PRCC Hatchery Subcommittee Meeting

Thursday, March 16, 2017
Via Conference Call
Meeting Summary

PRCC HSC Members
Matt Cooper, USFWS
Brett Farman, NOAA
Bill Gale, USFWS
Peter Graf, GPUD (alt)
Keely Murdoch, Yakama Nation
Todd Pearsons, GPUD
Mike Tonseth, WDFW
Kirk Truscott, CCT

Other Participants
Elizabeth McManus, Facilitator
Andy Chinn, Facilitator

Decisions

A. HSC members approved the February meeting summary.
B. HSC members approved the SOA on M&E reporting schedule.

Actions

1. WDFW will circulate revised draft broodstock collection protocols and determine if a conference call is needed to discuss any outstanding issues. If there are no issues, WDFW will request an email vote on the protocols.
2. Ross Strategic will send a reminder to HSC members that comments on the draft PRH M&E implementation plan are due by March 28.
3. Ross Strategic will post the approved SOA on M&E reporting schedule to SharePoint and to the GPUD external website.
4. YN will update HSC members on conditions at the Goat Wall site.

I. Updates and Meeting Summary Review

A. PRCC – The PRCC is in the planning process for the steelhead survival study.

B. PAC – The 10 year agreement will expire at the end of 2017 and the parties are discussing how to renew it.

C. February Meeting Summary – HSC members approved the February meeting summary. *Note: See Appendix A for summary of joint HSC-HCP discussion during March HCP meeting.*

II. Broodstock Collection

A. Draft Broodstock Collection Protocols – WDFW has received comments on the draft protocols and is beginning to incorporate them. For the next draft, if WDFW identifies any significant issues then Mike will request a conference call to discuss them.

B. Next Steps

- WDFW will circulate revised draft broodstock collection protocols and determine if a

conference call is needed to discuss any outstanding issues. If there are no issues, WDFW will request an email vote on the protocols.

III. Priest Rapids Hatchery

A. Draft Implementation Plan – Ross Strategic circulated the draft PRH M&E implementation plan on April 28. Comments are due to GPUD by March 28; if there are no significant issues the plan will be considered final and posted to SharePoint.

B. Next Steps

- Ross Strategic will send a reminder to HSC members that comments on the draft PRH M&E implementation plan are due by March 28.

IV. M&E Reporting

A. SOA on M&E Reporting Schedule – HSC members approved the draft SOA on the M&E reporting schedule.

B. Next Steps

- Ross Strategic will post the approved SOA on M&E reporting schedule to SharePoint and to the GPUD external website.

V. Goat Wall

A. Goat Wall Acclimation – The target time for transferring fish to Goat Wall for acclimation is approaching but due to the winter weather the acclimation site remains frozen. The landowner has been plowing the road so there is site access but water flow is inadequate. Conditions could change quickly depending on weather but for now any transfer is on hold until the site thaws. YN was anticipating beginning voluntary release in late April.

- Minimum acclimation period is three weeks; any less than that and the fish become more susceptible to scale loss at transfer. The absolute latest date for fish transfer to Goal Wall is March 31.
- Voluntary release from Methow Hatchery will occur around April 17.

B. Next Steps

- YN will update HSC members on conditions at the Goat Wall site.

VI. Wrap Up and Next Steps

A. Next Meeting: Wednesday, April 19, 2017

B. Potential Agenda Items:

- 2018 GPUD hatchery M&E implementation plan

<u>Meeting Materials</u>

The following documents were provided to HSC members in advance of this meeting:

- Draft PRH M&E implementation plan
- Draft March meeting agenda
- Draft February meeting summary
- Draft 2017 UCR Broodstock Collection Protocols

- SOA on M&E Report Schedule
- January PUD Hatchery progress report

Appendix A: Joint Agenda Item from March HCP-HC Meeting

IV. Joint HCP-HC/PRCC HSC

A. Decision: M&E Report Scheduling (Greg Mackey/Catherine Willard)

Greg Mackey shared a document titled, "Monitoring and Evaluation Reporting Schedule for the Douglas PUD, Grant PUD, and Chelan PUD Hatchery Programs," which Sarah Montgomery distributed to the Hatchery Committees on March 2, 2017 (Attachment E). Mackey said Douglas PUD and Chelan PUD also have SOAs related to this document (Items II-B and III-A). The SOAs provide background and purpose for the schedule, and the schedule itself is a separate document that describes the reporting timeline and content and function of each report. Mackey said this document details the required M&E reports and actions, the content of the M&E reports, and the reporting schedule through 2052. He said Table 3 summarizes the schedule and data to be used in each report. He said 2017 to 2019 is a transition period, after which the schedule falls into regular reporting cycles. Todd Pearsons asked if the Statistical Report would be produced every 5 years except in years where the Program Review is also produced (i.e., every 10 years, with statistical information included in the Program Review document instead of a separate Statistical Report). Keely Murdoch said yes, statistical analyses will be performed every 5 years and will be included in the Statistical Report or Program Review, which alternate every 5 years. Mackey said the last report including statistical analyses was completed in 2012, so analyses were initially planned for 2017 in the schedule (5 years later), but have been moved to 2019 (7 years later) to coincide with the Program Review. He said if there are any statistical questions about certain datasets in the interim, specific analyses can be performed.

Mackey said there is currently an M&E Plan update scheduled for 2017 or 2018, then one again in 2021. Mike Tonseth recalled the level of effort involved in updating the M&E Plan and appendices, and suggested the Hatchery Committees review the M&E Plan and write amendments to the existing plan as necessary in 2017 or 2018, with the expectation that the 2021 update incorporates these amendments into the M&E Plan itself. Regarding contracting, Bill Gale asked if there is an ideal time of year to complete the M&E Plan update. Mackey said Douglas PUD begins their M&E contract year on January 1, so September would be a good target to finish the update in order to draft related items, such as budgets and scopes of work for contracting. Willard agreed for Chelan PUD. Pearsons said Grant PUD would prefer to finalize updates in August. Murdoch said she does not anticipate updating the M&E Plan will take much effort and it could even be completed by August 2017. Tonseth said the Hatchery Committees should focus the next update (in 2017 or 2018) on items that need to be fast-tracked for implementation. Mackey suggested the Hatchery Committees representatives review the Hatchery M&E Plan prior to the April 19, 2017, meeting and bring forth any objectives for discussion. Representatives present agreed to update the M&E Plan in 2018. The

Wells, Rocky Reach, and Rock Island Hatchery Committees voted on the SOAs approving the schedule as described under Items II-B and III-A.

USFWS Bull Trout Consultation Update (Matt Cooper)

Matt Cooper said Karl Halupka (USFWS) sent him an update on USFWS consultations, which he summarized as follows:

- The USFWS is moving forward with finalizing the biological opinion (BiOp) for the batch of Wenatchee hatchery programs. USFWS requests comments by Friday, March 31, 2017, and will respond to comments, review the BiOp internally, then finalize it, with a target date of mid-May.

- Natasha Meyers-Cherry (NMFS) has been coordinating with Halupka about the next hatchery program consultation in the upper Columbia River basin. There are two candidates; Methow steelhead and a batch for Columbia River mainstem unlisted programs. Which of these will go first is currently unclear, but NMFS will coordinate with committee members on the decision. Either candidate will likely result in information requests from the USFWS to committee members about specific aspects of these programs as they are currently implemented.

Mike Tonseth asked if Halupka would like feedback on prioritization for the next hatchery program consultation and said he believes Methow steelhead are the priority. Cooper said NMFS will coordinate that prioritization. Bill Gale said some of the steelhead programs in the Methow basin already have bull trout coverage—similarly to the Methow spring Chinook salmon programs, the steelhead program at Winthrop NFH has bull trout coverage (the USFWS is currently reviewing the adequancy of coverage for the PUD programs). Greg Mackey said the Wells BiOp should provide bull trout coverage for the new steelhead consultation. Gale said that would be a good question for Halupka, and said he is not sure whether the steelhead program has fishery effects; the spring Chinook salmon program does not, so the aspects of coverage may be different. Gale said a gap analysis will probably occur.

NMFS Consultation Update (Brett Farman)

Regarding the Methow spring Chinook salmon consultation, Brett Farman said the last signatures are being obtained and the permits should be distributed this week by Charlene Hurst.

Regarding the Methow steelhead consultation, Farman said Hurst may have time in May and June to work further on finalizing this consultation. He said the proposed action needs to be finalized, which will include genetics and fisheries information. He said for some of the programs, Section 7 consultations will be complete, but National Environmental Policy Act (NEPA) will not be complete, and permits will not be issued. He said NMFS is trying to finish the Section 7 consultations, then

follow up with NEPA and permit processes. Gale asked if that means it would be approximately 12 months until permits are issued for the Methow steelhead consultation. Farman said it depends on other timelines and there is not a defined sequence or timeline at this time. Mackey said if Hurst needs anything else for the next steps for this consultation to please let the PUDs know. Farman said he is not aware of any specific needs, but that communication can happen with Hurst.

Draft 2017 Broodstock Collection Protocols (Mike Tonseth)

Mike Tonseth shared a document titled, "Draft 2017 Broodstock Collection Protocols v1" (Attachment H), which Sarah Montgomery distributed to the Hatchery Committees on March 3, 2017. Tonseth said he requested feedback on the protocols and changes from 2016 and comments will be discussed today.

Tonseth said one item that should be discussed is external marking for Okanogan steelhead program wild-by-wild fish. He said there is currently a "TBD" label for this program in Appendix B. Tonseth said in 2016, Kirk Truscott had incorporated language in the protocols for external marking to include an alternate fin clip to distinguish from other program fish, which was never resolved during the year. He said now would be a good time to discuss and resolve this. Todd Pearsons said there is concern about doing a ventral clip on descendants of wild-by-wild Omak steelhead and marking should be consistent with the conservation value of the fish. Casey Baldwin agreed and said he would discuss this with Truscott. Tonseth said Truscott had brought up potentially differentiating between Omak wild-by-wild and Twisp wild-by-wild steelhead. Baldwin asked if the differential marking is related to a Methow management objective. Tonseth said the Methow steelhead program may be bound by proportionate natural influence and proportion of hatchery-origin spawners objectives and fish may need to be intercepted earlier in the system, so distinguishing between Methow and Omak steelhead may be desired. Baldwin asked why Omak fish should be marked instead of Twisp fish, since it is a Methow management objective. Greg Mackey said the Twisp Weir is being used to target Twisp wild-by-wild fish, so they are no longer collecting wild broodstock at Wells Dam. He said it would not be desirable to take steelhead bound for the Okanogan River and put them into a Wells FH program, since the CCT are trying to get an Okanogan basin steelhead stock going. He said he and Truscott had discussed how it is difficult to differentially mark all the different groups of steelhead coming through Wells Dam. Baldwin said he and Truscott will discuss this and provide clarification on the steelhead marking strategy for Omak steelhead.

Tonseth said another question in the protocols regards summer Chinook salmon eggs for the YN program. He said each year, the protocols state an egg allocation for the YN program, and he asked Keely Murdoch to discuss whether the request in the protocols is still consistent with YN's expectations. Murdoch said she will discuss this internally.

Tonseth said one change from the 2016 protocols is the Methow spring Chinook salmon trapping schedule. He said the Wells HCP Coordinating Committee has oversight for the trapping schedule

because it is related to fish passage and hydropower operations. The 2017 protocols include additional trapping days (5 total days per week, not to exceed 3 days in a row) to increase the probability of meeting the broodstock collection targets for the program and a decrease in the total trapping hours per day to 12 hours. He said this schedule provides more availability and flexibility in broodstock collection without a significant increase in trapping hours.

Tonseth said the ongoing discussion about the Twisp steelhead conservation program also factors into the draft 2017 Broodstock Collection Protocols. He said the 2017 protocols include a near-term plan for the direction of the Methow steelhead program: compositing the existing programs with a Winthrop NFH component and a PUD component and mixed releases of S1 and S2 smolts in the Twisp River and other locations. He said the Joint Fisheries Parties (JFP) identified a necessity to develop a steelhead management plan (similar to that proposed for spring Chinook salmon), so there is better direction on steelhead recovery in the Methow basin. He said the current proposal is to composite the Twisp and Winthrop NFH programs. The one-year smolt program (48,000 fish) would be a combined USFWS-and Twisp broodstock, then sufficient eggs would be transferred to Methow or Wells FH for rearing, and fish would be released into the Twisp River (at Buttermilk Bridge), from Winthrop NFH on station, or released elsewhere in the basin as part of a study. He said studies could be set up on a rotational basis, such as 5 years of supplementation in the Chewuch River, then 5 years of supplementation at another location. Tonseth summarized that compositing the programs is the near-term plan while a comprehensive management plan is being developed.

Bill Gale said compositing the program would help with steelhead gene flow in the Methow basin, because each year would have multiple BYs returning. He said the steelhead currently released from Methow FH should be PIT-tagged [they already are] so their return locations can be evaluated. This would inform the longer-term plan and whether shifting to releases lower in the basin would help with management objectives. Mackey said Douglas PUD's No Net Impact commitment is 8,000 fish and they were releasing 48,000 to maintain constant release numbers for the reproductive success study, for which 2016 was the last adult cohort. He said the 48,000 number can change and Douglas PUD should contribute in whatever way makes the most sense for safety-net or conservation fishery numbers. Tonseth said the JFP thinks the conservation numbers (i.e., 48,000) should be maintained until the longer-term management plan is developed. Tonseth and Gale both emphasized the value in releasing S1 and S2 smolts in 2017 for comparison and age class diversity reasons. Mackey said he, Tom Kahler, and Todd Seamons (WDFW) discussed the Twisp steelhead program, and Seamons stated that steelhead are naturally a multi-age emigrant, but hatcheries force steelhead into one age class, which limits the age structure of the returning adults. This further emphasizes the benefit in having two age groups for 2017 releases. Tonseth summarized that the biggest change in the 2017 protocols is compositing the steelhead conservation programs in the Methow basin.

Gale said during the February 15, 2017, Hatchery Committees meeting, he requested an update from Chelan PUD on the feasibility study for Pacific lamprey at Tumwater Dam. Willard said Chelan PUD

received the draft feasibility study on March 2, 2017, and it is currently undergoing internal review, after which it will be distributed to the Rocky Reach Fish Forum (RRFF) where anyone can receive updates. Gale said Pacific lamprey at Tumwater Dam are an issue for both the RRFF and the Hatchery Committees. Willard said Chelan PUD requests that Gale receive updates from Steve Lewis, the USFWS representative on the RRFF, or the HCP Coordinating Committees if it relates to passage, because it is not an issue for the Hatchery Committees to discuss. She said Chelan PUD understands that there are conflicting concerns regarding Pacific lamprey at Tumwater Dam, but Hatchery Committees representatives are responsible for implementing the hatchery programs, and that does not include Pacific lamprey at Tumwater Dam. Gale said the draft 2016 Rocky Reach HCP Annual Report states that Pacific lamprey are an issue for discussion in the HCP Coordinating Committees and HCP Hatchery Committees meetings. Willard said Chelan PUD does not intend to discuss Pacific lamprey during Hatchery Committees meetings; though they understand the concern for Pacific lamprey and implementing hatchery programs requires using Tumwater Dam. Tracy Hillman asked Gale about the level of detail of discussions about Pacific lamprey he is requesting, and whether he is asking for a broad overview of Chelan PUD's current actions, or whether he is asking the Hatchery Committees to be involved in decision-making regarding Pacific lamprey. Gale said he is requesting a brief update on current actions and study results and that the USFWS vote on the draft 2017 Broodstock Collection Protocols depends on meeting the Upper Columbia Non-Target Taxa of Concern objectives for Pacific lamprey. Willard said Chelan PUD can provide a brief update, but not a presentation as previously requested. Tonseth suggested that the Hatchery Committees request an update from the RRFF on the status of Pacific lamprey-related activities occurring at Tumwater Dam that could affect actions that the Hatchery Committees are involved in. He said that would provide information about plans and actions and would not compromise the proposed broodstock collection protocols. He said while the RRFF is the appropriate venue for discussing Pacific lamprey, the Hatchery Committees should be aware of any actions that might affect meeting the goals and objectives of hatchery programs involving Tumwater Dam. Hillman said he is the chair of the RRFF and he can provide Pacific lamprey as they relate to Tumwater Dam updates to the Hatchery Committees.

Pearsons said another topic of discussion under broodstock collection protocols is the size of conservation programs. He said he noticed the large number of fish that would be managed at Tumwater Dam and if natural fish are being used in a way where their returning offspring are killed, it should be discussed in 2017. Pearsons clarified that he is specifically talking about Nason Creek spring Chinook salmon. He said Grant PUD's Nason Creek spring Chinook salmon came from tangle-net fishery broodstock collection, and he said he wants to discuss whether programs are the right mix of conservation and safety-net fish. Tonseth said this would not involve changing production levels, just the ratio of conservation to safety-net fish.

Tonseth said Pearsons' concern about the size of the conservation and safety-net programs also relates to potential M&E Plan updates. He said the Twisp steelhead program is experiencing a Ryman-Laikre effect and has a low effective population size. He said the genetic effects were detected because analyses were in place and sampling was relatively intensive. This begs the question of whether similar effects are occurring elsewhere in conservation programs, but are not being detected. He said smaller programs and populations are more at risk of negative genetic effects, so as the Hatchery Committees discuss new management plans with conservation elements, they should consider program sizes and potential genetic effects, which may also result in changes to the M&E Plan and objectives. He said the timeline and scope for M&E for conservation programs may need to be more intensive. Gale asked if the Wenatchee management plan has a timeline for being updated. Tonseth said that plan can be updated any time and developing Methow basin spring Chinook salmon and steelhead management plans will provide guidance for updating the Wenatchee management plan, too. He said effective population size is one extra consideration for management plans that may not have been originally considered.

Pearsons mentioned that the protocols can be discussed further on Thursday, March 16, 2017, during the joint portion of the PRCC HSC meeting, if Chelan and Douglas PUDs are available. Tonseth said he requests any further comments on the draft 2017 Broodstock Collection Protocols by March 16, 2017, and if edits are straightforward he will send a revised version to vote on via email. (Note: if further discussions are warranted, he and Montgomery will coordinate to set up a conference call.)

Brood Year 2017 Twisp Steelhead (Mike Tonseth)

Mike Tonseth said the draft 2017 Broodstock Collection Protocols previously discussed today include information for the BY 2018 Twisp River steelhead. He said because the Twisp program has spring collection targeted, adults are not yet in hand for the BY 2017. He said there are two components of the BY 2017 Twisp steelhead that need to be discussed.

The first component is the schedule and location for release of the BY 2016 Twisp steelhead. He said there are approximately 48,000 S1 smolts on hand for release. He said rather than acclimating and releasing them from the Twisp Acclimation Pond, WDFW would like to truck plant those fish at Buttermilk Bridge. He said plans for moving fish need to be decided quickly. Keely Murdoch asked if the smolts are PIT-tagged, and Tonseth replied yes. He said the total number that would be truck-planted at Buttermilk Bridge would be approximately 48,000 smolts, plus Winthrop NFH will also release an additional 13,000 smolts that have coded wire tags. The Wells Hatchery Committees representatives present agreed that the approximately 48,000 BY 2016 Twisp River steelhead smolts should be truck-released from Buttermilk Bridge, instead of acclimated at the Twisp Acclimation Pond as follows: Douglas PUD, WDFW, YN, CCT, USFWS, and NMFS agreed on March 13, 2017.

Tonseth said the second component is BY 2017 steelhead collection. He said WDFW wants to collect BY 2017 fish at the Twisp Weir in the spring, then transfer them to Winthrop NFH, where they would be spawned as part of the aggregate composite population there. Wells FH or Methow FH would then receive eggs or fry, and WDFW and Douglas PUD would rear the fish as S1s. He said the BY 2017 could be the start of what is proposed for BY 2018 and beyond. Some questions and concerns in deciding how to handle BY 2017 fish include fish health, temperature, live-spawning, sampling schemes, tagging, and hatchery space. Bill Gale said Chris Pasley (USFWS) and Jayson Wahls (WDFW) should discuss temperature concerns. Greg Mackey said one consideration for fish health is if Twisp wild brood are brought to Winthrop NFH and are live-spawned, then kelts will be on station, simplifying the kelt program, but possibly creating fish health transfer concerns for the juveniles. Murdoch said the Winthrop NFH brood is already live-spawned, so that would not be a difference from current methods. She said the difference in fish health protocols between the two programs is in their lethal sampling of fish. She said the Winthrop NFH program is big enough that a sufficient fish health sample is achieved without lethally sampling progeny from all wild females that are live-spawned (males and hatchery-origin fish are lethally sampled). She said WDFW's Twisp steelhead program lethally samples fry from 100% of live-spawned fish, so a question for WDFW's fish health program is whether subsampling of adults instead of sampling progeny of live-spawned females is sufficient. Tonseth said there might be enough background and sampling at a high enough rate that subsampling could be sufficient, but the fish health experts will need to talk about it. He said WDFW's preference is to transfer eyed eggs, not fry. Wahls said more feedback is needed, but he does not think WDFW will allow transferring non-tested fish. Mackey said keeping the fish until they are juveniles creates a lot more effort to transfer. Mackey said in 2017, Douglas PUD would incubate eyed eggs at Methow FH (Wells FH is not ready to receive eggs in spring 2017), and if eyed egg transfer is allowable, they can use the room at the hatchery dedicated to the Twisp program. Gale asked if early rearing for the composite steelhead program could be separated from other programs during early rearing. Mackey said the Twisp room is an isolated incubation room but the start room is not bio-isolated, and the fish would eventually be placed into circular tanks at Well FH.

Tonseth asked if representatives present are comfortable with compositing the Twisp and Winthrop programs for BY 2017. This would include fish collection at the Twisp Weir, held, spawned, incubated to eyed egg stage or held to fry stage at Winthrop NFH, then transferred to Methow or Wells FH. He asked if decisions should wait on fish health conversations, hatchery space, and the possibility of raising fish to an S1 stage at Methow FH. Wahls said the Twisp Weir will begin operating at the end of March, so a decision is needed by the end of the month at the latest. WDFW voted yes on this agreement during the meeting on March 13, 2017, and other representatives requested more time. Tonseth requested a vote by March 30, 2017.

Michael Humling (USFWS) said the Winthrop S2 program broodstock collection has typically avoided collection below the Twisp River, but since compositing the programs is an ongoing discussion and

trending towards a positive vote, he asked if USFWS should extend their collection area below the Twisp River. Tonseth said if that were to happen, fish collected in the area between Carlton Acclimation Pond and the Twisp River should be subtracted from the total number targeted from the Twisp Weir. He said it would not be desirable to exceed the proportion of Twisp-origin fish in the collection. Humling said at the moment, he thinks steelhead are stacked up in the lower Methow River, but with warmer temperatures, fish will start moving very soon. Mackey suggested collecting as Humling proposed, up to the number identified as the Twisp broodstock collection target. Humling said he will have USFWS avoid collecting in the area where fish are currently stacked up and will expand broodstock collection below the Twisp River.

Spring Chinook Salmon Outplanting in the Chewuch River (Catherine Willard/All)

Catherine Willard shared a document titled, "Revised Draft Outplanting Surplus Methow Composite Spring Chinook Salmon Adults" (Attachment I) and a related spreadsheet, "Adult Outplanting Calculator" (Attachment J), which Sarah Montgomery distributed to the Hatchery Committees on March 13, 2017. Willard said she received comments on the previous version of this draft and inserted any substantial changes in track-changes. She summarized the changes to the document and questions and comments followed.

Casey Baldwin asked how long fish are retained in the system. Willard said there are likely differences between males and females and translocation of females may be more successful because males are more transient. She said male maturation is difficult to ascertain compared to females.

Greg Mackey introduced the spreadsheet and said it can be used to ensure the study stays within permit conditions (the gene flow sliding scale). He said some of the inputs to this equation could be estimated in-season at the 50% passage point at Wells Dam. He said there should be sufficient fish on hand as they are captured at Methow FH during brood collection and gene flow management, and the size of release at that point would be a management decision. Matt Cooper asked if there is a minimum number at which point the study would not be undertaken. Mackey replied that the study intends to augment returns to the Chewuch program, up to the point that is defined by the ESA permit conditions.

Bill Gale asked if there is enough space at Methow FH to accommodate this study. Mackey said yes and because there are prescription restrictions forfish that may be released, they will be held separately. Tonseth said these fish can be treated with Formalin but not antibiotics or other substances. Tonseth suggested adding a caveat that if fish are being held for the study and there is a significant bacterial outbreak, the fish will not be released.

Regarding release sites, Keely Murdoch said YN requested that the workgroup consider out-planting higher up in the basin. Willard said she discussed this with Charlie Snow (WDFW), who said there is not abundant spawning habitat above the areas identified in this draft; it is more "pocket spawning"

Willard said she will add text about if there is available spawning habitat that is not occupied by spawners, crews can be flexible about planting upstream of the currently designated locations.

Gale asked what the reporting strategy for this would be. Willard said she will add language about reporting and she will revise the draft plan and distribute it for approval in April 2017.

Murdoch said contingency language should be added for higher release sites and a preference should be stated for upper sites. Todd Pearsons pointed out that this will be a multi-year study, so the release location can be changed.

Brood Year Stray Rate Targets (Todd Pearsons)

Tracy Hillman introduced the BY stray rates topic by emphasizing the potential implications of failing to meet a target, even if the target does not link to extinction risk. He said some objectives are more important than others and the BY stray rate target is linked to the other two stray rates, even if it is not linked directly to extinction risk. He said BY stray rates may be better suited as informing other targets, which appears more in line with how the Hatchery Committees consider BY stray rates—it is useful information to describe what is happening within programs, and can also inform Q2 and Q3. Mike Tonseth said if there is an issue with recipient population strays, looking at the BY stray rate for example could determine if a specific BY, culture, handling difference, or broodstock origin is correlated with the issue. He said in this way, BY stray rates could be considered a management objective. Bill Gale said one issue with this approach might be programs with really high BY stray rate targets, but are still within the target for recipient populations because these programs stray a little bit to many locations. Another potential issue would be spikes of recipient stray rate problems because of low natural-origin returns. He said examining the differences or causative factors is most important. Tonseth said it is difficult to set a BY stray rate target for all programs, because facilities and limitations affect programs in different ways. Tonseth said it is important to maintain the perspective of examining BY stray rates without tying the rates to a target. Gale said he is not opposed to changing the language of stray rate targets, but he sees a potential issue if the target is removed and a program has a very high BY stray rate but is still meeting Q2 and Q3 targets. He said folks might argue at that point that change is not warranted, because the targets are met.

Hillman said that most hatchery fish stray to only a few locations. He suggested performing an analysis to determine if the situation Gale describes often occurs. That is, did programs with high BY stray rates also exceed within and among recipient population stray rate targets.

Gale said the language about BY stray rates is important and should state that the BY stray rates should be used as an indicator of program performance. Keely Murdoch said she will need to discuss this internally before making a decision about eliminating the target altogether or changing the language behind it and said she supports performing the analysis. Greg Mackey said another option is rewriting Q1 so that it is contingent on Q2 and Q3. Tonseth said because the Hatchery Committees

are already committed to reviewing the M&E Plan before the next meeting, they can also begin to flag objectives for review. He said it will be important to provide plenty of background as to why the target is changing. Todd Pearsons said the M&E Plan clearly states that new information should be used to update the plan, so as long as the new information is detailed in the review process, it is okay to change or eliminate the target. Hillman agreed and said there appears to be justification for removing or modifying the BY stray rate target. Casey Baldwin said from the perspective of the receiving population, strays should be assessed as the total stray rate rather than a program by program rate, and how the objective is worded should take this into consideration. Hillman said he will preliminarily revise the BY stray rate target language in the Hatchery M&E Plan for further discussion at the Hatchery Committees April 17, 2017, meeting and will analyze the relationship over the last 10 complete BYs between exceeding BY stray rate targets and exceeding recipient stray rate targets.

Maturation Sampling for Methow and Chiwawa Spring Chinook Salmon 2017 Releases (Willard/Mackey)

Catherine Willard said Chelan PUD proposes to perform maturation sampling in partnership with USFWS and WDFW on 300 spring Chinook salmon for the third year in a row. The Rock Island Hatchery Committee agreed that Chelan PUD,USFWS, and WDFW can perform maturation sampling on 300 Chiwawa spring Chinook salmon as follows: YN, WDFW, USFWS, NMFS, Chelan PUD, and CCT agreed March 13, 2017.

Greg Mackey said Douglas PUD proposes to sample 300 spring Chinook salmon for maturation sampling as part of their new permit conditions. The Wells Hatchery Committee agreed that Douglas PUD can perform maturation sampling on 300 Methow spring Chinook salmon as follows: Douglas PUD, YN, WDFW, USFWS, NMFS, and CCT agreed March 13, 2017.