

Conserving Our Wetlands

Wetlands are areas covered with water for periods long enough to support plants that thrive in wet soils. The areas include bogs, marshes, swamps, and wet meadows, but it is a misconception that all wetlands have standing water yearlong. Many wetlands may be seasonally dry or lack noticeable vegetation during certain seasons.

Wetlands occur in every state, though they vary in size, shape, and type because of different climate, soil, and vegetation. All wetlands, however, are either freshwater or salt water. About 95 percent of wetlands in the contiguous United States are freshwater.

Some states have more wetlands than others. About one percent of Utah is covered by wetlands while more than 45 percent of the surface area of Alaska is wetlands.

There are about 4.5 million acres of wetlands in South Carolina, about 23.4 percent of the state's land surface. Only four states, Alaska, Florida, Louisiana, and Maine, have a higher percentage of wetlands. South Carolina's wetlands account for about 12 percent of wetlands in the southeastern United States.

Why are wetlands important?

Wetlands have multiple and diverse functions. These functions include improving water quality, providing flood protection, and they are very valuable for wildlife habitat. Wetlands are wonderlands if you consider that:

(1) Wetlands provide valuable benefits to man. Wetlands act as a buffer to protect shore areas from waves and storms. Wetlands store water, helping reduce flooding. Some wetlands store water in a wet time of the year, releasing the water later into nearby aquifers or underground streams and recharging the groundwater that supplies us with drinking water.

(2) Wetlands help purify water by processing nutrients, suspended materials, and other pollutants. Wetlands also increase the availability of water by absorbing and adding water in wet seasons, then gradually releasing it during dry periods.

(3) Wetlands provide food and shelter to countless types of fish, birds, reptiles, and mammals. Many types of endangered species, including 45 percent of the animals and 26 percent of the plants on the federal list of threatened or endangered species, depend directly or indirectly on wetlands.

(4) Wetlands provide critical habitat for a majority of the commercial fish and shellfish consumed in the United States. Each year, the nation's commercial fisheries harvest is valued at more than \$10 billion, according to the U.S. Environmental Protection Agency. In the Southeast, 96 percent of the commercial catch and

more than 50 percent of the recreational catch consists of fish and shellfish that depend on estuary/coastal wetlands systems. Examples of wetlands dependent fish include bluefish, flounder, sea trout, croaker, and striped bass. Commercial shellfish include shrimp, oysters, clams, and blue and Dungenese crabs.

(5) Wetlands are the most valuable inland marshes for waterfowl production in North America. These wetlands, known as "prairie potholes," stretch from south-central Canada to north-central United States. More than half of the continent's ducks are hatched in prairie potholes, according to the U.S. Fish and Wildlife Service.

(6) Wetlands offer unique opportunities for boating, fishing, hunting, and nature walking. People who hunt, fish, crab, hike, walk, and boat and those who observe and photograph birds in wetlands spend nearly \$10 billion a year on their hobby.

Wetlands losses

Despite their many values, wetlands historically have been misunderstood and abused because their importance wasn't obvious. For many years, wetlands were seen as "useless swamps" and were frequently filled, drained, polluted, or used for dumping grounds.

The destruction of wetlands nationwide has been dramatic. More than half of all wetlands in the 48 contiguous states have been lost since the mid-1700's. Between the mid-1950's and 1970's, nine million acres of wetlands were lost. Some states, including California and Louisiana, have lost most of their original wetlands. In the past two decades, 84 percent of the wetlands losses have occurred in the southeastern United States. The losses in South Carolina do not appear to be as extensive as in other states. Officials estimate that South Carolina has lost about 27 percent of its wetlands since the mid-1700's.

Policies, outlook on wetlands are changing

The growing awareness of the importance and value of this natural resource has led to legislative protection and restoration proposals across the country. One common legislative proposal is a "no net loss" policy. That means that any wetlands lost through man's activities, like filling for development, must be matched by restoration, expansion, or replacement of an equal amount of wetlands.

Wetlands are the most productive ecosystem on the North American continent. A study found that almost 700 species used a wetland including 489 species of plants, 136 kinds of birds, 32 species of fish, 21 varieties of mammals, and 12 kinds of reptiles. In addition, wetlands purify water, recharge groundwater, reduce flooding, and provide recreational opportunities.

Still, national progress on improving protection for wetlands has not occurred as quickly as needed and wetlands losses have continued. South Carolina has no comprehensive statewide program, and no single state agency is responsible for wetlands protection or regulation. The existing state programs are tied to federal programs.

South Carolina's wetlands

There are about 4.5 million acres of wetlands in South Carolina, about 23 percent of the State's land surface. About 90 percent of the state's wetlands are freshwater and the remainder are salt water and brackish water marsh.

Freshwater wetlands are lands flooded or saturated by freshwater from rain, surface runoff, flooding or groundwater discharge. In contrast, coastal and estuarine wetlands are flooded or saturated by tidal flooding of salt or brackish water.

Freshwater wetlands occur throughout South Carolina, but are most abundant in the central and lower areas of the state.

Freshwater marshes are most prevalent along the lower portions of the Waccamaw, Pee Dee, Santee, Cooper, Edisto, and Savannah Rivers.

Forested wetlands, primarily cypress-tupelo swamps and bottomland hardwood forests occur in abundance along the Waccamaw, Pee Dee, Little Pee Dee, Lynches, Black, Santee, Wateree, Congaree, Edisto, Salkehatchie, and Savannah Rivers.

Isolated wetlands are found throughout the state but are most numerous in the central and lower areas of South Carolina. They include Carolina bays, pocosins, potholes, mountain bogs, and sinkholes.

Finding the balance

There is no question that we have to find a balance between "using and abusing" wetlands. But remember, wetlands protection is a shared responsibility among all levels of government, private groups, and landowners.

What can you do? Learn as much as you can about wetlands. Help get the word out. Visit wetlands, and enjoy.

For further information, contact DHEC's Water Quality Certification and Wetlands Program at 803-898-4229 or the National Wetlands Hotline at 1-800-832-7828.

Wetlands- Essential for Wildlife Habitat, Improving Water Quality and Providing Flood Protection



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