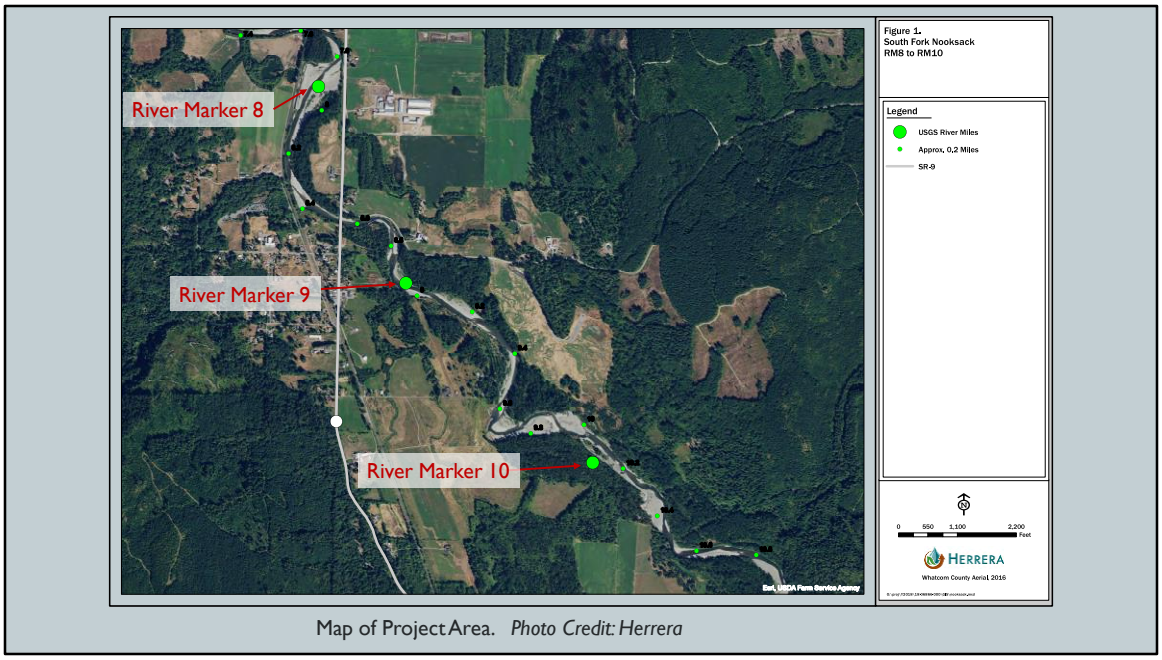
SOUTH FORK NOOKSACK (NUXW7ÍYEM) RIVER, FISH CAMP(TS'ÉQ)REACH INTEGRATED DESIGN PROJECT

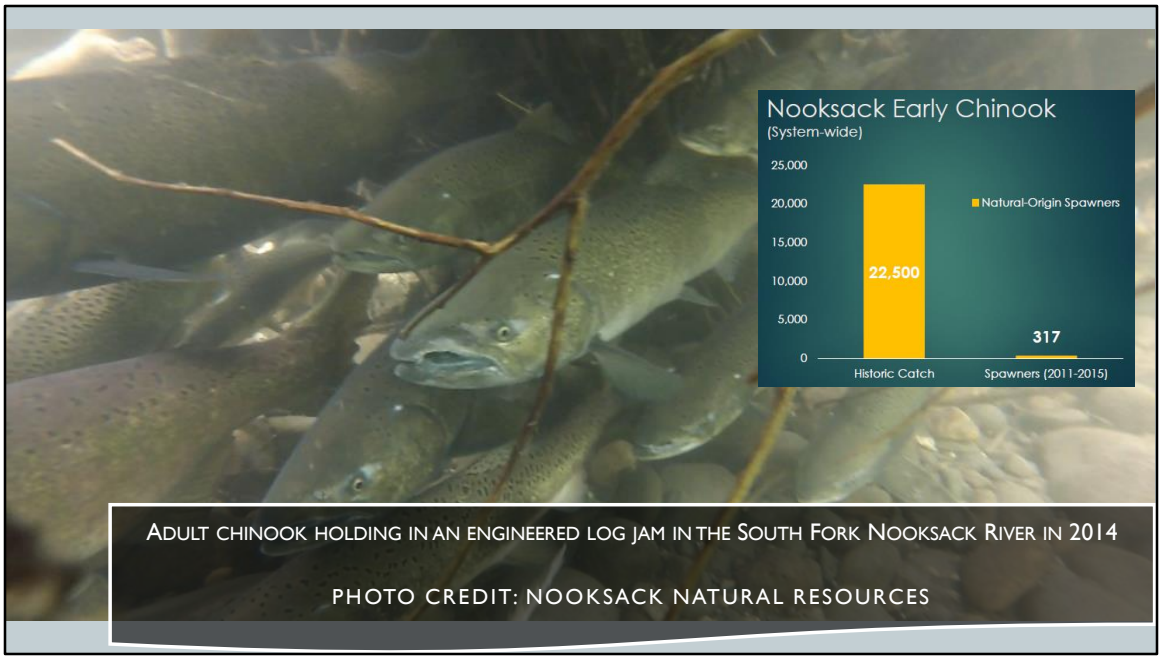
PARTNERS

This project is a collaboration of the Nooksack Tribe and Whatcom County River and Flood as well as a consultant team led by Herrera who has been hired to conduct the technical work and lead community outreach and engagement. The project has two equally important goals: To reduce flood risk in the Acme Community (Lower S. Fork Valley) and improve habitat conditions to support the recovery of chinook salmon.



Map of Project Area. *Photo Credit: Herrera*

In general, the project area may consist of the flood risk areas in and around Acme and the portion of the south fork upstream of Acme from approximately river mile 9.0 to 9.6. However, the project area will be defined over the next few months as we continue our outreach and design efforts. The end result of this project will be a preliminary design for an integrated flood reduction and salmon habitat restoration project in the South Fork Nooksack (Nuxw7íyem) River Fish Camp (Ts'éq) Reach.

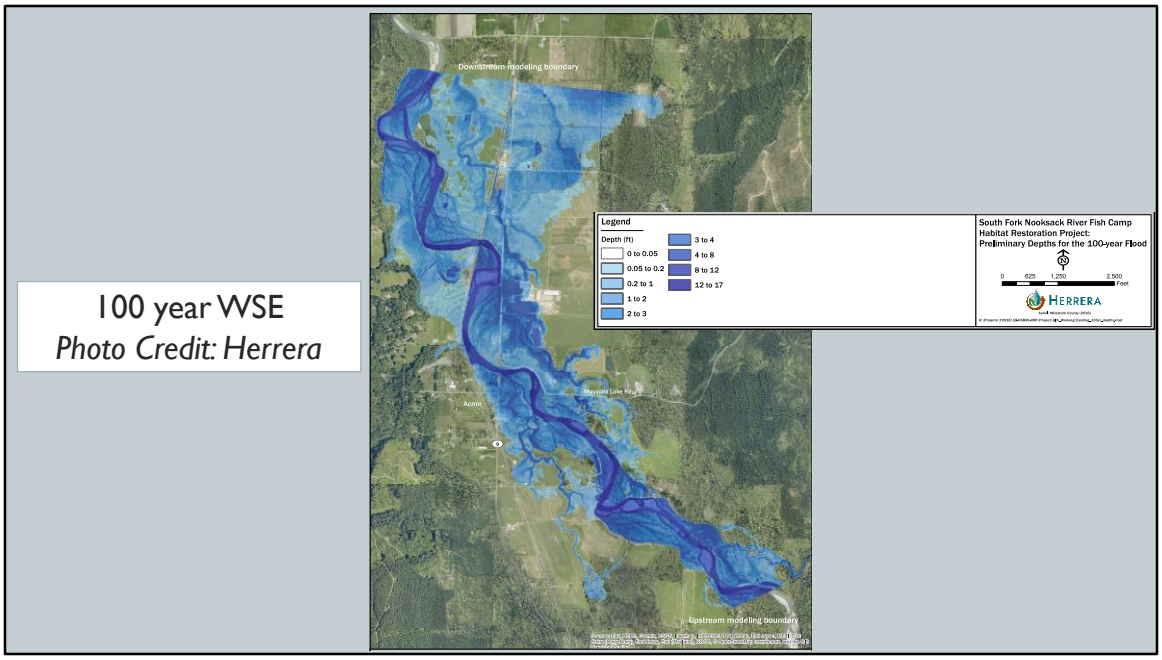


ADULT CHINOOK HOLDING IN AN ENGINEERED LOG JAM IN THE SOUTH FORK NOOKSACK RIVER IN 2014

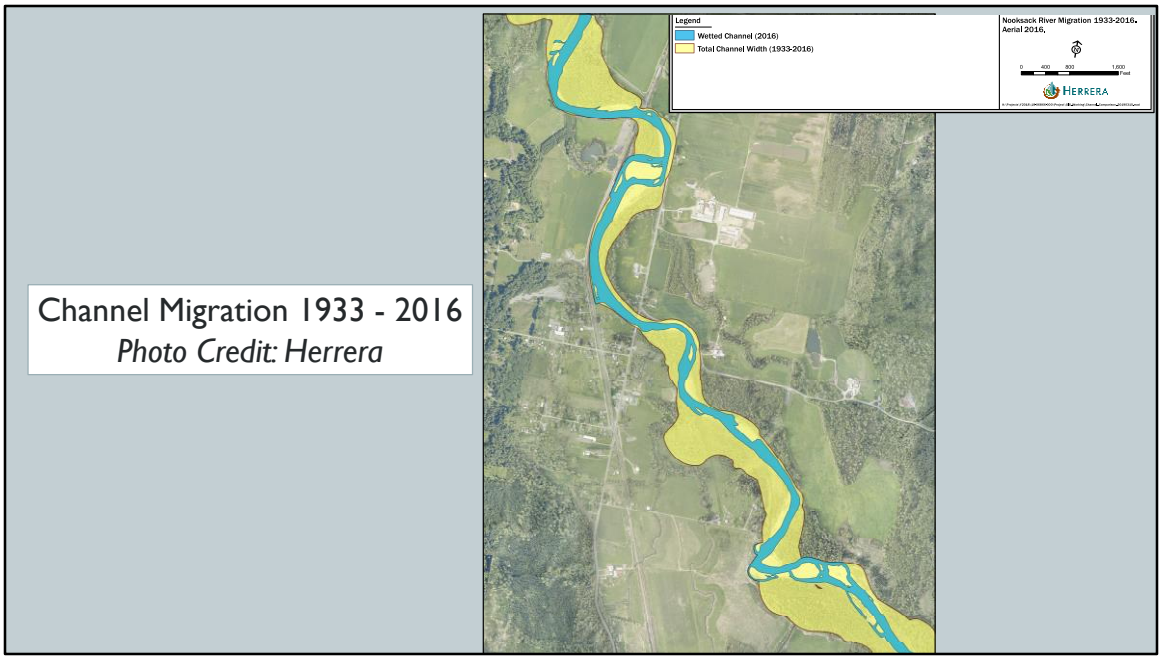
PHOTO CREDIT: NOOKSACK NATURAL RESOURCES

The Nooksack River early Chinook populations have diminished substantially from historic levels and are listed as threatened under the Endangered Species Act (ESA). The graph here shows the historic catch (not including escapement) for Nooksack early chinook compared to the average wild (natural origin) spawners from 2011 to 2015 for the entire Nooksack system (all forks combined). Habitat degradation is considered the leading cause for the decline of local salmon populations in the Nooksack watershed. High temperatures and low habitat diversity are the most significant factors limiting early chinook in the lower SF Nooksack (WRIA 1 SRB 2005). The number of wild (natural-origin) Nooksack early chinook spawning annually in the South Fork have been critically low, averaging just 76 wild adults returning each year, a small fraction (<1%) of their estimated historic populations.

There has been a recent increase in frequency and intensity of floods in the Lower S. Fork Valley (Acme). Prior to 2000, **nine** claims were filed on **three** properties; since 2000, **eleven** claims were filed on **five** properties suggesting that the frequency of claims is increasing over time.



This figure shows the recent modeling results by Herrera for the existing conditions water surface elevations (WSE) at a 100-year flood event for the Acme area.



This figure shows the river's channel migration area from 1933 to 2016. An important component of this project is to better understand this reach of the river by assessing the historical and current channel and habitat conditions and flood risks. While previous research on the South Fork has helped to identify priority areas and general strategies to address flood and fish problems, more detailed, site-specific data is needed in this reach in order to develop a reach-specific project design. This project builds on previous work such as the SF Nooksack River Acme Saxon Reach Restoration Plan, SF Nooksack Watershed Conservation Plan and others to be cost-effective and efficient.

Local South Fork Nooksack Valley resident discussing recent erosion concerns to Nooksack Tribe Natural Resources Staff in 2017
PHOTO CREDIT: NOOKSACK NATURAL RESOURCES (Lindsie Fratus-Thomas)

http://whatcomcounty.us/3106/South-Fork-Fish-Camp-2019

The project team is committed to working with the community throughout this project. So far we have:

- Created a project website with up-to-date information and links to great background and supplemental information.
- Made a Listserv where we will provide regular updates.
- Consulted with and committed to coordinating closely with the S. Fork Nooksack Subzone.
    - We will have a Subzone member on our project team to help ensure regular communication and coordination.
    - We will plan for regular check-ins with Subzone at their regularly scheduled meetings.
    - We will share draft and final design with Subzone for review/input/discussion.