Backgrounder

Hell’s Gate Fishways – An Example of International Cooperation

Located in British Columbia’s Fraser River Canyon, Hell’s Gate is an extremely narrow gorge that constricts the southerly flow of the Fraser River. This naturally-occurring rock formation creates a bubbling cauldron of white water that is world-renowned for both its beauty and power. Below the surface, Hell’s Gate also serves as a substantial barrier to the migration of Fraser River salmon.

From the mid-1880s through 1914, railway construction resulted in large quantities of rock falling in the river, depositing debris directly into the Fraser River below. As a result, salmon destined for major tributaries such as the Salmon, Adams and Horsefly Rivers died without spawning – jeopardizing the viability of future runs.

In late 1913, authorities commenced efforts to remove and relocate debris from Hell’s Gate as well as to construct a rudimentary fish ladder to permit salmon to migrate upstream. However, a rock slide in February 1914 further narrowed the gorge, making salmon migration nearly impossible. A valued resource on both sides of the border, the declines in Fraser River sockeye salmon returns caused ongoing concern for the Governments of Canada and the United States.

On August 4, 1937, Canada and the United States signed the Convention between the United States of America and Canada for the Protection, Preservation and Extension of the Sockeye Salmon Fishery of the Fraser River System. The treaty established the right of both countries to harvest an equal proportion of sockeye returning to the Fraser River. It also formalized the obligation of both countries to conduct scientific investigations, make recommendations, and initiate regulatory decisions to improve the status of Fraser River sockeye. To oversee these tasks, the treaty created the International Pacific Salmon Fisheries Commission (IPSFC) with representatives from both nations.

In 1938, the IPSFC commenced a scientific review to improve salmon passage at Hell’s Gate. Early studies indicated that while some late-returning sockeye salmon runs were able to migrate through the area, the combination of increased velocity and significant elevation change resulting from debris build-up proved nearly impassable for early runs. IPSFC scientists recommended immediate action to improve fish passage past the Hell’s Gate obstruction.

The first fishways on the banks of Hell’s Gate were constructed from the fall of 1944 through May 1946. The effect was immediate - allowing the passage of salmon previously unable to migrate due to high stream flows. Additional fishways were added to the system over the next two decades, with the costs shared equally by Canada and the United States. The fishways continue to serve as an important reminder of the need for cooperative management of Pacific salmon.

Today, the Pacific Salmon Commission, the Government of Canada and the Government of the United States continue to work closely with First Nations, U.S. tribes, and others to conserve and protect this important resource.