

FINAL MEMORANDUM

To: Wells, Rocky Reach, and Rock Island
HCPs Hatchery Committees

Date: October 20, 2016

From: Tracy Hillman, HCP Hatchery Committees Chairman

Cc: Sarah Montgomery, Anchor QEA, LLC

Re: Final Minutes of the September 21, 2016, HCP Hatchery Committees
Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met via conference call on Wednesday, September 21, 2016, from 9:00 to 10:30 a.m. Attendees are listed in Attachment A to these meeting minutes.

ACTION ITEM SUMMARY

- McLain Johnson (Washington Department of Fish and Wildlife [WDFW]) will develop a timeline for conducting genetic sampling for HCP program species (Item I-A). *(Note: this item is ongoing.)*
 - Catherine Willard will draft a summary of the 5-Year Hatchery Monitoring and Evaluation (M&E) Review process (Item I-A). *(Note: this item is ongoing.)*
 - Justin Yeager will check when the Yakama Nation (YN) most recently reviewed the Wenatchee steelhead draft Biological Opinion (BiOp) and provide that date to Keely Murdoch (Item I-A). *(Note: this item is ongoing.)*
 - Justin Yeager will check with Emi Kondo (National Marine Fisheries Service [NMFS]) to make sure the Methow spring Chinook Environmental Assessment is distributed to applicants and the Colville Confederated Tribes (CCT) on September 21, 2016 (Item II-B).
 - Sarah Montgomery will distribute the revised Hatchery M&E Plan Appendix 5, as edited during the September 21, 2016, conference call, to the Hatchery Committees for review (Item II-C). *(Note: Montgomery distributed the revised Appendix 5 on September 21, 2016.)*
 - The Hatchery Committees will review revised Hatchery M&E Plan Appendix 5 and provide approval or further edits to Sarah Montgomery by Wednesday,
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October 5, 2016 (Item II-C). *(Note: Appendix 5 has been added to the October 19, 2016 Hatchery Committees meeting agenda for further discussion.)*

- Todd Pearsons will follow up with Jeff Grimm (WDFW) regarding the third year of Issaquah Hatchery embryonic imprinting data (Item II-D).
- Bill Gale will invite Roger Tabor (U.S. Fish and Wildlife Service [USFWS]) to the October 19, 2016, Hatchery Committees meeting to discuss embryonic imprinting (Item II-D).
- Sarah Montgomery will send a clarification email regarding the 60-day review period for the Douglas PUD Draft Hatchery M&E Annual Report to the Hatchery Committees (Item III-A). *(Note: Montgomery sent a clarification email to the Hatchery Committees on September 21, 2016.)*
- Bill Gale will invite Katy Pfannenstein (USFWS) to the November 16, 2016, Hatchery Committees meeting to discuss juvenile sampling and early male maturation (Item IV-A).

DECISION SUMMARY

- There were no decisions approved during today's meeting.

AGREEMENTS

- There were no agreements during today's meeting.

REVIEW ITEMS

- Sarah Montgomery sent an email to the Hatchery Committees on September 21, 2016, notifying them the revised Hatchery M&E Plan Appendix 5 is available for review, with approval or comments requested by October 5, 2016 (Item II-C).
 - Sarah Montgomery sent an email to the Hatchery Committees on September 14, 2016, notifying them the Draft 2015 Douglas PUD and Grant PUD M&E Annual Report is available for a 60-day review, with edits and comments due to Greg Mackey by November 14, 2016 (Item III-A).
 - Sarah Montgomery sent an email to the Hatchery Committees on October 7, 2016, notifying them that the Draft 2017 Methow M&E Implementation Plan is available
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for a 30-day review, with edits and comments due to Greg Mackey by November 7, 2016. (*Note: review period pending Hatchery Committees agreement.*)

FINALIZED DOCUMENTS

- There are no documents that have been recently finalized.

I. Welcome

A. Review Agenda, Review Last Meeting Action Items, and Approve the August 17, 2016 Meeting Minutes (Tracy Hillman)

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

- Sarah Montgomery removed the Hatchery Evaluation Technical Team (HETT) update.
- Tracy Hillman added the review period for the Draft Douglas PUD Hatchery M&E Annual Report.
- Keely Murdoch added a joint Hatchery Committees/Priest Rapids Coordinating Committee Hatchery Sub-Committee regarding embryonic imprinting and homing fidelity.

The Hatchery Committees reviewed the revised draft August 17, 2016, meeting minutes. Montgomery said there are several outstanding comments to be discussed, which the Hatchery Committees reviewed and addressed. Hatchery Committees representatives present approved the draft August 17, 2016, meeting minutes, as revised.

Action items from the Hatchery Committees meeting on August 17, 2016, and follow-up discussions, were addressed (*note: italicized text below corresponds to agenda items from the meeting on August 17, 2016*):

- *McLain Johnson (Washington Department of Fish and Wildlife [WDFW]) will develop a timeline for conducting genetic sampling for HCP program species (Item I-A).*

This item is ongoing. Johnson provided an update to the Hatchery Committees on September 20, 2016 and will provide another update at the Hatchery Committees

October 19, 2016, meeting. Mike Tonseth said the genetics laboratory will likely provide a list of recommendations for genetic sampling.

- *Catherine Willard will draft a summary of the 5-Year Hatchery Monitoring and Evaluation (M&E) Review process (Item I-A).*

This item is ongoing. Willard said completing this document depends on whether continued discussions of embryonic imprinting should be included in the Objective 5 section of the summary. She said she would finish drafting the document for review by the October 19, 2016, Hatchery Committees meeting, and it can be revised later with additional Objective 5 information.

- *Bill Gale will review the revised June 15, 2016, Hatchery Committees meeting minutes and provide edits to Sarah Montgomery by Friday, August 19, 2016 (Item I-A).*

This item is complete.

- *Justin Yeager will check when the Yakama Nation (YN) most recently reviewed the Wenatchee steelhead draft Biological Opinion (BiOp) and provide that date to Keely Murdoch (Item II-B).*

This item is ongoing. Yeager said he did not find the date, but will try again. Murdoch also did not find the date.

- *The Hatchery Committees will review revised Hatchery M&E Plan Appendix 5 and provide approval or further edits to Sarah Montgomery by Friday, August 26, 2016 (Item II-C).*

This item will be discussed today.

- *Mike Tonseth will ask McLain Johnson (WDFW) when the timeline for conducting genetic sampling for HCP program species will be complete (Item II-D).*

This item is complete.

- *Kirk Truscott will discuss internally stray rate targets for upper Columbia River summer Chinook salmon (Item II-D).*

Truscott said Casey Baldwin (CCT) has been working on genetics information for upper Columbia River summer Chinook salmon and will be able to provide more information in October, 2016.

- *Mike Tonseth will provide the Hatchery Committees with an update on tangle-netting for Methow spring Chinook salmon broodstock (Item II-E).*
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This item is complete. Hillman said Tonseth sent an email to the Hatchery Committees on September 7, 2016, stating that broodstock for the Methow spring Chinook salmon program totals 85 females and 58 males this year.

- *Tracy Hillman will respond to Greer Maier's (upper Columbia Salmon Recovery Board [UCSRB]) request for the Hatchery Committees to review the Draft Hatchery Report, stating the Hatchery Committees want to review the report. He will also invite Maier to discuss comments in person at an upcoming Hatchery Committees meeting (Item II-F).*

This item is complete. Hillman said he discussed this with Maier, and Maier said the document should be available for review in October, 2016.

- *Sarah Montgomery will update the Hatchery Committees meeting protocols document to reflect agreements during today's meeting (Item IV-A).*

This item is complete. Montgomery said the protocols have flexibility in meeting time and location and therefore do not need to be updated.

II. Joint HCP-HC/PRCC HSC

A. USFWS Bull Trout Consultation Update (Bill Gale)

Bill Gale said Karl Halupka (USFWS) distributed a draft of the BiOp covering hatchery programs in the Wenatchee basin to the applicants for a 3-week review, with comments due on September 29, 2016. Gale said the draft memorandum regarding the Methow spring Chinook salmon consultation is in internal review.

Todd Pearsons said he has not reviewed the entire 300-page Wenatchee basin BiOp, but has at least one item to discuss. He said there are some situations or measures that would have a positive effect for one listed species, and a potential negative effect for another listed species. He gave an example related to the Wenatchee basin Adult Management Plan specifically related to Wenatchee spring Chinook salmon. He said there is an element of the plan that allows for carcass outplanting in nutrient-poor areas, with the intent to place carcasses during periods in which they would be naturally occurring. In contrast, an element of the draft BiOp is not performing nutrient-restoration activities during periods when bull trout are holding or spawning, which corresponds with the same period (approximately September 1 to November 1) during which Chinook salmon carcasses would be outplanted based on the

Adult Management Plan. Pearsons said concurrence from USFWS is necessary to determine where, when, and with which carcasses, nutrient-restoration activities could occur. He said, if USFWS included the measure in response to concerns about disease, perhaps carcass analogs could be used. Mike Tonseth said disease concerns from carcasses are already mitigated for from the perspective of WDFW, because when WDFW distributes carcasses they remove the point sources for pathogens (head and all internal organs) in accordance with fish-health protocols.

Pearsons summarized that more clarification is necessary regarding the risks of carcass analog or whole-carcass distribution related to any potential nutrient enhancement activity identified in the Wenatchee basin Adult Management Plan and in the draft Wenatchee basin BiOp currently under review. Bill Gale said he supports the idea of carcass enhancement and it is a viable use of excess fish. He said fisheries enhancement groups perform most carcass enhancement activities and their permits and consultation for enhancement activities are a separate responsibility from the draft BiOp being discussed. Pearsons asked why the BiOp would restrict nutrient-restoration activities by the hatchery programs. Gale replied that the location, area, and handling of fish are not addressed in the Wenatchee basin Adult Management Plan; therefore, the restoration action cannot be consulted on by USFWS. Pearsons asked which details about nutrient-restoration activities are included in the Adult Management Plan. Keely Murdoch said nutrient-enhancement activities are identified as a viable use of surplus fish in the Adult Management Plan; however, she thinks the details about location, area, and handling of fish are not addressed. Murdoch agreed with Pearsons that there may be items in the draft BiOp that contrast with the intent of some programs, specifically in regards to Endangered Species Act-listed species, and it might help to have more time to review the draft BiOp than is currently provided. Gale suggested that those who would like a longer review period contact Karl Halupka and said the purpose of this agenda item is to provide an update on the status of consultation, and not necessarily to discuss details of the draft BiOp, which he said would be beneficial to do in another forum. Alene Underwood said there is a meeting on October 11, 2016, which may be a good forum to discuss some of these topics.

B. NMFS Consultation Update (Justin Yeager)

Justin Yeager said, regarding the Methow spring Chinook salmon consultation, a draft Environmental Assessment will be distributed to the applicants today by Emi Kondo. Kirk Truscott asked that it also be sent to him, because the Okanogan and Methow programs are related; Yeager said he would make sure it is sent to CCT. Yeager clarified that the Environmental Assessment is part of the National Environmental Policy Act process.

Yeager said, regarding the draft Methow Steelhead Adult Management Plan, NMFS and WDFW are working to develop gene flow guidelines, and most recently met on September 15, 2016.

Yeager said NMFS expects to complete the Okanogan steelhead Tribal Resource Management Plan (TRMP) by the end of 2016.

Tracy Hillman summarized that the Wenatchee steelhead and Wenatchee spring Chinook BiOps have been issued, the Methow spring Chinook EA will be distributed today for review, the Methow Steelhead Adult Management Plan is being worked on, and the Okanogan steelhead TRMP can be expected by the end of 2016. Mike Tonseth clarified that the Wenatchee steelhead BiOp has been issued to applicants, but the Section 10 permit has not been issued and is pending the completion of Section 7 consultation with USFWS.

C. Review Draft Hatchery M&E Plan Appendix 5 (All)

Appendix 5 – Stray Rate Objectives

Sarah Montgomery displayed the document, “Revised Hatchery M&E Plan Appendix 5 (Hillman and WDFW edits),” which Montgomery distributed to the Hatchery Committees on August 22, 2016. Montgomery also displayed an email from Craig Busack, sent on August 23, 2016, providing feedback on the revised appendix. Questions and comments were discussed, and edits were made to the document.

Tracy Hillman summarized Busack’s comments. Busack questioned whether the Hatchery Committees should set a general standard for management strays, and recommended the title of the appendix be changed. Greg Mackey said management strays pose a different level of risk, and applying a strict standard to management strays does not

make sense, especially one as strict as 5%. Hillman said the concern is about how much (as a target, say, 90% or more) of the spawning escapement spawned in the stream in which they were released as juveniles, and suggested adding a similar explanation in the appendix, with the caveat that each program can be addressed on a case-by-case basis depending on percent hatchery-origin spawners (pHOS) and proportionate natural influence (PNI) targets. Mackey said stating and comparing to a general guideline could be beneficial, but overall, it is more important to discuss qualitatively what the stray rate represents from a risks and benefits standpoint. Keely Murdoch agreed that setting a guideline is a good idea, especially because pHOS changes frequently for some programs (that are managed under pHOS or PNI sliding scales). Murdoch said she is confused about the purpose of Appendix 5, because its initial purpose was to provide definitions of strays, and it currently is setting targets for evaluation, which perhaps should be in the body of the Monitoring Plan itself. Hillman said the standards for genetic strays are already set, and choosing management stray rate targets for each program is necessary to help guide data analysis. Murdoch said she prefers to agree on a standard and say that it can be adjusted. She said the YN wants fish to return to the location where they are released. Mike Tonseth said 90% could be the minimum acceptable level. Mackey said it is important to take a more integrated approach to management decisions; so, for example, in any report, the authors should explain why a program is not meeting the 90% threshold within the context of straying and not exacerbating other management problems. Tonseth agreed and said, for some programs, 85% or 95% may be an optimal target. Hillman suggested adding “and can be adjusted up or down” to the target definition. Mackey said that will work, but he is apprehensive about setting a target and focusing a lot of effort on stray rates because stray rates may not be very important for recovering the populations.

Todd Pearsons said one of the reasons the Hatchery Committees may be having trouble setting a management stray target is that there is not a generally acceptable target across other hatchery programs as there is for genetic strays (5 or 10%). He asked if anyone has a region-wide understanding of standards for management strays, or knows of targets other programs have used. He said management strays are a newer concept, and asked if setting a management stray “percentage” target is even the appropriate metric for achieving program goals. He said the goal is that a certain number of fish return to specific locations and asked if this is better measured as a percent of the release or as numbers of fish. Hillman said the

target stated in the draft Appendix 5 is based on a percentage of spawning escapement and not a percent of the numbers of fish released. Murdoch said setting the number of returning fish as a target is a difficult metric to measure and would change from year to year based on the sliding scale of natural-origin fish returning. She said a 90% target is a simpler metric that provides a guideline and can illustrate how reliably hatchery releases home to their release site. She said homing fidelity is a key metric and understanding it will help programs to adjust the number of fish that should be release from each site. Bill Gale said, if the 10% stray rate criterion becomes the accepted standard, the metric applies to integrated and segregated programs. He said, within the Leavenworth National Fish Hatchery permit, for example, stray rate criteria are set stricter than 5%. He said he thinks setting a 10% guideline for management stray rates and adjusting it up or down for program-specific factors is consistent with how NMFS sets stray rate levels in permits. Hillman said it would be helpful for reporting purposes to set a guideline for comparison. He said it seems representatives present are in concurrence with setting a minimum acceptable level of 90% of the spawning escapement will spawn in the stream in which they were released as juveniles, unless the Hatchery Committees adjust it up or down based on stock-specific PHOS and PNI. He said edits made to Appendix 5 today will be sent to the Hatchery Committees for a 2-week review.

Sarah Montgomery said she will distribute the revised Appendix 5, as edited during the September 21, 2016, conference call, to the Hatchery Committees for review. The Hatchery Committees will review the revised Appendix 5 and provide approval or further edits to Montgomery by Wednesday, October 5, 2016.

D. Embryonic Imprinting (Keely Murdoch)

Keely Murdoch said she added the embryonic imprinting discussion to the agenda because Hatchery Committees members visited the Issaquah Salmon Hatchery in May, 2016, and should begin revisiting discussions about embryonic imprinting. She said the Hatchery Committees can discuss whether to test embryonic imprinting or sequential imprinting, and next steps.

Todd Pearsons said he has been trying to find data related to the Issaquah Hatchery embryonic imprinting study. He said Roger Tabor is the technical lead, and from his understanding, there are only 2 reliable years of data. He said, in the first year of the Issaquah Hatchery study, 85% of fish returned to their natal stream. In the second year of the study, 42% of fish returned, and in the third year, there was an issue with the otolith thermal marking. Pearsons said he will follow up with Jeff Grimm regarding the third year of data. Bill Gale asked if Pearsons thinks Tabor would be willing to discuss embryonic imprinting with the Hatchery Committees, and said he could reach out to Tabor and ask him to come to a meeting. Pearsons said it would be useful to have Tabor attend a meeting so the Hatchery Committees can ask him questions. Gale said he will invite Tabor to the Hatchery Committees October 19, 2016, meeting to discuss embryonic imprinting.

III. Douglas PUD

A. Review Period for Draft Hatchery M&E Annual Report (Greg Mackey)

Tracy Hillman said Douglas PUD distributed their Draft Hatchery M&E Annual Report for review on September 14, 2016. He said Douglas PUD is requesting a 30-day review period instead of a 60-day period, which is consistent with 2015 and with Chelan PUD's annual report review periods. Gale asked why the review period should be shortened.

Mike Tonseth said, regardless of whether the period is 30 or 60 days, most people wait until the week of the due date to provide edits. Alene Underwood said the reason Chelan PUD requested a shorter review time in 2015 was to include more data in the report and stagger review times with other reports. Greg Mackey said the reason Douglas PUD wants to use a 30-day review period is to deliver the report to NMFS sooner. However, if NMFS is okay with a 60-day review period and receiving the report in December 2016, then the 60-day review period will allow more time for Hatchery Committees members to review the report in addition to other items that are out for review (such as the draft Methow spring Chinook Environmental Assessment and Wenatchee basin BiOp). Tonseth said Section C, Terms and Conditions, of the 1196 permit states that the report is due when the Hatchery Committees decide it is due; therefore, it is up to the Hatchery Committees to set a reasonable and appropriate review timeline. Hillman summarized that the Hatchery Committees decided not to shorten the review period for Douglas PUD's draft Hatchery M&E Annual Report, so

comments on the draft are due back to Mackey by November 14, 2016. Sarah Montgomery said she would remind the Hatchery Committees, by email, of the 60-day review timeline.

IV. HCP Administration

A. Upcoming Agenda Items

Bill Gale said Katy Pfannenstein has been working on juvenile sampling and male maturation studies. He asked the Hatchery Committees if they would like to invite her to present a summary of her analysis at the November 16, 2016, meeting. Hatchery Committees members present said that would be interesting, and Gale said he would invite Pfannenstein to attend the November 16, 2016, Hatchery Committees meeting.

B. Next Meetings

The next Hatchery Committees meetings are October 19, 2016 (Chelan PUD), November 16, 2016 (Douglas PUD), and December 21, 2016 (Chelan PUD).

V. List of Attachments

Attachment A	List of Attendees
Attachment B	Revised Hatchery M&E Plan Appendix 5 (Hillman and WDFW edits)

Attachment A
List of Attendees

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

Notes:

* Denotes Hatchery Committees member or alternate

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