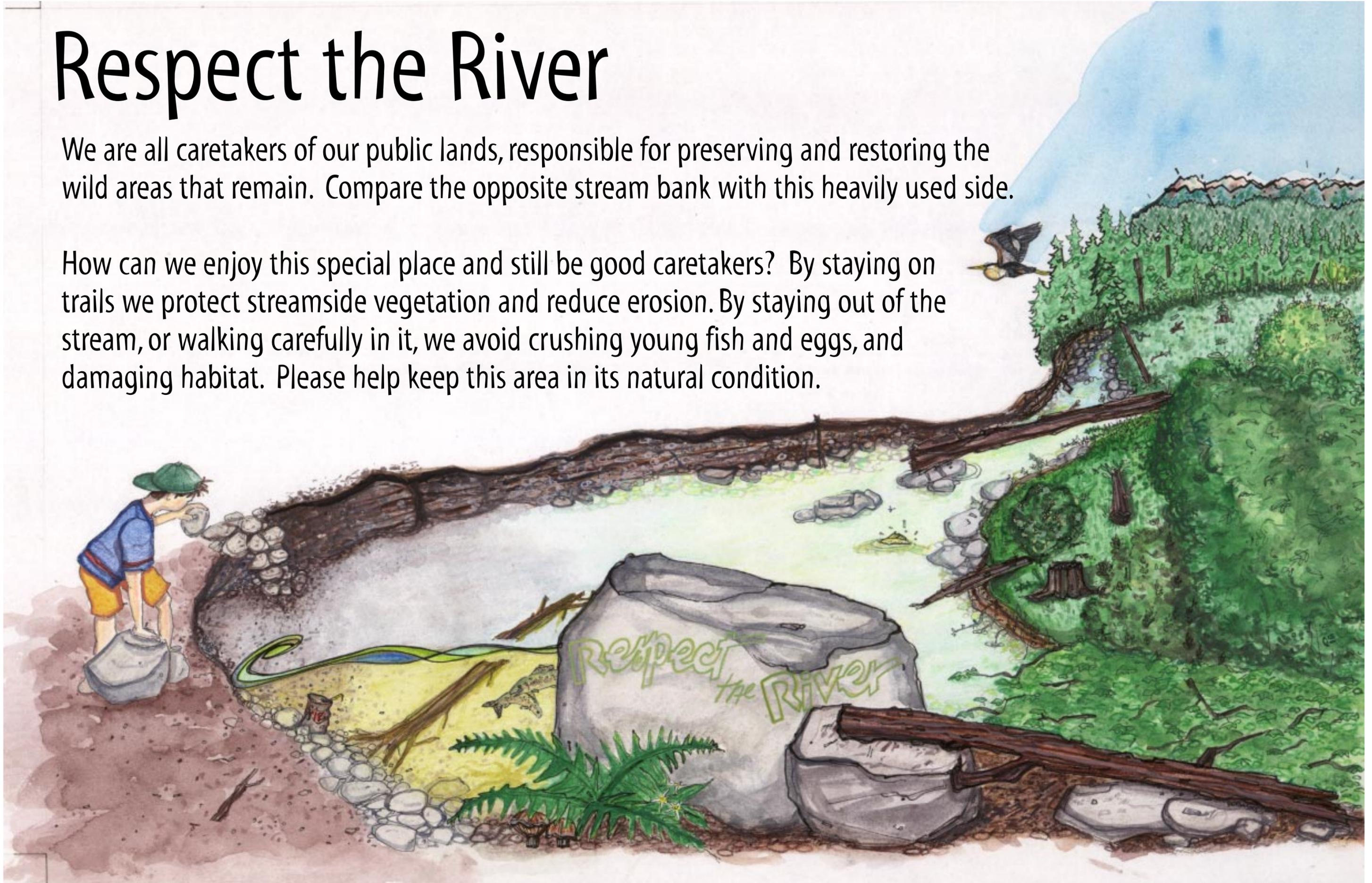




Respect the River

We are all caretakers of our public lands, responsible for preserving and restoring the wild areas that remain. Compare the opposite stream bank with this heavily used side.

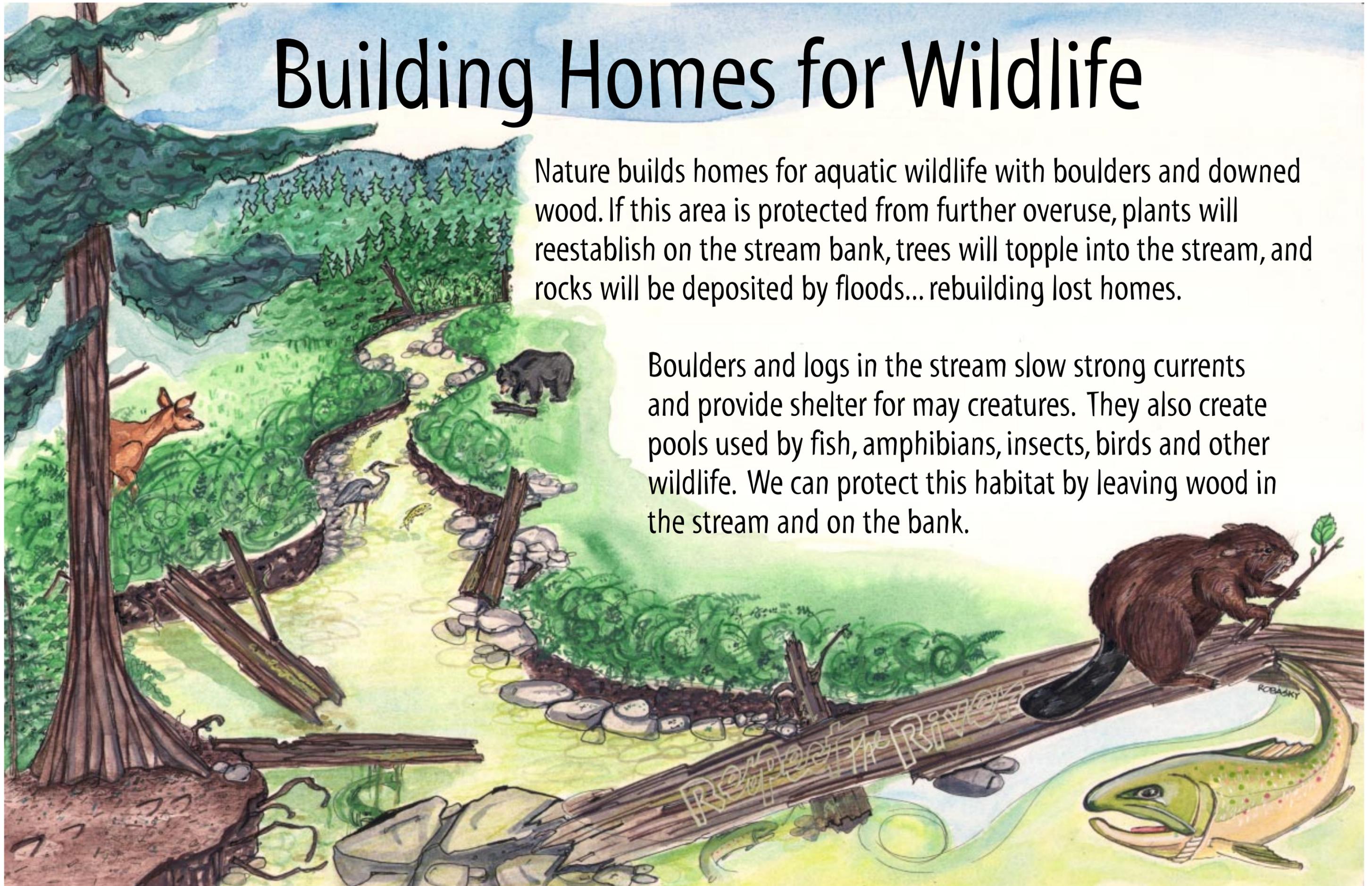
How can we enjoy this special place and still be good caretakers? By staying on trails we protect streamside vegetation and reduce erosion. By staying out of the stream, or walking carefully in it, we avoid crushing young fish and eggs, and damaging habitat. Please help keep this area in its natural condition.

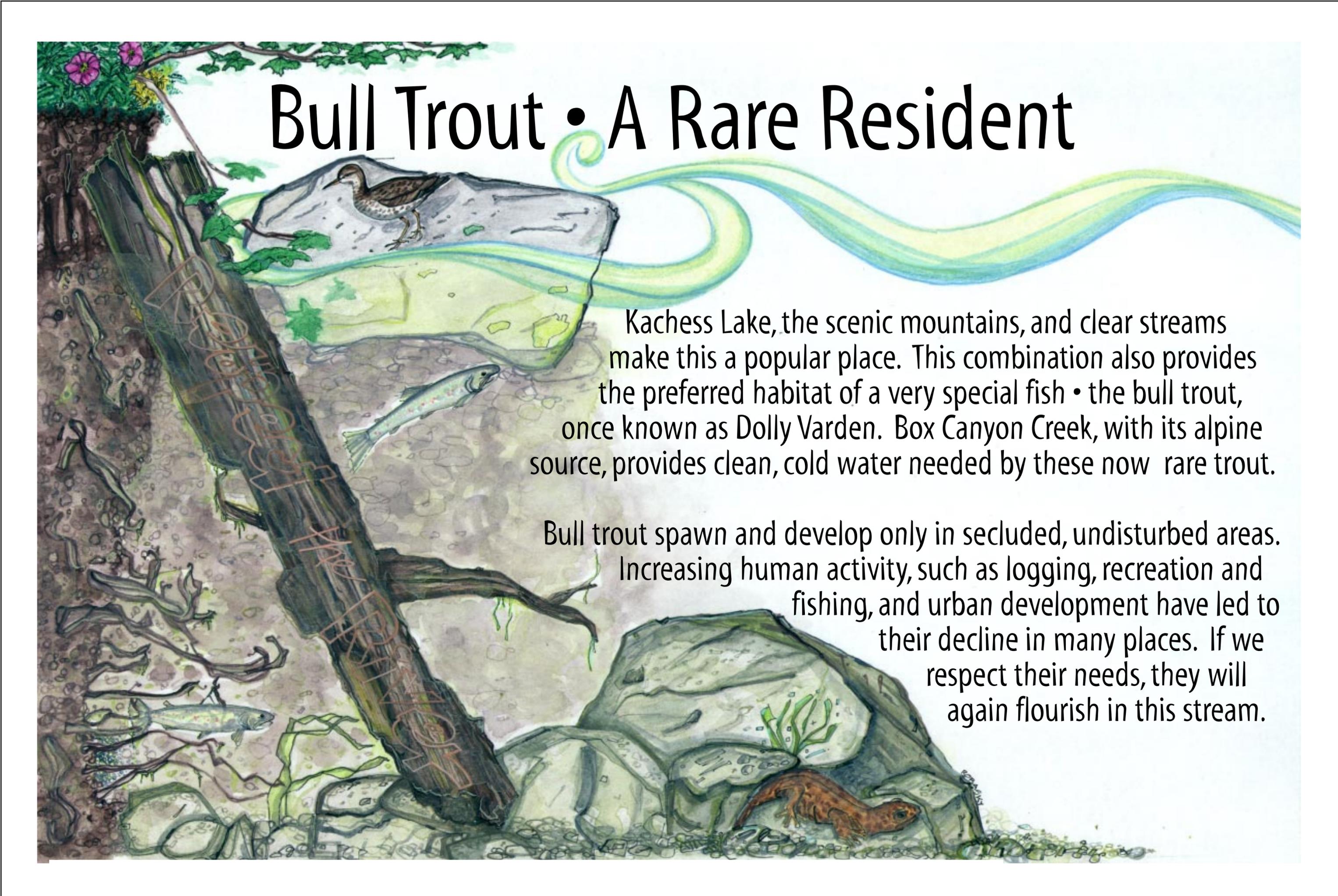


Building Homes for Wildlife

Nature builds homes for aquatic wildlife with boulders and downed wood. If this area is protected from further overuse, plants will reestablish on the stream bank, trees will topple into the stream, and rocks will be deposited by floods... rebuilding lost homes.

Boulders and logs in the stream slow strong currents and provide shelter for many creatures. They also create pools used by fish, amphibians, insects, birds and other wildlife. We can protect this habitat by leaving wood in the stream and on the bank.





Bull Trout • A Rare Resident

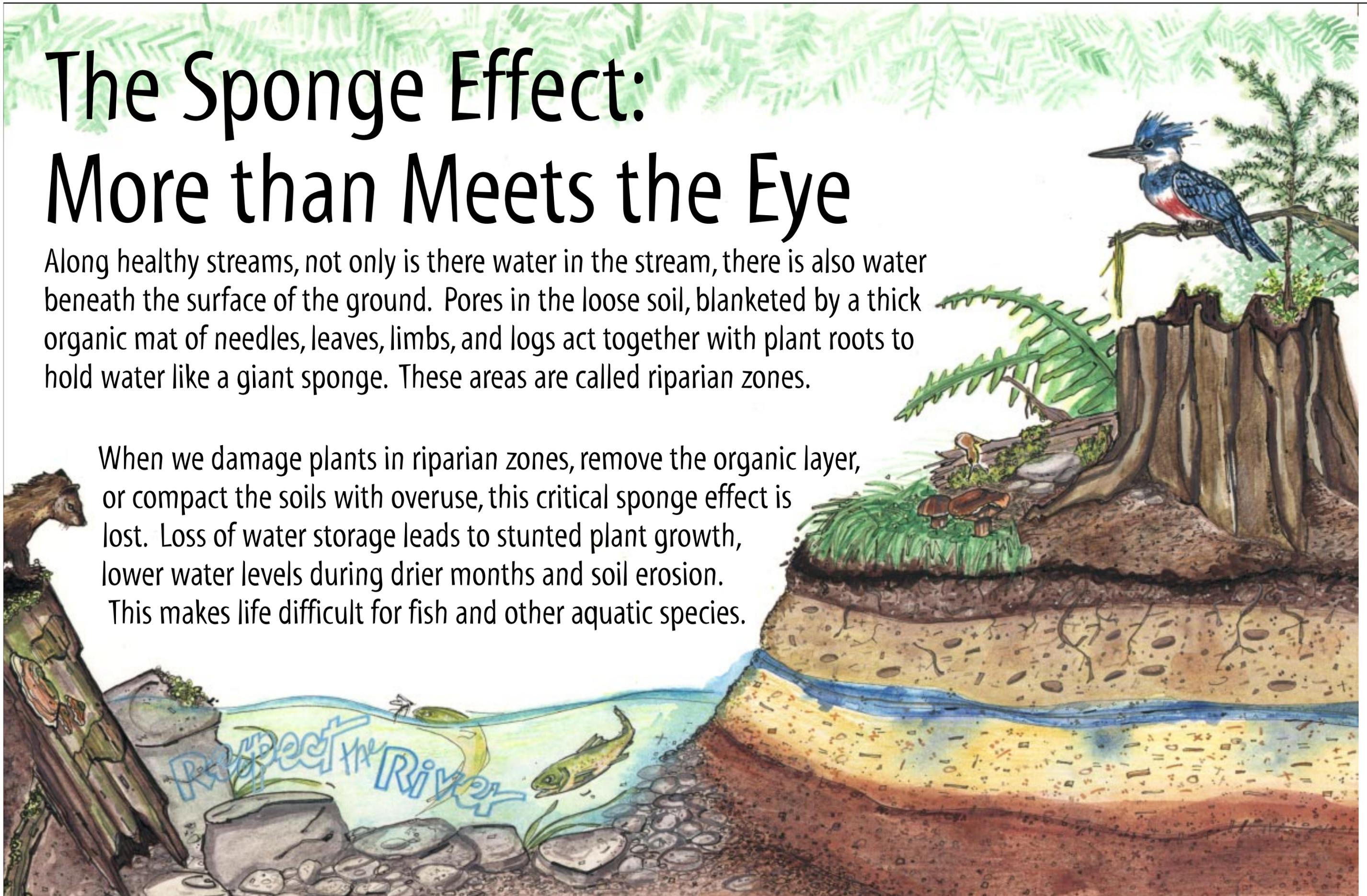
Kachess Lake, the scenic mountains, and clear streams make this a popular place. This combination also provides the preferred habitat of a very special fish • the bull trout, once known as Dolly Varden. Box Canyon Creek, with its alpine source, provides clean, cold water needed by these now rare trout.

Bull trout spawn and develop only in secluded, undisturbed areas. Increasing human activity, such as logging, recreation and fishing, and urban development have led to their decline in many places. If we respect their needs, they will again flourish in this stream.

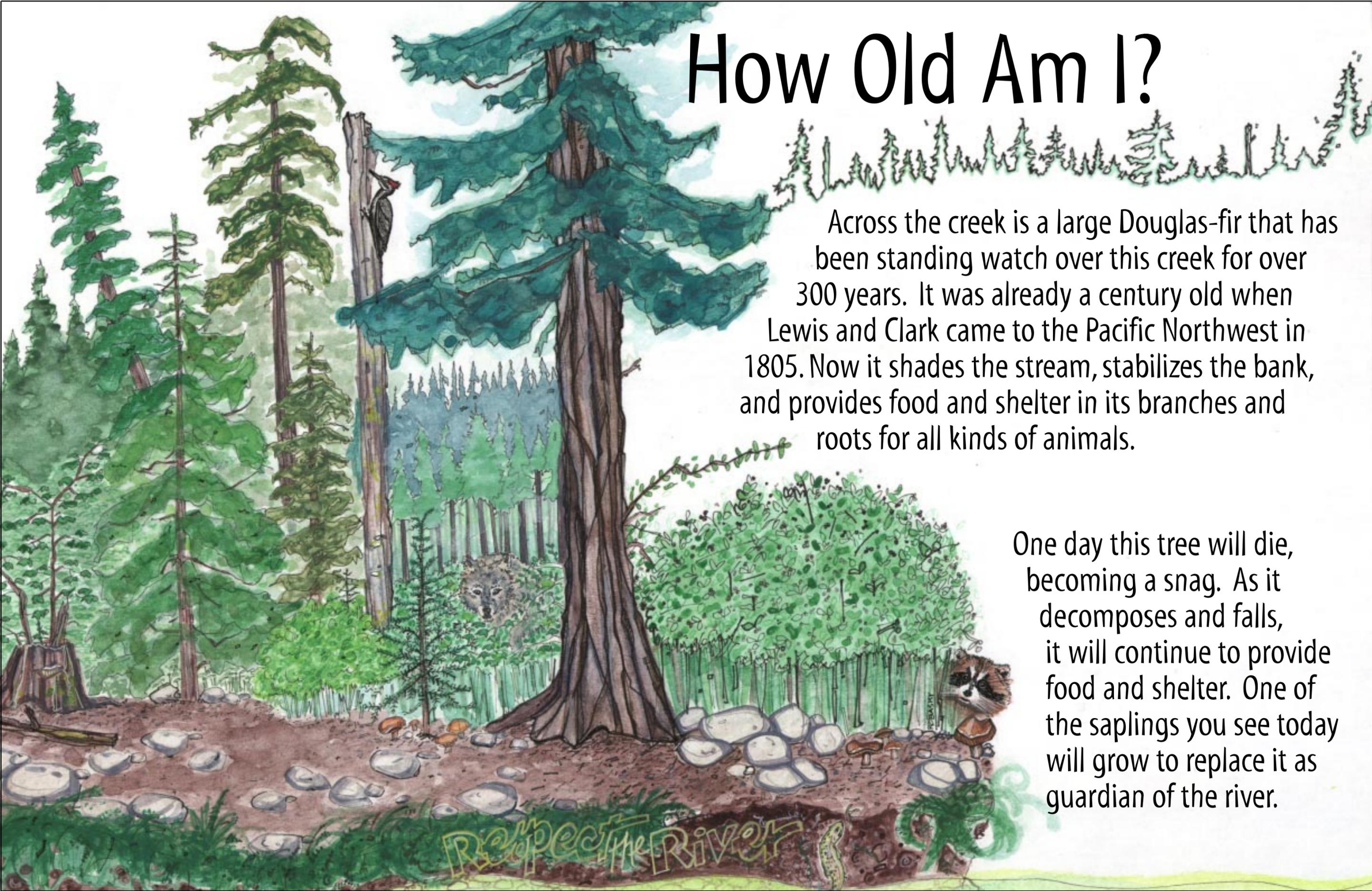
The Sponge Effect: More than Meets the Eye

Along healthy streams, not only is there water in the stream, there is also water beneath the surface of the ground. Pores in the loose soil, blanketed by a thick organic mat of needles, leaves, limbs, and logs act together with plant roots to hold water like a giant sponge. These areas are called riparian zones.

When we damage plants in riparian zones, remove the organic layer, or compact the soils with overuse, this critical sponge effect is lost. Loss of water storage leads to stunted plant growth, lower water levels during drier months and soil erosion. This makes life difficult for fish and other aquatic species.



How Old Am I?

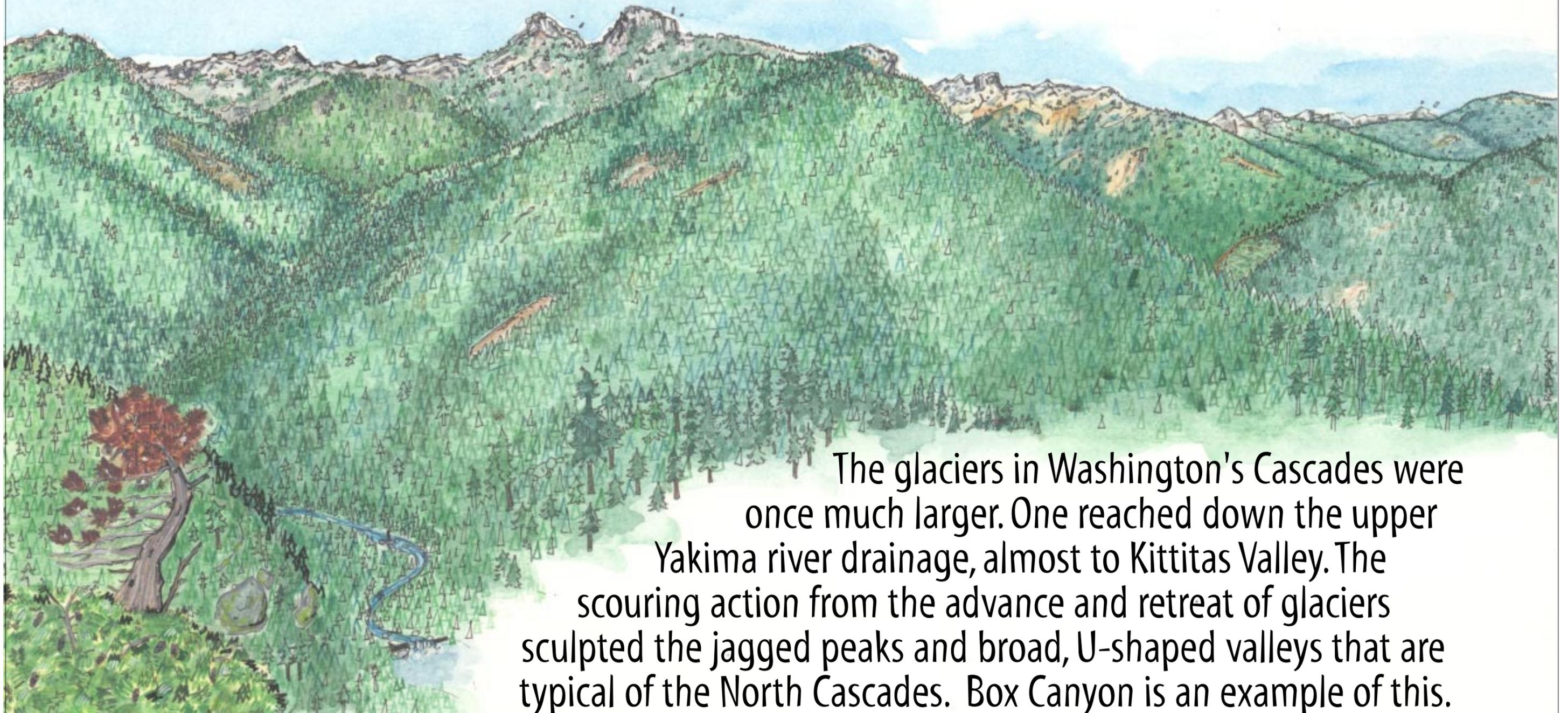


Across the creek is a large Douglas-fir that has been standing watch over this creek for over 300 years. It was already a century old when Lewis and Clark came to the Pacific Northwest in 1805. Now it shades the stream, stabilizes the bank, and provides food and shelter in its branches and roots for all kinds of animals.

One day this tree will die, becoming a snag. As it decomposes and falls, it will continue to provide food and shelter. One of the saplings you see today will grow to replace it as guardian of the river.

The Birth of Box Canyon

The birth of box canyon began millions of years ago with the drifting of the continental plates. The Pacific plate pushed its way east against the North American plate, slowly folding the earth's crust and uplifting the Cascade Mountain Range.

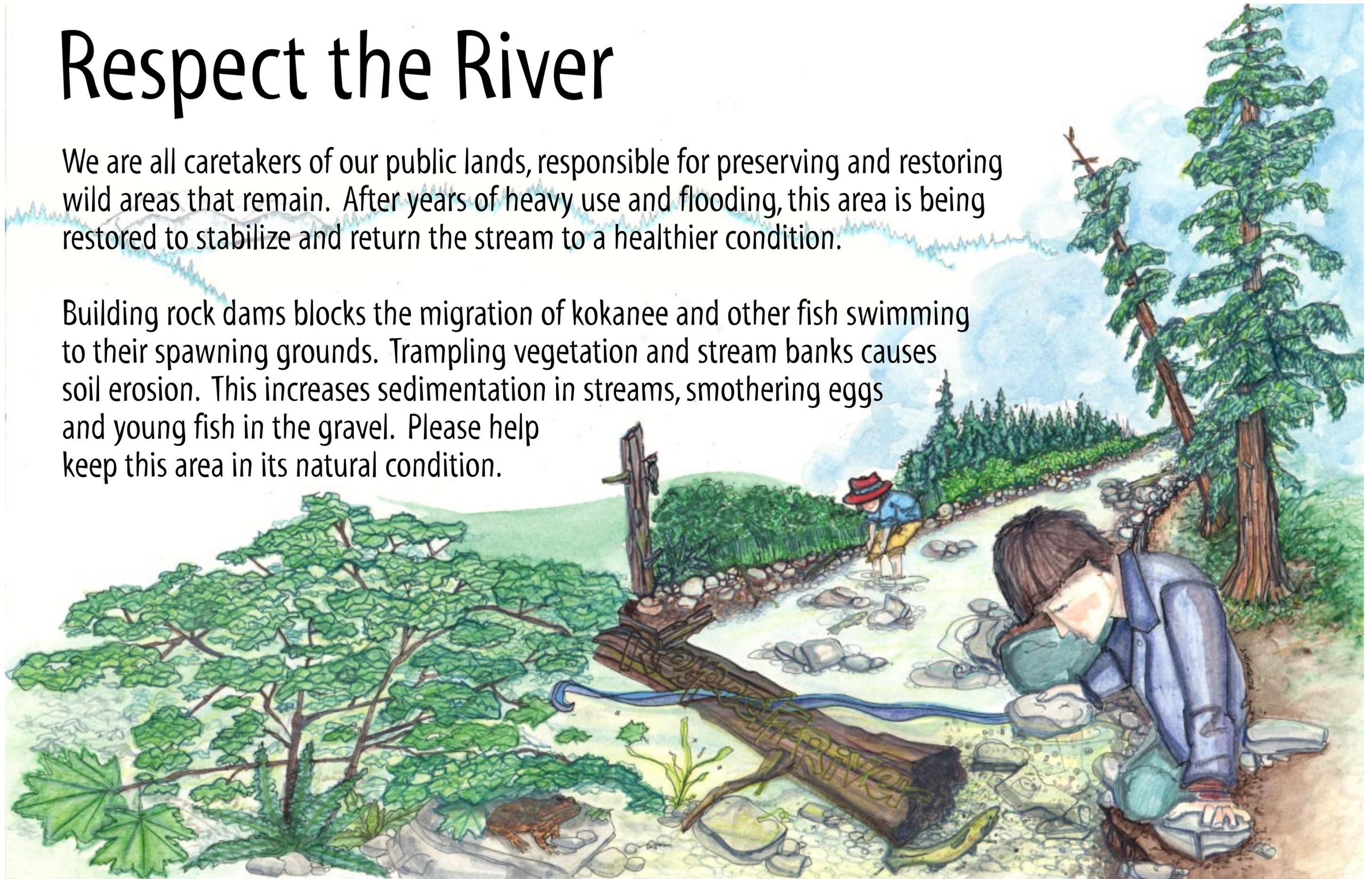


The glaciers in Washington's Cascades were once much larger. One reached down the upper Yakima river drainage, almost to Kittitas Valley. The scouring action from the advance and retreat of glaciers sculpted the jagged peaks and broad, U-shaped valleys that are typical of the North Cascades. Box Canyon is an example of this.

Respect the River

We are all caretakers of our public lands, responsible for preserving and restoring wild areas that remain. After years of heavy use and flooding, this area is being restored to stabilize and return the stream to a healthier condition.

Building rock dams blocks the migration of kokanee and other fish swimming to their spawning grounds. Trampling vegetation and stream banks causes soil erosion. This increases sedimentation in streams, smothering eggs and young fish in the gravel. Please help keep this area in its natural condition.



Nature's Delivery System

Spring runoff and floods deliver habitat. Floodwaters are like a conveyer belt with materials loaded onto it. As water recedes, materials, such as soil, rocks, and wood are unloaded. Trees topple into the stream, providing shelter and a more complex, healthy habitat. Organic material, soil, and rocks replenish the supply of nutrients and spawning habitat.

In a natural environment, floods are rejuvenating events in the life of a healthy, dynamic river. What evidence of these changes can you see?



We're Not the First Ones Here

This place was a campsite long before you set up your tent. The native people who lived in this area camped here, as did trappers and miners who came after them.

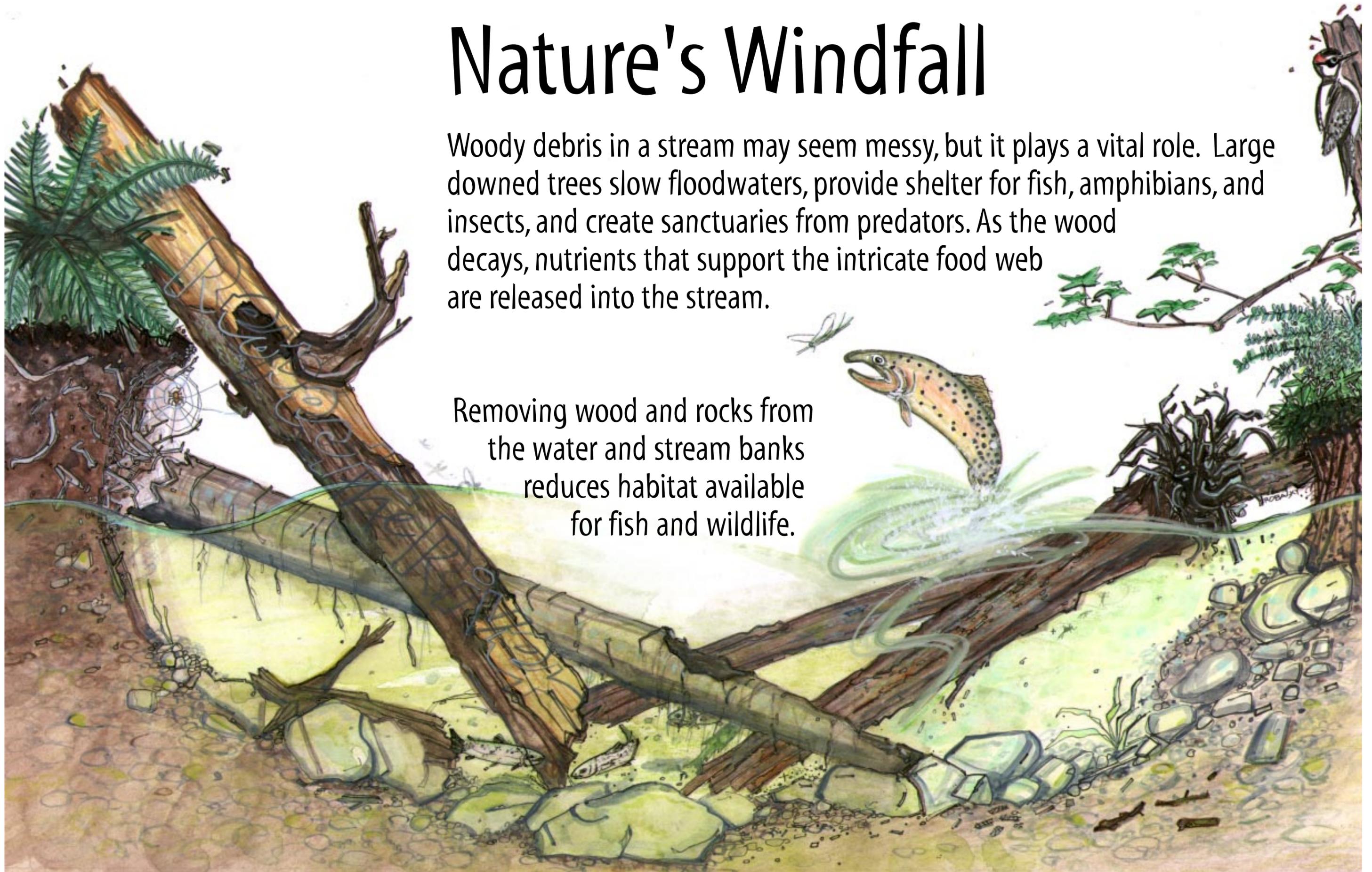
The Civilian Conservation Corps (CCC) maintained a work camp here in the 1930s while building Kachess Campground and many nearby hiking trails. This stone stove is a reminder of their legacy.



Nature's Windfall

Woody debris in a stream may seem messy, but it plays a vital role. Large downed trees slow floodwaters, provide shelter for fish, amphibians, and insects, and create sanctuaries from predators. As the wood decays, nutrients that support the intricate food web are released into the stream.

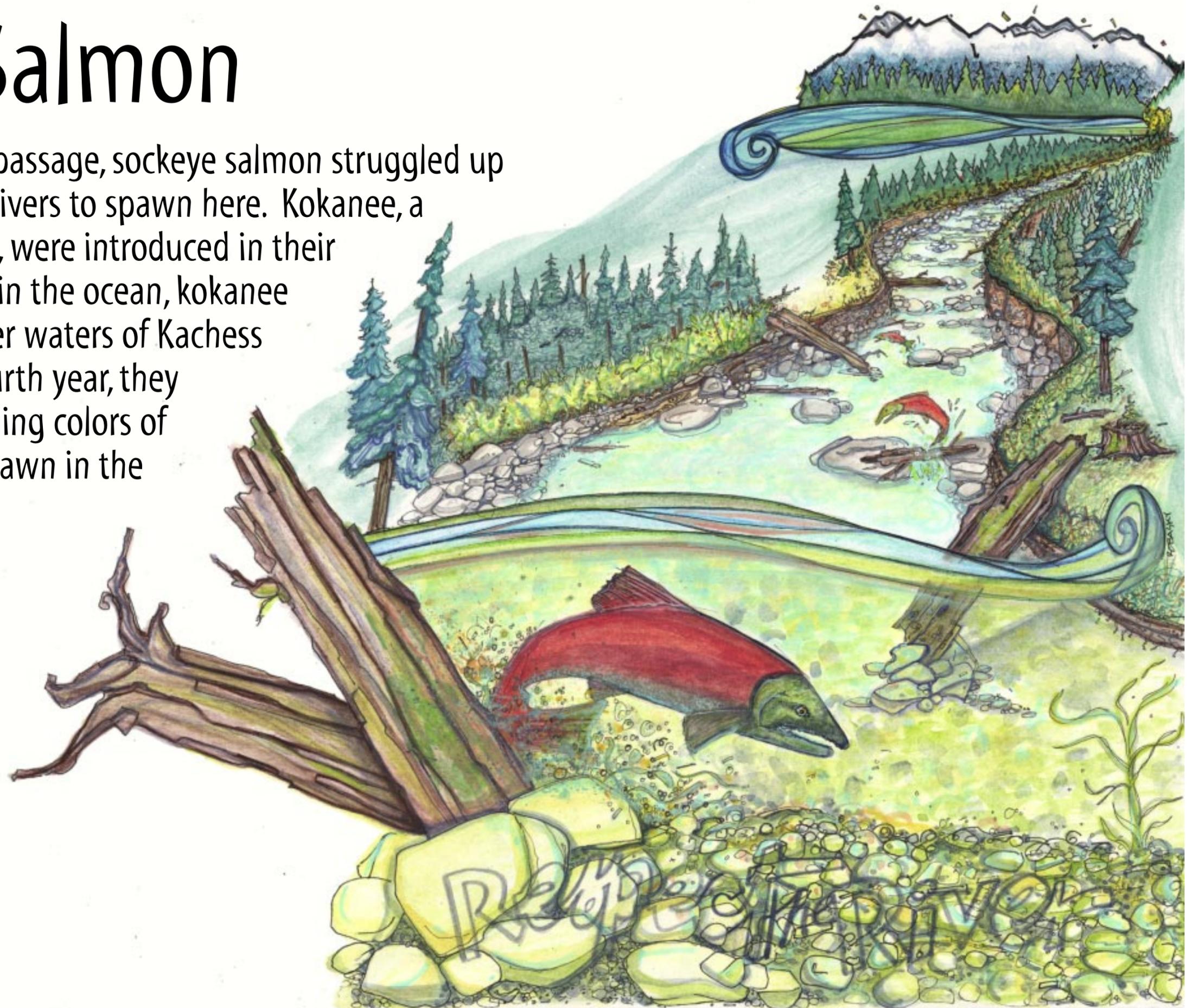
Removing wood and rocks from the water and stream banks reduces habitat available for fish and wildlife.



Kokanee Salmon

Before dams blocked their passage, sockeye salmon struggled up the Columbia and Yakima Rivers to spawn here. Kokanee, a landlocked form of sockeye, were introduced in their place. Instead of maturing in the ocean, kokanee feed and grow in the deeper waters of Kachess Lake. In autumn of their fourth year, they adopt the bright red spawning colors of all sockeye and return to spawn in the stream of their birth.

Gale Creek is a valuable spawning stream. Watch for the Kokanee from a respectful distance this fall.



A Shady Retreat

The stream banks and adjacent floodplains that border every stream, called riparian areas, support vegetation that is crucial to a healthy stream.

Riparian areas:

- provide shade to keep water temperatures low
- prevent erosion, holding the soil on banks with their roots
- provide food and homes for animals
- furnish hiding places for wildlife coming to drink or feed
- supply woody debris to the stream, providing nutrients, shelter, and cover for aquatic life

