

RRFF/PRFF White Sturgeon Workshop

Wednesday, 19 February 2014

10:00 a.m. – 4:00 p.m.

Chelan PUD First Floor Large Conference Room

Wenatchee, WA



Notes taken by Suzanne Hodgson

Chairperson, Tracy Hillman

Attending Participants:

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Workshop Minutes

I. Welcome and Introductions

Tracy Hillman welcomed everyone to the joint workshop of the Rocky Reach Fish Forum (RRFF) and the Priest Rapids Fish Forum (PRFF), and made known that voice recording of the meeting was initiated for note-taking purposes.

II. Purpose of the Workshop

Tracy Hillman described the purpose of the workshop as a special meeting of the PRFF and RRFF to try and come to consensus on the number of juvenile white sturgeon to release into the Rocky Reach and the Priest Rapids Project Areas. Tracy indicated that both Forums have been debating the number of juveniles to release into the project areas since November. There are currently two proposals: one proposal is to release 6,500 fish into each project area. This proposal is based on the maximum release number identified in both the Rocky Reach and Priest Rapids White Sturgeon Management Plans (WSMPs). The other proposes to release 4,332 juveniles into each project area. This was based on equalizing family sizes. That is, the 4,332 comes from releasing 361 juveniles per half-sibling, which is based on a target of 18 crosses. Because there were 12 half-siblings produced during spawning in 2013, it was proposed that 4,332 sturgeon be released (12 half-siblings x 361 juveniles per half-siblings = 4,332 juveniles) to balance maternal contributions.

Tracy indicated that he was directed by the Forums to write an unbiased summary of the issues and rationale for the two proposals. He thanked all those who provided comments on the draft summary paper. He indicated that he sent the final summary document and the questions to the outside experts as directed by the Forums. The document and questions were sent to James Crossman, Andrea Schreier, Ray Beamesderfer, Kim Scribner, Ken Lepla, Scott Blankenship, Molly Webb, Jim Powell, Larry Hildebrand, Paul Anders, and Steve McAdam. These are all noted experts in sturgeon biology and/or population genetics. Tracy noted that four of the experts provided feedback (Andrea Schreier, Ken Lepla, Scott Blankenship, and Jim Powell). He said that Dr. Anders intends to provide feedback, but is currently busy with another project. The others indicated that they did not have time to respond to the request.

Tracy outlined the structure for the workshop, stating that he would first like to review briefly the two WSMPs, then review the responses from the experts, and finally come to consensus on a juvenile release number for 2014. Tracy said that he would like to spend most of the afternoon discussing visions for the future of the supplementation programs given that the initial stocking work will be completed in 2014 or 2015. Participants agreed to the workshop structure.

Before reviewing the WSMPs, Tracy noted that several of the entities have been discussing this issue internally and among the various parties of the Forums. Therefore, Tracy asked if those discussions resulted in consensus among the parties. Bob Rose responded that there is still disagreement among the parties as to the number of juvenile sturgeon to release into the project areas in 2014.

III. Review of the Priest Rapids and Rocky Reach White Sturgeon Management Plans

Tracy Hillman walked the participants through sections of both the Priest Rapids and Rocky Reach WSMPs. He highlighted sections that were germane to the current discussions. Below are a few of the

highlights from the review. All the highlights shared with the participants are included in the WSMPs that accompany these notes.

Beginning with the Priest Rapids WSMP, Tracy read the goals and objectives of the plan. For example, the goal of this plan is to promote growth of the population to a level that is commensurate with the available habitat. The four objectives associated with this goal are 1) increase populations through supplementation to a level commensurate with available habitat, 2) determine the effectiveness of that program, 3) determine carrying capacity and 4) determine natural reproduction potential. Section 3.1.2 in the Plan states that beginning in year three of the license, Grant PUD will release sufficient numbers of sturgeon annually for five years to achieve an adult population appropriate for the size of the reservoirs. Tracy pointed out that footnote 3 in table 1 states that up to 5,000 yearlings should be released in Wanapum and 1,500 yearlings in Priest Rapids each year for the first five years. Table 2 states that Grant will stock up to 6,500 yearlings. The table also identifies alternative management actions such as adjusting stocking level, alternative broodstock, and excess production. Tracy also highlighted language that indicates that harvest is a possible long-term goal in the plan. Statements in the plan also indicate the importance of “jump-starting” the system with a relatively high number of fish during the early phase of the plan. The Plan also noted that juveniles for release should come from two 3F x 3M matings, which results in 361 fish per maternal family group.

Tracy then walked through the Rocky Reach WSMP and highlighted goals and objectives. The goal of this Plan is to promote growth of the population to a level that is commensurate with the available habitat by year 30 of the license. Objectives associated with this goal are 1) increase population through supplementation to a level that is commensurate with the available habitat and allowing for appropriate and reasonable harvest, 2) determine the effectiveness of the supplementation, 3) determine carrying capacity, and 4) determine the natural reproductive potential in the reservoir. Section 4.1.2 of the Plan describes that by year three of the license, up to 6,500 yearlings will be released annually for three years. It states that during subsequent years, 0–6,500 juvenile sturgeon will be released. Following the third year, the long-term approach should be determined by the RRF based on the monitoring and evaluation program. Table 3-1 includes a footnote that states that a total of 6,500 will be released during each of the first three years, and that in subsequent years 0-6,500 will be released. On the last page of the Plan, it states that juvenile releases for conservation purposes should maximize genetic contributions from the available adult populations. It also states that more families and smaller family sizes should be considered in the release strategy, and that family equalization should be considered in the release strategy.

Discussion took place regarding the two proposed release numbers, their potential effects on genetics and overall numbers of fish, and the meaning behind 6,500 and “up to” 6,500. Steve Parker and Bob Rose stated that they understood the concern about risks associated with genetic bottlenecks, but noted that we cannot dismiss the risks associated with not releasing the fish (e.g., risks to the monitoring program, risks to low population abundances, risks to potential future harvest, etc.). Steve also pointed out that during licensing negotiations, the “up to 6,500” phrasing of the agreements was a

concession to the fact that some parties wanted more fish, some wanted fewer, some wanted to identify harvest as a goal for stocking, others did not, and nobody had a very strong argument in any direction given the lack of data at that time. The release of 6,500 juvenile sturgeon is the only number referred to in the WSMPs, and as such it is the only recognized stocking goal. If the release of 6,500 juveniles was not the goal, then what was the goal? The purpose of the Plan is to provide some level of certainty and predictability of the mitigation actions that will be taken. That is why the Yakama Nation thinks it is imperative to consider the 6,500 release number as a default goal. To do otherwise will open the mitigation goal to renegotiation every year, or whenever someone has a different idea. Other parties noted that the 6,500 number in the WSMPs indicates an upper limit for annual releases. It does not mean that 6,500 fish should be released regardless of concerns associated with genetic or disease issues. Larry Hildebrand noted that the Plans were based on adaptive management, and said that the difference between the two proposed release numbers for this year will not be significant over time.

IV. Review of the Input from Experts

Before reviewing the feedback from the outside experts, Tracy defined some of the terms used by the experts. For example, he offered definitions for effective population size (termed N_e) and census population size. Effective population refers to the number of individuals in the population that has a value of any given population genetic quantity that is equal to the value of that quantity in the population of interest. Census population means the total number of fish in the population. Often, the effective population size is about 25% of the census population. He also defined the harmonic mean, which is a measure of central tendency often used by population geneticists.

Tracy read through the responses provided by the outside experts who responded to the request for technical information (responses accompany these notes as a separate document). Jim Powell responded by stating that his answers to the questions depended upon whether or not the goal of the programs is conservation or eventual harvest. Scott Blankenship stated that census size would be the most important factor if eventual harvest is the goal of the program, but effective population size must be considered if the goal is a conservation program. He noted that because of the effect of supplementation, both proposed release numbers could have genetic effects and push the effective population too low for a conservation program, resulting in potential genetic problems. Based on his calculations, he proposed a release of 700 sturgeon in Rocky Reach, 1,500 in Wanapum, and 500 in Priest Rapids for a conservation program. Discussion took place around the assumptions of Dr. Blankenship's recommendations. Andrea Schreier responded that she did not think there was much difference between the two proposed release numbers from a genetic perspective. She believes that both release numbers has the potential to lower the effective population size. She recommended using as many wild brood stock (or wild larvae) as possible every year. She advocated equalizing family sizes to maximize the effective population.

After reviewing the responses from the outside experts, Tracy noted that the experts seemed to agree

that the two proposed release numbers will likely create a genetic bottleneck in the long-term. Given that, Tracy asked the group if they were ready to make a decision on the release number. Participants indicated that they would like some time to think about the morning discussions. The workshop then adjourned for lunch.

V. Decision on Release Number

Following the lunch break, Tracy asked individual group members to weigh in on the issue of whether to release 6,500 or 4,332 juvenile sturgeon in 2014. Steve Lewis stated that he was leaning toward the lower number because his agency's job is to err on the side of conservation of the species. He believed that the genetic risks were more significant than other potential risks. Chad Jackson stated that he also believed the lower number was best, but would not hold up the group if the higher number was selected. Jason McClellan and Bret Nine stated that they want to see the lower number released. Blaine Parker stated that he wanted to see 6,500 released and noted that entrainment was probably not a significant issue because there are a lot of sturgeon downstream from the project areas. Thus, the release of a few closely related individuals escaping into the large populations downstream would have little effect on population genetics in the downstream populations. Bob Rose stated that he wants to see 6,500 released. Mike Clement stated that he preferred 4,332, which is based on the genetic concerns and the best available science. Steve Hemstrom stated that Chelan PUD proposes a release number of 5,000 for Rocky Reach in 2014, which would bring the total number of fish released over four years to 19,500. This is equivalent to the goal of releasing 6,500 fish each year for three years, which was the maximum envisioned after the first three years. Pat Irle stated that she could agree to 6,500 this year, but wants the group to agree to use the best available science to identify release numbers in future years.

The group discussed the Chelan PUD proposal of releasing 5,000 into the Rocky Reach Project Area in 2014. Steve Lewis stated that he would be more comfortable with 5,000 than 6,500. Bob Rose stated that he wanted to discuss this with his colleagues first. Chad Jackson stated that he was not inclined to approve the 5,000, but that he would also discuss it with his colleagues. Jason McClellan indicated that he agreed with WDFW and said that the Colville Tribes would likely not agree to releasing 5,000 fish in 2014. Pat Irle stated that it would probably be okay. Steve Parker stated that he thought that consensus was required to move away from 6,500. Steve Lewis said that some parties are thinking the number is 6,500, and others think it is up to 6,500. Participants asked that Chelan PUD prepare a rationale paper, which the RRF will review during the March meeting.

Steve Parker stated that he wants to focus on future planning, and that risk avoidance should not be the main criteria. Discussion took place regarding the risks associated with the higher and lower release numbers. Donella Miller pointed out that two years ago, the risks associated with disease resulted in a decision to destroy infected fish, but that this year, infected fish will be released, and this was approved as an acceptable level of risk. It was noted that the diseased fish were released in the Wells Project Area,

not the Rocky Reach or Priest Rapids Project Areas. Jason McClellan stated that the risks of releasing hatchery fish must be mitigated by equalizing families. Discussion took place regarding future planning. Bob Rose asked Keith Truscott to comment on what Chelan PUD will do if the RRFF comes to a stalemate. Keith replied that he is glad this discussion is taking place and added that Chelan PUD sees both sides of this issue. He noted that he would like to see the RRFF work on a planning process for future years. For example, the RRFF could develop a decision support matrix that guides how future releases will be determined. Tracy pointed out that after the third year of stocking, the Rocky Reach WSMP states that the Forum will decide on how many fish will be stocked annually in the project area. However, as noted in the Plan, the number will range from 0 to 6,500 fish annually. He added that this language is not found in the Priest Rapids WSMP. Both Mike Clement and Jason McClellan commented that the monitoring programs will inform future stocking levels. For example, if survival is high in one or more years, the number of fish released would be reduced to avoid density dependent effects.

Based on the discussion so far, Tracy identified the risks that participants had identified. Those included 1) population genetics, 2) population abundance, 3) the success of the monitoring program, and 4) disease. He asked the group if they wanted to continue to work toward a decision on the release number. Participants indicated that they would not be able to come to a consensus at this time. Therefore, Steve Parker asked the group what steps the Forums should take next. Tracy stated that an impasse in the forums required dispute resolution, which means the issue will be elevated to the policy committees. If the policy committees cannot come to consensus, the issue would be elevated to an executive committee, Ecology, or FERC. Tracy stated that he would prepare documentation of the issues to be decided by the policy committees. Tracy added that Denny Rohr is on the call because he is the Policy Committee facilitator for the PRFF. Participants talked briefly about representation on the policy committees. Keith Truscott asked if the two forums would make their decisions independently. Tracy stated that they would. Bob Rose asked what specific questions will be elevated to the policy groups. Tracy replied that it would be which proposed number of fish should be released in 2014. In addition, the policy committees could also be asked to interpret the meaning of “up to” 6,500 fish. Steve Parker asked if anyone who was involved in the writing of the initial documents remembered what was meant by “up to” 6,500. Keith Truscott replied that Steve Hays had stated that he remembered 6,500 being a starting number.

Bob Rose suggested that some select members of the group meet separately over the next few months to discuss release strategies for future years. Participants agreed with the idea of convening a small working group to help flesh out release numbers for future years. Tracy asked the group if they wanted to begin those discussions at this time. Participants stated their current levels of exhaustion and declined to discuss this topic at this time.

VI. Next Steps

Tracy noted that both Forums will meet on Wednesday, 5 March. Tracy will share the results of this

workshop with the PRFF and RRF, and will then call for an official vote on the release number. This will allow voting parties not involved with the workshop to share their thoughts. If an impasse is reached, Tracy will begin the dispute resolution process, which differs between the two Forums. Pat Irle asked if the Chelan PUD proposed number will be discussed at the RRF meeting. Tracy said yes, and that Steve Hemstrom will provide a rationale paper for their proposal.