Science, Service, Stewardship

NOAA RESTORATION CENTER

Volunteers planting the stream bank of Fourmile Creek. Project photos courtesy of IDFG, 2009.

Chinook Salmon *(Oncorhynchus tshawytscha)*

The *Community-based Restoration Program* provides funding and technical assistance to restoration projects that benefit coastal, marine, and migratory fish habitat.

Fourmile Creek Project Location.

Fourmile Creek Riparian Restoration Project

Fourmile Creek is a tributary of the Little Salmon River in Western Idaho. Decades of intensive ranching and logging practices have contributed to a reduction of trees, shrubby vegetation, and native forbs on the land. The lack of riparian vegetation along streams like Fourmile Creek contributes to elevated water temperatures. The erosion of steep and barren banks has led to sedimentation and decreased stream depth, also impacting water quality.

The Little Salmon River is considered 'critical habitat' for Snake River Chinook salmon and steelhead, which are listed as threatened by the Endangered Species Act. The Little Salmon is the only Salmon River tributary open for fishing during steelhead season. Enhancing fish habitat in this watershed is a high priority for sustaining these important Snake River runs.

During the summer of 2009 the Idaho Department of Fish and Game led an effort to restore 3 acres of native riparian habitat along Fourmile Creek. Restoration activities included fence installation to keep cattle off the site, on-site willow weaving construction to prevent erosion, and riparian planting along the banks. Volunteers from local schools and the surrounding community comprised the main workforce, providing stewardship and education opportunities to students and landowners. This project was funded by a grant from NOAA Restoration Center and American Sportfishing Association's FishAmerica Foundation.

Restoring Habitat

Raw banks of Fourmile Creek before restoration, May 2009. Photo courtesy of IDFG.

Locally harvested willow stakes protect the stream bank just 3 months later. Photo courtesy of IDFG.

Native riparian vegetation is an important component of a healthy watershed. In order to restore the riparian corridor along this half mile segment of Fourmile Creek, Idaho Department of Fish and Game and their partners built three cattle exclusion fences, planted 1,400 trees and shrubs, and constructed willow weavings to protect eroded stream banks from further degradation. They return to the site regularly to care for the plants and monitor the success of their efforts.

These activities will benefit fish, wildlife, and local residents. Once the riparian vegetation has matured and developed deep roots, it will stabilize the stream banks and provide shade, improving water quality and reducing sediment inputs to the stream. This restoration project will also benefit the three landowners involved by reducing land loss during high water events. Chinook salmon, steelhead trout, and other fish and wildlife species will benefit from reduced water temperatures, increased habitat complexity, sediment retention, and an elevated water table.

Encouraging Stewardship

Volunteers provided the workforce of the Fourmile Creek Riparian Restoration Project. Seventy-seven volunteers donated their time to planting, fence construction, and monitoring. The project served as a "living laboratory" for students from Boise State University, Meadows Valley School, and Borah High School, who got the opportunity to learn about native plants, fish habitat, and restoration techniques. Local landowners and additional volunteers from the McCall Chapter of Trout Unlimited were also involved. These individuals will continue to be involved in long term stewardship of the site through monitoring and maintenance.

Building Partnerships

The Fourmile Creek Riparian Restoration Project was made possible through a diverse partnership of local, state, federal, private, and public partners. Idaho Fish and Game, Boise State University, Meadows Valley Schools, Borah High School, Trout Unlimited, FishAmerica Foundation, NOAA Restoration Center, and the local landowners all contributed resources to ensure this project's success.

Funding for this project was provided by a partnership between the NOAA Restoration Center and FishAmerica Foundation. Twice a year, the Restoration Center and FishAmerica award grants of $10-$75,000 to local communities and government agencies to restore habitat for marine and anadromous fish species. Successful proposals, like the Fourmile Creek Riparian Restoration Project, include on-the-ground restoration and meaningful outreach to local communities.

For more information about FishAmerica Foundation: http://www.fishamerica.org

For more information about funding through the NOAA Restoration Center: http://www.nmfs.noaa.gov/habitat/restoration/funding_opportunities/funding.html

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