



Priest Rapids Fish Forum

Conference Call

Wednesday, 6 March 2024

10:00 a.m. – 12:00 p.m.

FINAL MINUTES

PRFF Members

RD Nelle, Emily Orling, USFWS
Ralph Lampman, Keely Murdoch, YN
Nathan and Clayton Buck, Wanapum
Jason McLellan, Bret Nine, CTCR
Mike Clement, Chris Mott, Grant PUD
Tracy Hillman, Chair

Patrick Verhey, Benjamin Cox, WDFW
Chad Brown, WDOE
Aaron Jackson, Carl Merkle, CTUIR
Steve Lewis, BIA
N/A, CRITFC

Meeting Attendees

Steve Lewis, BIA
Mike Clement, Grant PUD
Patrick Verhey, WDFW
Ralph Lampman, YN
Nathan Buck, Wanapum
Paul Grutter, Golder

Nathan Patterson, YN
RD Nelle, USFWS
Chris Mott, Grant PUD
Greg Silver, CRITFC
Laura Heironimus, WDFW
Tracy Hillman, Chair

Action Items:

- Laura Heironimus will check with the Oregon Department of Fish and Wildlife to see whether they will conduct any White Sturgeon research between McNary and John Day dams during Grant PUD broodstock collection efforts this year.
- Ralph Lampman will update the Upper Columbia Juvenile Source Lamprey Datasheet and send it to Tracy Hillman for distribution to the PRFF.
- Ralph Lampman will check to see if any investigators on the Columbia River will be tagging lamprey with HDX PIT tags in 2024. Mike Clement will use this information to determine whether Grant PUD needs to activate their HDX PIT tag arrays.

- Ralph Lampman will share the Pacific Lamprey Upper Columbia Regional Implementation Plan and the Pacific Lamprey Predation Report with the PRFF.
- The PRFF will review the draft Bull Trout Monitoring and Evaluation Plan – 15-Year Status Report and provide comments to Grant PUD by 22 March 2024.
- The PRFF will review the draft 2023 Draft Aquatic Invasive Species Control and Prevention Plan Annual Report and provide comments to Grant PUD by 1 April 2024.

Decision Items:

- None.

I. Welcome and Introductions

Tracy Hillman welcomed everyone to the meeting and identified all attendees.

II. Agenda Review

The PRFF reviewed and approved the March agenda.

III. Approve January Meeting Notes

The PRFF reviewed and approved the 3 January 2024 meeting minutes.

IV. Review Action Items

The PRFF reviewed the following action item from the January meeting:

- Ralph Lampman will share the presentations or links to the presentations given during the Pacific Lamprey Information Exchange. **Complete. Ralph indicated that they will not post presentations.**
- Ralph Lampman will update the Upper Columbia Juvenile Source Lamprey Datasheet and send it to Tracy Hillman for distribution to the PRFF. **Ongoing.**
- PRFF members will provide comments on the draft 2023 Bull Trout M&E Plan Annual Report to Grant PUD by 4 January 2024. **Complete.**
- Ralph Lampman will check to see if any investigators on the Columbia River will be tagging lamprey with HDX PIT tags in 2024. Mike Clement will use this information to determine whether Grant PUD need to activate their HDX PIT tag arrays. **Ongoing.**

V. Administration

Tracy Hillman reported that he received an email from Breean Zimmerman stating that she will no longer be Ecology’s representative on the PRFF. She accepted a position with Ecology’s Water Resources Program as the Green Energy Project Coordinator and her last day with the Water Quality Program as the Hydropower Project Manager for Priest Rapids and Wanapum dams will be 29 February 2024. Chad Brown will represent Ecology on the PRFF until they fill Breean’s vacated position. Tracy shared the email with the PRFF before the meeting. Here is Chad’s contact information:

Chad Brown, Hydropower Unit Supervisor
Water Quality Program, Headquarters (Lacey, WA)

VI. White Sturgeon

White Sturgeon Rearing, Tagging, and Testing – Nate Patterson reported that the juvenile sturgeon on station at the Yakama Nation Sturgeon Hatchery are doing well. He said mortality rates are low and as of 22 February, the fish are at 4.4 fish per pound.

Mike Clement indicated that Grant PUD and the Yakama Nation will tag juvenile sturgeon and test them for spontaneous autopolyploidy during the week of 25 March. He said they have all the necessary supplies and intend to test and tag 3,250 fish.

Mike stated that during testing last year, they had a family group (female 4) in which several individuals (30 juveniles) tested positive for spontaneous autopolyploidy. This greatly slowed down the process. Mike questioned whether the PRFF should identify a threshold level (e.g., 20 positives/family) that can be used to determine when it would be appropriate to discontinue testing additional individuals from the family group. Once the target number of positive tests is achieved, the family group would be discarded with no further testing and individuals from other family groups would make up the difference. Members agreed to discuss this during the next meeting.

2023 White Sturgeon Annual Report and Presentation – Mike Clement stated that the draft 2023 White Sturgeon Annual Report was sent to the PRFF on 31 January, with comments due on 1 March. Mike indicated that they addressed comments and will send the final report to FERC soon (the final report was sent to FERC on 7 March). Mike introduced Paul Grutter, WSP Golder, who provided a presentation that summarizes information contained in the draft 2022 report.

Paul Grutter gave a presentation titled, “2023 Grant PUD White Sturgeon M&E Summary” (see Attachment 1). Paul provided a brief overview of the presentation and gave a brief description of the project area. He then showed Columbia River temperatures and discharges within the project area in 2023 and identified when fish were released and when different aspects of monitoring occurred. He indicated that 2023 was a low flow year. He also described the tagging and release activities that occurred in 2023. Paul identified the number and size (length and weight) of fish released at each location in the project area. He noted that 48% of the fish had one or more fin deformities. Paul indicated that broodstock were collected downstream from McNary Dam during 15-19 May and 22-26 May 2023. Of the 73 sturgeon captured, six females and six males were transported to the Yakama Nation Sturgeon Hatchery and those fish were spawned on 6 June 2023. Sufficient gametes were collected to produce 36 genetic families.

Paul described juvenile indexing work conducted in 2023 in the project area. He briefly described the objectives, sampling design, sampling locations, gear used, and sampling effort. He reminded the PRFF about the effects of hook-size selection on catch and that they used 4/0 and 12/0 circle hooks spaced about 4 meters apart during 2023 index sampling. He showed the number of juveniles captured by brood year in both Wanapum and Priest Rapids reservoirs over time (i.e., BY 2010-2022). He also showed the distribution of catch and CPUE (Catch Per Unit Effort) among sampling sites within each reservoir and the catch by river mile. Paul said they documented evidence of upstream migration. That is, a fish released in Priest Rapids reservoir in 2013 was captured in Wanapum reservoir in 2023.

Paul showed the length frequency of fish captured by brood year within each reservoir. These data are important as they show fish recruitment to the gear and away from the gear based on fish size. Paul indicated that 62% of the sturgeon captured exhibited one or more fin deformities. He said the deformities do not appear to affect fish survival. Paul then described the mark-recapture methods used

to estimate abundance and survival and the variation in recapture probabilities over time by brood year and reservoir. In general, survival from release to age-1 is less than 50%, while survival for fish older than age-1 is greater than 85%. Paul also showed abundance estimates by brood year and by reservoir. The total abundance of sturgeon (based on the limits of the sampling gear) is 8,988 (95% CI: 7,444-10,533) in Wanapum reservoir and 2,803 (95% CI: 2,081-3,525) in Priest Rapids reservoir.

Paul described growth rates for each brood year within each reservoir. Growth appears to reach an asymptote in Priest Rapids Reservoir; an asymptote is less apparent in Wanapum Reservoir. Paul indicated that density-dependent growth appears to occur in the Wanapum Dam tailrace, where most of the fish are captured. Because the apparent growth rates may be a function of gear selectivity, Paul looked at the effects of changing gear type (i.e., replacement of 1/0 and 4/0 gangions with 4/0 and 12/0 gangions) on catch and population estimates. Paul said they did see an increase in the catch of fish over 90-cm fork length, but the number of large fish captured was low. They observed a slightly greater proportion of longer, heavier, and older fish in 2023 compared to 2022 in both reservoirs. In addition, the change in gear was not found to be an important predictor of recapture probabilities. Paul identified some possible reasons for the relatively low capture of older, large fish including: (1) larger fish are no longer present in high densities in the project area, (2) older brood years are at moderate to low abundances within the project area, (3) larger fish are less prone to capture even with the change in gear, and (4) larger fish may be residing in areas not sampled (e.g., in the deep canyon section downstream from Rock Island Dam where indexing gear cannot be deployed).

Paul concluded by stating they experienced a higher catch of sturgeon in 2023 compared to 2022. Paul added that juveniles are most abundant in the upper reservoirs and survival rates are lower in Priest Rapids reservoir than in Wanapum reservoir. Growth rates of juveniles in Priest Rapids reservoir asymptote at a lower fork length than do sturgeon in Wanapum reservoir. Growth rates are also lower in the upper sections of both reservoirs where densities are highest. Density-dependent effects may be affecting growth rates in the Wanapum Dam tailrace. The change in gear type in 2023 resulted in the capture of slightly larger fish, but it did not affect recapture probabilities.

Steve Lewis inquired about the possibility of sampling in locations where larger sturgeon may be residing. Paul responded that their sampling design is random; that is, sampling is based on a generalized random tessellation stratified (GRTS) design. They do not want to change this because it could affect their ability to generalize results to the entire project area. Ralph Lampman asked whether it is possible to sample the deep canyon reach just downstream from Rock Island Dam. Paul indicated that they cannot use the current gear to sample in that location; however, hook-and-line sampling may be possible. Paul added that it is a very difficult place to sample even with angling techniques. Ralph asked whether they have long-term sampling sites in the project area. Paul indicated that they do not have long-term sampling sites. Each year, they reselect sampling sites using the GRTS design. Ralph asked whether the amount of time spent in the hatchery or the size at release affects recaptures. Paul responded that he was not sure; however, there was no difference in recaptures of the 2019 brood year fish released as age-1 fish versus fish released at age-2 the following year. Generally, there is little difference in the amount of time fish are held in the hatchery among brood years, so it would be difficult to assess the effects of different hatchery rearing times on recaptures. Ralph asked whether the effects of size at release on recaptures could be evaluated. Paul indicated that most fish are released at about the same size and therefore there is not a lot of contrast in size to do statistical evaluations. However, it may be possible to include size at release as an independent variable in a multiple regression model. Steve asked about the recaptures of brood year 2010 (CRITFC) fish and why few are showing up in the index surveys. Paul noted that the tribal fishery removed several of these fish. In addition, mark-recapture modeling indicates brood year 2010 fish are in the project area but at low abundances. He

added that it may be that earlier surveys overestimated the abundance of these fish in the project area. Paul does not know whether these fish are rearing in unsampled locations in the project area. Steve asked whether they are tracking wild fish and why there are low numbers of wild fish in the project area. Paul responded that he is not sure why they see low numbers of wild fish. He speculated that it may be related to many years of low flows in the project area. Natural recruitment tends to be higher in high flow years. Paul added that predation may also be a factor affecting natural recruitment in the project area.

The PRFF thanked Paul for the presentation.

Other White Sturgeon Items – Mike Clement reported that Grant PUD intends to collect broodstock downstream from McNary Dam in May. He asked Laura Heironimus whether the Oregon Department of Fish and Wildlife will be conducting sturgeon research between McNary and John Day dams that could affect the PUD’s collection efforts. Laura said she was not sure but will check with ODFW and report back to Mike.

VII. Pacific Lamprey

2023 Annual Pacific Lamprey Report – Mike Clement reported that the draft 2023 Pacific Lamprey Annual Report was sent to the PRFF on 11 January, with comments due on 12 February. Mike indicated that they are addressing all comments received. The final report will be submitted to FERC soon.

2024 Native Pacific Lamprey Workshops – Tracy Hillman reported that the Pacific Lamprey Conservation Initiative will be holding their Native Lamprey Workshops this year. The goals of the workshops are to raise awareness of native lamprey species and assist participants in incorporating lamprey conservation into restoration projects, including permitting, passage design, in-water work activities, and other considerations. The workshops will use both classroom and field instruction to provide participants with knowledge of the ecology, habitat needs, cultural significance, and conservation of lamprey species in the Pacific Northwest. Importantly, the workshops will enable participants to survey, salvage, and identify lamprey species. Participants will receive handouts and resources to assist with lamprey identification and available conservation resources. The workshops are free and will include one day of classroom instruction followed by a half day of field instruction. For our region, the workshop will be held in Omak, WA, on 24 and 25 June. Registration is open.

Ralph Lampman indicated that the Yakama Nation will provide live specimens of Pacific Lamprey and Western Brook Lamprey. Laura Heironimus said that Monica Blanchard with WDFW will also help with the workshops.

Juvenile Survival Studies – Ralph Lampman reported that he received information from PNNL, PSMFC, and YN to complete the Upper Columbia Juvenile Source Lamprey Datasheet. He will share the spreadsheet with the PRFF as soon as he inputs the information into the spreadsheet.

Ralph noted that because of lamprey relocation efforts, he expects to see greater numbers of juvenile lamprey captured in smolt traps. However, the number captured in traps may not be sufficient to conduct a survival study; therefore, he recommended the PRFF consider the use of juveniles captured at locations downstream from the projects under study. Ralph also stated that PNNL examined the survival of wild and hatchery juvenile lamprey and found that hatchery juveniles had lower survival rates than wild juveniles. Ralph commented that the hatchery juveniles were skinner and had lower condition than the wild juveniles used in the study. Ralph believes hatchery juveniles with conditions similar to wild fish will have similar survival rates.

Other Pacific Lamprey Items – Ralph Lampman stated that he is receiving results from eDNA sampling and the results indicate that Pacific Lamprey are being detected in locations where they were previously not detected (e.g., at Wells Dam and various locations upstream from Wells Dam). These results are promising because they demonstrate that translocation efforts are working. Ralph also noted that he will share two reports with the PRFF. One is the Pacific Lamprey Upper Columbia Regional Implementation Plan and the other is a Pacific Lamprey predation report prepared by Cramer Fish Sciences, GENIDAQS, and YN.

VIII. Bull Trout

Bull Trout Management and Evaluation Plan – Mike Clement reported that the draft Bull Trout Monitoring and Evaluation Plan – 15-Year Status Report was sent to the PRFF on 21 February, with comments due on 22 March. Mike asked members to contact him if they have any questions on the draft report.

IX. Aquatic Invasive Species

2023 Annual Aquatic Invasive Species Report – Mike Clement reported that the draft 2023 Draft Aquatic Invasive Species Control and Prevention Plan Annual Report was sent to the PRFF on 8 February, with comments due on 1 April. Comments should be sent to Nate Dietrich at Grant PUD. Mike provided the following summary regarding Aquatic Invasive Species (AIS) monitoring activities in 2023:

Educational Activities

- All project boat launches have current AIS signage, including Clean Drain and Dry information and Northern Pike information.
- Voluntary Boat Surveys. A QR code boater survey is made available to scan at project boat launches during the recreation season (Memorial Day-Labor Day).

Zebra/Quagga Monitoring

- Plankton tows were conducted monthly from June through September. Six samples were taken monthly, three from each reservoir. A total of 24 samples were sent to Cameron Lange in New York for analysis. All samples came back negative for Zebra/Quagga.
- eDNA samples were taken monthly from March through October at five different locations within the project. A total of 40 samples were sent to WDFW's Molecular Genetics Lab for analysis. All samples were negative for Zebra/Quagga.
- Artificial substrates were placed on docks at four different boat launches (Crescent Bar, Huntzinger, PRRA, and Vantage boat launches) and monitored monthly from June through September. No Zebra/Quagga mussels were observed.
- Brief monthly shoreline surveys were conducted at the same locations as the artificial substrates from June through September. No Zebra/Quagga mussels were observed.

Boat-based Aquatic Plant Surveys

- Aquatic vegetation surveys were performed at all project boat launches. Each boat launch contains three predetermined transects with three grab sample points per transect. Plants retrieved at each point are documented and results are in the draft report.
- In 2025, Grant PUD will perform project-wide aquatic vegetation surveys.

Northern Pike Early Detection

- Monthly eDNA samples were taken from five different locations within the project from March through October. Samples were sent to WDFW's Molecular Genetics Lab for analysis. All samples were negative for Northern Pike.
- Crews fishing for Northern Pikeminnow using setlines, beach seining, and angling captured no Northern Pike.
- No Northern Pike were observed during video fish counting or during ladder and unit dewatering's.
- Grant PUD continues to be involved in all local and regional coordination efforts including working with the CTCR's in developing the Northern Pike Rapid Response Plan.

X. Adjourn

With no additional business to discuss, Tracy Hillman adjourned the meeting at 12:00 pm.

XI. Next Meeting

The next meeting of the PRFF will be on 3 April 2024.