



A CITIZEN'S GUIDE TO PROTECTING SANDOWN'S WETLANDS AND WATER RESOURCES

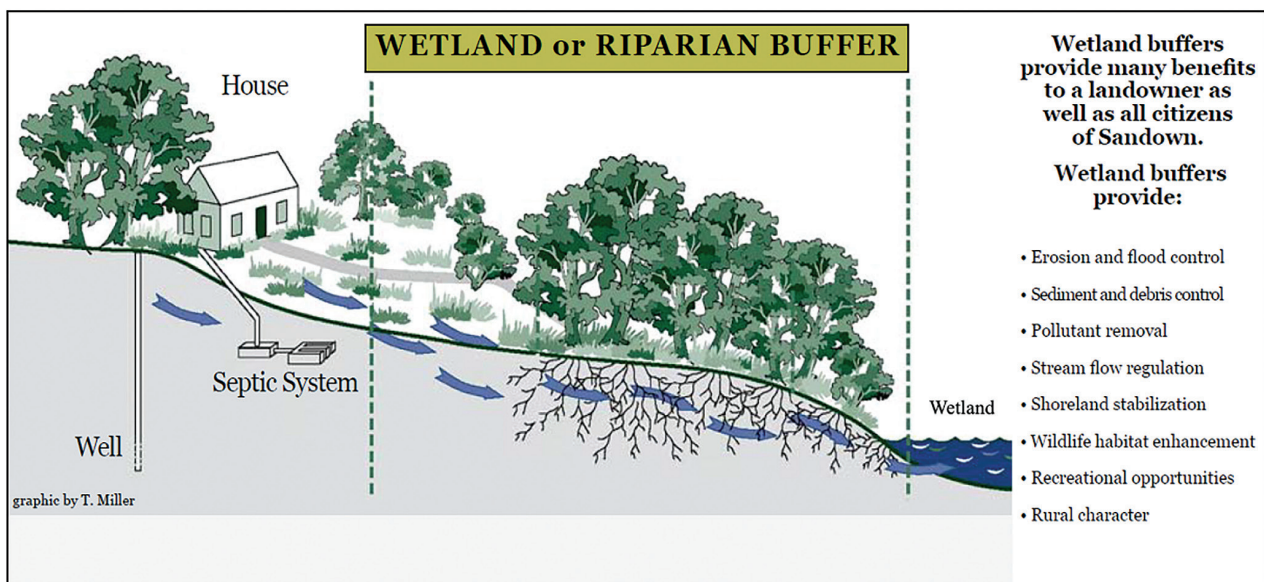
SANDOWN CONSERVATION COMMISSION | 2024

Did you know the Town of Sandown has been working on updating the town's wetland regulations?

This has been a joint effort over the past year between Sandown's Conservation Commission and Planning Board. The Town of Sandown was awarded a grant from the Piscataqua Region Estuaries Partnership, with the Rockingham Planning Commission providing technical assistance to help with this effort. The Conservation Commission and Planning Board had four joint work sessions and held three public hearings to gather feedback from the residents of Sandown. After hearing from the public, edits were made to the proposed regulations including a decrease in buffer zone setbacks from 100 feet to 50 feet from critical wetlands and from 75 feet to 50 feet from non-critical wetlands. The proposed ordinance can be found under Town Election Information at Sandown.us

You may be asking why update the current regulations? Sandown's current regulations date back to 1984. The proposed regulations are based on updated science, will include rules for topics currently not included, will include definitions, and will make the regulations more straightforward and easier to understand. In conjunction, Sandown has completed an updated map to identify current critical wetlands. This map can be found on the town's website at Sandown.us

Why protect the wetlands? Wetlands are an important feature in our community and provide numerous benefits for people and for fish and wildlife. Wetlands improve water quality (especially important since Sandown uses private wells), wetlands help minimize flooding, wetlands can recharge drinking water sources, wetlands are home to a diverse range of wildlife and plants, and wetlands can be used for recreation such as fishing, bird watching, and hunting.



What are wetlands?

Wetlands are unique environments where water, land, and air meet, creating rich ecosystems that support a diverse range of plant and animal life.

How do wetlands work and why are they important?

Wetlands function as natural sponges that trap and slowly release surface water, rain, snowmelt, groundwater, and flood waters. Trees, root mats and other wetland vegetation also slow the speed of flood waters and distribute them more slowly over the floodplain. Wetlands also act as natural water filters. When water flows through a wetland, the wetland works to absorb pollutants and excess nutrients, improving the quality of the water. Furthermore, wetlands are significant carbon sinks, meaning they absorb more carbon dioxide than they release, which helps combat climate change.

In New Hampshire, wetlands are important for flood control, water quality, water storage and recharge for both groundwater and surface waters. These resources are even more critical with the expected increase in frequency and severity of storm events associated with climate change. Wetlands also support the food chain, providing food and habitat for a variety of aquatic and upland plants and wildlife.

How do I know if my property has a wetland?

To determine if there is a wetland on your property, look for certain indicators such as the presence of water-loving plants, evidence of regular flooding or saturated soil, and a variety of wildlife species. Wetlands can be seasonal, so these indicators may change throughout the year. To determine if your property has a wetland, you can look at the Critical Wetlands Map and the NWI (National Wetlands Inventory) on the town's website (Sandown.us)

What can Sandown do to protect wetland areas?

In Sandown, homeowners can play a vital role in preserving and protecting wetlands. There are several actions they can take to ensure they're not causing harm to these critical ecosystems:

1. **Maintain a buffer of native plants around wetland areas on their property:** These natural buffers are essential in protecting the wetland from runoff, which can contain harmful pollutants. Native plants are particularly effective in this role, as they are well-adapted to local conditions and can provide a habitat for local wildlife.
2. **Avoid the use of harmful chemicals and fertilizers that can run off into wetlands:** Many common household products, such as pesticides, herbicides, and fertilizers, can be harmful to wetlands. Instead, consider using organic or natural alternatives, and always use these products responsibly.
3. **Do not dump trash or other waste materials into wetlands or their buffer areas:** Waste can be harmful to the delicate balance of a wetland ecosystem. It's important to dispose of all waste responsibly, and never in or around a wetland.
4. **Educate themselves and others about the importance of wetlands and how to protect them:** Knowledge is a powerful tool in conservation. By learning about the vital role wetlands play and the threats they face, homeowners can make more informed decisions. They can also spread this knowledge to others, increasing the impact.

5. **No cut zone – Keep your buffer mower and chainsaw free:** Plants by a wetland or stream are crucial for the health and your property's protection. Avoid cutting trees near the wetland/ stream or mowing too close. Though it may take time to get used to a more natural view, not cutting is an investment in the long-term well-being of the wetland and your property. Cutting down trees removes essential root systems that keep the banks of the wetland stable, making them prone to erosion and collapse. It also eliminates natural filters, allowing stormwater to flow freely into the wetland, which is harmful to the local ecosystem.
6. **Go Native:** The N.H. State Nursery (nh.gov/nhnursery) offers a variety of native trees and shrubs that are good for planting in your area. Among these species are dogwoods, elderberry, shadbush, willows, box elder, cottonwood, white pine, sumac, viburnums, cherry, ash, silver maple, red maple, and red oak.



TOP 8 REASONS TO CONSERVE WETLANDS

1

CLEAN WATER

Did you know wetlands are nature's water filters? The plants, bacteria and animals that live in wetlands help clean your water long before it reaches your taps.

2

WILDLIFE

Wetlands provide thousands of species of plants and animals with food, water, shelter and a place to call home.

3

REDUCE FLOODING

A wetland is like a giant sponge. During wet periods, wetlands absorb and store excess water, which reduces the risk and severity of flooding.

4

RECREATIONAL SPOTS

Thanks to their natural beauty and abundant wildlife, wetlands make great places to relax and have fun. Activities like hiking, wildlife watching, hunting, fishing, camping and canoeing are just some of the things people do in wetland areas.

5

CLEAR LAKES

Wetlands capture phosphorus that would otherwise end up causing harmful algae blooms on our lakes.

6

LEARNING EXPERIENCES

The best place for future marsh keepers to learn about wetlands is right in the middle of one! Wetlands are great "outdoor classrooms" as they are full of life and filled with fun things to explore.

7

MINIMIZING DROUGHT

During dry periods, wetlands help lessen the chances of drought by slowly releasing the water they've stored back into the surrounding areas.

8

REDUCED EROSION

Wetlands trap sediments and reinforce soil to help prevent erosion. Along the coast, wetlands also protect communities from waves and currents.



Buffers: What Are They and What Do They Do?

A wetland buffer is the naturally vegetated area adjacent to a wetland or surface water. Ideally buffers contain only native plants, are not cut, sprayed with herbicides, and do not contain roads, parking lots, or buildings.

Built structures, like roads and buildings, reduce the land's ability to perform its natural functions, like filter pollutants from stormwater, transport surface water to groundwater areas, or provide habitat for wildlife. The closer the structures are to waterways, the greater the negative impacts. For all these reasons, buffers are important.



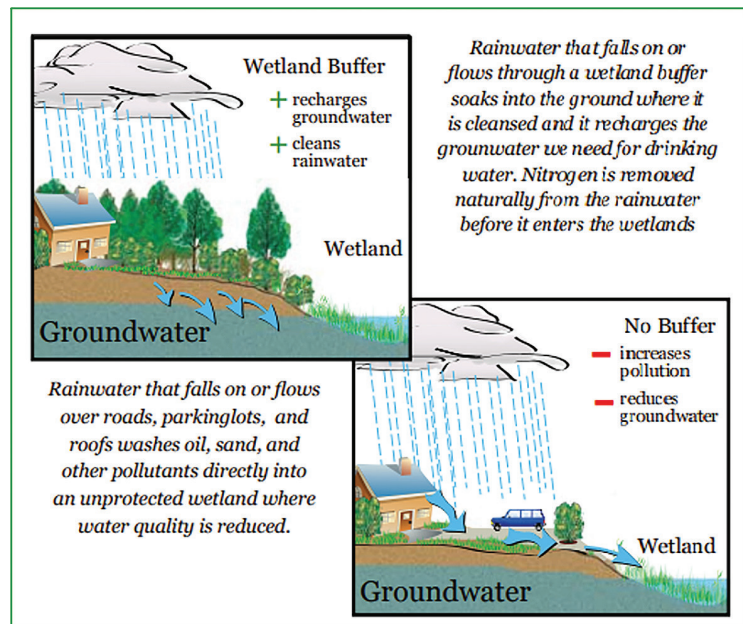
But what exactly do buffers do? The list of benefits to us is long, but here are a few:

Remove Excess Nutrients

The vegetation and soils of a natural buffer area help remove excess nutrients from surface runoff. These nutrients act as fertilizer, but just like in your garden, too much fertilizer can be harmful. A healthy buffer will absorb excessive nutrients and contaminants that otherwise might overwhelm the wetland, causing water pollution and increasing the populations of algae, cyanobacteria, and invasive plants.

Groundwater Recharge

Since almost all of Sandown's residents rely on well water in their homes and businesses, the benefits of buffers to groundwater quality are very important. When stormwater is slowed by buffers, the water is allowed to soak into the soil after which much of it enters the groundwater. According to U.S. EPA studies, one acre of buffer can absorb up to 1.5 million gallons of water! The ability of buffers to pull water into groundwater, coupled with the filtering properties of buffers, shows why lush buffers are so important to maintaining sustainable drinking water for Sandown residents.



Pollutant and Sediment Removal

Wetlands provide filtering sediment out of stormwater but can also be damaged by too much sediment. Just like water filters, a larger pre-filter or grate is used to keep out larger debris and increases the function of the much finer filter behind it. Buffers act as this pre-filter. Landscaped areas and croplands are much less effective at filtering sediment from stormwater than a forested buffer is. Increasing forested wetland buffers in a watershed can improve water quality by filtering sediment before it reaches surface waters.

Flood Control

Everyone is familiar with the sights and sounds of full rain gutters and water flowing rapidly across roads and parking lots. In developed areas, water cannot soak into the ground, and instead rushes over land and into waterways, making floods much worse than they would otherwise be. Buffers act very much like shock absorbers during times of heavy rain or snowmelt, mitigating flood risks by absorbing excess water, reducing potential flooding here and in nearby communities.

Banks Stabilization

The thick, deep root layer of a lush buffer holds soil in place and prevents it from being washed downstream. Buffers prevent the loss of land due to erosion. The mud that is stopped by buffers on land prevents aquatic animals from being suffocated by heavy sediment and pollution.

Wildlife Habitat

Rivers, streams, ponds, and wetlands are home to a variety of aquatic animals and plants, but these creatures also rely on the habitat that surrounds these aquatic environments to survive. For example, amphibians, such as wood frogs and spotted salamanders, breed in the spring in shallow wetlands called vernal pools but spend most of the year in the surrounding forest, often more than 300 feet away from the pool. Animals like otters feed in water but use forested areas as “highways” to move from place to place. The actual amount of buffer (distance from a water body) needed to provide suitable habitat for wildlife is dependent on many factors, such as proximity of large tracts of forest, slope, plants present, and the type of water body that is being buffered.

Which Critters Use Buffers?

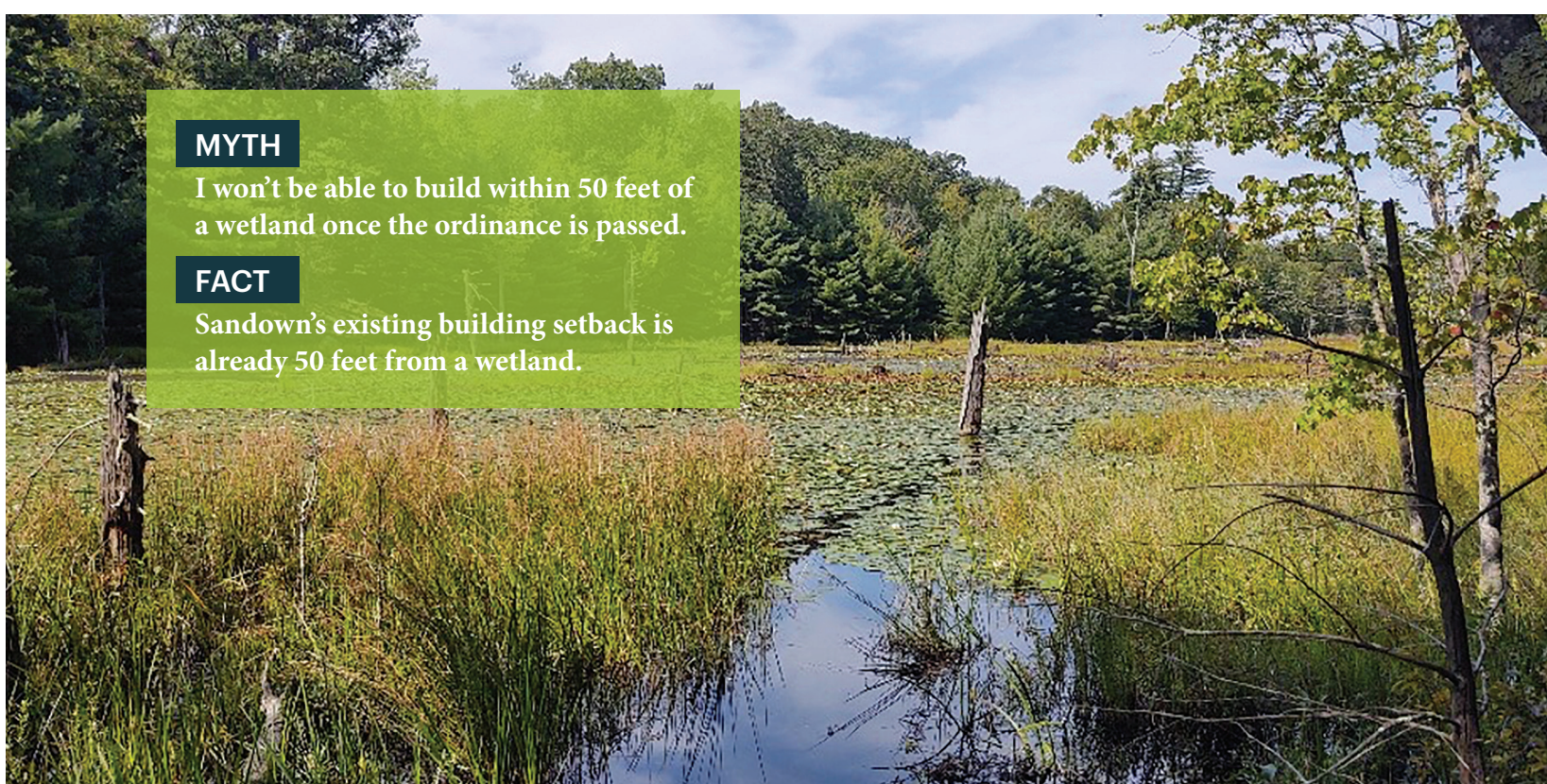
Riparian areas (i.e. areas between wetland and uplands) are incredibly important for a whole host of our region’s birds, reptiles, amphibians, and mammals. Many frogs and salamanders spend the greater part of their lives in these areas. Eagles, blue herons, and wood ducks nest in them. Bear, beaver, otter, and mink, among many other species, rely on intact forests along streams and rivers for food, cooling, foraging, cover, and travel between other areas of habitat.

MYTH

I won’t be able to build within 50 feet of a wetland once the ordinance is passed.

FACT

Sandown’s existing building setback is already 50 feet from a wetland.





Why do we need a wetland buffer?

Rockingham County has the highest volume of wetlands per square mile than any other in NH. This explains why Sandown has better water quality than most and is even more reason to protect this valuable resource. However, tests show that our water quality has in fact declined, and the rate of decline is increasing due to the increase of developments that adversely impact our wetlands.

The size of an effective buffer varies depending on the body of water it is intended to protect and what it is intended to protect the water from. For example, the buffer required to protect a wetland from the temporary disturbance of a carefully planned timber harvest in the adjacent uplands may be significantly smaller than a buffer required to protect the same wetland from the permanent disturbance of a housing development or road. When buffers are intended to protect water quality they act as a natural filter for runoff and may need to be 50 to 100 feet wide to adequately filter pollutants.

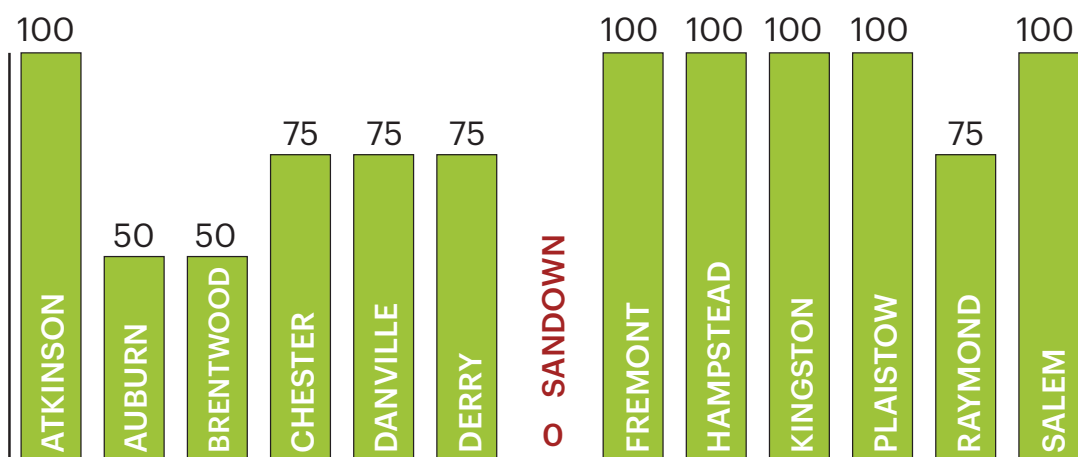


Will the adoption of the Wetland Ordinance constitute a taking of private property?

The Fifth Amendment of the United States Constitution states “no person shall [...] be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation. Additionally, Article 12 of New Hampshire Constitution states “Every member of the community has a right to be protected by it, in the enjoyment of his life, liberty, and property; [...] but no part of a man’s property, shall be taken from him, or applied public uses, without his own consent, or that of the representative body of the people.”

N.H. RSA 674:16 Enables a municipality’s authority to zone and the power to adopt a zoning ordinance. The circumstance in which an ordinance or regulation constitutes a taking depends on several factors, and there is no definitive demarcation when an ordinance is considered a taking. In general, ordinances adopted for the purpose of protecting public health and safety, including those actions related to environmental protection, do not constitute a taking. They are perceived to be similar in effect to other zoning regulations affecting individual property rights such as building setbacks from property lines, location of private wells and septic systems, and frontage requirements.

Wetland Buffer Setbacks 2024 (distances in feet)





MYTH

I won't be able to repair my existing buildings located within the new proposed buffer zone.

FACT

Maintenance or repair of any existing structures, including but not limited to, dwellings, buildings, accessory structures, septic systems, garages, barns, gazebos, etc. is permitted under the proposed regulations.

Conservation Is the Wise Use of a Resource

THE WISDOM IN THE SANDOWN MASTER PLAN

The authors of Sandown's Master Plan had the insight to see that the pollution of our water needed to be addressed and that our wetlands need to be protected. Wetlands, their function, and water quality need to be protected. To quote from the MASTER PLAN: "...Although some regulation of non-point source pollution occurs through Federal and State programs, the most effective way to prevent and manage non-point source pollution is at the local level, with implementation of development regulations, educational programs and long-range community planning."

**From the EPA website "...NPS (i.e. non-point source) pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters."*

MYTH

I won't be able to repave or repair my driveway if it is within 50 feet of a wetland.

FACT

Under the proposed regulations, repairs of existing driveways, streets and roads is permitted, as long as there is no expansion.





SANDOWN
CONSERVATION
COMMISSION

Thank you for your interest, and for taking the time to read this information. If you'd like to get involved, email tperkins@sandown.us.

This publication is brought to you by the Sandown Conservation Commission with a grant from the Piscataqua Region Estuaries Partnership.



The Importance of
Protecting our Wetlands