**What are wetlands and why not just fill them in?**

Wetlands are, obviously, wet areas. In simple terms, wetlands are **areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season.** Wetlands support wildlife such as ducks, and serve as important spawning and nursery areas for fish which then support multitudes of other species.

There are actually two types of wetlands in Connecticut and they are defined differently by different professionals. The first type of wetland is inland wetlands and they are defined by the soils. A soils scientist is the professional who flags the edges of inland wetlands areas after using an auger to take samples of the soils and studying the colors of the soils samples. The soils are often saturated for the entire year or most of the year and the color of the soil sample will reflect that condition.

The second type of wetlands in Connecticut are tidal wetlands. They often occur near Long Island Sound and in coastal towns. These wetlands are defined by the vegetation that they support. Whether it is invasive species such as phragmites or other listed vegetation types, tidal wetlands perform many of the same functions of inland wetlands, most notably flood storage and water filtration. The primary difference other than how they are defined is that most tidal wetlands are brackish (mix of saltwater and freshwater) whereas inland wetlands are always freshwater.

Wetlands are important because they **protect and improve water quality, provide fish and wildlife habitats, store floodwaters and maintain surface water flow during dry periods, provide flood protection, shoreline erosion control, recreational opportunities such as hunting and photography, and general aesthetics**.

**Some of the important functions of inland wetlands:**

* **Improved Water Quality.**  Wetlands can intercept runoff from surfaces prior to reaching open water and remove pollutants through physical, chemical, and biological processes. Wetlands provide a cost-effective alternative to traditional wastewater and stormwater treatment options.
* **Water Supply.** Wetlands can positively impact water supply, serving as reservoirs for the watershed and releasing retained water into surface water and ground water.
* **Flood Abatement.**Wetlands can play an important role in flood abatement, soaking up and storing floodwater. According to the EPA, U.S. flood damages average $2 billion annually (with the 30 year average being closer to $8 billion annually). A wetland can typically store 3-acre feet of water, the equivalent of 1 million dollars.
* **Recreation.**Wetlands can become a destination for outdoor activities such as hiking, fishing, bird watching, photography, and hunting. More than 82 million Americans took part in these activities in 2001, spending more than $108 billion on these pursuits.
* **Habitat Enhancement.**Wetlands can enhance habitat for game and non-game species. According to EPA, wetlands provide an essential link in the life cycle of 75 percent of the fish and shellfish commercially harvested in the U.S., and up to 90 percent of the recreational fish catch. U.S. consumers spent an estimated $54.4 billion for fishery products in 2000.[[7](https://www.epa.gov/sites/production/files/2016-02/documents/economicbenefits.pdf)] Wetlands also provide habitat for threatened and endangered species. Wetlands make up an estimated 5 percent of the land area of the lower 48 states, yet more than one-third of threatened and endangered species live only in wetlands. An additional 20 percent of the country’s threatened and endangered species use or inhabit wetlands at some time in their life. Ducks Unlimited is one of the biggest protectors of wetlands and has helped protect wetlands for use by water fowl which allows hunters to hunt for ducks.
* **Erosion Control.**Riparian wetlands, salt marshes, and marshes located at the margin of lakes protect shorelines and streambanks from erosion. The roots of wetland plants hold soil in place and can reduce velocity of stream or river currents.
* **Aesthetic Appeal.** Wetlands provide a certain visual value and host wildlife that people enjoying watching.

**What activities are exempt from permits within wetlands?**

Grazing, farming, nurseries, gardening and harvesting of crops and farm ponds of three acres or less essential to the farming operation.