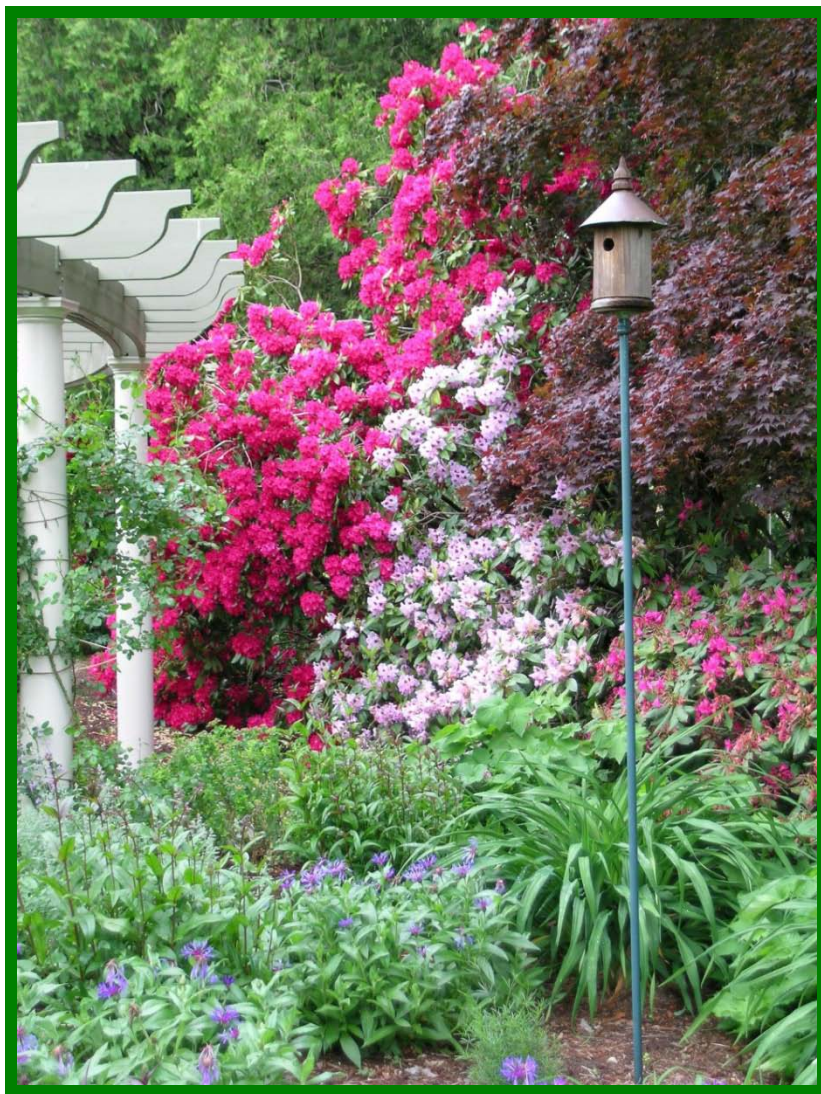
- Master Gardeners
- Sustainable Agriculture
- Master Composter/Recycler
- Coastal Landscapes
- Learning Landscape Youth Education
- RWP Botanical Center Outreach
- Plant Protection Clinic
- Gardening and Environmental Hotline
- URI Energy Center



www.uri.edu/cels/ceoc



Gardening is # 1 Hobby



- Americans love to garden
- Love to learn about gardens, plants and the environment
- Interest in gardening is only growing with the tough economic times

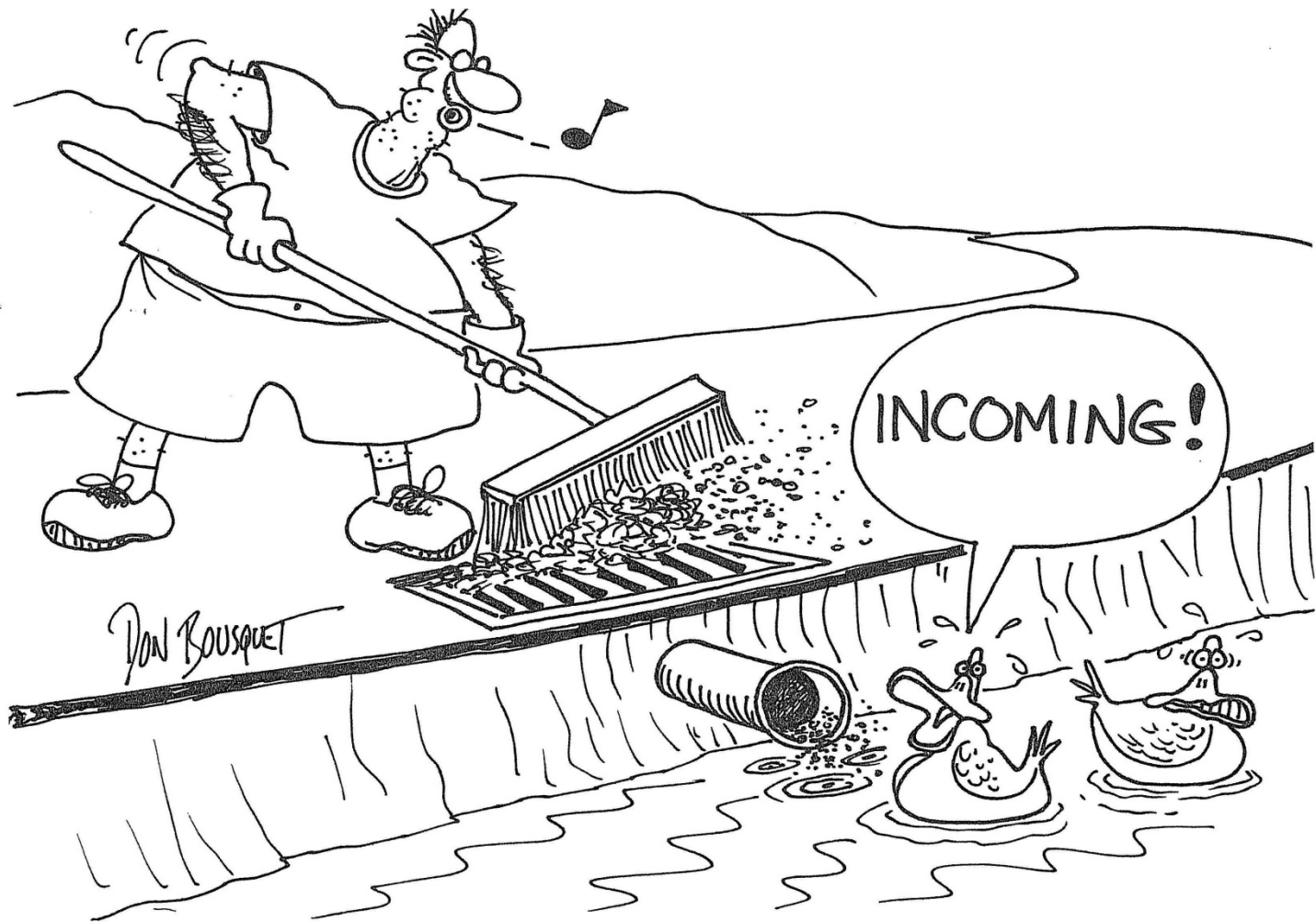
Residential Landscapes



Water resources are affected by our everyday activities



Stormwater Pollution



Potential Problems

- Fertilizers in runoff and groundwater
- Pesticides: potential environmental and human health problems
- Fishing and shell fishing closures
- Loss of biodiversity



Thousands of juvenile menhaden washed ashore during the 2003 Greenwich Bay fish kill.

know where
it goes

take simple
steps to reduce
STORMWATER POLLUTION

Ad Campaign



know where
it goes

take simple
steps to reduce
STORMWATER POLLUTION

The scariest thing to hit the water since
Uncle Jack showed up wearing one of these.

Dog poop, lawn chemicals, and nasty spills hitting our storm drains.
To know where it goes, visit www.ristormwatersolutions.org.



Produced by Ristormwater Solutions with support from
the National Department of Transportation and the
Florida Department of Environmental Protection





Rhode Island Stormwater Solutions

[Stormwater Basics](#)

[Take Action](#)

[Newsroom](#)

[Workshops & Events](#)

[Resources](#)

[About the Project](#)

[Home](#) | [Contact Us](#)

What's So Scary About Stormwater?

Dog poop, lawn chemicals, and nasty spills. These are only a few of the things that stormwater picks up and mixes with as it rushes over the pavement in our driveways, sidewalks, and streets. Storm drains rush all this polluted water directly to the nearest stream, pond, or bay. No filters. No treatment. So the pollutants that stormwater carries wind up in the water we drink, fish, and swim. And that's pretty scary. The good news is, there's a lot we can do to keep that water clean.

Simple Steps



Don't dump into stormdrains



Water wisely



Fertilize sparingly





The Top 10 Solutions

Yard Care

1. Never dump anything into the path of a stormdrain.
2. Sweep everything back onto the lawn.
3. Water wisely.
4. Divert rooftop runoff.
5. Reduce fertilizer and pesticide use.

Home Care

6. Never put hazardous household wastes down stormdrains, indoor drains, or the trash.
7. Have your septic system inspected regularly (every 3-5 years) and pumped as needed.

Auto Care

8. If you change your own motor oil, recycle the used oil.
9. Wash your vehicle at a designated car wash or on grass.

Pet Care

10. Scoop your dog's poop. Then throw it in the trash.

www.RIStormwaterSolutions.org

The Two to Live By



- Keep as much water as possible off of paved surfaces.
- Keep the water that does run off as clean as possible.

Lawn Care

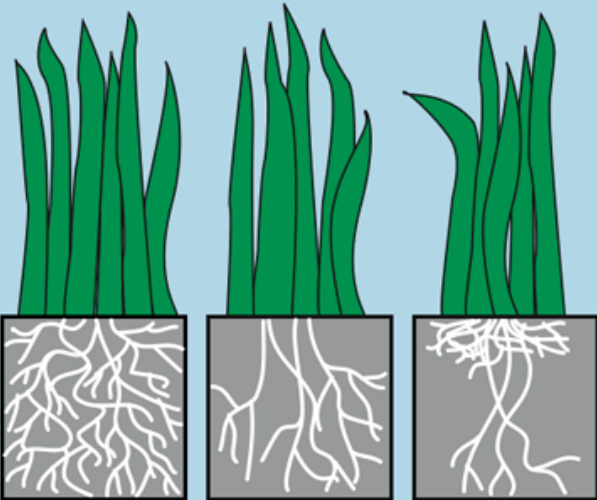
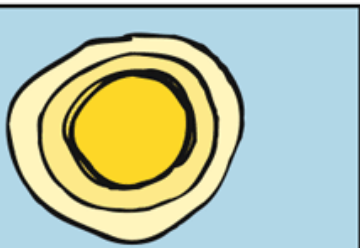
Shift your perspective:

- Your backyard is part of a larger ecosystem
- Everything you add to your lawn could end up in the water
- Allow your lawn to go dormant in the driest summer months



Water Wisely: Residential water use increases 40 - 50% during summer months.

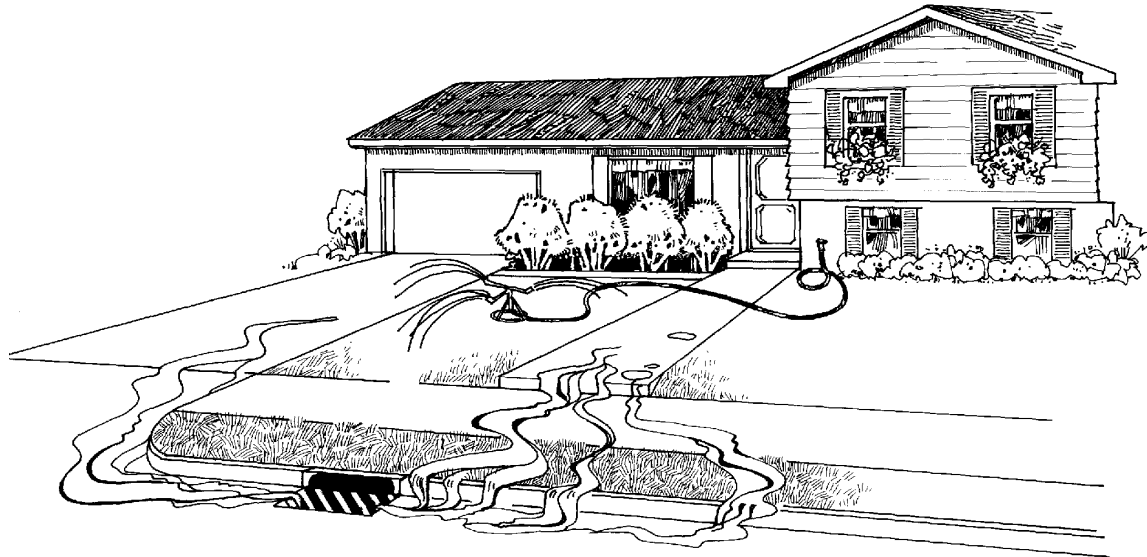
- 1 inch of water per week
- One long, slow watering each week is best.
- Do not water pavement and other non-vegetated areas.



Deep,
Infrequent

Deep,
frequent

Shallow,
frequent



Mow the Lawn at 3" or Higher



- Shades weeds
- Increases drought resistance
- Less stressful for grass



Leave Clippings on Lawn

- Supplies slow release nitrogen – reduces need for additional fertilization

Sweep everything off of hard surfaces

“Every Curb is a Shoreline”



Fertilizer Tips



- If lawn looks okay – don't fertilize!
- If you fertilize, SEPTEMBER is the BEST time.
- Use slow-release fertilizer.
- If you must fertilize in the spring, wait until you've mowed three times.

Use Low Input Grasses

Fescue to the rescue:

- Tolerates drought
- Fine fescues are shade tolerant

For natural pest resistance use ***Endophyte-enhanced lawn grasses*** (fescues and perennial ryegrass)

Consider clover

Legumes fix Nitrogen from the air and make it available to plants





Shoreline Buffers

- Keep shoreline edges naturally vegetated -- shaded, cool and oxygenated
- Filter pollutants, sediments and nutrients
- Discourage geese
- Provide valuable habitat corridors

Tip: Don't dump leaves and grass clippings in wetlands.



Minimize Your Lawn Area



Trees, shrubs, and groundcover absorb up to 14x more rainwater than a lawn

Go Native!

Native or sustainable plants use less water, fertilizer & pesticides.



Lawn converted to shade bed of
native and sustainable plants

Recycle Yard Waste



Keep waste out of our waterways and landfills.

- Use yard waste as mulch
- Compost it
- Use a mulching mower (leaving grass clippings on lawn can reduce fertilizer use by 50% or more)



Reduce Landscape Watering Needs



- Drought tolerant plants
- Use mulch
- Increase soil organic matter

- Create shaded areas



Water Conservation Tools



Rain barrels

www.rewaterlady.com



Soaker
hose



Drip
irrigation



Minimize Impervious Surfaces

Limit the amount of **impervious surfaces** (driveways, roof runoff, paved pathways, etc.) in your landscape.

Use **permeable paving surfaces** (Wood decks, Bricks, Concrete lattice, etc.) to allow water to soak into the ground

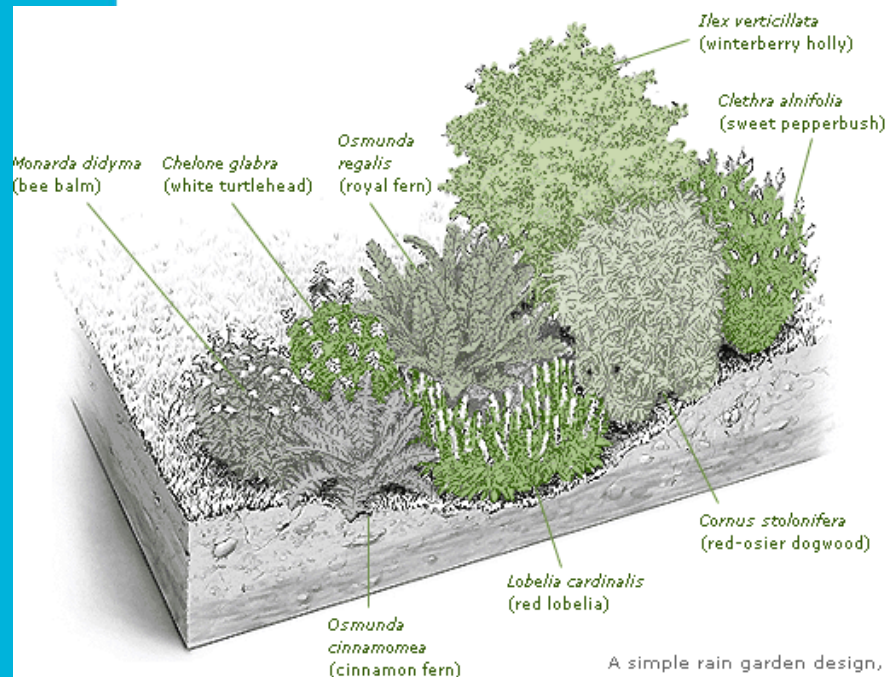
Direct runoff from impervious surfaces across and into **vegetated areas** (your gardens!)



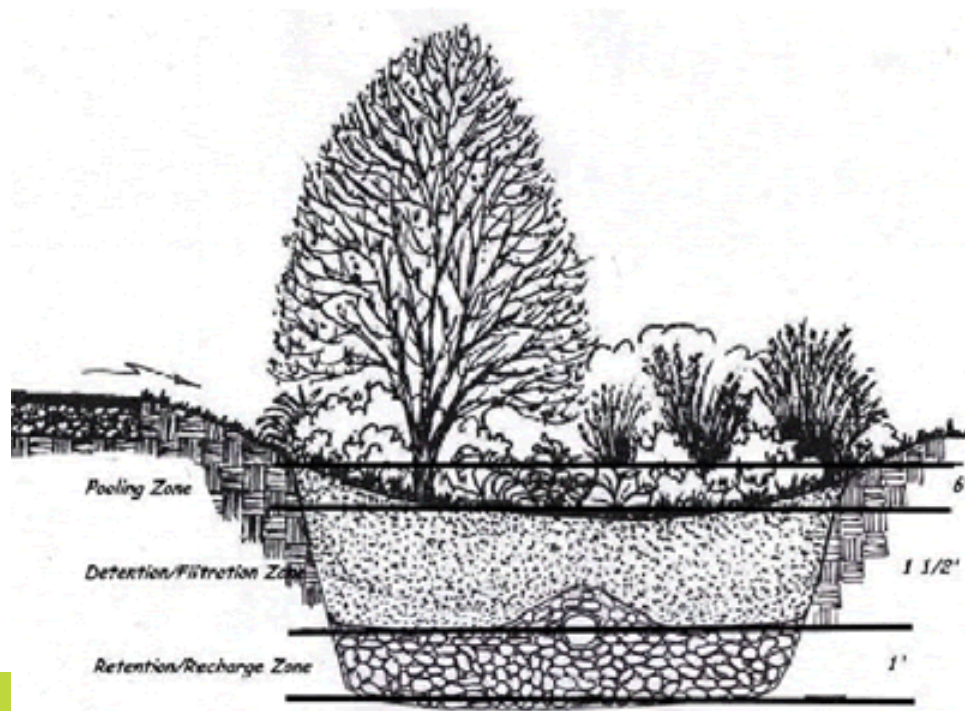
Build a Rain Garden



A natural or dug shallow depression designed to capture and soak up stormwater runoff from your roof or other impervious areas around your home like driveways, walkways, and even compacted lawn areas.



A simple rain garden design, with red lobelia and royal fern occupying the lowest, wettest zone.

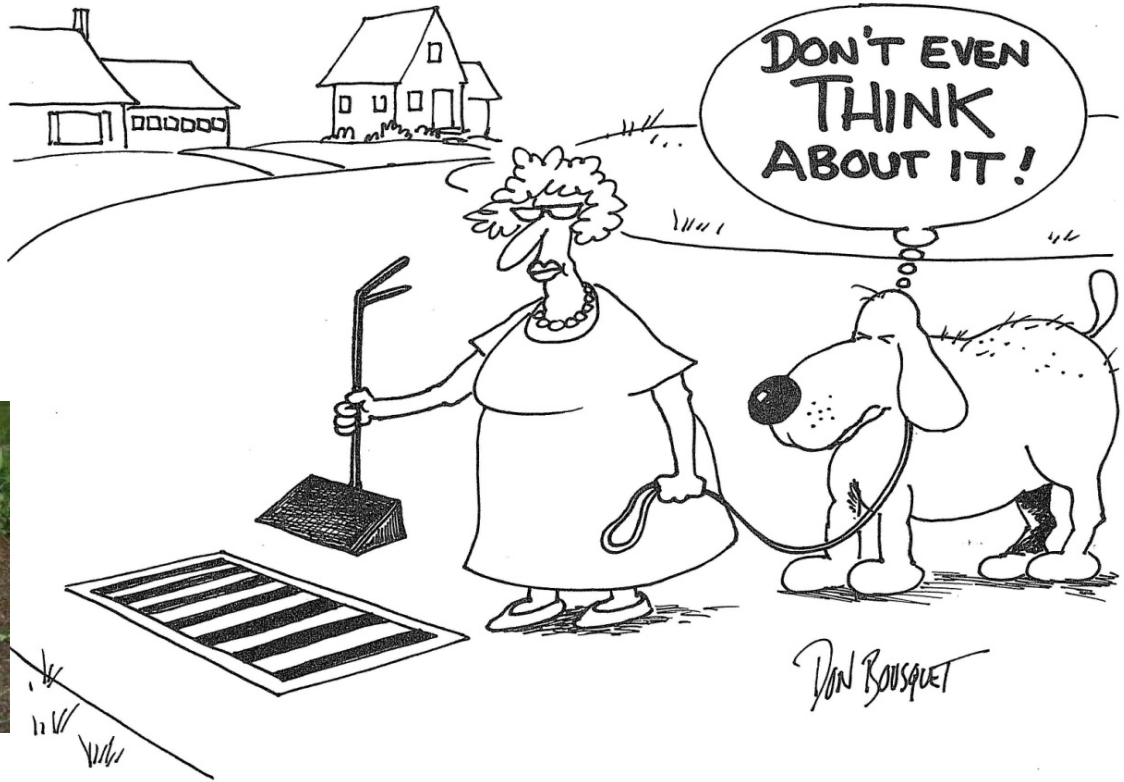


Go to the Car Wash



Pet Waste Management

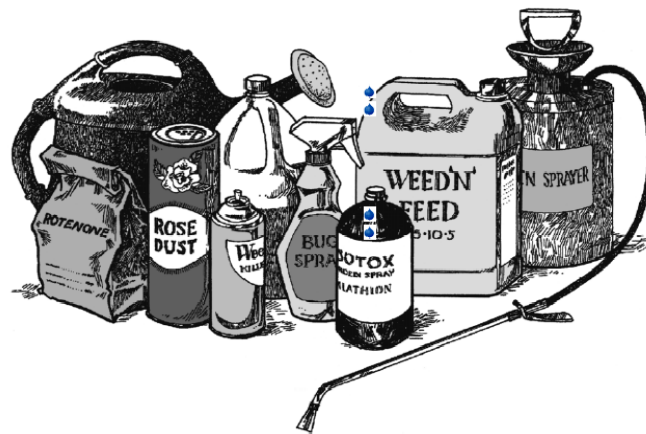
Pet waste is a potential source of nutrients and pathogens.



Do not locate animals or waste near wells, storm drains or surface waters.

Around the House

- Dispose of hazardous products by calling RI Eco-depot for disposal 942-1430 ext. 241
- Use safe substitutes – phosphate free, biodegradable



- Have your septic system inspected regularly and pumped every 3-5 years

Backyard Wildlife Habitat

- Think of your yard as part of a larger ecosystem
- RI's natural landscape is fragmented – using a variety of plants can increase biodiversity and create a habitat pocket for wildlife
- Identify and remove invasive species



Designing for Habitat

Layers!

- Trees
- Shrubs
- Herbaceous plants
- Groundcovers
- Leave the duff alone!

Plant species with food value

- Fruit or nut bearing plants
- Plants that produce flowers or seeds at different times of the year
- Flowering ornamentals (cherries, plums, crabapples) for insect-eating migrants that will attract pollinating insects
- Perennials for summer nectar and fall seeds



Additions for Wildlife Value

- Install **bird baths, feeders, & houses**
- Install **butterfly feeders**
- Install a **backyard pond**
- Place **rocks and boulders** (great hiding places!)
- Create a **brush pile**
- Leave **snags** (dead or decaying trees) standing!
- Plant **densely branched shrubs** to shelter nests from cats!





Pest management – help with identification & options

URI Plant Protection Clinic
(401) 874-2900

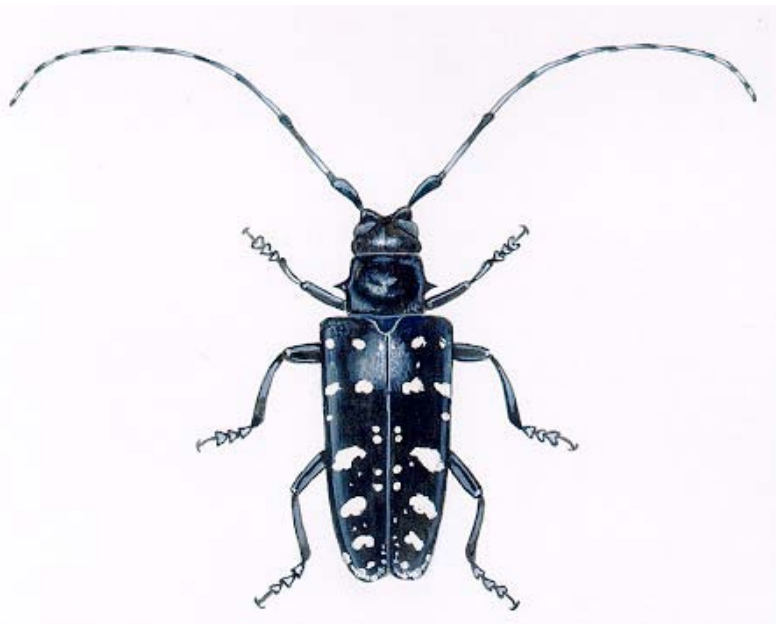
URI Master Gardener Hotline
1(800) 448-1011

URI GreenShare Factsheets – numerous
topics on insects, diseases, weeds
integrated pest management & household
pests

www.uri.edu/ce/factsheets/index.htm



Pest Alert: Asian Longhorned Beetle



If found call 1-866 -702-9938





What is Your City / Town Doing?

They must enact stormwater management programs that include:

- Educating citizens about stormwater impacts and solutions.
- Involving citizens in the stormwater program and activities.
- Detecting and eliminating illegal discharges to storm drains.
- Controlling soil erosion at construction sites.
- Updating ordinances to reduce runoff using new methods.
- Updating ordinances with new methods to reduce runoff.
- Preventing pollution on public property through landscape care, storm drain cleaning, and good housekeeping at public works garages.

Your Stormwater Manager: [Name, Municipality, Telephone]



Take-Home Messages

Two to live by

- Keep as much water as possible off of paved surfaces.
- Keep the water that does run off as clean as possible.

Follow the Top 10 Solutions

Simple steps in your backyard can make big difference in our environment.

Support your local stormwater program

- Vote yes on stormwater program budgets,
- Speak out in favor of ordinances to reduce runoff,
- Get involved!

Thank You!

www.RIStormwaterSolutions.org

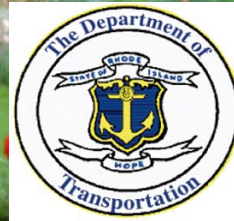
www.uri.edu/cels/ceoc

Vanessa Venturini, Education and Outreach Specialist

URI Outreach Center

VVenturini@mail.uri.edu

(401) 874-7142



This presentation was developed by the URI Outreach Center, as a partner in RI Stormwater Solutions.

Funding was provided by the RI Department of Transportation and the RI Department of Environmental Management, under the Storm Water Phase II Education and Outreach Program.