

Wildlife Conservation Land Program Priority Habitat Management Guidelines

Small Wetland Communities



Protected species associated with small wetland communities across North Carolina include Eastern tiger salamander, four-toed salamander, gopher frog, ornate chorus frog, Mabee's salamander, black swamp snake, Southern chorus frog, bog turtle, mountain chorus frog, Eastern chicken turtle, dwarf salamander, mole salamander and star-nosed mole.



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Habitat Description

Small wetland communities can include vernal pools, seeps, small depression ponds, ephemeral wetlands, beaver ponds, small depression pocosins, interdune ponds, clay-based Carolina bays, limesink depressions, bogs and associated wetlands.

All wetland communities are associated with hydric (saturated) soils, hydrophilic (moisture-loving) vegetation and the presence of water on the surface of the land for at least some portion of the year. However, each type of wetland is unique and may vary greatly in structure and vegetative composition as well as timing and extent of aquatic inundation. Many of these communities are found only in a specific geographical region of the state.

By definition, these wetlands are small in size, but may be extremely important in wildlife value and benefit. The wildlife that utilize these wetlands also rely heavily on the adjacent upland habitat as well. The evaluation of each small wetland community should therefore consider not only the area representing the wetland, but also the surrounding area of influence associated with the wetland.

Threats to the Resource

From the coast to the mountains, wildlife species that depend on small wetland communities can be negatively impacted by human activity in many ways.

Direct habitat loss is caused when wetlands are drained for agriculture or development. Indirect loss can occur from factors associated with land use changes within the area of influence.

Water quality problems can occur from stormwater runoff and pollution from point and non-point sources (lawn chemicals, oils from road surfaces, agricultural and forestry pesticides). Hydrological changes, including excessive drying or wetting of a site, can occur when timber is harvested too close to a wetland or ditches are cut through wetlands.

Roads built near wetlands can cause heavy mortality for reptiles and amphibians and can effectively isolate breeding populations, or separate wetland habitats from upland habitats that are used during non-breeding portions of amphibian and reptile life cycles.

Careless and excessive use of all-terrain vehicles (ATVs) and other recreational vehicles can cause significant damage around wetland communities by either direct mortality to animals using the wetland or through increased sedimentation caused by soil disturbance and erosion. Noise from ATVs may disrupt or prevent animals from carrying out their normal seasonal activities.

The introduction of fish, bullfrogs and other predatory species into perennial pools can devastate the breeding effort of amphibians in small wetlands and is not allowed in WCLP.

Some mountain bogs are at risk from ongoing forest succession. These bogs that formerly provided either open or mixed open and shrubby habitat have grown up in trees and can no longer provide suitable habitat for mountain bog dependent wildlife.

Management Strategies – Wildlife Conservation Land Program (WCLP)

Each type of qualifying small wetland community may have its own set of problems that pose risks to the habitat and its wildlife. Landowners interested in enrolling in the WCLP will need to obtain a site evaluation from a qualified professional. Once an assessment has been completed, specific recommendations can be developed to protect and/or restore the wetland.

If deemed necessary, wetland restoration efforts should focus on restoring the natural hydrology, water quality and plant communities of degraded wetlands. Technical expertise and cost-share funding may be available from various agencies to assist with restoration efforts. Newly created wetlands will also be considered under the WCLP.

Active management may be required periodically to restore the open nature of some small wetland communities; for example, the use of fire in coastal wetlands or the use of a hand crew to manually cut down encroaching woody vegetation with chainsaws or brush blades in mountain bogs. Any use of approved herbicides and surfactants must be of low toxicity to aquatic wildlife.

Management of small wetland communities can be somewhat complex. In some instances, disturbance within or adjacent to the wetland reduces the value of the area for wildlife and negatively impacts the wetland system. In other situations, disturbance is needed to maintain the desired stage of vegetation. Management prescriptions must take the buffer around the wetland into consideration to ensure continued viability of the wetland community. Barring special situations, the maximum buffer surrounding a wetland will be 600 feet. WCLP participants must be willing to institute prescribed management within the buffer acreage. Information related to buffer conservation is available from the Wildlife Commission. Conservation easements are strongly encouraged to help permanently protect remaining wetlands.

Information concerning this and other priority habitat types can be found in the [North Carolina Wildlife Action Plan \(NCWAP\)](#).

