

## NOOKSACK CHINOOK LIFE CYCLE MODELING: PHASE 3

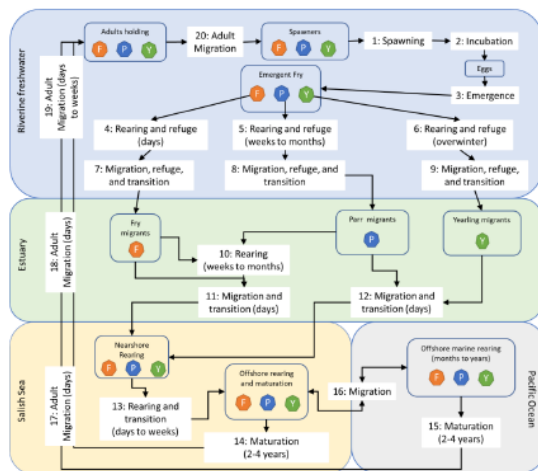
This project involved review and refinement of the Nooksack Early Chinook Life Cycle Model, a tool that can be used to support salmon recovery planning in the Nooksack watershed.

### WHAT WE DID

Previously, Nooksack Tribe and Lummi Nation worked with Cramer Fish Sciences to develop a preliminary Nooksack Early Chinook life cycle model. This project involved broader technical review of the model, identification and prioritization of data gaps, data collection and model refinement, and modeling of broad restoration and management scenarios.



Chinook salmon holding in a log jam-formed pool in the South Fork Nooksack River. Photo credit: Ian Smith.



Nooksack Chinook Salmon life history pathways used to develop the Nooksack Chinook LCM.

### WHAT YOU CAN DO

The project culminated in a webinar for local salmon recovery professionals. Work products will continue to be refined. For more information, please visit <https://salmonwria1.org/projects/nooksack-chinook-life-cycle-model/>

### ABOUT NOOKSACK INDIAN TRIBE

The Nooksack Tribe, a tribe of approximately 2,000 members, is located in our ancestral homeland in the northwest corner of Washington State. Our name comes from a place name in our language and translates to “always bracken fern roots,” which illustrates our close ties to our land and the resources that continue to give strength to our people.

### WHY THIS IS IMPORTANT

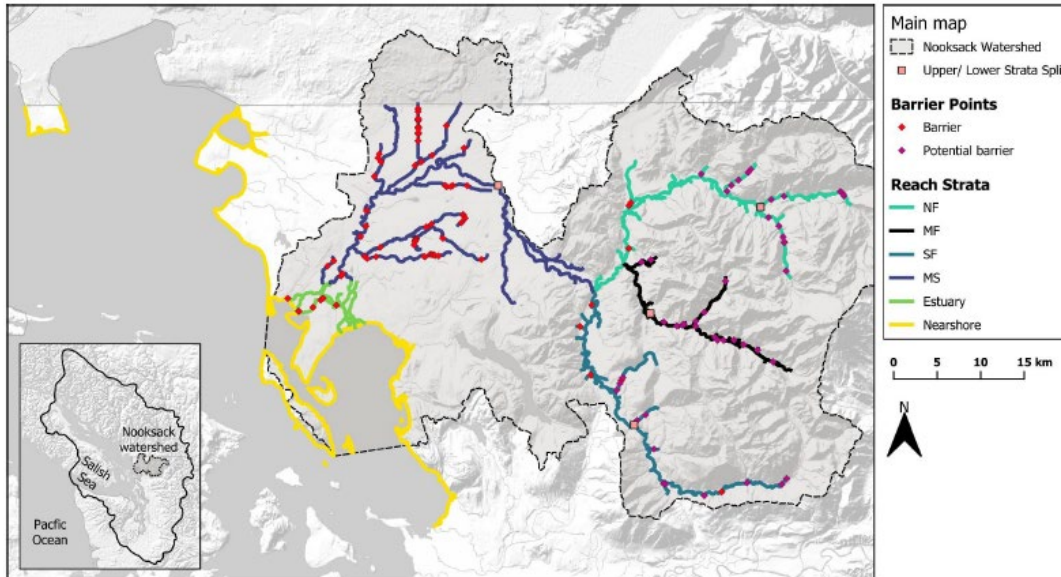
Salmon are vitally important to the Nooksack Tribe, and abundances of Early-timed Chinook salmon in particular are critically low. This tool will help ensure that recovery efforts are focused and effective.

### FOR MORE INFORMATION



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 Project based upon NTA 2018-0894





Map showing geographic scope of the Nooksack Early Chinook Life Cycle Model.

## PROJECT ACCOMPLISHMENTS

- 1 Quality Assurance Project Plan (QAPP) and 1 QAPP amendment approved
- 7 Technical Advisory Group meetings held to solicit review and feedback
- 2 project updates and 1 final webinar provided to WRIA 1 salmon recovery community
- Nooksack Chinook Life Cycle Model refined and detailed technical memo and user guide produced

## OUTCOMES

This project involved refinement of the quantitative Nooksack Chinook Life Cycle Model and development and modeling of scenarios. The Model is an important tool that will help inform salmon recovery planning in the Nooksack watershed, including supporting the 2025 update to the *WRIA 1 (Nooksack Basin) Salmonid Recovery Plan*. The tool will continue to be refined over time and can be used to help comanagers and the local salmon recovery community understand the factors limiting Nooksack Early Chinook, update geographic and action priorities, and evaluate potential impacts of various scenarios.

## SUCCESS STORY

Complexities in both salmon life histories and the interaction of watershed processes, land use, and climate pose challenges for salmon recovery planning and management. The Nooksack Chinook Life Cycle Model integrates multiple, disparate datasets, helping decisionmakers make sense of the information and ensuring that salmon recovery in the Nooksack watershed continues to be based on best available science.

## FUTURE WORK

The Tribe has secured additional funding to support technical review of Phase 3 work products and rollout to the WRIA 1 salmon recovery community, as well as continued model refinement.

## LINKS

See <https://salmonwria1.org/projects/nooksack-chinook-life-cycle-model/> for more information. Website will be updated over time as more work products are made available.