

FINAL MEMORANDUM

To: Wells, Rocky Reach, and Rock Island HCPs Hatchery Committees
Date: November 20, 2013

From: Mike Schiewe, Chair

Cc: Kristi Geris

Re: Final Minutes of the October 16, 2013 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees' meeting was held at Chelan PUD headquarters in Wenatchee, Washington, on Wednesday, October 16, 2013, from 9:30 am to 1:00 pm. Attendees are listed in Attachment A to these meeting minutes.

ACTION ITEM SUMMARY

- Kristi Geris will follow up with Lynn Hatcher, once he becomes available after the government shutdown, regarding his approval of the Hatchery Committees August 21, 2013 meeting minutes, prior to finalizing and distributing them to the Committees (Item I). *(Note: Hatcher approved the Hatchery Committees August 21, 2013 meeting minutes via email on October 18, 2013, and the final meeting minutes were distributed to the Hatchery Committees by Geris on October 21, 2013.)*
 - Greg Mackey will follow up with Tom Kahler by October 18, 2013, regarding Douglas PUD's approval of the Okanagan Nations Alliance (ONA) Sockeye Program Update memorandum, prior to Kristi Geris finalizing and distributing the memorandum to the Committees (Item I). *(Note: Kahler provided minor grammatical edits to and his approval of the ONA Sockeye Program Update memorandum via email on October 18, 2013, as distributed to the Hatchery Committees by Geris on October 21, 2013.)*
 - Greg Mackey will provide Douglas PUD's revised edits to the Twisp River Steelhead Live Spawning Plan Statement of Agreement (SOA) to the Yakama Nation (YN; Item II-A).
 - The YN will provide a revised Twisp River Steelhead Live Spawning Plan SOA to Kristi Geris for distribution to the Hatchery Committees by October 21, 2013, that includes: 1) Douglas PUD's suggested revisions; 2) the revised Washington Department of Fish and Wildlife (WDFW) Fish Health risk analysis memorandum
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and the revised Twisp River Steelhead Live Spawning Plan; and 3) a statement indicating that the YN will keep the Hatchery Committees updated on progress and results of their Steelhead Kelt Reconditioning Program (Item II-A). *(Note: Keely Murdoch provided the final revised SOA to Geris on October 22, 2013, which Geris distributed to the Hatchery Committees, along with the revised WDFW Fish Health risk analysis memorandum and the revised Twisp River Steelhead Live Spawning Plan, on that same day.)*

- The YN will prepare a Chewuch Acclimation Plan SOA, and will provide the SOA to Kristi Geris for distribution to the Hatchery Committees. The YN will be requesting approval of the SOA at the Hatchery Committees' meeting on November 20, 2013 (Item II-B).
 - Keely Murdoch will provide Kirk Truscott with data on adipose-fin-wire (ad-wire) retention (Item II-B).
 - The YN will develop a document summarizing their plans for expanding acclimation areas in the upper Methow, and will provide the document to Kristi Geris for distribution to the Hatchery Committees (Item II-B).
 - Keely Murdoch will provide the YN's non-target taxa of concern (NTTOC) model runs to Greg Mackey (Item III-A).
 - Greg Mackey will develop a document that summarizes the NTTOC model runs, and will distribute the document in early 2014 (Item III-A).
 - The Hatchery Committees representatives will provide comments on the Hatchery Monitoring and Evaluation (M&E) Plan Tables to Greg Mackey no later than November 11, 2013, for discussion at the Hatchery Committees' meeting on November 20, 2013 (Item III-B).
 - Chelan PUD and Grant PUD will incorporate their respective data into the Hatchery M&E Plan Tables, and will provide the updated tables to Greg Mackey no later than November 11, 2013, for discussion at the Hatchery Committees' meeting on November 20, 2013 (Item III-B).
 - **Kristi Geris distributed a meeting invite for a conference call on November 6, 2013, from 10:00 am to 12:00 pm, to discuss Chelan PUD's draft 2014 M&E Implementation Plan (Item IV-B).**
 - Chelan PUD will provide a revised Methow Spring Chinook Hatchery and Genetic Management Plan (HGMP) for review to Kristi Geris for distribution to the Hatchery
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Committees no later than October 25, 2013 (Item IV-D).

STATEMENT OF AGREEMENT DECISION SUMMARY

- No SOAs were approved at today's meeting.

AGREEMENTS

- The Hatchery Committees representatives present agreed to consider approval of the Twisp River Steelhead Live Spawning Plan SOA by email (Item II-A).
- The Hatchery Committees representatives present agreed to a Chelan PUD request for 3,500 summer Chinook salmon eggs (from those destined for final acclimation and release at the Chelan Falls Acclimation Facility) for use in an egg-fry survival study in the Chelan River Tailrace and habitat channel (Item IV-A).
- The Hatchery Committees representatives present agreed to Chelan PUD's request for a shortened review period for their draft 2014 Hatchery M&E Implementation Plan, in order to assist Chelan PUD in meeting their contracting deadlines (Item IV-B).

REVIEW ITEMS

- Mike Schiewe sent an email to the Hatchery Committees on September 13, 2013, notifying them that the draft Douglas PUD 2012 M&E Plan Report is available for review for a 60-day period, with comments due to Greg Mackey no later than November 14, 2013 (Item III-D).

FINALIZED REPORTS

- The final Twisp Steelhead Relative Reproductive Success 2012 Genotyping Report was distributed to the Hatchery Committees by Kristi Geris on September 9, 2013 (Item III-E).

I. Welcome, Agenda Review, Meeting Minutes, and Action Items

Mike Schiewe welcomed the Hatchery Committees and asked for any additions or other changes to the agenda. The following revisions were requested:

- Greg Mackey added: 1) a Chief Joseph Summer Chinook Program update; and 2) an introduction to the Wells and Methow Hatcheries M&E Implementation Strategy for 2014.
- Alene Underwood added: 1) an introduction to the SOA for estimating carrying capacity using juvenile data; 2) a Methow Spring Chinook HGMP update; and 3) a Chelan PUD staff update.

The Hatchery Committees reviewed the revised draft August 21, 2013 meeting minutes. Kristi Geris said that a third revised draft was distributed to the Hatchery Committees on September 17, 2013. She said that all comments and revisions received from members of the Committees were incorporated in the revised minutes, and that a redline strikeout version was also distributed along with the third revised draft that tracked comments addressed from the first and second revised drafts. She said that there was one outstanding comment remaining to be discussed regarding the Colville Confederated Tribes' (CCT's) Hatchery Brood Collection agenda item. Kirk Truscott clarified via email on October 21, 2013, that the fourth side of the broodstock compound at Chief Joseph Hatchery is a steep hill that is unfenced. He said that the loss of broodstock occurred when individuals climbed the hill and came into the compound, took the fish, and passed them under the gate of the perimeter fence and into a vehicle that was parked at the entrance to the compound. He also noted that vehicle access to the broodstock compound has now been secured with a locked gate near Chief Joseph Dam (approximately 0.5 mile from the broodstock compound). Keely Murdoch also clarified a statement that she made during the YN's live-spawning Twisp River Steelhead broodstock agenda item. She clarified that at the time of the discussion, the plan was to discontinue live-spawning of Twisp broodstock if Infectious Pancreatic Necrosis Virus (IPNV) was detected; and not discontinue the Kelt Reconditioning Program. The Hatchery Committees members present conditionally approved the August 21, 2013 meeting minutes, pending Lynn Hatcher's approval. Geris will follow up with Hatcher, once he becomes available after the government shutdown, regarding his approval of the minutes, prior to finalizing and distributing them to the Committees. *(Note: Hatcher approved the Hatchery Committees August 21, 2013 meeting minutes via email on October 18, 2013, and the final meeting minutes were distributed to the Hatchery Committees by Geris on October 21, 2013.)*

A memorandum providing a summary of the Wells Hatchery Modernization Workshop that was held at Douglas PUD headquarters in East Wenatchee, Washington, on Wednesday, August 21, 2013, from 1:00 pm to 3:30 pm, was distributed to the Hatchery Committees on September 3, 2013. All comments and revisions received from members of the Committees were incorporated in the revised memo, and the final Wells Hatchery Modernization Workshop memo was approved via email by the Wells Hatchery Committee on September 17, 2013, as distributed to the Committees by Geris that same day.

Geris said that a memorandum providing a summary of the ONA Sockeye Program Update from the Priest Rapids Coordinating Committee Hatchery Subcommittee (PRCC HSC) meeting that was held at Chelan PUD headquarters in Wenatchee, Washington, on Thursday, August 22, 2013, from 9:00 am to 11:00 am, was distributed to the Hatchery Committees on September 3, 2013. She said that no comments or revisions were received from members of the Committees. The Hatchery Committees members present conditionally approved the ONA Sockeye Program Update memorandum, pending Douglas PUD's approval. Greg Mackey said that he will follow up with Tom Kahler regarding Douglas PUD's approval of the memorandum, prior to Geris finalizing and distributing the memorandum to the Committees. *(Note: Kahler provided minor grammatical edits and his approval the ONA Sockeye Program Update memorandum via email on October 18, 2013, as distributed to the Hatchery Committees by Geris on October 21, 2013.)*

II. Yakama Nation

A. DECISION: Twisp River Steelhead Live Spawning Plan SOA (Keely Murdoch)

Keely Murdoch said that a revised draft Twisp River Steelhead Live Spawning Plan SOA was distributed to the Hatchery Committees by Kristi Geris on October 15, 2013; and added that edits received from the CCT and WDFW were incorporated into the revised draft. She said that all action items pertaining to the SOA have been completed, including revising the SOA to indicate that the YN will cover additional costs that were identified in the budgets provided by WDFW and Douglas PUD. She said that a WDFW Fish Health risk analysis memorandum and a revised draft Twisp River Steelhead Live Spawning Plan were also distributed to the Hatchery Committees by Geris on October 15, 2013. She noted that the revised draft plan included a reduced number for sampling (i.e., combined total). Mike Tonseth also noted a typo in the WDFW Fish Health risk analysis memorandum. A revised

memorandum and the revised Twisp River Steelhead Live Spawning Plan (Attachment B) were distributed to the Hatchery Committees by Geris on October 22, 2013.

Bill Gale asked if the YN has received feedback on the SOA or plan from the National Marine Fisheries Service (NMFS), and Murdoch replied that they have not. She said, however, that spawning of Twisp fish is included in permits that have been approved by NMFS; and she added that kelt reconditioning is a Reasonable and Prudent Alternative (RPA) in the Federal Columbia River Power System (FCRPS) Biological Opinion. She said that the Twisp Program (i.e., adult holding and live-spawning, at Methow Hatchery) was accounted for in the HGMP. Mike Schiewe noted that because there are listed species involved, NMFS should be consulted prior to approval of the SOA.

Greg Mackey said that prior to approving the SOA, Douglas PUD will need time for internal review of the revised SOA and the WDFW Fish Health risk analysis memorandum; and also Douglas PUD and the YN need to have a discussion about the budget. Tom Scribner said that he had received Douglas PUD's budget, and that there are a few pending details to be worked out with WDFW, but all costs will be covered. Murdoch added that those details are largely about timeline. She said, for example, that the YN will purchase items that are needed now, such as a sonicator; however, items that are not needed now will be purchased after the YN's new Bonneville Power Administration (BPA) budget begins and subcontracting is in place (i.e., likely around late-March or early-April 2014). Mackey said that those details are what Douglas PUD and the YN need to discuss. He added that Douglas PUD has edits to the SOA and that, once updated per today's discussions, he will provide those edits to the YN. Murdoch asked what the timeline is for Douglas PUD's internal process, and Mackey replied that it depends on schedules and availability, but that it would likely be just a few days.

Gale suggested that the YN include language in the SOA or plan that states that they will keep the Hatchery Committees updated on the progress and success of the Steelhead Kelt Reconditioning Program. Kirk Truscott also suggested that aside from results of the Program, the reports should also address any effects on the ongoing HCP programs. Tonseth added that it also seems important to highlight fish health problems, if any, affecting overall hatchery production. Mackey suggested incorporating an update in the monthly Hatchery M&E report that Charlie Snow provides, and Murdoch replied that Matt Abrahamse of the

YN develops a similar report; she suggested that the same fish health update can be included in both publications.

The YN agreed to provide a final revised Twisp River Steelhead Live Spawning Plan SOA to Geris for distribution to the Hatchery Committees by October 21, 2013, that includes: 1) Douglas PUD's suggested revisions; 2) the revised WDFW Fish Health risk analysis memorandum and the revised Twisp River Steelhead Live Spawning Plan; and 3) a statement indicating that the YN will keep the Hatchery Committees updated on progress and results of their Steelhead Kelt Reconditioning Program. *(Note: Murdoch provided the final revised SOA [Attachment C] to Geris on October 22, 2013, which Geris distributed to the Hatchery Committees, along with the revised WDFW Fish Health risk analysis memorandum and the revised Twisp River Steelhead Live Spawning Plan, on that same day.)* In consideration of time constraints, the Hatchery Committees representatives present agreed to consider approval of the Twisp River Steelhead Live Spawning Plan SOA by email consent.

B. Expanded Acclimation in the Methow (Keely Murdoch)

Chewuch Acclimation Plan

Keely Murdoch said that a draft Chewuch Acclimation Plan (Attachment B) was distributed to the Hatchery Committees by Kristi Geris on October 10, 2013, per the Hatchery Committees' request. She noted that the plan is limited to acclimation only, and that the other program components will be included in Chelan PUD's Spring Chinook HGMP. She said that a SOA was not developed because she was unsure if one was needed; and she asked if approval of the acclimation plan would be included under the approval of Chelan PUD's HGMP. Greg Mackey said that Douglas PUD would not require a SOA regarding how Chelan PUD's program is managed because it is not Douglas PUD's program. Mike Tonseth recalled discussing at the Hatchery Committees' meeting on August 21, 2013, the need for two SOAs: 1) a facility sharing agreement between the YN and Douglas PUD; and 2) an agreement for the use of the facility for Chelan PUD production. Tonseth said, however, that if the YN's program is included as a long-term program in the Chelan PUD Spring Chinook HGMP, any SOA for that HGMP would probably suffice. Alene Underwood reminded the Hatchery Committees that in 2014, Chelan PUD's 60,516 spring Chinook obligation will be overwinter reared in Grant PUD's new Carlton Acclimation Facility. Murdoch suggested that, for now, the Hatchery Committees review and comment on the

draft Chewuch Acclimation Plan, and then a SOA can be developed, if needed, for review at the Hatchery Committees' meeting on November 20, 2013. Bill Gale said that, logically, brood collection should be discussed prior to acclimation. He added that he does not want to see Winthrop fish taking the place of spring Chinook from the conservation program at Methow FH, Winthrop is to serve as a safety net program and therefore should not be the first choice for use in an acclimation facility. Tonseth said that this acclimation plan is still a step that needs to be completed; and Murdoch added that National Environmental Policy Act (NEPA) processes are required for all expanded acclimation programs, and so approval is needed by BPA. Gale said that he would be supportive of a SOA, and suggested including a caveat statement that the SOA is contingent on brood collection. Murdoch said that the YN will prepare a Chewuch Acclimation Plan SOA, and will provide the SOA to Geris for distribution to the Hatchery Committees. The YN will be requesting approval of the SOA at the Hatchery Committees meeting on November 20, 2013.

Tom Scribner agreed with Gale's genetic concerns about releasing safety net fish in the Chewuch; and Gale added that he sees no genetic concern for this year. He said, however, that in the long-term, there is concern. Tonseth said the safety net program has many purposes, but the program is intended to be used only when absolutely necessary. He said the program is a stop-gap measure to ensure production targets are met, in the event of unforeseen events. Gale said that if safety net fish are used, in general, his preference would be that they are released from the Methow—not the Chewuch.

Expanding Acclimation Areas in the Upper Methow

Murdoch said that the YN is interested in expanding acclimation areas in the upper Methow. Scribner said that a formal plan is not yet developed, but at this point, the YN is hoping to obtain a "concept commitment" from the Hatchery Committees. He said that, in the interest of enhancing natural production, the YN is interested in moving acclimation and release of all conservation production to locations with the best opportunity to spawn and naturally reproduce. He said these areas include places such as Early Winters Creek, Goat Wall, Heath Ranch, and perhaps others; and he added that there are data that favor moving out of the Methow, and into the upper Methow. He said this would involve permitting and NEPA processes, which would first require agreement, or a commitment, in concept. Schiewe asked if the YN planned to develop a draft plan or concept statement, and Scribner replied

that they could. Scribner added that he is interested in gathering feedback from the Hatchery Committees about what is needed to move fish out of Methow Hatchery and into the upper Methow, so that those discussions can take place and issues can be addressed.

Tonseth noted that this concept should also be discussed within the PRCC HSC, and Scribner said that he can present these plans to the HSC as well. Mackey also suggested approaching this concept on a reach-by-reach basis—for example, how many fish should return where—as it relates to spawning abundance thought to be needed in a reach and to percent hatchery origin spawners (pHOS) issues. He said the conservation program also serves as a demographic and genetic buffer, and cautioned that a measured approach should be developed. He said there are data showing spawning distributions, and he asked what those data indicate about available capacity. He said those types of data should indicate how many additional fish should be targeted to return to certain areas. Murdoch noted that some of that information is unknown.

Tonseth added that there are also the added issues of acquiring brood in particular locations. Murdoch asked whether, for hatchery origin fish, it makes sense to trap at Wells. Kirk Truscott said that the CCT will have returning adults from the Section 10(j) releases in the Okanogan that will be adipose-fin-present (ad-present). Murdoch noted that there are marking schemes to distinguish where fish are headed, and asked whether these types of techniques should be employed. Tonseth said that those types of measures are not yet in place, and he added that it takes time to get those measures approved, and that there would be an interim period where origin of fish was indistinguishable. Truscott asked if there are data on ad-wire retention, and Murdoch said that she will provide Truscott with those data.

Tonseth suggested that another option would be passive integrated transponder (PIT)-tagging a large enough group; however, high costs would be associated with that option. Murdoch said that if the goal is to separate Twisp and Methow hatchery fish, she suggested employing Parental Based Tagging (PBT), and she added that this option may be cheaper than coded wire tags. She also added that the YN is considering PBT for their coho program to track parentage and source programs. Mackey noted that PBT delays fish migration for one week, which is not desirable. Gale agreed that PBT may not be a good choice, and

suggested exploring alternatives. He said that it may not be ideal to have all fish in acclimation ponds.

Scriber said that he appreciates the comments, and agreed that it makes biological sense to take a measured approach to expanding acclimation in the upper Methow. Mackey noted that even if fish are released in upper river ponds, there is the possibility that those fish may volunteer back to the Methow Hatchery. He added that if fish are moved upstream, the water may have stronger cues; and Truscott noted that the M&E program should inform those questions. Tonseth said that the Methow has not been operated in a manner to test homing fidelity, and he suggested looking at data from the Chewuch to get a general feel for what may be going on. Gale also suggested looking at data from Winthrop National Fish Hatchery because the same water source is used there as at Methow Hatchery.

Scribner said that the YN will develop a document that analyzes the factors discussed and summarizes their plans for expanding acclimation areas in the upper Methow, and will provide the document to Geris for distribution to the Hatchery Committees. Schiewe asked if this program would go through an Independent Scientific Review Panel (ISRP) review, and Murdoch replied that the program already went through ISRP review in 2008.

III. Douglas PUD

A. NTTOC Update (All)

Mike Schiewe summarized that NTTOC analyses were last discussed about one year ago. He said that at that time, Chelan PUD and the CCT had not run their models; and then he asked if there has been any progress. Greg Mackey said that Douglas PUD, Grant PUD, the U.S. Fish and Wildlife Service (USFWS), Chelan PUD, and the YN have all run their models. He added, however, that he has not yet received the YN's data. Keely Murdoch said that she will provide the YN's NTTOC model runs to Mackey. Bill Gale clarified that models have been run for Winthrop, but not for the Entiat; he added that those will be completed. Mackey also said that last fall, Andrew Murdoch ran Chelan PUD's programs and those data have now been incorporated into the database of model runs. He said that although many model runs have not been completed, there are now hundreds of model runs in the dataset and it is very robust. However, there is still the uncertainty as to why some model runs do not work.

Keely Murdoch and Gale both recalled having the same issue where models would not run if the non-target taxa were larger than the program fish; and Keely Murdoch noted that this was often the case in model runs of coho against steelhead. Gale suggested making the decision to assume the effects are negligible when NTTOC fish are larger than program fish. Mackey said that various people have consulted Craig Busack, but Busack indicated that he did not have the time or the resources to delve into coding issues. Mackey added that Douglas PUD programmers have determined that fixing the program cannot be done easily; and that Andrew Murdoch is in the process of having WDFW programmers look into it, but WDFW has not yet done this. Gale asked if the only issue is what he and Keely Murdoch mentioned. Mackey replied that it is the only major issue; however, that there are also other minor issues.

Mackey recalled that the original intent of the NTTOC modeling was to develop a report summarizing the results. He said the methods are already written in a published paper; and in order to complete this task, he suggested tabulating the results, writing a summary and interpretation of the results, and acknowledging the limitations of the existing model. He added that conclusions can always be revisited if the code ever gets fixed. Keely Murdoch asked about the Delphi review panel, and Mackey said the panel could consist of a more local, accessible group since the problems with the model does not justify a major Delphi panel effort. He added that, now, he is unsure of the value of convening the panel. Keely Murdoch suggested that the Delphi approach, at this point, might be more worthwhile than the model outputs; and she added that the Delphi panelists might address issues or concerns the models cannot address. She said that the Delphi determinations can then be compared to the models. Todd Pearsons suggested that the report might consider the results in terms of high, medium, and low risk. He said that this approach would make evaluating the thousands of comparisons more manageable.

Gale asked if the models indicated any large negative impacts, and Mackey replied that the vast majority of effects were small. Mackey noted that some programs were showing inflated effects due to data entry artifacts. He said he believes that this error was fixed, and that the summary report would include a discussion evaluating the possible source of error.

Mackey volunteered to develop a short report summarizing the modeling results in order to finalize the NTTOC study with the Hatchery Committees. Schiewe agreed that developing a short report is a good first step, and suggested that the report may identify the need for a Delphi review panel. Mike Tonseth also suggested that the Hatchery Committees come to consensus on how to close the loop on the NTTOC SOA. He added that it may be closed as inconclusive, but that is acceptable if that is the outcome. Mackey said that he will develop a document that summarizes the NTTOC model runs, and will distribute the document in early 2014.

B. Hatchery M&E Plan Tables (All)

Greg Mackey said that the draft Hatchery M&E Appendices tables were distributed to the Hatchery Committees by Kristi Geris on September 24, 2013. He noted that the tables are reference tables for the Hatchery M&E Plan, and that the Hatchery Committees agreed at the Hatchery Committees' meeting on August 21, 2013, that Mackey should develop the tables. He noted that the tables primarily include Douglas PUD data, and that Chelan PUD and Grant PUD still need to populate their respective data. He also noted that he has included an appendix with a collection of carrying capacity estimates that have been done by various authors for populations in this region and much of the information was already compiled in the Quantitative Analytical Report (QAR). He stressed that the carrying capacity estimates are not a metric of the M&E Plan; rather, they are meant to be informational reference numbers.

The Hatchery Committees representatives agreed to provide comments on the Hatchery M&E Plan Tables to Mackey no later than November 11, 2013, for discussion at the Hatchery Committees' meeting on November 20, 2013. Chelan PUD and Grant PUD also agreed to incorporate their respective data into the tables, and provide the updated tables to Mackey by the November 11, 2013 comment deadline. The Hatchery Committees also agreed that Grant PUD should be invited to participate in the Hatchery M&E Plan Tables discussions at the Hatchery Committees' meeting on November 20, 2013.

C. Chief Joseph Summer Chinook Program Update (Greg Mackey)

Greg Mackey said that the summer Chinook from Chief Joseph's program that were reared at Wells Hatchery will be transferred to Chief Joseph's acclimation pond at the end of October.

He reminded the Committees that a single year of summer Chinook production was reared at Wells Hatchery to meet Douglas PUD's mitigation in lieu of Chief Joseph production because Chief Joseph's facility was not yet ready to accommodate the program.

D. Draft Douglas PUD 2012 Hatchery M&E Report (Greg Mackey)

Greg Mackey reminded the Hatchery Committees that Mike Schiewe sent an email to the Hatchery Committees on September 13, 2013, notifying them that the draft Douglas PUD 2012 M&E Plan Report is available for review for a 60-day period, with comments due to Mackey no later than November 14, 2013.

E. Twisp Steelhead Relative Reproductive Success 2012 Genotyping Report Update (Greg Mackey)

Greg Mackey said that the final Twisp Steelhead Relative Reproductive Success 2012 Genotyping Report was distributed to the Hatchery Committees by Kristi Geris on September 9, 2013. He noted that WDFW has updated the single nucleotide polymorphic loci (SNPs) panel that was used for analysis in this report. He said that the first four years of the study were run with a preliminary SNP panel, but because certain markers were not conforming or meeting genetic statistical expectations, the panel has been updated, with some markers removed and new ones added, to create the final panel that WDFW plans to use. All the analyses from the previous years in the study were rerun with the new SNP panel, so all data are consistent and up to date. He said that results were reanalyzed, and no differences from past analyses were observed.

Alene Underwood asked when the study ends, and Mackey replied that he believes a final report will be developed in 2021. He added that the last parent cohort will be collected around 2017, and then parental analyses will begin to be run on parents and returning adult offspring, while the study awaits the final offspring to return. He also added that the study was designed to include grandchildren from earlier cohorts.

F. Wells and Methow Hatcheries M&E Implementation Strategy for 2014 (Greg Mackey)

Greg Mackey reviewed the Wells and Methow Hatcheries M&E Implementation Strategy for 2014 (Attachment C), which Kristi Geris distributed to the Hatchery Committees on October 17, 2013. He recalled that the Hatchery Committees had agreed that Chelan PUD and

Douglas PUD would provide their respective draft M&E Implementation Plans to the Hatchery Committees for review no later than July 1 of the year preceding the proposed M&E activities. However, as provided in a letter to the Hatchery Committees on July 1, 2013, due to uncertainty in the M&E requirements pending consultation and issuance of Endangered Species Act (ESA) permits for Methow Spring Chinook, Wells Steelhead, and Wells Summer Chinook, Douglas PUD was unable to provide a plan by that deadline. Mackey said that on September 20, 2013, Douglas PUD received a letter from NMFS indicating that the existing ESA permits would be temporarily extended, with no specific end date. He said that because the new permits will contain terms and conditions that will likely affect the M&E program, Douglas PUD plans to develop a compartmentalized M&E implementation plan that can be contracted as separate work orders for each major activity. Mackey said that he will provide this draft plan to the Hatchery Committees as soon as it is complete.

IV. Chelan PUD

A. Summer Chinook Egg Request (Alene Underwood)

Alene Underwood said that a request for 3,500 summer Chinook salmon eggs for Chelan River egg-fry survival studies (Attachment D) was distributed to the Hatchery Committees by Kristi Geris on October 4, 2013. Underwood said that the request is largely the same as the request that was approved by the Hatchery Committees in 2012, only more eggs are being requested this year (3,000 eggs were requested in 2012), and some of the methodologies are slightly different from those used in previous years.

Mike Tonseth asked if there is an end date to these studies, and Underwood replied that there is not, and she added that the evaluation is tied to the Lake Chelan license. She said the studies are addressing egg survival, which the proposal explains in greater detail. Tonseth requested that for future years, the need for additional eggs is requested earlier. He said his concern is that the request is for almost an equivalent of a full female of eggs and collection has already passed. He added that although this will not be an issue this year, he would like to avoid potential issues (i.e., such as precluding meeting Rocky Reach mitigation) in the future.

Kirk Truscott recalled the dissolved oxygen (DO) issue with rearing juveniles at Chelan Falls in 2012, and Underwood clarified that the DO issue arose at the end of rearing which prompted the early release. She added that earlier in rearing, there was also a disease problem. She said that no strong correlations could be made linking the 2012 outcomes to DO issues.

The Hatchery Committees representatives present agreed to Chelan PUD's request for 3,500 summer Chinook salmon eggs (from those destined for final acclimation and release at the Chelan Falls Acclimation Facility) for use in an egg-fry survival study in the Chelan River Tailrace and habitat channel.

B. Draft Chelan PUD 2014 M&E Implementation Plan (Alene Underwood)

Alene Underwood said that a draft Chelan PUD 2014 M&E Implementation Plan was distributed to the Hatchery Committees by Kristi Geris on October 15, 2013. She noted that the draft plan was distributed by the October deadline as promised at the Hatchery Committees meeting on July 17, 2013. She said that the draft plan includes only Chelan PUD's programs, and explained that because contracting will be completed separately from the other PUDs, it was decided that they will develop separate plans. She said a section was added to the introduction that explains what methods in the plan differ from previous year's methodologies. She also said that the plan is organized differently than in the past. She said it is organized in a similar fashion as the Request for Proposal, which, Underwood said, seems to be more user-friendly. She said the draft plan does not include sockeye, and that Chelan PUD hoped to have a discussion regarding proposed sockeye activities at the November 20, 2013 meeting. She said the plan includes adult monitoring in the Methow although there is an understanding with Grant PUD that this work will be shared.

Mike Tonseth noted that the draft Chelan PUD 2014 M&E Implementation Plan no longer included Table 1 that assigns tasks and responsible parties; and Underwood said that she can re-incorporate Table 1 into a revised draft plan and provide the revised plan to Geris for distribution to the Hatchery Committees. Chelan PUD re-incorporated Table 1 and also added language for the Chelan Falls summer Chinook and Methow spring Chinook aquaculture monitoring component into a revised draft plan (Attachment E), and provided

the updated plan to Geris on October 17, 2013, which she distributed to the Hatchery Committees that same day.

Underwood requested a conference call in two weeks to discuss comments on the plan, and added that she hoped to obtain the Hatchery Committees' approval of the plan within 2 to 3 weeks in order to continue with contracting. She said that the plan will serve as the scope of work, and so Chelan PUD plans to attach the approved plan to the contract. Tonseth asked if contracting deadlines are driving this expedited process, and Underwood replied that they are. The Hatchery Committees representatives present agreed to Chelan PUD's request for a shortened review period for their draft 2014 Hatchery M&E Implementation Plan to facilitate meeting contracting deadlines. Geris distributed a meeting invite for a conference call on November 6, 2013, from 10:00 am to 12:00 pm, to discuss Chelan PUD's draft 2014 M&E Implementation Plan.

C. SOA for Estimating Carrying Capacity Using Existing Juvenile Data (Catherine Willard)

Catherine Willard said Chelan PUD and Grant PUD are considering developing a SOA to use juvenile data in future habitat carrying capacity estimates in the Wenatchee Basin and target tributaries, and HCP No-Net-Impact (NNI) recalculations. She said that within the next week, Andrew Murdoch will meet with the Joint Fisheries Parties (JFP) to discuss how these data can be used to estimate carrying capacity. Mike Tonseth further explained that there has been a lot of discussion regarding the use of existing data—a lot of which has evolved around juvenile data. He said that recently Murdoch began developing a conceptual approach for how to use existing juvenile data to manage adult activities, and how to define carrying capacity in tributaries and in the basin as a whole. Tonseth added that, currently, Andrew Murdoch is mainly looking at spring Chinook in the basin. He said that Andrew Murdoch's conceptual approach should be available next week, and that the SOA will describe how these data will be used in the future.

Keely Murdoch expressed concern that commitments are already being sought on what data are used for the next recalculations when they are still so far in the future (10 years). Alene Underwood urged collecting data that have a specific use. She said the SOA is not defining methodologies; rather, it is an attempt to be more proactive in preparing for the next recalculations. Keely Murdoch said that according to an article by Williamson et al. (2010),

the two driving factors that lower reproductive success are spawning location and fish size at return, and she added that these two factors are different for hatchery versus wild fish. She also added that estimates vary because of how the hatchery program is operated, in addition to natural conditions. Tonseth agreed with Keely Murdoch's recollection of the Williamson et al. (2010) article, but he added that Andrew Murdoch's analyses produced different results. He also added that Andrew Murdoch's findings are a stark contrast to what has been presented in the past, and he recommended keeping an open mind until Andrew Murdoch's findings can be discussed. Tonseth said that once these discussions have taken place in the JFP, the SOA will be presented to the Hatchery Committees for discussion.

D. Methow Spring Chinook HGMP Update (Alene Underwood)

Alene Underwood said that all comments have been received on their Methow Spring Chinook HGMP, and that a revised HGMP for review will be provided to Kristi Geris for distribution to the Hatchery Committees no later than October 25, 2013.

E. Chelan PUD Staff Update (Alene Underwood)

Alene Underwood announced that Catherine Willard, the new Chelan PUD Senior Fisheries Biologist, is now on board. Willard was formerly with the U.S. Forest Service Entiat Ranger District. Underwood said that she will be transitioning many Hatchery Committees topics to Willard, and Underwood encouraged the Hatchery Committees members to contact Willard at any time.

V. HCP Administration

A. Next Meetings

The next scheduled Hatchery Committees' meetings are on November 20, 2013 (Douglas PUD); December 18, 2013 (Chelan PUD); and January 15, 2014 (Douglas PUD).

List of Attachments

Attachment A	List of Attendees
Attachment B	Revised WDFW Fish Health risk analysis memorandum and Revised Twisp River Steelhead Live Spawning Plan
Attachment C	Final Revised Twisp River Steelhead Live Spawning Plan SOA

Attachment D	Draft Chewuch Acclimation Plan
Attachment E	Wells and Methow Hatcheries M&E Implementation Strategy for 2014
Attachment F	Request for 3,500 Summer Chinook Salmon Eggs for Chelan River Egg-Fry Survival Studies
Attachment G	Revised Draft Chelan PUD 2014 M&E Implementation Plan

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Alene Underwood*	Chelan PUD
Catherine Willard	Chelan PUD
Greg Mackey*	Douglas PUD
Todd Pearsons	Grant PUD
Tom Scribner*††	Yakama Nation
Keely Murdoch*	Yakama Nation
Kirk Truscott*	Colville Confederated Tribes
Bill Gale*	U.S. Fish and Wildlife Service
Mike Tonseth*	Washington Department of Fish and Wildlife
Charlie Snow†	Washington Department of Fish and Wildlife

Notes:

- * Denotes Hatchery Committees member or alternate
 - † Joined by phone
 - †† Joined by phone for the Yakama Nation agenda items and the Non-Target Taxa of Concern Update
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