



U.S. Fish and Wildlife Service - Pacific Region
Olympic Peninsula Hatchery Review Team

Olympic Peninsula

Big Quilcene, Quinault, and Sooes River Watersheds



Quilcene, Quinault, and Makah National Fish Hatcheries Assessments and Recommendations

Draft Report, Appendix B:
(INITIAL) Comments on Draft Report and Review Team Responses

February 2009

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Appendix B: Comments on Draft Report and Review Team Responses¹

Co-Manager Comments and Responses

Point No Point Treaty Council²

1. Re: Page 29, first paragraph under Goals but also stated on page viii of Summary in Benefits section: The current net pen program release level is elsewhere noted as being half that of the hatchery (200,000 compared to 400,000 coho smolts). So as stated here, if the survival to adults is the same for the net pen as for the hatchery but production is half that of the hatchery, why is the potential harvest from the net pen program described as only ~19% of the hatchery program? Is this perhaps the result of an assumed different proportion of harvest (primarily terminal) relative to escapement between the hatchery and net pen production? If so, what is the basis for the assumption? There should be an explanation somewhere in this document.

Review Team Response: This was a mathematical error in the report. Instead of 3,500, the predicted potential harvest for the net pen program at 5.0% smolt to adult survival is 9,400. The Team has made this change to the report.

2. Re: Page 42, under Ecological Risks but also stated on page viii of Summary in Risks section: The statement is made: “Early emerging coho progeny of naturally spawning Quilcene NFH coho likely have a competitive advantage compared to later emerging natural-origin Hood Canal coho.” We recommend you also acknowledge that the hatchery coho may be less fit than natural coho owing to potential effects of hatchery domestication and thus the potential impact from competitive advantage owing to early emergence may be reduced or nonexistent.

Review Team Response: The Team agrees with this comment and has made the appropriate changes to the report.

3. Re: pages 45 and 46, under Recommendation QL7d: We recommend you change this recommendation to read as follows: “If the risk of straying from Port Gamble Bay net pens exceeds NOAA Fisheries and HSRG risk guidelines for hatchery fish, composing greater than 5% of the natural spawners, comanagers should investigate the ~~development of~~ (straying issue) **further, including the alternative of developing** a new integrated broodstock (e.g., derived from Big Beef Creek coho) that ~~would~~ **may** reduce the risk associated with straying”. (Strikethroughs indicate deletions and bold font indicates insertions).

We make this recommendation because there are other factors to consider besides a new integrated broodstock, including whether such straying is having any genetic effect on the

¹ When the report is finalized, this section will include comments provided by the public during the stakeholder forum and written comment period.

² Written comments provided February 9, 2009 by Randy Harder, Executive Director, Point No Point Treaty Council, Kingston, WA.

USFWS Olympic Peninsula Hatchery Review Team

Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

local coho (the 5% guideline is based on concerns about genetic influence). The timing of the Quilcene stock and its reduced fitness owing to domestication may limit any genetic influence. (This possibility is suggested by the USFWS 2007 genetic study.) Reduced fitness may also lower the risk of demographic impacts. Such influences/effects could be assessed by adult straying studies and continuing genetic studies of parr and/or smolts in the local streams. This comment would also apply to straying concerns at the other facilities addressed in the Quilcene watershed section of the report.

Review Team Response: *The change was noted and made to the report.*

4. Re: Page 46 under Recommendation QL9b and perhaps also on page 47 under Release and Outmigration: In recommendation QL9b, it is suggested that if harmful algal bloom species are present at levels threatening fish health in Quilcene Bay, then coho that are planned for transfer to the Quilcene net pens may have to be released immediately. Note, however, it is also stated in the immediately preceding recommendation, QL9 that the transfer to the net pens may well need to occur by March 1 to meet water right requirements while not exceeding hatchery loading limits.

The problem here is that a coho smolt release should not occur before April 15 to protect against hatchery coho preying upon ESA listed summer chum. The April 15 release constraint is described in the Tribal and State comanagers' Summer Chum Salmon Conservation Initiative (SCSCI; WDFW and PNPT Tribes, 2000). Specifically, the SCSCI states that coho smolt releases "...will occur no earlier than April 15 to allow for the clearance of juvenile wild summer chum from freshwater and Hood Canal estuarine areas..." (page 200, first provision under predation risk aversion measures). This provision bears upon planning for coho releases at QNFH, affecting options for release. See also relevant comment specific to QNFH on page 227 of SCSCI.

Review Team Response: *The recommendation has been changed to reflect the April 15 constraint. The Team has also modified the recommendation to include the need for a risk assessment in those years where HAB in Quilcene Bay poses a health hazard to the coho reared in the net pens.*

5. Re: Page 48, under Research, Monitoring and Accountability: Potential issues with straying of artificially propagated coho and consequent effects on local natural coho have been raised. A straying study has been suggested in the present document (see recommendation QL7a). The USFWS has recently performed a study of Hood Canal coho genetics (USFWS 2007). Following up on that study, the USFWS had an internal discussion of Quilcene coho genetics on May 21, 2007, producing a summary of that discussion in which the recommendation is made to "[c]ontinue tissue collections and genetics analysis and comparisons of hatchery and wild stocks".

Additionally, a study to assess potential demographic effects of Quilcene hatchery coho on natural coho would be helpful. We recommend that within this Research, Monitoring and Accountability section, you make recommendations to address these research and monitoring actions.

USFWS Olympic Peninsula Hatchery Review Team
Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

Review Team Response: *The Team will consider making a more detailed recommendation regarding a demographic study.*

6. Re: Page 49 under Issue QL17 and reiterated on page 53, first item under Pros of Alternative 4: This appears to be an attempt to raise an issue regarding incidental take of summer chum in the Quilcene Bay terminal fishery. The text notes that the summer chum exploitation rate is 17% in this fishery, which is higher than the pre-terminal and Hood Canal mixed terminal fisheries. This actually is not an issue with regard to protection and recovery of Quilcene summer chum. The higher exploitation rate (a planned for and expected result of managing to increase coho fishing opportunity) is accommodated by focusing management of the terminal fishery on meeting an escapement goal. Accordingly, management guidelines exist for the fishery and the escapement goal has been met every year. The issue as you have raised it, based on a description of exploitation rates, does not exist. The immediately following recommendation QL17 suggests that perhaps the issue you meant to raise is whether or not changing Quilcene hatchery coho run timing would be an appropriate strategy to consider.

Review Team Response: *The HRT has removed all numerical references to summer chum exploitation rates and understands that current agreed to summer chum exploitation rates have not been exceeded. However, the HRT believes that the current coho fishery presents a risk of unusually high summer chum harvest on any specific day that could lead to higher exploitation rates over the course of the season. The HRT has modified the Issue and Recommendation to reflect that possibility.*

7. Re: Page 51 under Alternative 1, Cons: We recommend you delete the first bulleted item that states: “Surplus exceeds current demand for subsistence and ceremonial purposes.” This statement is not true. The facts are: 1) the Tribes will take all the coho that are in good condition as are available, 2) the Tribes interest in the coho diminishes as the coho become dark and deteriorate in condition during the later part of the run, and 3) the tribal demand for coho in good condition remains strong regardless of the size of the surplus.

Review Team Response: *The Team has made modifications to the report based on your comment.*

8. Re: Page 54, Recommended Alternatives: There is an alternative, not included in the prior listing of alternatives, that we think is laudable and is apparent from the specific recommendations made in this document regarding coho production; i.e., recommendations QL9 through QL10c. Two points in particular were made in these recommendations: 1) “Reassess the water management practices to determine how many coho Quilcene NFH can produce without exceeding the Service’s recommended upper rearing thresholds and Quilcene NFH’s water right restriction” (from recommendation QL9); and 2) “Work with comanagers to develop the best production and release strategy from the Quilcene NFH and Quilcene Bay Net Pen” (from recommendation QL10) Thus this document appropriately suggests that there is still work to be done to resolve the question of limits on rearing under the water right and to come to a co-manager agreement on the best production and release strategy. We accordingly recommend that the preferred alternative include provision for these tasks to be implemented and completed in 2009.

USFWS Olympic Peninsula Hatchery Review Team

Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

Review Team Response: *The Team's recommended alternative (2) does not preclude the implementation of recommendations QL9 and QL10. The Team believes that these recommendations are of high priority and should be implemented immediately. The report has been modified in attempt to clarify the Team's conclusions.*

9. Re: Appendices, in Table of Contents and Page 259: We deduce that in the interest of saving space and funding that, as indicated on the appendix page to this draft, you plan to make the appendices available on a web site. However we strongly believe that the comanagers' comments and associated review team responses should be part of the larger document, whether it is in digital or paper form. This would help ensure that the reader has equal access to the USFWS review and comanagers' comments. We therefore recommend that you include at least Appendix B in the larger document when it is distributed.

Review Team Response: *At a minimum, the comments received to date will be posted to the web site in appendices B (comments with Review Team responses) and C (complete text of comments) and made available at the same time the draft report is released to the public. The appendices are listed immediately below the report on the Review Team's web site (<http://www.fws.gov/Pacific/Fisheries/Hatcheryreview/reports.html>).*

10. Re: Sources of information at various locations within the document: There are numerous places within the document where specific information is provided, often numbers or percentages reflecting on stock status or harvest information. Unfortunately, no sources are provided for much of this information. We have noted within the sections we have reviewed in the attached copy of the draft report, where sources of information are missing.

Review Team Response: *Most of the technical background information is summarized in Appendix B. This information is obtained from a large number of documents, both published and unpublished, including HGMPs, CHMPs, annual USFWS production reports, personal communication, online databases (SASSI, RMIS, etc.), and published scientific literature when it applies directly to evaluations of the benefits and risks of hatchery programs. The published and publicly available documentation used in this report is available on the Team's web site under the "supporting documents" link.*

USFWS Olympic Peninsula Hatchery Review Team
Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

Port Gamble S’Klallam Tribe³

Summary and pages 45 and 46, under Recommendation QL7d: We recommend you change this recommendation to read as follows:

“If the risk of straying from Port Gamble Bay net pens exceeds NOAA Fisheries and HSRG risk guidelines for hatchery fish, composing greater than 5% of the natural spawners, comanagers should conduct an impact assessment based on calculated and observed numbers of successfully spawning strays, numbers (range) of expected fry and parr and anticipated and observed fry emergence timing differences. The assessment should also include estimations of potential competitive impacts based on the numbers and likely ratio’s of the potential straying progeny to other “natural” non straying stocks. If significant competitive impacts are determined to be likely, with a reasonable level of confidence, development of mitigating actions will be reviewed for consideration including the potential alternative of developing a new integrated broodstock (e.g., derived from Big Beef Creek coho) that might reduce the perceived risk associated with straying”. Please also consider PNPTC comments on this recommendation.

***Review Team Response:** The detailed evaluation proposed could certainly be a follow-up to the recommendation provided by the Review Team. However, the Team believes that the NOAA Fisheries and HSRG risk guidelines represent best available science with respect to maintaining viable natural populations.*

Pages IX & 46 under Recommendation QL9b and page 47 under Release and Outmigration:

As PNPTC comments pointed out, a coho smolt release should not occur before April 15 to protect against hatchery coho preying upon ESA listed summer chum. As noted in our comments in the attached draft report on page IX of the summary which associate with page 46 in QL9b, the suggested actions seem rather drastic without providing time for exploring and experimenting with other options such as lower densities (place an additional net pen or two and minimize SW rearing densities which should help minimize impacts from HAB), earlier ponding and early release (after April 15th) if a HAB is actually threatening mortality episodes; ponding into a floating vertical raceway (Hypolon skirt on SW net pen w/FW flow providing one to two meter FW lens using conditioned reuse of the water effluent from on site coho rearing etc.

***Review Team Response:** The Team’s understands that the current strategy for managing the impacts of harmful algal blooms (HAB) have been effective at containing the risk. The strategies implemented in 2004 to address HAB levels appear to be working (see the “operational considerations>release” section of the report for more information about the strategies implemented). If the severity and frequency of HAB increase in the future, your suggestions may be alternatives to pursue.*

³ Written comments provided February 10, 2009 by Paul McCollum, Director, Port Gamble S’Klallam Tribe, Kingston, WA.

USFWS Olympic Peninsula Hatchery Review Team

Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

PG Net Pen Genetic Risks and Straying, VII, Pages 31 & 48: Potential issues with straying of artificially propagated coho and consequent effects on local natural coho have been raised. It seems important to clarify just how much overlap exists (if any) based on “exhibits a run timing of one to four months earlier than other hatchery and natural stocks of Hood Canal coho” mentioned elsewhere in the document. Specifically what range of counted strays on the spawning grounds that overlap “natural origin” spawners actually occurs. If this program in the HRT’s perspective “may pose genetic risk” then the burden should be on the HRT to clarify this risk at least within some reasonable scale of a minimum to maximum likelihood. We request that the range of data sets used in the discussion of straying and genetic issues and impacts (how many years, numbers sampled, actual data used, process etc. and the specific source reports or studies be provided.

***Review Team Response:** The Team utilized information that indicated straying does occur. This information did not provide any information regarding run time overlap between the hatchery and natural populations. The information requested in this comment is consistent with the Team’s recommendation 7B(a) that states, “a study should be conducted to better quantify stray rates of coho released from Port Gamble Bay net pens.”*

USFWS Olympic Peninsula Hatchery Review Team

Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

Hoh Tribe⁴

The following comments pertain to the US Fish and Wildlife Service Hatchery Review Team's Draft Recommendations for the Quinault NFH Steelhead – Hoh River Release program. These comments are extracted from a personal communication by Joe Gilbertson, Fisheries Management Biologist, of the Hoh Tribe. The comments were endorsed by Rick Cook, Fishery Biologist for the Bureau of Indian Affairs.

1. The statement on page 119 of the draft report is incorrect. It reads, "Discussions with Tribal staff indicate that due to lack of funding, little or no assessment or monitoring is done on natural spawning or rearing in tributaries or the main stem Hoh River." We have conducted extensive smolt trapping which provides information on smolt production, distribution, and size. We also have conducted a snorkel-survey project in major tributary habitat since 2005 to gather information on rearing habitat availability, quality, and utilization by juvenile salmonids. Please remove this statement from the draft.

Review Team Response: *The Team agrees that the quoted statement is incorrect and has made modifications to include the description of monitoring activities that biologists for the Hoh Tribe have provided. The Team relies upon information and reports that are either publicly available or provided by the fisheries managers in order to assess each program. Although it appears the Hoh Tribe makes a substantial monitoring effort on the Hoh River, data summaries and analyses have not been available for the Team to review.*

2. In regards to the Team's recommended alternative for the Quinault NFH steelhead – Hoh River release program, natural production in the Hoh River is insufficient to accommodate Tribal harvest needs. Our Tribal need is to fish 2 days a week. There is no credible evidence to suggest that habitat productivity can be sufficiently enhanced or repaired to generate sufficient numbers of wild fish to meet the Tribal fishing objective.

Review Team Response: *In response to this comment, the Team has modified the mid- and long-term recommendations to clarify our intent.*

3. We understand the need to eliminate the transfer of fish from Cook Creek, and we look forward to developing a locally adapted, early timed segregated harvest program of winter steelhead derived from Hoh origin broodstock. We will strive to ensure that the deleterious and detrimental influences of the hatchery production on wild stocks are minimized utilizing all available techniques and approaches, and we will continue to evaluate our success in this arena, considering the eventual development of an integrated harvest hatchery management plan.

Review Team Response: *The Team appreciates this open-minded approach to alternatives for the future management of the Hoh River basin.*

⁴ Personal communication provided February 6, 2006 by Joe Gilbertson, Fisheries Management Biologist, Hoh Tribe, Forks, Washington.

USFWS Olympic Peninsula Hatchery Review Team

Olympic Peninsula NFHs Assessments and Recommendations Report – February 2009

4. The Hoh Tribe, as a resource comanager, should play a primary role in the review process. Our role as resource managers is fundamentally different than that of stakeholders and public interest groups. The federal government also bears a trust responsibility to the Hoh Tribe.

Review Team Response: *The Team acknowledges the status of the Hoh Tribe as a resource manager of the Hoh River Basin and recognizes the Service's trust responsibility to the Hoh Tribe. The Team provides opportunity for comanager involvement throughout the review and actively seeks comanager input while developing the draft report and recommendations. It is also the intent of the Service to give stakeholders and public interest groups' opportunity to provide comments after the report has been drafted.*

5. The Hoh Tribe questions the use of reports prepared by stakeholders and public interest groups who are not comanagers of the resource.

Review Team Response: *While the Team primarily relies upon reports and other information produced by comanagers when developing the report, the Team does utilize publicly available reports, including those produced by stakeholders and public interest groups.*

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