

Place-Based Education at Our Table Cooperative Farm
Spring 2020: Beavers: How water can change the shape of the land.

Second Grade - Earth Systems 2-ESS2 Earth Materials and Systems: Wind and water can change the shape of the land. (2-ESS2-1)

Other than humans, beavers are the only animal known to construct dams. Known as the engineers of the animal world, the beavers' anatomy is specifically designed to gnaw down trees, to transport logs and branches, and to create an interwoven and durable structure that can serve as a home (lodge) and a dam that can reshape waterways. In fact, a single beaver family, in a matter of weeks, can change a rushing stream into acres of deep, still, interconnected ponds and wetlands.

The course of the river, both above and below stream, can impact the landscape and wildlife surrounding the dam. The variety of plants along the pond and near the river may also change due to the water levels. This can also impact the diversity of the animals that are attracted to these newly reformed areas. Water quality is also affected by the flow of the river or stream that was dammed. This new ecosystem supports the needs of many other plants and animals. Some of the animals on our farm who benefit from the beavers' presence are dragonflies, ducks, frogs, turtles, and heron.

The beavers' ability to transform an entire landscape can have both positive and negative effects on the surrounding plants and animals.

What are some of the positive effects? The new landscape provides habitat for animals that may not have been there before: ducks, geese, herons, turtles and frogs, young trout and salmon, are just a few species that benefit from the deeper waterways. The rate of water flow in the streams also impacts the quality of water in both the newly created pond and in areas downstream.

What are some of the negative effects? The higher water levels and rerouted waterways that are created by the beaver dams can also create unwanted flooding in areas where farms, neighborhoods and roads might already exist.