



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

November 6, 2008

MEMORANDUM FOR: James W. Balsiger, Ph.D.
Acting Assistant Administrator for Fisheries

FROM: D. Robert Lohn 
Regional Administrator

SUBJECT: Request for Secretarial Determination of a Commercial
Fishery Failure Due to a Fishery Resource Disaster in the
Fraser River Sockeye Fishery
DECISION MEMORANDUM

Five tribes have requested a determination of a commercial fishery failure due to a fisheries resource disaster in salmon fisheries from Puget Sound to the northern Pacific coast of Washington. In addition, in a September 22, 2008 letter to me, the Governor of Washington requested, on behalf of tribal and non-tribal fishermen, our approval of a continuing disaster declaration for the Fraser River Sockeye Fishery. These requests do not concern the ocean salmon fisheries associated with the Klamath and West Coast salmon disaster determinations in 2006 and 2008 respectively. These requests and the key issues are similar to those associated with the 2002 determination of a commercial fishery failure in the Fraser River Sockeye Fishery due to a fishery resource disaster in 1999 and 2001.

Background

Should these separate requests be treated as a single request?

Last winter, the Lummi Tribe asked us to determine a commercial fishery failure for their salmon fisheries under section 312(a) of the Magnuson-Stevens Fishery Conservation and Management Act or section 308(d) of the Interjurisdictional Fisheries Act of 1986. This spring, four other tribes—the Swinomish, Tulalip, Lower Elwah Klallam, and Makah—also asked that a resource disaster be determined. All five requests are summarized in Attachment 1, which compares the requests. The chief differences concern years and species. Two tribes, the Tulalip and the Makah, are requesting that a disaster be determined for their 2008 fisheries in addition to their 2007 fisheries. The Governor of Washington's recent request is for the 2008 fishery.

The Northwest Region concludes it is appropriate to treat these requests as a single package, because all of the requests are strongly linked to the decline of one primary fishery (Fraser River Sockeye).



Should the focus of review be sockeye salmon?

Although these requests differ in nature (years and species), their central theme is the decline in the 2007 sockeye fishery. In 2002, the tribal requests also referred to other salmon species. In the 2002 determination analysis, we stated:

Compared to other Puget Sound salmon species, sockeye salmon are the major source of salmon catch and revenue for tribal and non-tribal fishermen. In comparison to sockeye salmon, harvests in the other salmon species do not show similar sharp and unexpected declines typically associated with a fishery resource failure. Finally, in comparison to other species, scientific information and studies are available on the potential causes of the sockeye disaster.

Current trends in the harvests of sockeye, coho, pink, chum, and Chinook salmon suggest similar findings. In terms of the number of fish, except for sockeye, neither 2007 harvests (see Attachment 2 of the Issues Advisory) nor do 2007 ex-vessel revenues (see Attachment 3 of the Issues Advisory) appear to be unusually low compared to recent years. For two of the salmon species, Chinook and chum, ex-vessel revenues in recent years have been increasing.

The Northwest Region has concluded that the sockeye fishery should be the focus of our review, because the decline of the sockeye is the driving force behind the decline in ex-vessel revenues.

Should the focus of review include non-tribal fishermen?

In 2002, we determined that the sockeye fishery suffered a commercial failure in 1999 and 2001 under the MSA. The commercial fishery failure was determined to be due to a fishery resource failure from undetermined but most likely natural causes, resulting in record low-run levels and harvests. The scope of the 2002 determination included non-tribal, Lummi Tribal Nation, and other tribal commercial sockeye fishermen.

The Northwest Region has concluded that non-tribal fishermen should be included in the focus of review, because the current situation is similar to the 2002 determination and that there have not been significant changes since 2002.

Are the landing and ex-vessel revenue trends supportive of a determination?

Trends in the fishery show the fishery has been suffering from low-level returns since 1995—the first year abnormal migration patterns of sockeye were revealed to the Pacific Salmon Commission (PSC). The major causes of the low sockeye harvests are attributable to the following factors: poor marine survival, low sockeye runs, and harvest limits on healthy sockeye stocks because they mix with sockeye stocks of concern. The Pacific Salmon Treaty also has had some effect. In 1999, the United States and Canada signed an annex to the Pacific Salmon Treaty to address changes in the conservation and allocation of salmon. For the Fraser River sockeye salmon, this agreement required a 3-year phased-in decrease in the share taken in U.S. fisheries.

The agreement reduced the U.S. share from 26 percent (the share associated with the 1985 Pacific Salmon Treaty) to 16.5 percent by 2002. However, concurrent with this reduction, the tribal share of the U.S. commercial harvest was increased from 50 percent to 68 percent.

In the economic analysis associated with the 2002 determination, harvest trends between 1946 and 1997 were adjusted for the 4-year cycle of sockeye (2 strong years followed by 2 weak years), changes in the Treaty, and changes in ex-vessel prices. Lost revenues in the fishery were projected to be about \$9.0 million in 1999 and \$5.0 million in 2001.

The sockeye salmon run for 2007 is the same cycle year as that of 1999. In the economic analysis for the 2002 determination, it was forecasted that the 1999 treaty adjusted harvest should have been about 1.2 million fish. At 2006 ex-vessel prices of about \$6.50 per fish, if 2007 was an average cycle year, the fishery should have earned about \$8.0 million.

In 2007, tribal and non-tribal sockeye harvests were about 13,000 fish yielding ex-vessel revenues of \$87,000 (see Attachment 4 of the Issues Advisory), this compares to 2004-2006 average annual revenues of \$1.8 million—a 99.9% decline.

On August 1, 2008, we closed U.S. Fraser River Sockeye Fisheries. Up until the closure, approximately 43,000 fish worth about \$140,000 were harvested.

The Northwest Region concludes this information is supportive of a commercial fishery failure determination because of the drastic decline in ex-vessel revenue in 2007 and 2008.

Is this a new disaster or a continuation of a previously determined disaster?

The same problems underlying the 2002 determination persist, and the situation in this fishery has not changed significantly. The sockeye resource has not shown any major changes and remains at low levels, which has meant that the commercial fishery has been kept at low levels as a result.

Available analysis from the PSC (see Attachment 5 of the Issues Advisory) suggests that major run (“Late Run”) sockeye salmon are still having abnormal migratory patterns resulting in high levels of in-river mortality. Early entry of sockeye into the Fraser River leads to an expanded residence time in freshwater. As a result, the fish become more susceptible to a parasite that leads to kidney failure. As referenced in the analysis underlying the 2002 determination,

Fisheries and Oceans Canada has actively pursued the cause of the mortality over the past five years and have traced it to a microscopic organism that is found in sockeye salmon populations throughout the Fraser River watershed. While the ultimate cause of death is now known, the early entry of these fish into the Fraser River has expanded their residence time in freshwater, which appears to be the source of the problem. This sockeye salmon behavior issue could be a bellwether of larger ecosystem problems.

According to PSC analysis of the 2007 season (see Attachment 5 of the Issues Advisory), the Pacific Salmon Commission points to all major runs of sockeye being much lower than predicted and that poor marine survival conditions in 2005 may have been a significant factor for these low run sizes. It is not clear whether the same ecosystem factors underlying the recent Klamath disaster are also affecting the sockeye salmon.

Although there are indications that there may be other causes leading to negative impacts on many Pacific salmon ecosystems, analyses of the potential causes of this phenomenon are ongoing and it is too early to make any conclusions. However, since the focus of review is on the sockeye population of the Fraser River watershed, there is enough information to draw a conclusion on the cause of the decline of this salmon population. The Northwest Region has concluded that the current low levels of Fraser River sockeye are a continuation of the events that caused the 2002 disaster determination.

ELEMENTS OF THE REQUESTED ACTION

Did a fishery resource disaster occur? If so, what caused it?

Yes, a fishery resource disaster did occur, but it is not a new disaster, rather a continuation of the disaster that occurred in 2002. NOAA Fisheries concluded that the cause of the recent declines in sockeye is the abnormal migratory patterns of “Late Run” Fraser River sockeye salmon that are still resulting in high levels of in-river mortality. Early entry of sockeye into the Fraser River leads to an expanded residence time in freshwater. As a result, the fish become more susceptible to a parasite that leads to kidney failure and a higher mortality rate. *We conclude that 2008 and earlier harvest restrictions for these stocks result from primarily natural factors predominantly outside the control of salmon harvest regulations.*

Did a commercial fishery failure occur due to a fishery resource disaster?

Yes, a commercial fishery failure did occur due to a fishery resource disaster. In 2007, tribal and non-tribal sockeye harvests were about 13,000 fish yielding ex-vessel revenues of \$87,000. In 2008, the U.S. Fraser River Sockeye Fishery was closed on August 1; up until the closure, approximately 43,000 fish worth about \$140,000 were harvested. Revenues from 2007 and 2008 are over 90 percent lower than 2004-2006 average annual revenues of \$1.8 million. However, use of 2004-6 annual average does not provide an estimate of what may be earned in a normal fishing year. The fishery was cancelled in 1999 and 2007, and had very limited fisheries in 2000, 2001, 2002, 2003, 2004, 2005, 2006, and 2008. Based on the analysis above, in normal years, the U.S. tribal and non-tribal fisheries earn about \$8 million in ex-vessel revenues.

RECOMMENDATION

I recommend that you concur with my determination that the 2002 disaster declared in 2002 under §308(d) of the Interjurisdictional Fisheries Act of 1986 continues to exist for tribal and non-tribal fishermen of Washington state, and that this disaster resulted in a 2007 and 2008 commercial fishery failure due to a fishery resource disaster under §312(a) of the Magnuson-Stevens Act of 1976, and that this disaster was and continues to be the result of a combination of natural and unknown factors predominantly outside the control of fisheries managers.

I concur

 11/6/08
_____ date

I do not concur

_____ date

I wish to discuss

_____ date

Attachment