



MAKAH FISHERIES MANAGEMENT

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MEMORANDUM

From: Russell Svec, Fisheries Program Manager
To: Salmon Technical Team, PFMC
Date: October 5, 2001
Subject: Comments on September 4 Draft of Queets Coho Stock Assessment

Thank you for providing Makah Fisheries Management with a review copy of the September 4 draft of the Queets Coho Stock Assessment. The Makah Tribe has been concerned about the status of the Queets coho stock for many years, and we appreciate the opportunity to review this document. This memorandum summarizes our comments on this report.

In general, we agree with the STT's conclusions and recommendations in this draft report. The team arrived at a conclusion similar to the point that we have been making: that Queets coho are not overfished, but that the broods 1994 through 1996 experienced low marine survival, due to changing ocean conditions. For several years we have recommended that independent indicators of marine survival (not averages) be incorporated into the pre-season forecast for the Queets coho stock. We hope that the STT requires future forecasts to incorporate such indicators.

We also hope that the Council adopts your recommendation for a review of the lower end of the MSY escapement range. Although we recognize the biological importance of "surplus escapement", it is clear from Figure 6 (spawners vs. smolt production) that escapement below 5,800 does not condemn the stock to depletion.

We are also impressed with your approach to comparing the effects of freshwater productivity, marine survival, and fishery impacts. Holding two factors constant, and varying the third clearly shows where the impacts to this stock have been. This approach could serve as a model for assessments of other salmon stocks, if the need arises for "overfishing reports" in the future.

We do have some concerns, however, about the sections, "Management Objectives" and "Current Management Approach", as well as technical comments on some of the material in the section "Assessment of Stock Status".

Management Objectives and Current Management Approach

This section, which should inform the reader as to how the fishery agencies manage the Queets coho stock, needs more specific information on annual management measures directed at the three stock components of Queets fall coho (natural, supplemental and hatchery). As it is currently written, neither the casual reader, nor the technical fishery staff can understand how the management objectives for wild, supplemental and hatchery coho have been applied to real-life management on a year-to-year basis.

The second paragraph of this section states:

Generally, predicted ocean impacts on the Queets stock result from catch ceilings that are based on results from the Coho FRAM model; in-river impacts are based on anticipated harvest rates from fishing schedules.

What exactly does this sentence say? That predicted ocean impacts result from ceilings based on FRAM? Our understanding of the process was that it is the other way around: that the ocean catch ceilings result from analysis of impacts predicted by coho FRAM runs, and from co-manager agreement as to what impacts are acceptable. Likewise, aren't the harvest rates planned each year for in-river fisheries based on the analysis of what impacts are acceptable there?

The fourth paragraph of this section states:

Without agreement between QIN and WDFW, escapements for Queets coho are supposed to fall within the established MSY range of 5,800 to 14,500 adults.

"Supposed" by whom? This statement confuses the cause and the effects. We understood that the process was the reverse of that: that if the escapement is predicted to fall below the established range, then QIN and WDFW negotiate an agreement on how the in-river fisheries should be managed.

Also, since ocean treaty fisheries are affected by management regimes developed by WDFW and QIN, we request that you remove or change the language in the paragraph which reads:

...but QIN and WDFW have continued to cooperate in establishing management regimes that meet the needs of treaty and nontreaty fisheries within the limitations resulting from the status of the resource.

This sentence should reflect the fact that these agreements have met the needs of only *freshwater* treaty fisheries. Past agreements between the QIN and WDFW have often not met the needs of the Makah Tribal ocean troll fishery

Under the discussion of Management Objectives, for Hatchery Production, the report states:

Impacts of ocean fisheries and variations in marine survival rates have undermined the capacity of the coho run to meet the needs of the tribal community. Fish and fishing have always been central to the culture and economy of the Queets village on the Quinault Indian Reservation. Because of the extended run timing of coho, the status of the returning run has a profound effect on the ability of tribal fisheries to harvest chinook and steelhead. In the past two decades, the status of coho has been frequently depressed and the social fabric of the community has suffered as a result.

In the first sentence, the reference to "ocean fisheries undermining the capacity of the run" should either be removed, or changed to refer to ocean fisheries outside of the Council's jurisdiction. The next and last sentences should be changed to also reflect the culture, economy, and social fabric of the all coastal Indian tribes. Reduced salmon catches have had severe adverse effects on the culture, economy, and social fabric of the Makah, Quileute, and Hoh Tribe as well.

In addition, under Management Objectives, for Hatchery Production, the report reads:

The primary objective of the Salmon River hatchery production is to provide harvest opportunities to preterminal and terminal area fisheries.

It is important to show the reader whether this management objective has been met. The report should provide estimates of catch of these hatchery coho in preterminal and terminal area fisheries.

Finally, the section, "Current Management Approach" ends with:

When spawning escapements fall substantially below the established range, the QIN and WDFW have adopted management regimes that are intended to increase spawning escapements by an acceptable amount over brood year levels.

What is "acceptable amount" of increase? Here the annual application of management objectives must be more clearly explained. Is there some acceptable percentage increase that the agencies have agreed upon in advance? Is it an increase based on the needs of the stock, or on the needs of the fishery? How do QIN and WDFW arrive at this "acceptable" increase?

This section on management of the stock needs to more clearly explain the annual management process. It would be more clear to the reader if it included a table showing the results of this process. The table should include, year-by-year, the FRAM projected escapement, the agreed-upon "acceptable" escapement, and the actual (post-season count) escapement for wild Queets coho. It should include enough years that the reader can compare the agreed-upon (pre-season) escapement with the actual brood-year escapement.

Other Technical Comments

On page 3, under "Natural Coho Production" the report summarizes the freshwater habitat types in the Queets basin, and how the coho use those habitats. More discussion is needed here to explain how (or whether) their use of a variety of habitat types makes them more susceptible to disturbance of those habitats. In particular, since the Clearwater basin has been subjected to heavy clearcut logging, you might include some discussion of impacts from that logging on coho production in the Clearwater, and in the Queets basin as a whole. In this regard, the report should more clearly describe the habitat problems in the river, and should elaborate on the findings of the NMFS Biological Review Team. Most notably, these findings include effects of habitat degradation in lower river basins on peak flows, scour, sedimentation, etc: "*These stocks have been reduced from historical levels by large scale habitat degradation in the lower river basins...*" (NMFS 1995, page 131, as cited in this report).

Figure 6 is very illustrative of the relationship between wild spawners and smolt production. It would be improved, however, if the data points in this graph were labeled to show which brood years they represent.

Figure 9 (Queets River coho ocean exploitation rate) and Figure 10 (Terminal harvest rate). What is the source of this information, for wild and supplemental coho? Is this from FRAM, or is it from a post-season (CWT-based?) cohort reconstruction. Please cite sources of this information. We request that the STT include a table in this report showing these annual ocean and in-river catch data for each of the three stock components of Queets fall coho.

Also, why does one graph (Figure 9) refer to an "exploitation rate" while the other (Figure 10) refers to a "harvest rate"? The reader might infer from this that fish caught in the ocean are "exploited", while those caught in the river are merely "harvested"? Whichever term is used, it should be used consistently, or there should be an explanation of the difference.

Thank you once again for the opportunity to review this document. We look forward to seeing the final report and to an improved approach to managing the Queets coho stock.