

## **Nooksack Early**

The management intent is to constrain fishery mortality of South Fork and North/Middle Fork natural origin (NOR) Chinook within a NOR Chinook SUS ER ceiling of 10.5%. The tribes will target no more than **XX** NOR Chinook to help meet the basic ceremonial and subsistence needs of their communities. Impaired habitat conditions in the watershed and poor marine survival are the primary factors limiting productivity for Nooksack populations.

Tribal fisheries will occur in the Nooksack River and Lummi Bay. The total number of allowable NOR Chinook mortalities in tribal fisheries are projected during pre-season planning based on forecasted terminal area abundance. Pre-season modeling assumptions are adjusted using results from the most recent postseason estimates of performance, and on stock abundance and composition data collected from fisheries through 2021.

Tribal fisheries in the Nooksack River may take place from April through the end of July, and are managed in-season according to pre-season projections and by monitoring NOR Chinook encounters in tangle net fisheries and a total harvest number, including NOR breakout, in non-selective fisheries. In 2021, the co-managers intend to manage the Nooksack River tribal fisheries as they have in recent years and expect that most or all the allowable impact or harvest of NOR Chinook will be taken before June 30, 2021. The tribe(s) may use tangle-net gear in a selective fishery to increase harvest of surplus hatchery fish. NOR Chinook caught in the selective fishery will be released and mortality accounted based on co-manager agreement on an assumed survival rate.

If information available from in-season monitoring indicates the total allowable Nooksack NOR Chinook mortalities for tribal fisheries targeting spring Chinook is not expected to be taken by June 30, the co-managers may propose to extend the Nooksack River tribal fisheries through the end of July. However, the co-managers will gain concurrence from NMFS that the fishery can proceed past June 30 before extending any fisheries. No later than June 21, the co-managers will provide key information necessary to NMFS' determination such as population-specific escapement estimates for years through 2019, the assumed release mortality rate and an estimate of anticipated South Fork Nooksack Chinook and steelhead encounters in the proposed fishery extension. Post season, NOR Chinook encounters and mortalities will be reported by population as well as wild steelhead encounters and estimated mortalities.

The Nooksack Tribe's ceremonial and subsistence fisheries may occur from Slater Road Bridge up to 500 feet upriver of the Highway 9 Bridge in the lower North Fork through May 28. Any openings from May 29 through June 30 will be limited to the area downstream of the BNSF railroad bridge that is below the Highway 9 Bridge.

In addition to tribal fisheries in the Nooksack River, the Lummi Nation will conduct a C&S fishery in Lummi Bay (Area 7D) targeting hatchery fish returning to the Lummi Bay hatchery between late-April and late-June. For management purposes all unmarked fish (no ad-clip, no CWT) encountered in Lummi Bay will be assumed to be Nooksack NORs. The combined Nooksack NOR Chinook mortalities from tribal fisheries in Lummi Bay and the Nooksack River will be managed so as not to exceed the pre-season tribal limit of **XX**.

There will be an all citizen recreational selective fishery from June 1 through June 31 in the North Fork Nooksack from the Hwy 9 Bridge (RM 36.7) to the yellow marker located at the upstream side of Kendall Hatchery (RM 46.7). The daily limit will be 2 adipose-clipped (marked) Chinook, and impacts will be limited to 2 NOR Chinook. The expected mark rate on North Fork Chinook is 95.8% and 91.3% of the unmarked Chinook are estimated to be NORs. With an estimated 10% release mortality on NORs, the maximum number of encounters will be 22 unmarked Chinook. As such, it is possible this fishery will close early. There will be a creel and effort sampling plan to estimate impacts, which will be included in post season reporting.

In 2018, the NOR Chinook SUS ER ceiling was adjusted to 10.5% as part of the shift to a new base period in the Chinook FRAM. This value was derived from comparison of past of post-season runs of FRAM utilizing the old and new version of FRAM with an incorporation of a buffer as a further conservation measure.