

Healthy Wetlands: Kentucky's Hidden Protectors of Water Quality

Salena Amro

Bluegrass fields. Appalachian Mountains. Horse farms.

This is what most people think of when they imagine "Kentucky." While these images capture the beauty of our state, there's another treasure hidden in plain sight - our diverse wetlands.

Kentucky is rich in wetlands, one of the most unique and beautiful ecosystems in the world.

With over 324,000 acres, wetlands are more than just a picturesque view; they maintain a healthy environment, support clean water, and provide habitat for thousands of different plant and animal species, as noted by KentuckyLiving (Shuffett 1). If you stroll past the nearest lake, take a moment to appreciate the water that surrounds us. Go a little further, and you'll find a marsh, home to reedy plants and aquatic ducks. Our wetlands, however, are facing threats from land conversion and climate change. If we work to protect Kentucky's wetlands, we can be sure to sustain nature's kidneys and allow for a prosperous future in our state.

To begin, it is essential to acknowledge the value of Kentucky's wetlands and the benefits they offer. One of the key roles wetlands play is filtering water pollution. Wetlands perform this vital function by removing sediments and chemicals from water that may run off from agricultural and developmental sites ("Wetlands Purify" 1). Water is eventually absorbed into a wetland and held long enough for sediments and pollutants to settle out. In fact, wetlands are proven to remove up to 90% of sediments presented in runoff ("Wetlands International" 1). This ability to remove pollutants is vital for protecting our aquatic ecosystems and maintaining coastal health. Purifying water is essentially crucial, especially in light of the ongoing challenges posed by deforestation and climate change.

The benefits, however, don't stop there. Our wetlands also provide a natural solution to flooding. Flooding, unfortunately, has taken a toll on many parts of Kentucky, resulting in injuries to several counties ("Wetlands and their Functions in Kentucky" 2). Wetlands, however, can act like a giant sponge, soaking up excess water and then slowly releasing it back into the surface and groundwater, thereby maintaining consistent water levels based on the Jim Claypool Tabloid ("Kentucky Wetlands Up Close" 8). By preserving and restoring wetlands, Kentucky communities can protect lives, reduce property damage, and ensure a healthier, more resilient environment for everyone. In this way, wetlands serve as a natural shield, protecting both communities and the environment from the destructive power of floods.

Moving on, the prevention of floods is not the only benefit of protecting our wetlands; they also provide a critical habitat for a wide variety of plants and animals. As noted by the U.S. Environmental Protection Agency, wetlands are among the most productive ecosystems in the world. They are home to an immense variety of microbes, plants, insects, amphibians, and other aquatic animals ("Why are Wetlands Important?" 1). Wetlands are often thought of as "biological supermarkets" because they provide great volumes of food to attract animal species. The loss of wetlands, however, is a huge contributor to our decline in biodiversity. This makes preserving wetlands not only important for supporting wildlife but maintaining the overall biodiversity of our ecosystem.

Despite their many benefits, Kentucky's wetlands are facing serious threats. Over a third of our wetlands have disappeared since 1970, and hundreds of thousands of acres have been drained to provide land for housing, industry, and agriculture. In addition to unsustainable development, 80% of our global wastewater is released into wetlands untreated, and this percentage continues to climb ("Threats to Wetlands" 1). Pollution from factories, fertilisers, pesticides, and major

spills is only making this issue escalate. The increase in pollution is, therefore, causing changes in rainfall and temperature as the release of greenhouse gases traps heat in the atmosphere. These threats will continue to persist until we decide to change our habits.

So, what can *WE* do to combat these threats? First, we can start by educating ourselves on simple conservation steps. For example, the Jim Claypool Tabloid offers advice on ways to prevent nutrients from getting into streams, such as picking up after pets and following directions when using fertilizers ("Kentucky's Wetlands Up Close" 19). Additionally, restoring habitats is a crucial way to support wetland protection. By learning about different animal and plant species, you can foster a deeper understanding of biodiversity. Beyond education, engaging in hands-on efforts can also make a difference. Volunteering with local, state, or federal agencies can help support efforts to improve degraded wetlands and preserve wildlife ("10 Ways You Can Help Conserve Wetlands" 1). These actions not only promote our environment, but they can also bring people together and strengthen communities.

Overall, while Kentucky's wetlands may not be the front and center of our thoughts, they are a vital cornerstone of our environment. They prevent flooding, promote biodiversity, and act as a water filter. Through education and community engagement, we have the power to protect our wetlands. Let's take action soon, and together, we can ensure that wetlands are one of the first things people envision when they hear "Kentucky." So, get involved and help protect Kentucky's natural treasures!

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