



Harris River Restoration Project

Prince of Wales Island, Alaska



The removal of woody debris reduces fish habitat. © K Koski/TNC



Adding woody debris to Fubar Creek stabilizes stream banks and improves fish habitat. © K Koski/TNC

Stream Ecosystem Restoration

Pacific salmon will once again move freely within their spawning and rearing habitat in the Harris River of Southeast Alaska. Salmon are the foundation of many of Alaska's ecological systems. In all their life stages, from eggs to spawning adults, salmon play an essential role in bringing nutrients from the marine environment into freshwater systems. In many areas of Alaska, salmon are a basic staple of life for residents, particularly Alaska Native people. This anadromous fish is the foundation of local economies and ecosystems.

Harris River Watershed

Located on Prince of Wales Island in southern Southeast Alaska, the Harris River watershed has historically provided high-quality spawning and rearing habitat for coho, pink, and chum salmon, steelhead and cutthroat trout, and Dolly Varden char. Historic salmon and steelhead populations were among the most robust in the region; with carefully targeted restorative treatments and compatible management of the entire watershed by the U.S. Forest Service, this can be true once again,

The Harris is one of a number of Prince of Wales Island stream systems in which ecosystem function is impaired as a result of forest management activities that took place from the 1950s through the 1970s. Eleven landslides that occurred in the Fubar Creek tributary in 1993 further degraded the habitat with excessive stream sedimentation.

The Forest Service and The Nature Conservancy have committed resources toward a common goal of restoring watershed health, biodiversity, and overall in-stream ecosystem function in the Harris River.

Harris River Watershed



Watershed outlined in yellow
© Dave Albert/TNC

Fast Facts

- The Harris River watershed is ranked as a top Conservancy restoration priority for its
 - rich assemblages of yellow and red cedar
 - presence of salmon and trout species
 - potential for improved ecosystem function through habitat restoration.

During the 50s, 60s and 70s, nearly the entire riparian corridor was clear-cut, negatively affecting the stream ecosystem.

Restoration Work Will Be Accomplished in Four Phases

The restoration team reconstructed a total of 2,500 linear feet of the Fubar Creek tributary channel and adjoining floodplain and re-established large log jams and pools during the first phase of Harris River restoration in 2006. In addition, more than a mile of old logging road was placed into long-term storage by removing drainage structures and installing water bars to improve hydrologic connectivity.

In 2007, the second phase of instream work extended earlier restoration downstream 2,900 feet, focusing on habitat improvement through floodplain roughening, bank stabilization, and placement of large wood. Phase three restoration in 2008 on two unnamed tributaries of the Harris included sediment abatement, streambed stabilization, side-channel improvement and removal of blockages along nearly a mile of stream channel. Projects in 2009 will improve fish habitat and sediment transport on the Harris mainstem, primarily through placement of large woody debris in the creek bed.

Ecosystem Benefit

These treatments will accelerate recovery of hydrologic processes and restore and increase available year-round rearing habitat for juvenile coho salmon and steelhead trout within the Harris watershed. Re-establishing the health of the stream and riparian habitat will in turn influence the productivity of the surrounding terrestrial habitat and species inhabiting these areas.

To date, instream restoration work in the Harris River drainage has resulted in

- The first perennial flows through historic channel since the 1993 landslides
- Salmon presence in newly created deep pools and riffles two weeks after the 2006 work was completed
- Excellent channel stability following fall and winter flooding
- More than 400 eight-hour days of employment

Social and Economic Benefits

Watershed restoration projects such as this provide benefits to local communities, including increased local employment, greater involvement in resource management by local organizations, and ultimately to continued abundance of valued resources that are important to recreation and to subsistence lifestyles.



Abandoned logging roads provide access for stream restoration activities. © K Koski / TNC



Stakeholders on Prince of Wales work to prioritize watershed restoration.

Working Together

The Nature Conservancy in cooperation with the U.S. Forest Service, the U.S. Fish and Wildlife Service and local stakeholders has designed a systematic method of prioritizing restoration efforts and investments on Prince of Wales Island. Watersheds characterized as a high priority for restoration – like the Harris River – exhibit high biologic value and a high level of impaired function.

Together with the U.S. Forest Service, the Alaska Department of Fish and Game, the National Oceanic and Atmospheric Administration (NOAA), and others, and with support from the National Forest Foundation, the Gordon and Betty Moore Foundation, and the National Fish and Wildlife Foundation, The Nature Conservancy will help restore the health of Harris River, while providing opportunities for employment and sustainable use of forest resources by Prince of Wales Island communities.

The mission of The Nature Conservancy is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.



NOAA

The National Partnership between the NOAA Community-based Restoration Program and The Nature Conservancy implements innovative conservation activities that benefit marine, estuarine and riparian habitats across the United States. The NOAA Restoration Center has worked with community organizations to support locally driven projects that provide strong on-the-ground habitat restoration components that offer educational and social benefits for people and their communities, as well as long-term ecological benefits.

for more information

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