

FINAL MEMORANDUM

To: Wells, Rocky Reach, and Rock Island HCPs Hatchery Committees **Date:** April 21, 2016
From: Tracy Hillman, HCP Hatchery Committees Chair
Cc: Sarah Montgomery
Re: Final Minutes of the March 3, 2016 HCP Hatchery Committees Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met by conference call on Friday, March 3, 2016, from 9:00 a.m. to 10:30 a.m. Attendees are listed in Attachment A to these meeting minutes.

ACTION ITEM SUMMARY

- Charlene Hurst (National Marine Fisheries Service [NMFS]) will send the revised gene flow analysis spreadsheet to the Hatchery Committees (Item II-A). *(Note: Craig Busack sent the revised spreadsheet to the Hatchery Committees on March 9, 2016, which Sarah Montgomery forwarded to the Hatchery Committees on March 16, 2016.)*
 - Charlene Hurst will revise the Gene Flow Management Standards and send it to the Hatchery Committees (Item II-A). *(Note: Craig Busack sent the revised Gene Flow Management Standards to the Hatchery Committees on March 9, 2016, which Sarah Montgomery forwarded to the Hatchery Committees on March 16, 2016.)*
 - Bill Gale, Craig Busack, and Charlene Hurst will discuss gene flow standards and provide an update to the Hatchery Committees regarding the U.S. Fish and Wildlife Service's (USFWS) position on the standards prior to the Hatchery Committees' March 16, 2016, meeting (Item II-A). *(Note: Gale, Busack, Hurst, and Matt Cooper discussed gene flow standards on March 4, 2016. Feedback from that discussion is included in the revised gene flow standards distributed on March 16, 2016.)*
 - Bill Gale will calculate necessary adult removal rates at different smolt-to-adult return levels under the recommended gene flow standards for Methow spring Chinook salmon (Item II-A). *(Note: Gale calculated removal rates, which are included in the revised gene flow standards distributed on March 16, 2016.)*
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DECISION SUMMARY

- The Hatchery Committees representatives approved the “USFWS proposal” in the revised Gene Flow Management Standards, and the revised Methow spring Chinook Gene Flow analysis spreadsheet distributed on March 16, 2016 with an email vote as follows: Chelan PUD, Douglas PUD, NMFS, USFWS, the Yakama Nation (YN), the Washington Department of Fish and Wildlife (WDFW), and the Colville Confederated Tribes (CCT) approved both documents. Grant PUD (Priest Rapids Coordinating Committee Hatchery Sub-Committee [PRCC HSC]) also indicated support via email (Item II-A). *(Note: A portion of the Hatchery Committees representatives supported the NMFS proposed gene flow standards for Methow spring Chinook salmon during the Hatchery Committees March 3, 2016, conference call as follows: Chelan PUD, Douglas PUD, NMFS, YN, WDFW, and CCT. The USFWS requested more time to discuss the gene flow standards, and the revised version of the standards distributed by NMFS on March 16, 2016 was later approved.)*
- The Rocky Reach and Rock Island Hatchery Committees approved Chelan PUD’s Draft 2016 Steelhead Release Plan as follows: Chelan PUD, NFMS, USFWS, WDFW, YN, and the CCT approved on March 3, 2016 (Item III-A).

AGREEMENTS

- There were no agreements discussed during today’s meeting besides the decisions detailed in the above section.

REVIEW ITEMS

- Sarah Montgomery sent an email to the Hatchery Committees on March 11, 2016, notifying them that the Draft (version 2) Broodstock Collection Protocols are available for review with comments due to Mike Tonseth by March 25, 2016 (Item IV-A).
 - Sarah Montgomery sent an email to the Hatchery Committees on March 18, 2016, notifying them that Draft Hatchery Monitoring and Evaluation (M&E) Plan Appendices 2, 4, 5 and 6 are available for review before the Hatchery Committees April 20, 2016 meeting (Item IV-A).
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FINALIZED DOCUMENTS

- Sarah Montgomery sent an email to the Hatchery Committees on March 3, 2016, notifying them that the Chelan PUD Final 2016 Steelhead Release Plan is available for download from the Hatchery Committees Extranet site.
- Sarah Montgomery sent an email to the Hatchery Committees on March 20, 2016, notifying them the National Marine Fisheries Service (NMFS) final Gene Flow Management Standards are available for download from the Hatchery Committees Extranet site.
- Sarah Montgomery sent an email to the Hatchery Committees on March 20, 2016, notifying them the NMFS final Methow spring Chinook Gene Flow Analysis is available for download from the Hatchery Committees Extranet site.

I. Welcome

A. Review Agenda (Tracy Hillman)

Tracy Hillman welcomed the Hatchery Committees and said the purpose of today's call is to approve the Chelan PUD 2016 Steelhead Release Plan and further discuss Methow spring Chinook salmon gene flow standards.

II. Joint HCP-HC/PRCC HSC Discussion Items

A. Gene flow standards for Methow spring Chinook salmon

Charlene Hurst shared three documents titled, "Revised Methow spring Chinook Gene Flow Analysis" (Attachment B), "Draft Gene Flow Management permit language for PUD programs" (Attachment C), and "Draft Gene Flow Management permit language for the Winthrop program" (Attachment D), which Sarah Montgomery distributed to the Hatchery Committees on March 1, 2016. Hurst said the gene flow analysis spreadsheet has been revised in order to decrease the total proportion of hatchery-origin spawners (pHOS) from 0.8 to 0.6, and PUD pHOS from 0.6 to 0.4 under wild run sizes of 300 to 500 fish, and to incorporate comments from Bill Gale. Keely Murdoch asked how the revisions affect total spawning escapement. Mike Tonseth said if the natural run is 300 fish, and the PUD pHOS is 0.4, the total escapement equals 500 fish. Hurst said the pHOS values were set based on meeting the spawning escapement goal of 500 fish.

Todd Pearsons said he questions whether programs will be able to achieve the proposed pHOS at spawning escapements higher than 500 fish, and said Greg Mackey has modeled whether or not programs are able to remove sufficient hatchery-origin fish from traps to meet these pHOS values. Mackey said his modeling assumed that approximately 78% of Methow hatchery-origin fish could be removed at Methow Fish Hatchery (FH), 20% of Methow FH hatchery-origin fish could be removed at Winthrop National Fish Hatchery (NFH), and 29% could also be removed at Wells Dam. However, none of these assumptions had been tested in the field and the assumptions were best professional opinion of several biologists familiar with the programs including but not limited to Bill Gale, Mackey, and Mike Tonseth. Using these assumptions, previous modeling showed that pHOS down to approximately 0.25 might be achievable. He said it is doubtful whether removals above 87% are achievable with the current release strategy relying on off-station releases. Mackey said the pHOS values for spawning escapements above 500 fish would be hard to meet. He said with the approximately 135,000 Methow composite (MetComp) fish used for the modeling effort, 87% of the returning hatchery-origin adults had to be removed to reach a pHOS of 0.26. He said the modeling he performed did not include the 45% increase of Chelan PUD's MetComp fish that are now at Methow FH, and meeting a pHOS of 0.25 considering this increase in release size will require more than 87% of hatchery-origin fish to be removed. Pearsons asked if it would be possible to set a sliding scale for proportionate natural influence (PNI) up to 300 fish, and above 300, set PNI at 0.67 for the basin because it would likely correspond to pHOS values of 0.4 across different run sizes. Kirk Truscott said if the PUD PNI is increased for run sizes greater than 500 fish, the 3-population model output for basin-wide PNI decreases. Mackey said Douglas PUD has concern that the PUD PNI is set very high in order to meet the basin-wide PNI of 0.67, and said it seems too high for a minimum permit requirement, but would be an appropriate management goal.

Hurst asked if more hatchery-origin fish could be removed by running the Methow FH trap full-time. Mackey said the modeling was based on an estimate of the maximum amount of hatchery-origin fish that could be removed, not on how many hours the trap is operated. He said the modeled removal of hatchery-origin fish at Wells Dam, for example, is based on the incidental trapping of hatchery-origin fish while trying to collect wild fish. Truscott said there may be complications with removing hatchery-origin fish at Wells Dam, because the Chief Joseph Hatchery segregated program fish are adipose-clipped and marked with coded

wire tags (CWTs); they could resemble hatchery fish from the Methow Basin. Gale said Winthrop NFH fish are not targeted for removal at Wells Dam but that the removal envisioned would be part of the removal of adipose-present adults during natural-origin recruit broodstock collection for Methow FH. Mackey said removing a moderate percentage of fish at Wells Dam does not provide significant benefit to adult management because it decreases the number of fish that can be removed at Methow FH; the removal percentages are not additive so removing fish at one location decreases the number removed at the next location; therefore, the total number removed by employing multiple removal sites is not as great as might be expected. Truscott said the Methow spring Chinook salmon programs should not rely on adult management at Wells Dam, because the CCT have concerns about the accidental removal of adipose-present Okanogan spring Chinook salmon marked with CWTs from the Endangered Species Act (ESA) 10j “non-essential experimental” population.

Gale said the discussion of gene flow standards is better suited for an in-person meeting, and suggested that parties write up concerns or proposed changes regarding the proposed gene flow standards and circulate them to the Hatchery Committees for discussion at the next regularly scheduled meeting on March 16, 2016. Gale shared a document titled, “Draft thoughts on NMFS proposed gene flow standards” (Attachment E), which Montgomery distributed to the Hatchery Committees on February 29, 2016.

Pearsons said Grant PUD supports the proposed gene flow standards. He suggested that PHOS values be set at an attainable level, and that PNI should not have a sliding scale when natural runs are greater than 300 fish. Gale said the 3-population PNI is the most biologically significant measurement, and the 3-population PNI target should have the most sway on Hatchery Committees support of the standards. He said the PUD PNI targets can be thought of as management targets rather than biologically significant targets. Gale said he could not support the changes proposed by Grant PUD, especially given that the target extraction rate for Winthrop NFH is much higher than the PUD programs, thus suggesting that the proposed extraction rates for the PUD programs should not be considered unachievable. Pearsons said the extraction rate targets differ based on the goals of the programs; the Winthrop NFH program only aims for hatchery-origin fish to occupy spawning areas when natural runs are very low (e.g., safety net), in contrast to the PUD

program, which aims to be the main source of hatchery-origin fish to spawning grounds across a range of spawning escapements (e.g., conservation hatchery program).

Pearsons said Grant PUD is concerned about agreeing to permit conditions for gene flow standards that are not confidently attainable. Mackey agreed, and said the permit conditions should reflect the minimum acceptable level of gene flow. Mackey added that the discussion is not solely about the proportion of hatchery fish on the spawning grounds—broodstock collection fish are natural-origin spring Chinook salmon that are, in effect, removed from spawning grounds—and said that it does not make sense from a biological perspective to remove, for example, 80% of the returning hatchery adults that were produced from wild fish removed from the population for brood just to reach a genetic target for hatchery programs. He said when that occurs it is equivalent to killing the wild broodstock because their progeny are not allowed to reach the spawning grounds. Tom Kahler said the Methow program could act as the safety-net component for the Methow basin by performing targeted releases of conservation fish (progeny of wild-by-wild crosses) to the respective release locations at release numbers calculated to achieve pHOS targets without needing to manage returns to those locations, and the remainder of the PUD release obligation could be met with hatchery-by-hatchery crosses from a segregated program released directly from the Methow FH outfall where they could be effectively managed, thus eliminating the need for the safety-net component of the Winthrop NFH program. He said that safety-net component of the Winthrop NFH program could then be repurposed for summer Chinook or coho salmon production. Such a strategy could substantially increase the number of natural-origin spawners by reducing their number in the Methow FH broodstock. Alene Underwood agreed and said the biological effects of an unnecessarily large hatchery program are legally risky. Craig Busack said his goal in designing the gene flow standards is to meet the mitigation obligations of the HCPs in an ESA-defensible manner, and to finish the permits by May at the request of Douglas and Chelan PUDs. Mackey said the permit language can be written with a clearly stated biologically defensible management goal for gene flow, but the actual permit conditions can be a minimum acceptable gene flow operating level for the programs. Hurst edited the spreadsheet to show the revised proposed gene flow standards for the PUD program pHOS (i.e., 0.4).

Gale said he would have to discuss internally the changes to the proposal and extraction rates. He said he is not currently certain that the proposed gene flow standards are in the best interest of natural-origin spring Chinook salmon in the Methow basin. Kahler asked whether the gene flow standards are an item requiring Hatchery Committees approval. Mackey replied that Hatchery Committees' approval is not technically required for Douglas PUD and WDFW (as applicants) to move forward with acquiring permits from NMFS; however, for NMFS consultation purposes, the programs need to fit together. Gale said he does think Hatchery Committees consensus is needed before applicants can move forward with acquiring permits, and Murdoch agreed.

Tracy Hillman thanked the members for their candid discussions and asked each representative if they supported the proposed gene flow standard as modified by Grant PUD. Tonseth said WDFW supports the proposed basin PNI minimum of 0.5 as long as language is included in the permits that parties will strive to exceed the minimum every year. Murdoch said the gene flow standards are greatly improved, and said YN particularly supports lower levels of natural-origin adult removal. Murdoch asked that NMFS summarize the proposed standards in a short document and distribute to the Hatchery Committees. Hurst said she will write a summary of the revised gene flow standards proposal and send it to the Hatchery Committees.

Truscott said the standards are a vast improvement from past. He asked why the Winthrop NFH pHOS is 0.2 for small run sizes, and noted that a pHOS of greater than 0.2 might be required to reach the minimum escapement target of 500 fish.

Hurst emphasized that NMFS has been asked to complete the permits in May 2016. Kahler said if the permits are not completed by June, Douglas PUD cannot hire additional full-time WDFW staff for adult management. He said NMFS requested that the Hatchery Committees provide perspective and technical input on the gene flow standards because they collectively oversee the programs these permits apply to; however, Douglas PUD and WDFW are the permit applicants and can therefore move forward with the permit application. Gale said the permit application should not move forward without consensus of all Hatchery Committees parties, because they have a responsibility to oversee the implementation of hatchery programs. Busack said he intends to discuss the standards with USFWS further and hoped

the standards will be agreed upon before the Hatchery Committees March 16, 2016 meeting. Otherwise, the permits will likely not be complete in May 2016. Gale said he, Busack, and Hurst will discuss gene flow standards and provide an update to the Hatchery Committees regarding USFWS' position before the Hatchery Committees March 16, 2016 meeting.

A portion of the Hatchery Committees representatives supported the NMFS proposed gene flow standards for Methow spring Chinook salmon as revised during the Hatchery Committees March 3, 2016, conference call as follows: Chelan PUD, Douglas PUD, NMFS, YN, WDFW, and the CCT indicated support. Grant PUD (PRCC HSC) also indicated support during the conference call. *(Note: A revised version of the Gene Flow Management Standards and Methow spring Chinook Gene Flow analysis spreadsheet was distributed on March 16, 2016. Both documents were approved by email vote by all Hatchery Committees representatives, as well as Grant PUD [PRCC HSC.]*

III. Chelan PUD

A. DECISION: Draft Steelhead Release Plan

Catherine Willard shared a document titled, "Draft 2016 Steelhead Release Plan" (Attachment F), which Sarah Montgomery distributed to the Hatchery Committees on February 18, 2016. Willard said there are no substantive changes from the 2015 Steelhead Release Plan to the draft 2016 Steelhead Release Plan. The Rock Island and Rocky Reach Hatchery Committees representatives approved Chelan PUD's Draft 2016 Steelhead Release Plan as follows: Chelan PUD, USFWS, WDFW, NMFS, YN, and the CCT approved on March 3, 2016.

IV. HCP Administration

A. Next Meetings

The next scheduled Hatchery Committees meetings are on March 16, 2016 (Douglas PUD), April 20, 2016 (Chelan PUD), and May 18, 2016 (Douglas PUD).

B. List of Attachments

Attachment A	List of Attendees
Attachment B	Revised Methow spring Chinook Gene Flow Analysis
Attachment C	Draft Gene Flow Management permit language for PUD programs

Attachment D Draft Gene Flow Management permit language for the Winthrop program
Attachment E Draft thoughts on NMFS proposed gene flow standards
Attachment F Draft 2016 Steelhead Release Plan

Attachment A
List of Attendees

Name	Organization
Tracy Hillman	BioAnalysts, Inc.
Sarah Montgomery	Anchor QEA, LLC
Catherine Willard*	Chelan PUD
Alene Underwood*	Chelan PUD
Greg Mackey*	Douglas PUD
Tom Kahler*	Douglas PUD
Todd Pearsons†	Grant PUD
Justin Yeager*	National Marine Fisheries Service
Craig Busack*	National Marine Fisheries Service
Charlene Hurst	National Marine Fisheries Service
Bill Gale*	U.S. Fish and Wildlife Service
Matt Cooper*	U.S. Fish and Wildlife Service
Mike Tonseth*	Washington Department of Fish and Wildlife
Kirk Truscott*	Colville Confederated Tribes
Keely Murdoch*	Yakama Nation

Note:

*Denotes Hatchery Committees member or alternate

†Joined for the joint HCP-HC/PRCC HSC discussion
