



NOAA Community-Based Restoration Program



Duck Creek Watershed Restoration Juneau, Alaska

Duck Creek is a small, anadromous fish stream located in the Mendenhall Valley, a densely populated residential area in Juneau, Alaska. Duck Creek is currently listed as an impaired water body by the Alaska Department of Environmental Conservation. Environmental problems include pollution from urban runoff, poor water quality, altered flow regimes and degraded habitat.



Sediment removal from channel

Historically, Duck Creek was an important salmon stream, providing salmon for commercial, sport and subsistence fisheries, as well as feed for the early fur farms. However, as hydrology and water quality were altered by human development along the stream corridor, the salmon habitat became increasingly degraded. Chum salmon runs, which once numbered 10,000, are now extinct. Coho salmon and cutthroat trout abundance has also been reduced significantly.

Despite its impairment, the watershed still provides the Juneau community with beneficial and often essential resource values, including storm drainage and flood control, fish and wildlife habitat, recreation and opportunities for aquatic education. Duck Creek still provides important overwintering habitat for juvenile coho salmon, which migrate into the stream each fall. This wintering population yields about 2,000-4,000 smolts each spring and contributes to Juneau's annual adult coho harvest.



Wetlands revegetation

In 2002, NOAA Community-based Restoration Program awarded a \$52,000 restoration grant to the Southeast Alaska Guidance Association (SAGA) for stream channel reconfiguration, sediment removal and stream bank revegetation along Duck Creek. These efforts will improve spawning habitat by restoring stream flow velocity, uncovering spawning gravels and improving water quality. Bank revegetation and the addition of woody debris will provide cover for fish, reduce erosion and filter urban runoff.

This current restoration project is part of a larger habitat restoration effort occurring in the Mendenhall Watershed. Over the past decade, several restoration projects have been completed along Duck Creek through coordinated efforts by SAGA, the Duck Creek Advisory Group, NOAA's National Marine Fisheries Service, Mendenhall Watershed Partnership, SE Conference and other organizations and members of the Juneau community.

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