

What Good Are Beavers?

Most people only become aware of beavers when they are a nuisance, but did you know that biologists classify beavers as a Keystone species? Beaver ponds create wetlands which are among the most biologically productive ecosystems in the world¹. They increase plant, bird² and wildlife variety³, improve water quality⁴, and raise salmon and trout populations⁵. This one species supports thousands.

How is this possible? By opening the tree canopy, sunlight reaches the water and triggers an explosion of biological activity. Algae and aquatic plants grow in the sun drenched, nutrient rich water. This organic material supports microscopic organisms, which are eaten by a variety of invertebrates. These become food for fish, birds and mammals. An entire food chain is created in a beaver pond.

While infamous for killing trees, beaver dams actually create diverse habitats. Grasses, sedges, bushes and saplings grow on the perimeter of the pond. These plants provide food and cover for foraging animals.

Beaver ponds become magnets for a rich variety of wildlife. From important game species like wood duck, mink and otter, to vulnerable anadromous fish like rainbow smelt, steelhead and salmon, biodiversity thrives due to beaver ponds. Beaver dams also protect downstream spawning areas from sedimentation, and create cool, deep pools which increase salmon and trout populations.

How do dams affect water quality? They actually *improve* flow and quality⁶. By functioning as natural sponges that store runoff water and slowly release it, they reduce downstream flooding and erosion. The algae, plants and sediment in the pond improve water quality by absorbing dissolved nutrients, processing organic wastes, and removing runoff toxins (e.g. heavy metals, pesticides and fertilizers) from the water. These wetlands serve as the “Earth’s Kidneys”.

Beaver ponds also recharge our drinking water aquifers, stabilize the water table, and better maintain stream flows during droughts. Beavers are even being relocated by states throughout the west to improve arid lands.

Beavers are sometimes regarded as pests, but the in truth there isn’t a single species that will better benefit your watershed. Although they can present a challenge, by using flow devices you can control problematic flooding and reap countless environmental rewards.

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- ⁶ Terry. N & Bañuelos, G.S. (2000) *Phytoremediation of contaminated soil and water*. CRC Press LLC

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