

# Be A Wetlands Investigator

Place a check next to what you find on your property.

- Native Plants:**
- Skunk Cabbage
  - Sweet Pepper Bush
  - Highbush Blueberry
  - Sphagnum Moss
  - Royal Fern
  - Red Maple
  - Joe Pye-Weed
  - Black Gum Tree

- Invasive Plants:**
- Phragmites
  - Purple Loosestrife

- Animals:**
- Spotted Salamanders
  - Frogs
  - Turtles
  - Dragonflies
  - Red-winged Blackbirds
  - Great Blue Herons
  - Ducks
  - Tree Swallows
  - Geese

- Soils:**
- Black soil over grey soil
  - Brown soil over yellow

- Sounds:**
- Spring peepers
  - Ducks
  - Geese

- My Property Deed shows wetlands:**
- Yes
  - No

- Website research:**
- go to [www.dem.ri.gov/maps](http://www.dem.ri.gov/maps)
- Wetlands are mapped in my community.
  - Wetlands are NOT mapped near me.

- Wetland Buffer Zone:**
- Buffer Zone has been left in natural condition to help protect wetland function & values.
  - Buffer Zone has been altered and does not support my wetland ecosystem.

## What are wetlands?

In broad terms, wetlands are simply lands that are wet. They have water at or near the surface of the ground for a portion of the growing season. Some wetlands are only wet for part of the year and others are continually wet.

Many wetlands serve as the important transitional areas between dry lands and deeper aquatic systems, like rivers and lakes; others may be isolated within upland areas. Swamps, marshes, and bogs are some of the most commonly known wetland types.

Wetlands are highly productive, unique ecosystems that support the streams flowing on or near your property, which lead to rivers that lead to Narragansett Bay.



Forested Wetland (Palustrine)  
Photo by Shawna Holdredge, RI DEM

You can find wetlands in forests, you can find wetlands along coastal shorelines and salt marshes, and you can find wetlands bordering streams, rivers and lakes. You can even find wetlands in your own backyard.

Wetlands support both terrestrial and aquatic species of plants and animals. Wetlands are highly productive, unique ecosystems that support the streams flowing on or near your property, which flow to rivers that flow to Narragansett Bay. These ecosystems are important to the sustainability and health of your community, as well as your environment.



Wooded Swamp (Palustrine Wetland)  
Photo by Shawna Holdredge, RI DEM

## How do I affect wetlands?

Human activities have destroyed over half of all U.S. wetlands. Historically, wetlands were viewed as mosquito-infested wastelands. They were drained for agricultural use, filled for housing developments and industrial complexes, or used as dumping sites for household and hazardous wastes.

Presently swing sets, sandboxes, gardens and sheds tend to damage wetlands located on private properties. Homeowners may be unaware that their home is near, or that their property includes, wetland areas. Property owners may then unknowingly proceed to clear trees, plant gardens, add sheds, install pools or patios, etc. This encroaches on wetland areas and affects their functioning.

Although small encroachments on your property may seem insignificant, the cumulative impact resulting from your actions and the actions of your neighbors can be detrimental.



Forested Wetlands are the most common type of wetland found in New England.

Above: Forested Wetland (Palustrine)  
Photo by Kate Bousquet, NRICD

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Printed with non-toxic ink, on 100% post-consumer content recycled paper.

# Are Wetlands in YOUR Backyard?



Riparian Wetland  
Photo by Shawna Holdredge, RI DEM

## Protecting YOUR Water Resources

Northern RI Conservation District  
17 Smith Avenue  
Greenville, RI 02828  
(401) 949-1480  
[www.nricd.org](http://www.nricd.org)



# The Value of your Wetlands



Vernal Pool  
Photos by Shawna Holdredge, RI DEM



Lake-Associated Wetland (Lacustrine)  
Johnson's Pond



Forested Wetland (Palustrine)

Wetlands perform critical functions that directly impact the quality of life that you enjoy. Most wetlands help with:

## Flooding & Water Purification

Wetlands often help reduce flooding. They may temporarily store flood water and slowly release it, *preventing flooding of your property--often your basement*. Wetland plants (grasses, herbaceous plants, shrubs, & trees) are specially adapted to stressful conditions and serve to slow storm water; ultimately protecting adjacent and downstream properties from flood damage by diffusing large storm flows and slowing the momentum of the rushing water.

Wetland soils that are largely characterized by organics create an environment that can retain large volumes of water. Wetlands may slowly release excess water into groundwater systems below or pass it into nearby streams.

## Erosion Control & Sediment Trapping

Wetland vegetation slows storm water flow rates, settling excessive sediments loaded with pollutants from the land (nonpoint source pollution) and preventing soil erosion from your property. "Studies have shown that as much as 80-90% of sediments in the water column may be removed as they move through wetlands" ([www.epa.gov/NE/students/teacher/world.html](http://www.epa.gov/NE/students/teacher/world.html)).

Sediment poses a significant threat to water--both

drinking water resources and non-drinking sources, including streams and lakes. Sediments can fill in water bodies, smothering fish spawning areas and bottom-dwelling aquatic life. Sediments are prime candidates for transporting pollutants from our homes and communities.

It is important to note that, although vegetated wetlands have a limited capacity for storing sediment, it is not beneficial for them to do so. Storing sediment reduces the wetland's ability to slow or amass flood waters or to provide habitat.

## Providing Habitat

Wetlands provide food, shelter, nesting areas and escape cover for a variety of mammals, amphibians, reptiles and birds. Some species simply would cease to exist without wetlands, which are one of the most biologically fertile and diverse landscapes on Earth. Amphibians may spend most of their lives in uplands, but they depend on wetlands for breeding. Vernal pools, a type of seasonal wetland, provide this safe breeding area that is void of predator fish.

According to RI DEM, many rare and native plant and animals of RI depend on wetlands for survival. Examples include the yellow lady slipper, American



Spotted Salamanders live in moist woodlands, but require access to vernal pools for breeding.  
Photo: wikipedia.com

bittern, and leopard frog. The US EPA reports that up to 45% of rare and endangered plant or animal species rely to some extent on wetlands.

## Human Enjoyment

Hunting and fishing remain sports that are dependent on wetlands. You can also enjoy hiking, bird watching, and photography in wetland areas. Frogs, turtles and interesting insects can tantalize the curiosity of your children. You can enjoy kayaking and canoeing in open waters abutting wetlands. Wetlands simply provide an escape from the stress and demands of everyday life.



Leopard Frog populations have recently declined due to pollution and deforestation.  
Photo: wikipedia.com

## What can I do?

To preserve and improve YOUR wetlands:

- Find out if you have wetlands on your property and in your watershed community. *You can begin by using the **Wetlands Investigator** section at the right.*
- Learn about the types of plants in your wetland.
- Plant only native species on your property.
- Consider planting or expanding a vegetated wetland buffer zone. ([www.dem.ri.gov/programs/benviron/water/wetlands/pdfs/wfs10.pdf](http://www.dem.ri.gov/programs/benviron/water/wetlands/pdfs/wfs10.pdf))
- Do NOT "clean up" wetland areas. Woody debris & leaves provide food and habitat for wildlife and promote a healthy wetland ecosystem.
- Reduce your nonpoint sources of pollution:
  - reduce usage of chemical pesticides and fertilizers
  - properly dispose of household chemicals and motor oil
  - clean up and dispose of pet and animal waste
  - properly maintain your septic system

([www.nricd.org/landwaterconnection/index.htm](http://www.nricd.org/landwaterconnection/index.htm) for full list.)

## **Wetlands Investigator: Does my property contain or abut a wetland?**

According to RI DEM, "if water ponds or flows across your property or if there are areas on your property where your feet get wet, particularly in the spring, you may have wetlands. If areas of your property are dominated by common wetland trees and shrubs, or by certain ferns or mosses, you may have wetlands". [www.dem.ri.gov/programs/benviron/water/wetlands/pdfs/wfs01.pdf](http://www.dem.ri.gov/programs/benviron/water/wetlands/pdfs/wfs01.pdf)

There are many clues that will help you determine if there is a wetland on or abutting your property:

 **Plants:** Skunk Cabbage, Royal Fern, Sweet Pepper Bush, Red Maple, Highbush Blueberry, Joe Pye-Weed, Sphagnum Moss, Black Gum Tree or the invasive plants Phragmites and Purple Loosestrife.

 **Animals:** Spotted Salamanders, Great Blue Herons, Frogs, Ducks, Turtles, Tree Swallows, Dragonflies, Red-winged Blackbirds, Geese.

 **Soils:** Black soil over grey soil is an indication of a wetland, while brown soil over yellow is more typical of uplands. Iron leaches out of wetlands soil, changing its color. Brown and yellow soils mixed with grey may also be found in wetlands.

 **Sounds:** Spring peepers, Ducks, Geese

 **Property Deed:** Check for disclosure of known wetlands on your deed from when you purchased the land or home.

 **Website research:** go to [www.dem.ri.gov/maps](http://www.dem.ri.gov/maps) and choose Environmental Resource Map. Click on the *soils* folder and then check off *hydric soils*. In the *surface water features* folder, check off *wetland*. These maps will give you a general idea of some wetlands in your community.

**Official ways** to locate/identify your wetlands:  
**1.** Submit a *Request to Determine the Presence of Wetlands* application to RI DEM.  
**2.** Hire a private wetlands consultant to assess your property.