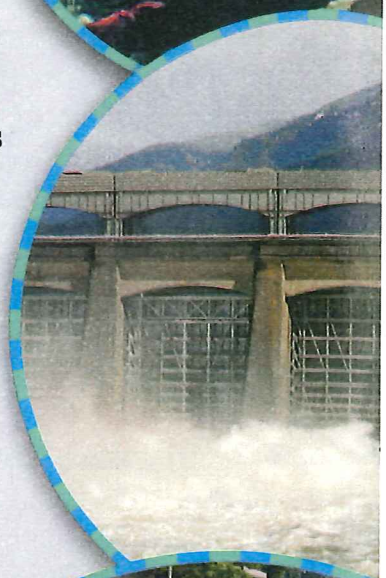
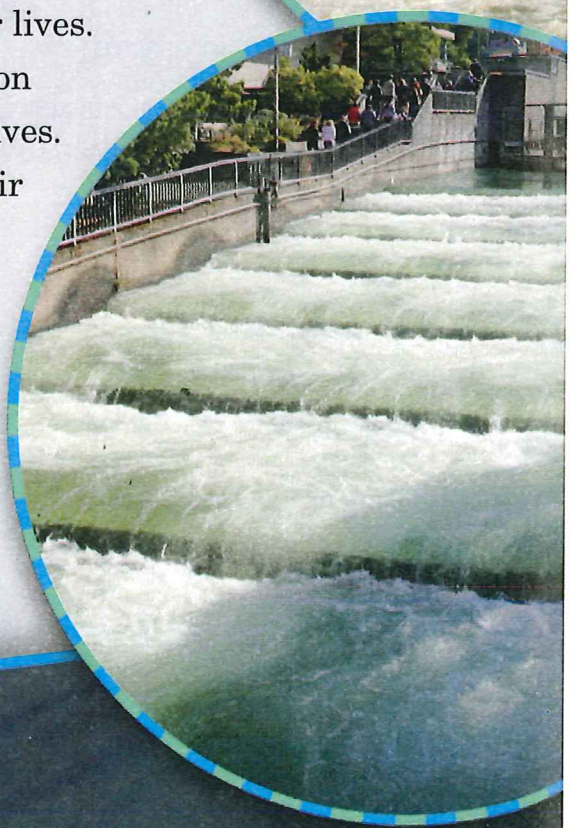
Fishy Business!

The Columbia River flows westward for more than 1,200 miles (1,931 kilometers) across the Northwest. A paradise for fish, right? At one time, it was. Yet when humans decided to control the water rushing to the ocean, no one asked the fish what they thought.

A dam is a man-made structure built across a river. Dams both help prevent flooding and provide water for irrigation. Larger dams generate pollution-free and inexpensive hydroelectric power. Over time, more than four hundred dams have been built along the Columbia River, eleven of which extend completely across the river.



Consider, however, how these dams affect the natural environment, specifically the salmon living in these waters. Salmon make only two long journeys during their lives. Hatched in rivers far from the ocean, young salmon swim to the ocean where they spend their adult lives. Near the end of their lives, they swim back to their birthplace. In the cool streams, females lay eggs, and males fertilize them.



What happens when a young fish swimming toward the ocean encounters a dam that crosses the entire river? Water stored behind the dam rushes downward through chutes and turns huge turbines to generate electricity. Spinning blades are not a healthy environment for fish!

If the fish somehow makes it to the ocean, it must eventually swim upstream against the current to reach its spawning ground. Fish can do this for long distances when the slope is gentle. However, climbing a dam more than 100 feet (30 meters) high is quite a challenge! Because dams make it difficult for fish to spawn, salmon and trout populations along the Columbia River have dropped from 16 million to 2.5 million.

Since the 1930s, builders have added "fishways" such as fish ladders to dams. A fish ladder is a series of gradually ascending pools next to a dam that are filled with rushing water. The fish swim upriver against the current, leaping from a lower pool to a higher one. They rest in the pool before repeating the process until they are above the dam.

Fish ladders and other structures are like elevators. They fill with fish, rise to the top of the dam, and open to let the fish out. They can add millions of dollars to a dam's cost, but isn't the expense worth it? Causing whole populations of fish to die out is unthinkable. Preserving the environment is priceless.

Sleuth Work

Gather Evidence List three ways that dams in the Northwest have helped residents of the area.

Ask Questions What are three questions about salmon near the Columbia River that are not answered in the text or by the images?

Make Your Case Agree or disagree with this statement: *People have a moral duty to protect endangered species and preserve their natural habitats regardless of the cost.* List two convincing reasons to support your viewpoint.