



Grant County
PUBLIC UTILITY DISTRICT
Excellence in Service and Leadership

**Priest Rapids Fish Forum
Meeting**

**Wednesday, 6 November 2019
10:00 a.m. – 12:00 p.m.**

MEETING MINUTES

PRFF REPRESENTATIVES

Steve Lewis, USFWS

Ralph Lampman, YN

Pat Wyena, Wanapum

Kirk Truscott, Jason McLellan, CCT

Mike Clement, Chris Mott, Grant PUD

Tracy Hillman, Facilitator

Patrick Verhey, Laura Heironimus, WDFW

Breean Zimmerman, WDOE

Aaron Jackson, Carl Merkle, CTUIR

Keith Hatch, BIA

Tom Skiles, CRITFC/CTUIR

Erin Harris, Grant PUD

ATTENDEES

Donella Miller, YN (Via Phone)

RD Nelle, USFWS (Via Phone)

Patrick Verhey, WDFW

Ralph Lampman, YN (Via Phone)

Tom Skiles, CRITFC (Via Phone)

Steve Lewis, USFWS

Tracy Hillman, Facilitator

Jason McLellan, CCT (Via Phone)

Mike Clement, Grant PUD

Breean Zimmerman, WDOE (Via Phone)

Paul Ander, CFS (Via Phone)

Chris Mott, Grant PUD

Greg Silver, CRITFC (Via Phone)

Action Items:

- Donella Miller will check with UC Davis on their availability to screen juvenile sturgeon for 12N this spring.
- Donella Miller will discuss with UC Davis the potential effects of releasing low numbers of 12N fish into the Priest Rapids Project Area (e.g., the number of 12N fish that will survive to breed, the survival to maturation of 10N fish produced from those matings, and any other results [modeling or otherwise] that would inform management decisions).
- Paul Anders will share the Management Plan for Spontaneous Autopolyploidy in Cultured White Sturgeon in the Lower Columbia and Snake River Impoundments and other related publications with the PRFF.

- Chris Mott said he will coordinate with Jason McLellan on the use of the “new” sturgeon population model to inform future release numbers in the Priest Rapids Project Area.

I. **Welcome and Introductions** - Tracy Hillman welcomed everyone, and participants introduced themselves.

II. **Agenda Review** – Members reviewed and approved the agenda.

III. **Approve September Meeting Notes** – Draft October Meeting Notes were approved.

A. **Action Items from October Meeting:**

1. Mike Clement will provide an electronic version of the table of daily captures of adult lamprey at Priest Rapids Dam. **Complete.**
2. RD Nelle will provide the flier for the third annual Lamprey Information Exchange Workshop. **Complete.**

IV. **White Sturgeon Management Plan**

A. **Update on Juvenile Sturgeon Rearing** – Donella Miller reported that the juvenile sturgeon on station are doing well and growing. They are a bit larger than were juvenile sturgeon at this time last year. She said the average size of juveniles by female are as follows:

- Female 1 = 25.28 fish/pound (17.96 g/fish)
- Female 2 = 17.98 fish/pound (25.25 g/fish)
- Female 3 = 21.90 fish/pound (20.73 g/fish)
- Female 4 = 21.19 fish/pound (21.43 g/fish)
- Female 5 = 30.95 fish/pound (14.67 g/fish)

The overall average is 19.22 fish/pound (23.62 g/fish).

Donella said on 1 November they culled fish down to 1,200 fish per maternal family. The next culling will occur in a couple months.

B. **Autopolyploidy Results** – Tracy Hillman reported that Donella and her staff collected a second batch of blood samples from each of the maternal groups and had those samples examined for autopolyploidy by researchers at UC Davis. Recall that there were some issues with the first samples, so a second sampling event occurred last month. Below are autopolyploidy results from the first and second sampling events.

Maternal Group	Percent Autopolyploid	
	Sample Event 1	Sample Event 2
Female 1	4.2%	2%
Female 2	5.1%	4%
Female 3	0.0%	0%
Female 4	5.3%	4%
Female 5	6.7%	4%

The second sampling event confirms that low levels of autopolyploidy exist within four of the five maternal groups. Only progeny from Female 3 tested negative for autopolyploidy (12N).

Donella Miller indicated, based on the release of 135 juveniles from each family group, roughly 92 autopolyploidy fish would be released into the Priest Rapids Project Area. She

said, given the presence of 12N in wild populations (albeit low occurrence) and the fact that the Kootenay Supplementation Program releases up to about 17% autoploidy sturgeon into the Kootenay River, the Yakama Nation is willing to release a low number of 12N sturgeon into the Priest Rapids Project Area. Other members indicated they were not comfortable releasing any 12N fish into the Priest Rapids Project Area.

Patrick Verhey proposed that after the last culling (i.e., reducing the number of juveniles from each maternal group to just over the number of juveniles to be released), all juveniles within each of the four maternal groups with 12N fish would be PIT tagged, scute marked, and examined for 12N (i.e., blood would be drawn from all fish within the four maternal groups and examined for 12N). No blood would be drawn from the Female 3 maternal group; although, they would all be tagged and marked. Before release, all 12N fish would be removed and only 8N fish would be released into the Project Area. This approach should meet the release target and ensure only 8N fish are released into the Project Area. Shortages in the four maternal groups could be backfilled with juveniles from Female 3 as long as the criteria outlined in the current SOA are followed.

All members present agreed with this approach, because it ensures only 8N fish are released, and should result in the release of up to 3,250 juvenile sturgeon into the Priest Rapids Project Area. Mike Clement indicated that Grant PUD supports this proposal and is willing to pay for the screening of all fish within the four maternal groups. Grant PUD is not comfortable releasing any 12N fish into the Project Area. Donella Miller will check with UC Davis on their availability to screen fish for 12N this spring. She will also discuss with UC Davis the potential effects of releasing low numbers of 12N fish into the Project Area (e.g., the number of 12N fish that will survive to breed, the survival to maturation of 10N fish produced from those matings, and any other results (modeling or otherwise) that would inform management decisions).

Jason McLellan agreed with Mike that only 8N sturgeon should be released into the Project Area. He added that until there is clear evidence that there are no negative effects of releasing 12N fish, he will continue to advocate for the release of only 8N fish. He also noted that if autoploidy occurs naturally, we would observe 10N individuals in the hatchery-produced offspring that we screen. Given that no juvenile hatchery offspring have been identified as 10N fish, the occurrence of autoploidy (12N) in nature has to be very low. Finally, he said it would be advantageous to purchase a Coulter Counter, which would be used to screen samples from the various hatchery programs throughout the Columbia Basin. Because there are several sturgeon hatchery programs within the Columbia Basin, the Counter would be used extensively. This would eliminate the need to send samples to UC Davis.

Tracy asked the Forum what can be done to reduce the incidence of autoploidy. He said this has been an issue the last two years but was not an issue previously. That is, autoploidy has been detected in juveniles only during the last two years; no autoploidy was detected previously as far as we know. Paul Anders said the incidence of 12N this year is low, and it is good to minimize risk by releasing few to no 12N fish. He added there is research on autoploidy including the effects of mechanical shock on the incidence of autoploidy. He said it is a complex, multivariate issue and it appears that some females may be more prone to producing 12N progeny than others. Paul said CRITFC has a report that discusses autoploidy and outlines methods for reducing the incidence of 12N. Paul will share the CRITFC report (A Management Plan for Spontaneous Autoploidy in Cultured White Sturgeon in the Lower Columbia and Snake River Impoundments) and other related publications with the PRFF. Donella Miller indicated that they follow the methods described in the Management Plan.

Tracy reminded the PRFF that the current SOA ends before the collection of broodstock, or larvae, or both occurs in 2020. Therefore, the Forum needs to begin thinking about future release numbers and whether broodstock, larvae, or both will be used in the supplementation program. This means we need to dust-off the population model and update it with project-specific information. Jason McLellan said the Upper Columbia Program recently hired a contractor (LGL) to develop an age-structured model for their program. The "new" model will build upon the existing model and will allow various scenarios to be modeled (or gamed). The model will include variability associated with input parameters and can be used to model the effects of different exploitation rates, slot limits, survival rates, release numbers, sizes at release, etc. Chris Mott said he will coordinate with Jason on the use of the model to inform future release numbers in the Priest Rapids Project Area.

- C. **Juvenile Index Monitoring** – Chris Mott said crews completed juvenile index monitoring on 26 September. A single boat crew sampled within Priest Rapid Reservoir and two boats sampled within Wanapum Reservoir. No results are currently available (they will be available in March 2020), but it appears catches this year were similar to past years. Chris said they will have results available in time to populate the "new" model.
- D. **Other White Sturgeon Items** – None.

V. Pacific Lamprey Management Plan

- A. **Wanapum Archeology Days** – Mike Clement reported that the Wanapum Archeology Days occurred over a two-day period in mid-October. One day was for youth and the other was for adults. He said the Yakama Nation and USFWS provided lamprey displays for the occasion. Mike said both Grant PUD and Wanapum greatly appreciated the displays provided by the Yakama Nation and USFWS, and he noted that Wanapum Archeology Days was a huge success.
- B. **Update on Translocation of Adult Lamprey** – Ralph Lampman provided a brief summary of adult lamprey translocation efforts conducted by the Yakama Nation this year.
 - 100 adult lamprey released into the Wenatchee River in mid-August
 - 100 adult lamprey released into the Klickitat River in mid-August for a passage study
 - 110 released into the Methow River in early September
 - 60 released into the Yakima River upstream from Rosa Dam for a passage study
 - 10 released into the upper Toppenish River

Ralph said they collected 1,044 adult lamprey from the lower Columbia River. Most of these will be released in spring 2020. He added that the fish were PIT tagged (some fish may have shed their tag).

- C. **Juvenile Lamprey Tagging and Survival Studies** – Ralph Lampman indicated that during the PRFF meeting a couple months ago, he suggested the use of hatchery juvenile lamprey in survival studies. The notes from that meeting suggested that other members were not in favor of using hatchery fish in survival studies. Ralph asked for clarification and why hatchery juveniles could not be used in survival studies. Mike Clement indicated that the study fish need to meet the assumptions of the mark-recapture model and that the fish must be representative of the migrating population of juvenile lamprey. Hatchery fish do not appear to meet these assumptions. Ralph suggested that hatchery fish could be used to test various aspects of the survival model. RD Nelle remarked that it was his understanding that Chelan PUD was funding the means (artificial propagation work) to provide sufficient numbers of juvenile lamprey for survival studies. Thus, it appears Chelan PUD is thinking hatchery-produced fish could be used in survival studies. Mike recommended that RD

discuss that with Chelan PUD but noted that those fish would have to be released at a location well upstream from the dam so by the time they approach the dam they would represent the migrant population. Ralph asked when the next salmonid survival studies will occur in the Priest Rapids Project Area. Mike responded that Grant PUD will conduct juvenile Chinook and sockeye survival studies in 2025.

Ralph reported that NOAA will be testing the swimming performance of wild and hatchery juvenile lamprey. He said additional work is needed to test differences between wild and hatchery lamprey.

- D. **Other Pacific Lamprey Items** – The third annual Lamprey Information Exchange Workshop will be held on 12-13 December 2019 at the Water Resources Convention Center in Vancouver, WA.

VI. Bull Trout

- A. **Off-Season Bull Trout Passage** – Mike Clement said Grant PUD is preparing to perform fish counts specifically for bull trout within the operational fishways during the winter of 2019-2020 at Priest Rapids and Wanapum dams. This will exclude fishways dewatered for annual maintenance. One fishway at both Wanapum and Priest Rapids dams is scheduled for maintenance starting early December and could be dewatered until mid-April when traditional fish counting starts again, leaving one fishway at each dam operational and available for winter fish counts. Environmental Affairs is currently working with Grant PUD Human Resource staff on the best approach to bring back the Fish Counter employees to conduct the work, working with the Electronic Technicians to address equipment maintenance and data storage/capacity issues, Hydro Operators on gate maintenance and fishway operations, and Fish and Wildlife staff who will conduct window cleaning maintenance during this time period. Following review of video, a bull trout count summary report will be made available.

VII. Northern Pike

- A. **Northern Pike Suppression in Lake Roosevelt** – Jason McLellan said crews are currently conducting a reservoir-wide M&E survey in coordination with WDFW and the Spokane Tribe of Indians to better understand the distribution of northern pike in the reservoir. He should have preliminary results to share with the Forum during the next meeting.

- VIII. **Next Meeting:** If necessary, the next PRFF meeting will be on Wednesday, 4 December 2019 at the Grant PUD Natural Resources Office in Wenatchee, WA.