

Community Coastal Impact Assistance Program

Nushagak –Mulchatna Rivers Watershed Anadromous Fish Distribution

Award Amount

\$ 80,432

Grantee

Bristol Bay Native Association/Nushagak-Mulchatna Watershed Council

Project Contact

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Location

This project is within the former Bristol Bay Coastal Resource Service Area. Project work will occur in the streams and lakes of the Middle and Upper Nushagak and Mulchatna Rivers.

Project Duration

Project Start date: July 1, 2012

Project End Date: December 30, 2014

Project Duration: 2 ½ years

Project Description

The Alaska Department of Fish and Game (ADF&G) has long recognized the need to survey all potential anadromous streams within Alaska to assess if they should be included in the Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes (AWC). Field investigation, documentation and addition of anadromous streams to the AWC in this region are long-standing needs that have not been met because the area is remote and surveys are costly. The need to accomplish this has become more immediate and pressing because of the real possibility of industrial scale mining and the affect such an activity can have on fish and water resources. The prospect of large scale mineral development in the Nushagak-Mulchatna and Kvichak watersheds of Bristol Bay creates an immediate need to: 1) secure the maximum level of protection available under Alaska law for the salmon bearing streams most likely to be affected by mining activity, and 2) collect independent baseline environmental information needed to understand the current ecological condition of the salmon bearing streams most likely to be affected if mining activity is permitted.

The AWC includes a catalogue and atlas of all streams, rivers and lakes determined to be important to anadromous fish species and therefore afforded protection under Alaska Statute 16.05.871. Prior to beginning a use, construction or activity that would take place in water bodies specified in the AWC, individuals or governmental agencies are required to submit plans and specifications to ADF&G and receive written approval in the form of a Fish Habitat Permit.

Measurable Goals and Objectives

Goal 1: Conduct field surveys by fisheries biologists and technicians using accepted scientific methods to document anadromous fish populations in the middle and upper Nushagak–Mulchatna River watersheds. Streams that are found to be important to anadromous fish species will then be nominated for inclusion in the AWC.

Goal 2: Conduct field verification of a model Mike Wiedmer, retired ADF&G fisheries biologist and PhD candidate at the University of Washington, is developing. This fish distribution model is based upon data obtained in the Nushagak drainage by ADF&G, The Nature Conservancy and the applicant from 2004 to 2011. The model, once completed, can be applied to other watersheds in Bristol Bay and throughout Alaska and will predict anadromous and resident fish distribution and lifestages for all Bristol Bay and Alaska rivers, streams and lakes. This will make it possible for Federal and State agencies to more accurately focus efforts to nominate waterbodies for the protection of Alaska’s Anadromous Fish Act. This work is part of a larger, multi-year coordinated investigation that includes adding area streams to the Anadromous Waters Catalogue, determining the anadromy of resident Dolly Varden populations, in-stream flow monitoring, water sampling to better understand water chemistry, macro-invertebrates and diatoms in the watershed.

CIAP Authorized Use

The activities outlined for this project are consistent with CIAP Authorized Use 1: Projects and activities for the conservation, protection, or restoration of coastal areas, including wetlands. The project is located within the coastal zone of the former Bristol Bay Coastal Resource Service Area.

This project will fund the necessary data collection to determine if stream reaches are important for the spawning, rearing and migration of anadromous fish. Reaches that are found to be important will be nominated for inclusion in the AWC. Prior to beginning any use, construction or activity that would take place in water bodies protected in the AWC, individuals or governmental agencies are required to submit plans and specifications to ADF&G and receive written approval in the form of a Fish Habitat Permit. This permitting process will result in a review of each project for potential damage to anadromous fish habitat, which will minimize the negative impact related to development and will result in the protection of coastal environments.

This project’s fish distribution model can be used by the Alaska Department of Fish and Game and others to predict the presence or absence of fish species in any given stream reach within the state. This model will make it possible to focus future fish distribution survey efforts on areas that are likely to be important anadromous fish habitat, thus making more efficient use of resources and better enabling conservation and protection of anadromous fish of the Bristol Bay region.