



## Emergency Watershed Protection (EWP) Alaska Success Stories

There are 2,100 watershed projects in the nation established by local units of government with the assistance of the USDA Natural Resources Conservation Service (NRCS) Watershed Program (Public Law 78-534 and Public Law 83-566). These projects consist of over 11,000 flood control dams and thousands of conservation practices that provide over \$2 billion in annual benefits in flood prevention, water supplies, recreational areas, and other benefits.

There are three programs authorized in the Public Law 83-566 Watershed Protection and Flood Prevention Program: Watershed Protection and Flood Prevention, Emergency Watershed Protection Program and Watershed Rehabilitation Program.

The **EWP Program** offers technical and financial assistance to help local communities relieve imminent threats to life and property caused by floods, fires, windstorms and other natural disasters that impair a watershed.

All EWP projects must have a sponsor and demonstrate that they reduce threats to life and property; be economically, environmentally and socially sound; and must be designed to acceptable engineering standards. NRCS partners with diverse sponsors to complete EWP Program projects. Sponsors include cities, counties, towns, conservation districts, or any federally-recognized Native American tribe or tribal organization.

Local units of government in Alaska utilized the EWP Program to solve several natural resource issues. Below are examples of their EWP projects.

### Galena, Alaska

Through the Emergency Watershed Protection (EWP) program, the off-road community of Galena repaired a levee with NRCS assistance. The levee protects the airport, a school, and other village infrastructure.

The levee had been damaged during a flood, which was caused by an ice jam on the Yukon River during spring break-up.

The original levee was built during the time that the Air Force operated the runway and base, which were later turned over to the City of Galena.

Approximately 15,600 cubic yards of rock riprap was required for the project. It was produced locally, about 12 miles outside of the village, at Mueller Mountain. However, there was no road to the quarry.



Mueller Mountain rock quarry was used for source of rock riprap for the levee.

Frozen ground can withstand heavy loads that otherwise would sink into the marshy soil, so an ice road was built specifically for the levee's rock transportation. This is the first ice road built for EWP construction. Project cost: \$6.4 million.

Galena has a population of approximately 480 people. It is located 270 air miles west of Fairbanks and only reachable by air.

## Valdez, Alaska

The City of Valdez needed to protect the Prince William Sound regional emergency broadcast tower from falling into the Valdez Glacier Stream.

The Natural Resources Conservation Service, through the Emergency Watershed Protection (EWP) program, had a solution: a training dike.

A jökulhlaup, a sudden glacial-lake outburst flood, forcibly shifted the course of the Valdez Glacier Stream channel, causing severe erosion on the streambank adjacent to the tower.

To secure the streambank, a 2,100 feet-long training dike was built with 17,500 cubic yards of earth fill and 15,600 cubic yards of riprap.

Cultural resources were closely monitored throughout the project because construction took place near the original Valdez town site. The old town was destroyed by a tsunami generated by the 1964 Good Friday earthquake. Project cost: \$1.3 million.



Riprap placed along the training dike of the Valdez Glacier Stream.

The City of Valdez has a population of approximately 4,000 people. It is located on a deep water port of Prince William Sound. The Richardson Highway, which is open year round, ends in Valdez and connects the town to the rest of the Alaska road system.

## Seward, Alaska

What is a Jökulhlaup? A jökulhlaup, an Icelandic word pronounced yo-KOOL-lahp, is a glacial outburst flood. It occurs when a lake fed by glacial melt water breaches its dam.

It is usually sudden and violent. A jökulhlaup near Seward, Alaska, resulted in streambank erosion on the Snow River, creating a serious threat to life and property. Multiple power poles were at risk of falling because of erosion at their bases.

The Natural Resources Conservation Service's Emergency Watershed Protection (EWP) program was able to help. The City of Seward covered 25 percent of the contract cost and hired a consultant to design the project. Project cost: \$1.9 million.

Through the program, a project was designed to place 10,000 cubic yards of riprap along the Snow River streambank to control erosion and secure the power poles.

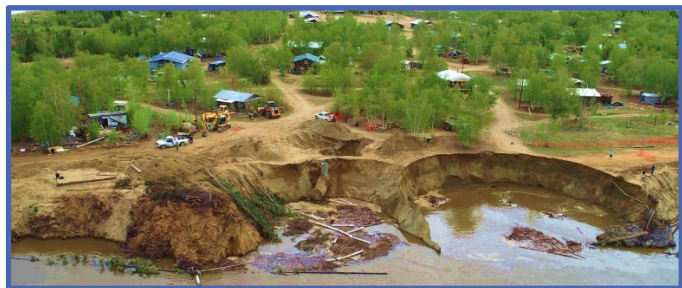


The City of Seward is on the east coast of the Kenai Peninsula. Seward has a population of approximately 2,600 people.

## Huslia, Alaska

Relocating homes out of harm's Way In 2014 and 2018, the Huslia Village Council requested assistance from NRCS through the EWP program, due to increased erosion during spring break-up.

Projects were funded by NRCS in FY2014 and FY2019, respectively. In 2014, after completing a site assessment and coordinating on a project scope and cost, NRCS and the Huslia Village Council signed a Cooperative Agreement to relocate two residences, demolish six abandoned structures, and remove all associated debris from the threatened area.



Severe soil erosion occurred in Huslia following rapid ice melt during spring break up.

The agreed upon project cost was \$90,759, of which NRCS contributed \$81,683 (90%). In 2019, after another period of increased erosion, again upon completion of a site assessment and coordinating on a project scope and cost, NRCS and the Huslia Village Council signed a Cooperative Agreement to relocate five residences, demolish two abandoned structures, and remove all associated debris from the threatened area.

The agreed upon project cost was \$206,000, of which NRCS contributed \$185,400 (90%). In both cases the Huslia Village Council was able to use NRCS funding to leverage additional funds to cover portions of the overall relocation project that NRCS was not able to fund through EWP, such as extending utilities to the new residential locations.



One of the relocated homes

Both projects were completed successfully and on schedule, with all project management and construction activities performed by, or under the direction of the Huslia Village Council, and utilizing all local labor.

When the sponsor/community has the equipment and workforce to manage and execute a project, the Cooperative Agreement approach to contracting provides a streamlined approach that reduces the project timeline, reduces the financial burden and liability to the sponsor, provides employment opportunities in the community, and reduces the cost to the government.

The Village of Huslia is an Athabascan community located 260 miles west of Fairbanks on the main stem of the Koyokuk River. The village is off the road system and is only accessible by air. The community has a population of approximately 275 people.

For more information about these and other projects go to the Alaska NRCS web page:

<https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/alaska/alaska-success-stories>

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