



MAKAH TRIBE

P.O. BOX 115 • NEAH BAY, WA 98357 • 360-645-2201



Mr. Phil Anderson, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

November 1, 2018

Dear Mr. Anderson and Council Members:

The Makah Tribe wishes to offer these comments on the draft Rebuilding Plan for the Strait of Juan de Fuca natural coho. We are concerned that the management strategy alternatives in the current version of the plan focus too heavily on harvest restrictions to solve a problem that is not really harvest-related.

Of all the coho stocks managed under the Council's Salmon Fishery Management Plan and also under the Pacific Salmon Treaty, coho originating in Strait of Juan de Fuca streams experience by far the lowest fishery impacts. There has been no terminal fishery directed at this coho stock since the early 1990's, and exploitation rates on this stock in terminal fisheries directed at other species have averaged under 1%. In Council-area fisheries, impacts on Strait coho have averaged less than 2%. Total exploitation rates (all fisheries combined) average 10.8%, which is less than one-third the exploitation rates typical of other coho stocks in Washington.

The abundance of this stock is driven largely by ocean conditions, not by fishery impacts. An analysis included in the Draft Rebuilding Plan clearly demonstrates that variability in marine survival accounts for most of the variation in recruit abundance of Strait of Juan de Fuca coho. That is followed, in terms of importance, by freshwater conditions. Fishery impacts, by contrast, make up a relatively small proportion of the variability in abundance.

The three return years with low escapement that led to the "overfished" designation were 2014, 2015 and 2016. The broods returning in these years were all subject to unusually warm conditions when they entered the ocean, conditions that have been shown to reduce survival of juvenile salmon. The effects of certain ocean conditions on marine survival of this stock are illustrated in Figure 1, attached at the end of this letter.

The assessment model does not accurately reflect the dynamics of Strait coho.

The model developed by the Salmon Technical Team to evaluate the relative success of the management alternatives does not recognize the importance of ocean conditions, which, as we noted above, are the primary factor determining abundance of Strait of Juan de Fuca adult coho recruits.

Instead, the model is based largely on the harvest control rule for each alternative. The model draws abundances at random, and applies exploitation rates related to the harvest control rule. The plan itself notes (page 26) that “*the tool... lacks an explicit biological operating model*”. As a result, the model’s estimates of rebuilding time are tied mostly to harvest restrictions, and are unrealistic. As we have stated, and as other information in the plan shows, the stock can rebuild, and has done so, in as little as one brood cycle (3 years) if it has favorable ocean conditions.

The “Status Quo” Alternative is likely to be successful in allowing this stock to rebuild.

Because ocean conditions are the most important factor affecting abundance of Strait of Juan de Fuca coho, when ocean conditions improve, it will likely allow for rebuilding this stock under the status quo alternative.

While we cannot predict the timing of a changing ocean, we did see this ocean-related improvement less than 10 years ago. In return years 2006 through 2008, Strait of Juan de Fuca coho, along with many other coho stocks in Washington, experienced a period of very low abundance. For Strait coho, the number of returning spawners was low enough to trigger the “overfished” designation under the Magnuson Act. The Rebuilding Plan prepared in 2010 and adopted by the Council did not impose severe cutbacks in salmon fisheries in Washington, and yet the Strait coho recovered quite well in the very next brood cycle (return years 2009 through 2011) because the ocean conditions allowed for higher survival rates.

The management objectives used in determining the overfished status need review.

The current escapement levels and exploitation rate ceilings under which this stock is managed were developed in the late 1990’s through 2000, when very little reliable stock assessment data were available for Strait coho. Most of the data on smolt abundance and spawning escapement were collected beginning with brood year 1996 (return year 1999) which gave managers only two years of abundance estimates when the management objectives were developed.

Now we have 22 years of abundance estimates, spanning a range of ocean conditions and fishery regimes. A thorough review of the recent data, including an examination of the relationship between spawners and adult recruits, and the stock’s response to changing ocean conditions, might point toward revised management objectives for this stock, particularly the estimates of MSY escapement and the minimum stock size threshold (MSST) used in setting the criterion for the overfished designation, and the appropriate exploitation rates to apply to those abundance categories.

Recent escapement estimates show that this stock did not meet the overfished designation.

In 2017 and 2018, the Washington state and tribal co-managers reviewed the escapement estimates for Strait of Juan de Fuca coho. Detailed evaluation found that some of the stream survey data had not been used in the calculating the original escapement estimates. When those

data were incorporated into a revised estimate, the escapement was high enough that the 3-year geometric mean exceeded the low-critical threshold of 7,000 spawners. (See Table 1, attached.) While the Council did not have access to these revised escapement estimates when the overfished designation was made in March, 2018, we request that you consider this revision when deciding on the range of alternatives to adopt for public review.

The assessment of economic impacts underestimates the value of tribal salmon catch.

The economic impact analysis in the plan uses estimates of personal income drawn from summary tables in the Council's 2017 *Review of Ocean Salmon Fisheries* report. These estimates greatly undervalue the tribal troll fishery. Our figures, drawn from fish ticket data show an ex-vessel value for the Makah tribal troll fishery to be about \$1.7 million per year, over four times the report's estimate of the value of all troll catch (tribal and non-tribal) landed in Neah Bay. These differences are summarized in Table 2 (attached). Note that our figures include only the ex-vessel value of the tribal troll catch; more complete figures would include the value of processing and other employment related to handling the catch, and would show an even higher value than the estimates we present in Table 2.

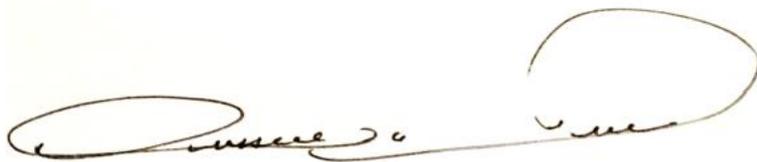
We understand that certain fish ticket information, including ex-vessel value, is usually confidential, and therefore might not have been available to Council staff when they were preparing the estimates in the Rebuilding Plan. We would be glad to discuss these estimates further with your staff in hopes of improving the accuracy of the estimates used in the plan.

Nevertheless, we raise this point, not to dwell on detail, but to emphasize the value of the troll fishery to the economy of Neah Bay. The harvest restrictions envisioned in Alternatives II and III would have a devastating impact on Neah Bay, which is among the most fishing-dependent communities in Washington.

We realize that the Magnuson-Stevens Act gives the Council authority to use harvest management to rebuild fish stocks, but for the reasons we've discussed here, we believe that the abundance problem for Strait of Juan de Fuca coho was not caused by harvest, and cannot be fixed by limiting harvest. We hope that the Council recognizes the importance that ocean conditions play in determining the abundance of this stock, and that rebuilding will likely be caused by an improving ocean, not by fishery restrictions.

Thank you for your consideration of our comments on this Rebuilding Plan, which is an important issue to the Makah Tribe and to all coastal salmon fishing communities in Washington.

Yours sincerely,
Makah Tribe

A handwritten signature in dark ink, appearing to read "Russell Svec", written in a cursive style.

Russell Svec, Fishery Program Director

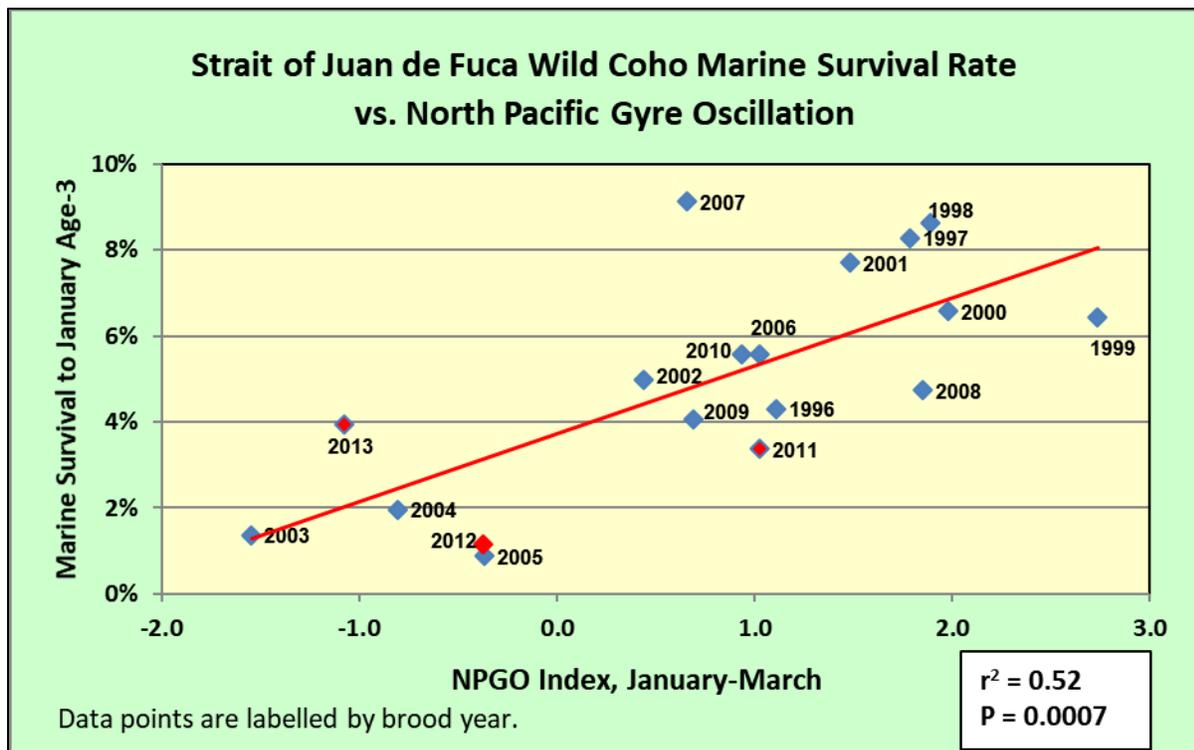


Figure 1. Relationship between SJF coho marine survival and the NPGO Index, which is a measurement of ocean circulation. This one ocean variable by itself is associated with over half the annual variation in the marine survival rate.

The three brood years (2001, 2012, and 2013) whose abundance led to the overfished designation are marked in red, and experienced low marine survival rates. Note also that the three brood years that triggered the overfished designation a decade ago (broods 2003, 2004 and 2005) also migrated to sea during periods when the NPGO index was low, and the marine survival rate for those broods was correspondingly low.

Table 1. Strait of Juan de Fuca Coho Escapement Estimates Before and After Recalculation		
Return Year	Escapement Estimates	
	Old	New
2014	11,003	11,489
2015	3,779	3,860
2016	7,975	8,435
Geometric Means	6,922	7,205
MSST	7,000	7,000

Table 2. Comparison of Income from Salmon Troll Fishery		
Year	Makah Fish Ticket Data ¹	PFMC Estimates ²
2008	\$ 856,119	\$ 163,000
2009	\$ 898,468	\$ 331,000
2010	\$ 1,094,308	\$ 251,000
2011	\$ 1,538,617	\$ 575,000
2012	\$ 2,197,944	\$ 862,000
2013	\$ 2,868,408	\$ 485,000
2014	\$ 3,070,228	\$ 385,000
2015	\$ 2,083,031	\$ 315,000
2016	\$ 1,082,197	\$ 206,000
2017	\$ 1,164,911	\$ 422,000
Averages	\$ 1,685,423	\$ 399,500
Notes: 1. Makah fish ticket data shows ex-vessel value for tribal troll catch only. 2. PFMC Estimates from Table IV-18 in 2017 <i>Review of Ocean Salmon Fisheries</i> report, listing all troll fishery income (tribal and non-tribal) for Neah Bay.		