## Eklutna River Restoration information For Native Village of Eklutna

Salmon have been the most important nutritional, 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 produced the short document: Traditional Knowledge of Eklutna Fish Resources from interviews with Eklutna people. It summarizes TEK support for abundant salmon runs to Eklutna Lake, which is important in advocating for restored River flows and connectedness with the Lake.

The Eklutna Educational Reserve, created by executive order in 1927 covered the land where the old lower Eklutna River dam (now removed) was built in 1930, yet we find no record that Eklutna people were involved in its authorization.

The Eklutna Snettisham Agreement was to address impacts on fish and wildlife from the Eklutna hydro-electric project (the dam at the lake, diverted flow and generating facilities owned by the 3 power companies, collectively referred to as the purchasers in the Agreement). It was signed in 1991 by Anchorage, ML&P, Chugach Electric, Matanuska Electric, USFWS, NMFS, Alaska Energy Authority, and the State of Alaska. It requires that the power companies consult with these and other agencies and interested parties to devise a study plan then conduct studies then develop a mitigation plan for the impacts. Under schedule, it states that: "The consultation process leading to the Programs shall be initiated no later than 25 years after the Transaction Date specified in the respective Eklutna and Snettisham Agreements." Apparently this means the consultation to develop the study plan was required to start 25 years after the 1991 purchase of the hydroelectric project. The power companies have been convinced to start this process this year, likely by Anchorage Assembly resolution with advocacy from Brad Meiklejohn, NVE and others. I have attended two "working group meetings organized by the purchasers with the agencies and interested parties including Brad Meiklejohn and Trout Unlimited, although the first of these meetings was really scoping which entities they should invite to participate.

NVE has invested in Eklutna River salmon and habitat assessments to inform restoration:

- 2002 and 2003 adult salmon counts, by spawning reaches and awarded to conduct again
- 2005 juvenile salmon trapping and populations estimates –Juvenile Silvers very numerous
- 2002, 2003, and 2004 discharge monitoring Eklutna River and Thunderbird Creek
- Water quality, turbidity, temperature & macroinvertebrates monitoring
- 2007 sponsored physical habitat study of lower river with POWTEC

- 2011 sponsored USACE Eklutna River restoration technical report with restoration recommendations for the lower river
- 2018 hosted Eklutna River Workshop facilitated by Trout Unlimited, where agency scientists considered existing discharge information and salmon lifecycles to begin development of restored flow regime recommendations
- currently working on results of physical habitat assessment from Inlet to Lake
- Gathered and summarized Traditional Knowledge of Eklutna River Salmon Resources

• 2018 and 2019 working with USFWS, NMFS and ADFG to characterize channel morphology and other variables to develop recommendations for restored flow rates. There has been a surge of interest in such assessments with initiation of the research planning under the Eklutna Snettisham Agreement. This is an average of 109 cfs, with a range from 24 to 253 cfs depending on the salmon life stages expected in the river at different times of the year and other variables. Larger flushing flows around 1500 cfs are also needed once per year to transport fines and clear gravel for spawning.