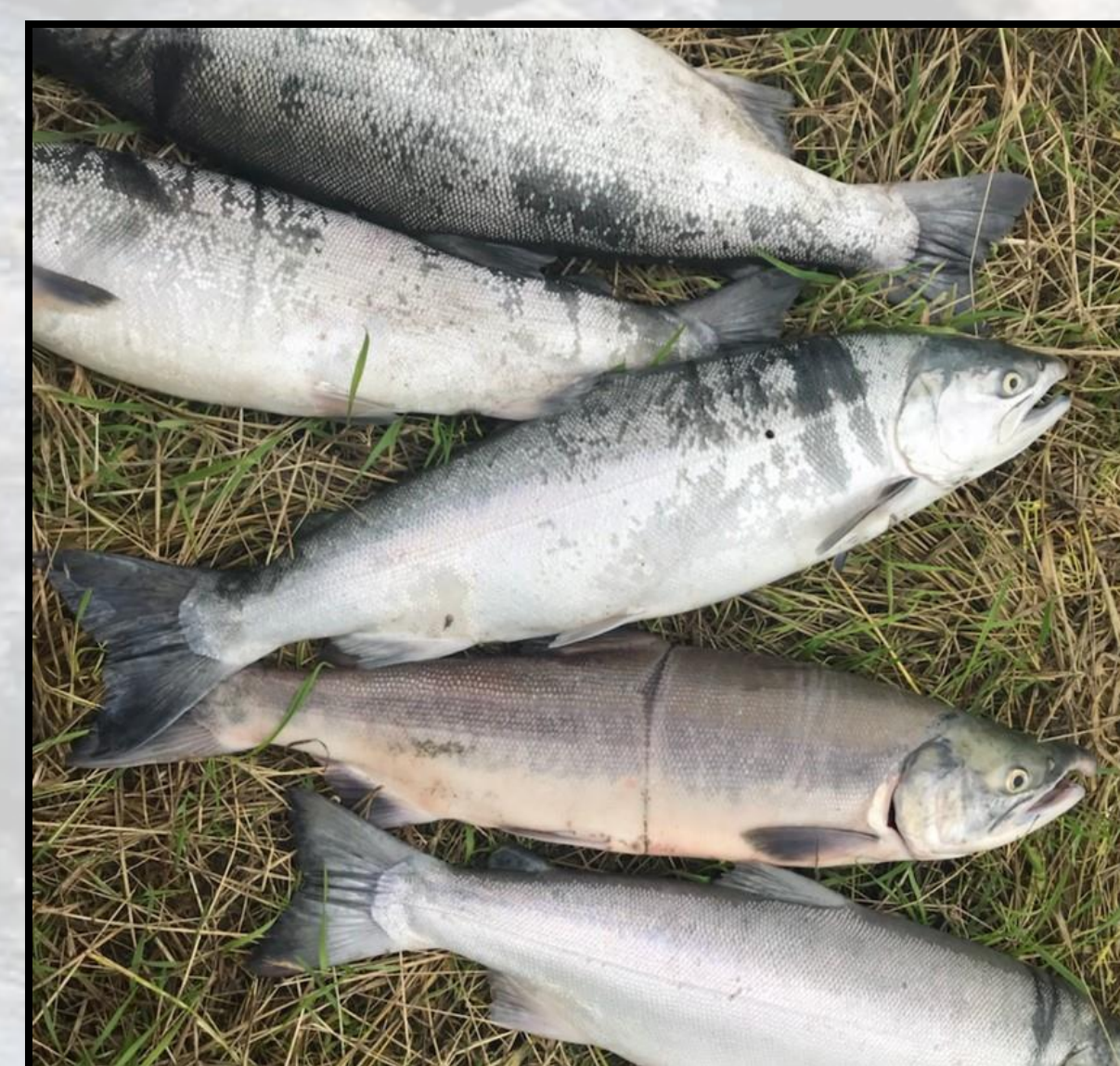
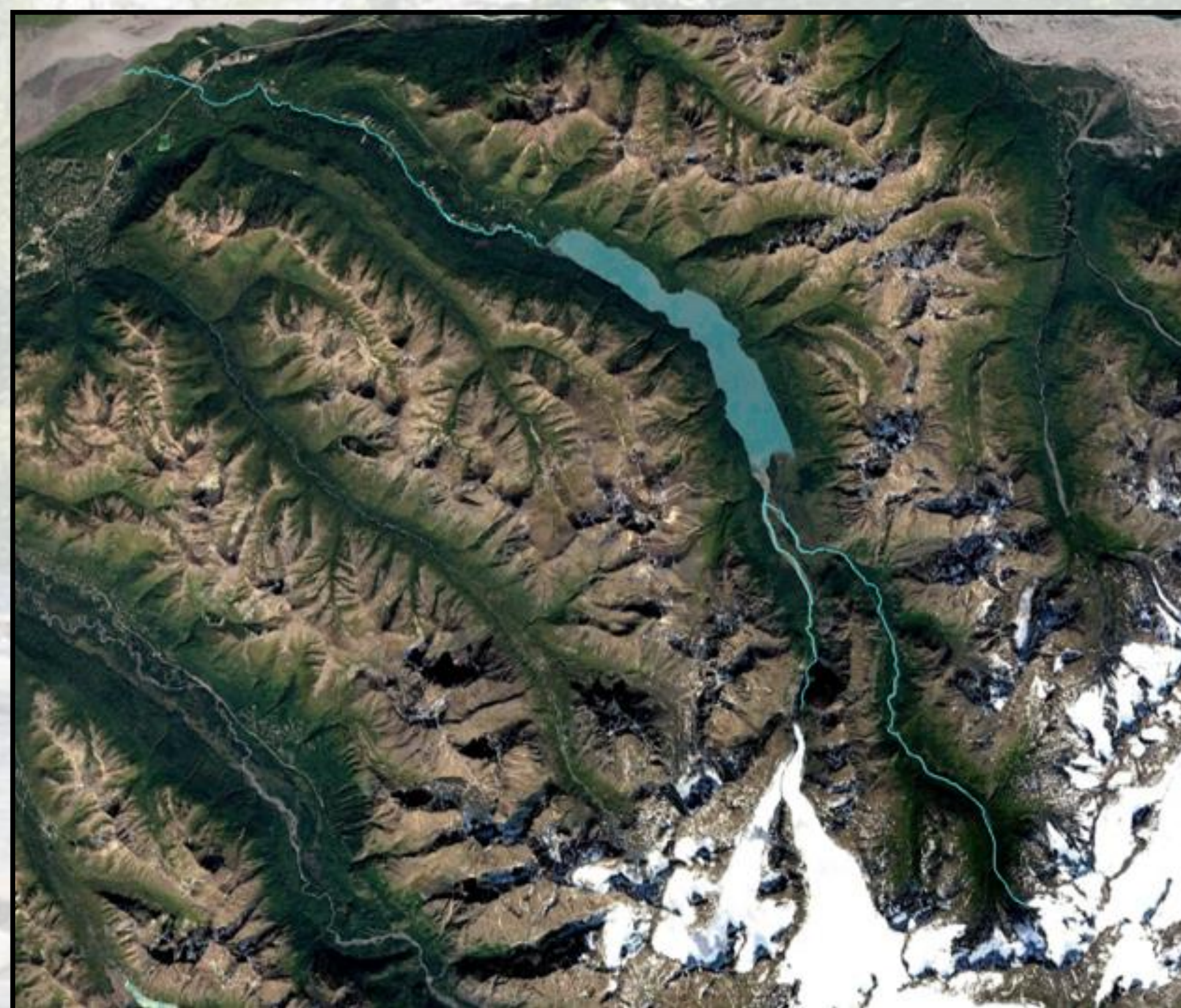


# Eklutna River

## Łiq'a nagh qinqtudet

The Eklutna River runs over 36 miles from the Eklutna Glacier to the Knik Arm of the Cook Inlet. This river was once thriving with salmon, feeding Dena'ina that lived in the area. Eklutna elders tell stories of salmon and plentiful harvest coming from Eklutna River. This has changed. In the early 20<sup>th</sup> century, two dams were constructed on the Eklutna River. One at the edge of the natural moraine dam on the end of Eklutna Lake, and the other about four miles upriver from the inlet. Water for the river was retained by these two structures to be diverted for power production, and smaller amounts for drinking water, in the Anchorage area. Without the historical flows of the Eklutna River, the salmon populations dwindled. In 2018 the lower dam was removed, allowing for unimpeded access for salmon below the Eklutna Lake Dam. All water, however, is still being diverted. The river channel below the Eklutna Lake Dam is dry in some areas and low trickles in others. The water in this part of the river is from runoff and ground water springs. Gradually the flow increases, occasionally halted by beaver dams, until it merges with water from Thunderbird Creek. All 5 species of salmon can still be found in the river, but now only make it to the Thunderbird Creek confluence and the numbers are low. The habitat is no longer adequate for large population numbers. Studies being completed on the river will help us understand what should be done to help the salmon to return to the whole river. Many organizations are working together for this cause. Łiq'a nagh qinqtudet, we are hopeful the salmon will return to us.

**Eklutna River**  
**Idlughetnu**



## Traditional Dena'ina Fishing Tools



Anchorage Museum of History and Art

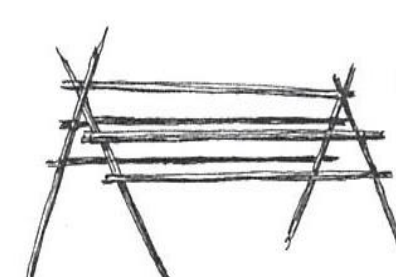


NVE Fish Spear Class, 2019

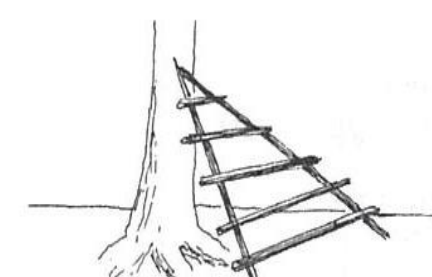


Anchorage Museum of History and Art

Dena'ina used many methods of fishing. Some of the tools that Dena'ina used for fishing were fish traps and weirs, moose bone harpoon headed fish spears, pole noose snares, and spruce root nets.



"bone" racks at fishcamp



temporary fish rack for use in camp



Rack where fish are allowed to dry before going into the smokehouse

Fig. 19-g. Three styles of racks: nudnutl'igi, qadnatl'ini, and untaz'i or untay'uyi from Behnke 1978:66.

- From Kari, Dena'ina Topical Dictionary

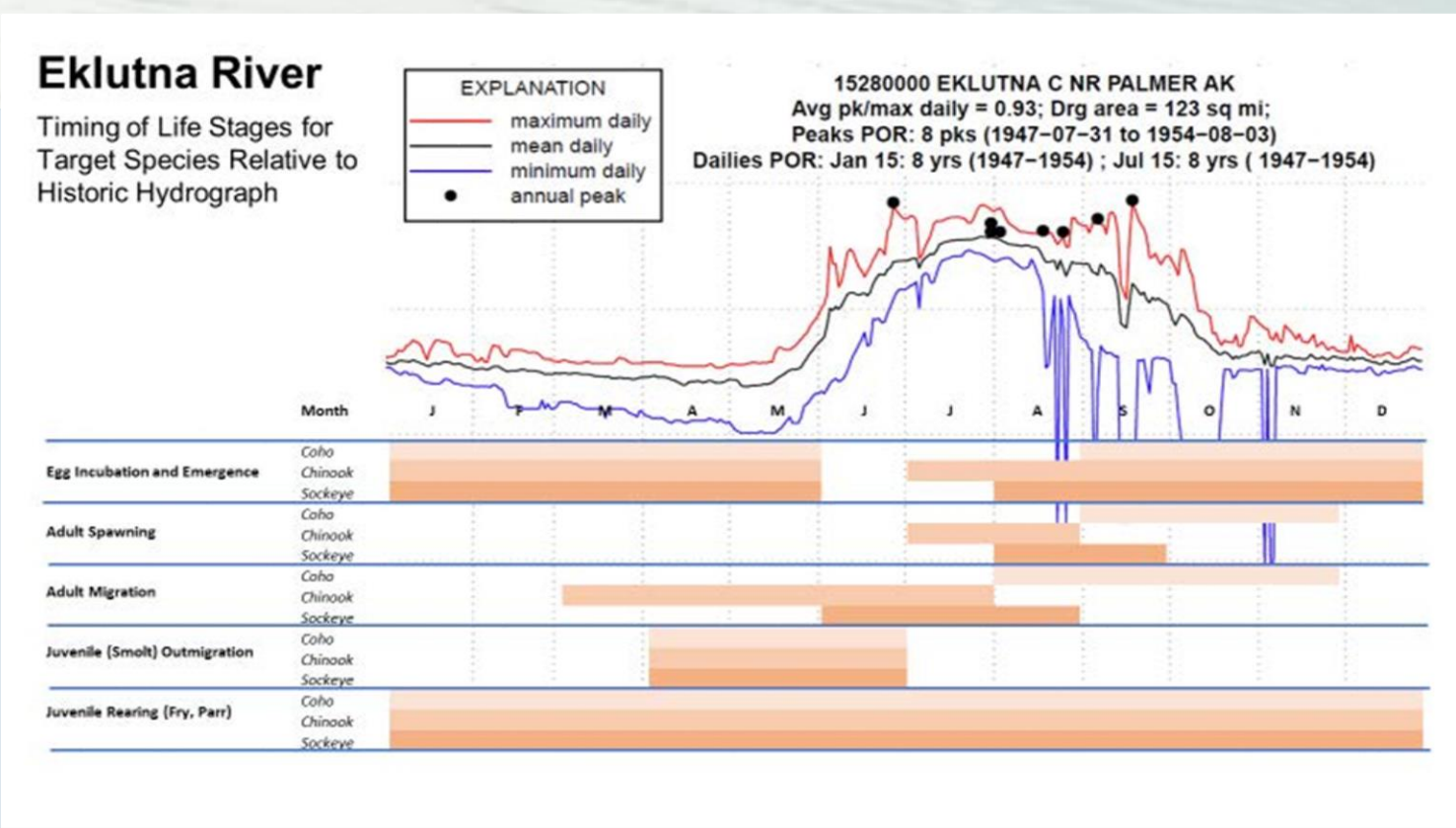
# RESTORING THE RIVER



1944 aerial photo of Eklutna Lake showing the natural river flow from the lake.

The Snettisham and Eklutna Projects Fish and Wildlife Agreement was signed by the three area electric companies, State of Alaska, Municipality of Anchorage, US National Marine Fisheries Service, and Fish and Wildlife Service in 1991. The electric companies agreed to begin the process to study the impacts to fish and wildlife from the project and develop a proposed Fish and Wildlife Program to protect, mitigate and enhance fish and wildlife resources by 2022. The Anchorage Assembly urged the power companies to begin the consultation process early. Consultation began in 2018.

Now that the lower dam is removed, the priority impacts to salmon habitat for study and mitigation look like inadequate flows and access to Eklutna Lake, with water diverted from the River below Eklutna Lake.



A river workgroup was formed with state, federal, tribal and nonprofit entities. This group shares and evaluates information to reach the common goal of restoring the river.

2018 Bucket Brigade – Many participants passed water from the Lake to the River, symbolizing water flowing past the Eklutna Lake Dam and down the river.



NVE President Aaron Leggett and Brad Meiklejon of The Conservation Fund at Bucket Brigade, showing groundwater pond below Lake Dam, with dry riverbed below that.

## NATIVE VILLAGE OF EKLUTNA EKLUTNA RIVER ASSESSMENTS

2002, 2003 – **Adult Salmon Counts**, by spawning reaches  
 ➤ Average returns were 688 Chum, 88 Coho, 40 Kings, 32 Pinks, and 12 Reds

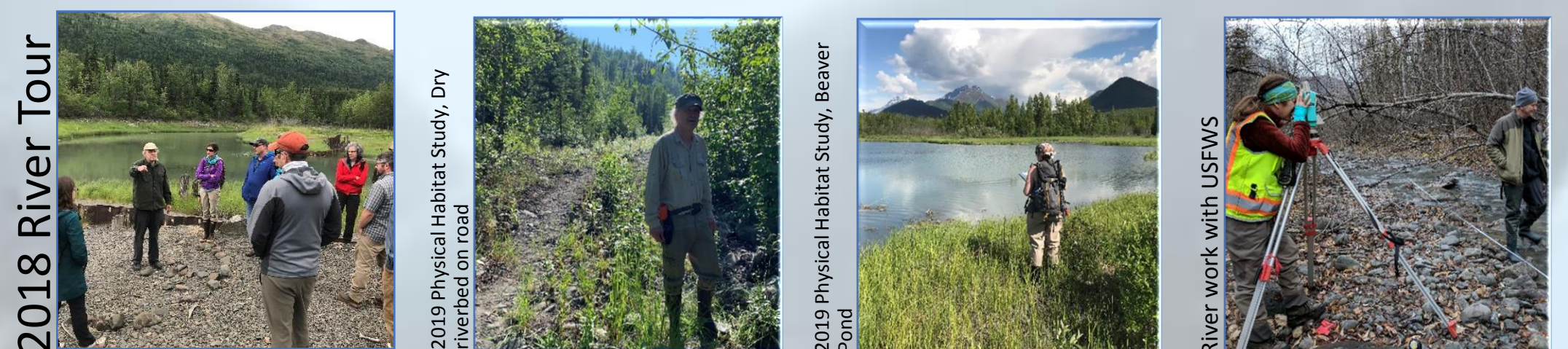
2002, 2003, and 2004 – **Discharge Monitoring** – Eklutna River and Thunderbird Creek  
 ➤ Eklutna River varies from about 0 cubic feet per second (cfs) below the Lake to 7cfs till Thunderbird Creek which contributes about 40cfs. Historic flows averaged about 1,000cfs up 3,000cfs.

2005 – **Juvenile Salmon Trapping and Populations Estimates**  
 ➤ Juvenile Silvers very numerous in the lower River and ponds system.

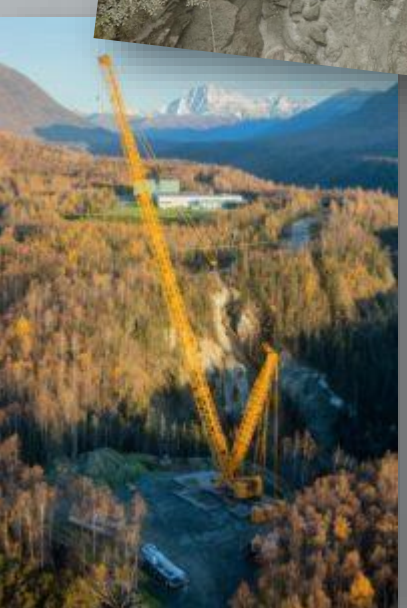
2001-2008 **Water Quality, Turbidity, Temperature & Macroinvertebrates Monitoring**  
 ➤ Good water quality, except turbidity is high from washes above Thunderbird, and mud covers spawning gravels without flushing flows.

2007 – Sponsored **Physical Habitat Study** to the old lower dam with POWTEC

2019 – **Physical Habitat Study** from the River mouth to Eklutna Lake



## EKLUTNA DAM REMOVAL



Eklutna, Inc. staged the largest crane in Alaska to lower men and equipment 300 feet into the River Canyon and remove the dam.

The concrete arch dam was 68 feet high and completely backfilled with sediment. Constructed in 1929, decommissioned in 1955

2014, the Conservation Fund committed funds for the Dam Removal Project and planned the Project with Eklutna, Incorporated doing the physical work.

2016 Dam removal starts

2018 Dam is fully removed

NVE provided long term support.

Salmon could now run upriver to Eklutna Lake if sufficient flows are restored.



UAF Historical Archives

Historic 1,000 cfs flows on left versus current 7 cfs flows in the River Canyon above Thunderbird Creek on right.



Flushing flows are needed from the Lake to move sediments from the dam and washes, to clear salmon spawning gravels.



Bone Fish Spear Heads

THE NAME "EKLUTNA" CAME FROM THE DENA'INA "IDLUGHETNU", MEANING PLURAL OBJECTS (THE TWO GRANITE KNOBS) BY A RIVER (EKLUTNA RIVER). THEY ARE LANDMARKS AND CENTRAL TO THE EKLUTNA VILLAGE IDENTITY.

TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK)

Elders were interviewed on a variety of topics, including the use of the area, landmarks, and cultural sites. The results were mapped and are held in the NVE archives along with dialogs.

Native Village of Eklutna Land and Environment Department continues to obtain TEK about the area, including historic conditions of the Eklutna River and its salmon, and natural resources and uses.

Educational classes are held for tribal members to learn traditional practices, such as: fish spear making and fishing, ochre painting, moose hide tanning, etc.

Community members are also able to fish and teach with an educational fisheries permit.



19/10/21



2019 Fish Net setting Class



2019 spear fishing class



2018 Spear Fishing Class



Learning how to process a moose



Eklutna Elder Alberta Stephan teaches salmon processing at Fish Camp



Ochre Painting Class



Bone Fish Spear Point

Salmon have been the most important nutritional and cultural natural resource for the Eklutna people. NVE is working with others, including Eklutna, Inc., conservation organizations, resource management agencies and the power companies, to restore Eklutna River salmon runs by restoring water to the River from Eklutna Lake, where it is diverted for electricity generation (90%) and secondarily for Anchorage water needs (10%). This leaves insufficient flows for salmon in 8 miles of the River between Thunderbird Creek and the lake, and access blocked to the lake which once supported a run of red salmon, and to the River above the lake.



NVE Tribal Council members at Dena'ina Woman Ribbon Cutting event at Ship Creek Public Boat Launch in Anchorage



Spear fishing with homemade traditional spear



Educational Fish Net Harvest, 2009



Łiq'a nagh qinqtudet

