

# Hidden Treasures of Kentucky

Today when people hear the term "wetlands," humid, damp, icky, and dangerous is what first comes to mind. Wetlands are negatively looked at, and because of that, they are getting ruined and drained. Already 80% of Kentucky's wetlands have been lost (WKU The Public Radio Service of Western Kentucky University). Many people believe that wetlands are wastelands with no value, filled with disease-carrying animals. People don't understand the "big picture" and the magnificent story these wetlands all share and are causing harm to the wildlife that live and thrive there. To help solve this problem, let's look at the many benefits of the Kentucky wetlands: They are the ideal habitat for wildlife, they contain rich and fertile soil, they help to filter water, and they are essential for flood control (Abby Jones Consulting).

To begin, let's explore one of the major advantages of wetlands, how they provide an ideal habitat for many different plants and animals. The fertile wetlands of Kentucky cover about 2.5% of land and are one of the most eco-friendly natural creations found in our state (National Association of Wetland Managers). They consist of rich soil, clean water, and beautiful growing trees. While wetlands are a breeding ground for mosquitos and other pests, they are also the ideal habitat for reptiles, amphibians, and other little critters (Pesky Little Critters). Some key animals that live in the wetlands of Kentucky are beavers, river otters, and banded-water snakes. These

animals all depend on the wetlands for a healthy and clean environment, just like the wetlands depend on the animals to balance out the ecosystem. Some plants that help to keep the wetlands a better place for people and animals are cattails, water lilies, sedges, and rushes. Cattails are very helpful for wetlands because they filter water and catch sediments which decreases pollution, while water lilies are important because they reduce nutrients from water, and that minimizes the chances of nutrient pollution. Both sedges and rushes are good because they provide food for animals and maintain the structure of wetlands. Wetlands are very essential for animal and plant life, and without the Kentucky wetlands, some of these animals and plants may die.

Let's explore another advantage of Kentucky's wetlands: water filtration. Water filtration reduces flood damage, absorbs rain water, filters pollutants, and improves water quality by trapping sediment and isolating carbon. Kentucky's wetlands filter water by physical, chemical, and biological processes. As water passes through wetlands, all of the debris and large matter gets caught in plant roots and other natural ecosystems, which prevents waste from entering large bodies of water. This is how water is filtered physically. The chemical process includes microbes which convert substances like nitrogen and phosphorus through a process called denitrification. Denitrification turns nitrate to nitrogen which ultimately helps the environment by removing the overflow of nutrients, and neutralizing toxins. Biological filtration is when plants and animals help with the filtration process. Wetland plants can root far into the ground acting as a barrier for any debris or waste that comes through. Animals, particularly invertebrates process organic waste, which helps reduce nutrient pollution, making it an overall cleaner and healthy environment (Green Packs). All of the processes have multiple things in

common: All target the impurities in water, all purify water, and they work together to ensure that the water is clean and filtered. These processes all play an important role in Kentucky's wetlands filtration and environment. It's amazing how Kentucky's wetlands are natural filtration systems!

Another really incredible advantage of Kentucky's wetlands is how they help with flood control. Wetlands are great in flood control because all of the vegetation and rich soil soak up the excess water and filter it. Wetlands absorb, filter, and store rainwater before gradually letting it return to the streams and rivers. This is very helpful for the environment because it improves water quality and decreases the chances of flooding. Wetlands help stop landslides and other natural occurrences that could be bad for the environment.

Now let's explore the current state of Kentucky's wetlands. Kentucky has approximately 320,000 acres of wetlands, but unfortunately only 15% of them are protected by the Clean Water Act. The Clean Water Act establishes regulations that protect Kentucky's wetlands from people or companies from polluting the water. The Trump administration is making changes as to which waters should be protected and which ones shouldn't be. This means that fewer amounts of waters will be protected by the federal government including wetlands. Farmers and builders may favor these changes, while other people are against them (WKU The Public Radio Service of Western Kentucky University). The Senate Bill 89 limits the protection of any non-navigable bodies of water, leaving many of Kentucky's wetlands unprotected.

If the current actions on Kentucky's wetlands don't change or get addressed soon, it's not guaranteed that they will be thriving much longer. It would make me

extremely sad to see wetlands start to slowly fade away losing many of their amazing benefits. So in order to help stop that from happening, let's learn how to help Kentucky's wetlands to continue to grow and flourish forever. The first thing you could do to help the environment is to pick up trash and throw it away. Next, teach others about the importance of wetlands so they are aware of what's happening and can also help. The last thing that's important to help wetlands stay thriving is to get involved with any local conservation projects and help to preserve the many natural creations of Kentucky's wetlands.

In conclusion, wetlands are one of the most amazing natural marvels we have here in Kentucky. They help animals and people in so many ways. They have so many great benefits to them that many people are unaware of, and it's sad that they don't know these truly hidden treasures we have here thriving in Kentucky. It's time for us to come together and protect the many great wonders that flourish in the marvelous wetlands of Kentucky.

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