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WEST VIRGINIA'S WETLANDS

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Wetlands, transitional areas between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water, covered an estimated 221 million acres of the conterminous 48 states in colonial days. Over 53 percent of those wetlands have since been lost to development. Wetlands have a long history of being drained or filled due to the expansion of the human population and the need for agricultural land as well as the negative connotations associated with wetlands such as mosquitoes. West Virginia is estimated to have 102,000 acres of wetlands, which is less than 1% of the total area. This estimate is 24 percent less than the 134,000 acres present in the late 1700s. Because of their rareness, wetland conservation is of great importance in the Mountain State.

West Virginia's wetlands provide numerous ecosystem services (benefits that people obtain from ecosystems) such as provisioning (food, freshwater, fiber and fuel, biochemical, and genetic material), regulating (climate, water purification, erosion regulation, water volume regulation, natural hazard regulation, and pollination), cultural (spiritual and inspirational, recreational, aesthetic, and educational), and supporting (soil formation, nutrient cycling, and biodiversity) services.

Wetlands are used regularly by duck hunters for recreational hunting. Food-bearing plants such as blueberries and cranberries are harvested from wetlands. Medicinal plants such as sedges, mints, and knotweeds commonly grow in wetlands. Peat moss is also commonly harvested from wetlands. Furbearing mammals such as beaver, muskrats, and mink are harvested from wetlands. Wetlands are used for aquaculture, and baitfish are harvested from wetlands. West Virginia farmers may manage wet meadows and hayfields as insurance to provide forage during dry periods.

Wetlands can serve as a sink for greenhouse gases, they also regulate local and regional temperatures, precipitation, and other climatic processes. They regulate hydrologic flows such as groundwater recharge and discharge, replenishing drinking water supplies and reducing flood events. Wetlands purify water and can retain and remove excess nutrients and other pollutants. Wetlands also harbor numerous flowering plants that support pollinators and their habitats, which ultimately assist with pollinating gardens and agricultural fields.

Hunters, anglers, hikers, birders, and campers regularly use wetlands. Canaan Valley, Cranberry Glades, and Cranesville Swamp are all well-known wetland areas frequented by both in-state and out-of-state nature-enthusiasts. Birders visit wetlands to view and photograph bald eagles, red-winged blackbirds, kingfishers, tree swallows, and a diversity of other wildlife species. Amphibian and reptile enthusiasts go to wetlands to hear spring choruses of spring peepers or wood frogs or to see snapping turtles.

Ducks, geese, herons, and woodcocks depend on wetlands, as do fish, turtles, frogs, and crayfish. Beaver, muskrat, mink, and raccoon require wetland habitats for feeding and reproducing. Dragonflies and damselflies depend on wetlands for reproduction. The contribution of wetlands to the overall biodiversity of the Appalachians is immense.

Although West Virginia's wetlands are a small portion of the landscape, they provide valuable benefits and products to their owners and to society. Conservation of wetlands is important for the long-term health of watersheds and people.

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