



Grant County  
**PUBLIC UTILITY DISTRICT**  
*Excellence in Service and Leadership*

**Priest Rapids Fish Forum  
Meeting**

**Wednesday, 2 August 2017  
9:00 a.m. – 12:00 p.m.  
Grant PUD, 11 Spokane St., Suite 205B, Wenatchee, WA  
Call-In Number: 1-800-977-8002, Bridge: 7422882**

**MEETING MINUTES**

**PRFF REPRESENTATIVES**

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Steve Lewis, USFWS  
Bob Rose, YN  
Doris Squeochs, Wanapum  
Jason McLellan, CCT  
Mike Clement, Grant PUD  
Tracy Hillman, Facilitator

Patrick Verhey, Chad Jackson, WDFW  
Breean Zimmerman, WDOE  
Aaron Jackson, Carl Merkle, CTUIR  
Keith Hatch, BIA  
Chris Mott, Grant PUD  
Erin McIntyre, Grant PUD

**ATTENDEES**

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Ralph Lampman, YN (Via Phone)  
Rod O'Connor, Grant PUD  
Doris Squeochs, Wanapum (Via Phone)  
Kirk Truscott, CCT  
Erin McIntyre, Grant PUD

Steve Lewis, USFWS  
Breean Zimmerman, WDOE (Via Phone)  
Mike Clement, Grant PUD  
Sean Goudy, YN (Via Phone)  
Tracy Hillman, Facilitator

**Action Items:**

1. RD Nelle will look at the movements of adult lamprey released upstream and downstream of a diversion dam on the Yakima River.
2. Bob Rose will email Donella Miller asking her for the number of eggs per ml in the post-fertilization egg samples.
3. Patrick Verhey will coordinate with Tracy Hillman on the possibility of Dave Beauchamp presenting to the Forums on stable isotope analysis for assessing White Sturgeon diets.

4. Tom Skiles will talk with Brian McIlraith regarding linkages or hypotheses that would explain operational project effects, how the operation affects the reservoir, and how the reservoir affects conversion of adult Pacific lamprey to Wells project area and the tributaries.
  5. Mike Clement will provide the PRFF with information on the Columbia River White Sturgeon Workshop, which will be held in Coeur d'Alene, Idaho, on 15 and 16 November.
  6. Mike Clement will provide the PRFF with velocity profiles for fishway entrances at Priest Rapids and Wanapum dams.
  7. Mike Clement will send FERC's comments/responses on the Final Environmental Impact Statement for the Priest Rapids Project to the PRFF.
- I. **Welcome and Introductions** – Tracy Hillman welcomed everyone to the Priest Rapids Fish Forum (PRFF or Forum) meeting. Participants introduced themselves.
  - II. **Agenda Review** – Members reviewed and approved the draft agenda.
  - III. **Approve July Meeting Notes** – July 2017 Draft Meeting Minutes were reviewed and approved during the meeting.
    - A. **Review Action Items from July Meeting (All)**
      1. Rod O'Connor will examine if "campers" or "dawdlers" are more likely to move downstream. To the extent possible, he will also evaluate the effects of fish size on downstream movement. **Complete. Written summary will be in this year's annual report.**
      2. Rod O'Connor will double check the data and calculations in the fallback table on slide 24. **Complete. This will be addressed in this year's annual report.**
      3. RD Nelle will look at the movements of adult lamprey released upstream and downstream of a diversion dam on the Yakima River. **Ongoing.**
      4. Mike Clement will estimate the proportion of acoustic tagged fish released at Desert Aire or Vantage Bridge that moved downstream over the past two years. **Complete.**
      5. Bob Rose will email Donella Miller asking her for the number of eggs per ml in the post-fertilization egg samples. **Ongoing. Ralph will check with Bob on this action item.**
      6. Chad Jackson will send out a descriptive summary of how many and what kind of larvae WDFW is collecting downstream from McNary Dam. **Complete.**
      7. Patrick Verhey will coordinate with Tracy Hillman on the possibility of Dave Beauchamp presenting to the Forums on stable isotope analysis for assessing White Sturgeon diets. **Ongoing.**
      8. Steve Lewis will ask USFWS policy staff for their definition of baseline conditions and provide that answer to the Forums. **Complete.**
      9. The RRFF/PRFF will think about plausible hypotheses regarding linkages between operational project effects (avoidable or unavoidable) and adult lamprey fate in reservoirs. **Complete. Addressed during meeting.**
      10. Tom Skiles will talk with Brian McIlraith regarding linkages or hypotheses that would explain operational project effects, how the operation affects the reservoir, and how the reservoir affects conversion to Wells project area and the tributaries. **Ongoing.**
      11. Forum technical representatives will talk to their policy staff about an NNI negotiation. **Ongoing.**
      12. Patrick Verhey will provide the Forums with a table on potential project effects on lamprey. **Complete. Table focuses on juvenile lamprey.**

#### IV. White Sturgeon Management Plan

- A. **Update on Juvenile Rearing** – Mike Clement said there is no new information on juvenile rearing at Marion Drain.
- B. **Larvae Collection** – Chad Jackson will provide an update during the September meeting. Mike Clement indicated that WDFW is ramping up larvae sampling downstream from McNary Dam. As soon as they collect 100 larvae per night, they will transfer the larvae to Marion Drain.
- C. **Diet Surveys Conducted in June** – Mike Clement reported that Grant PUD is analyzing the diet contents of white sturgeon captured in the Project Area. Chris Mott will provide results in a PowerPoint presentation in September. Mike said diets largely consisted of leeches, clams, snails, juvenile lamprey, and pikeminnow. The most recent sampling occurred mid-June, which is past the peak smolt migration.
- D. **Update on Sturgeon Fishery in the Priest Rapids Project Area** – Chad Jackson will provide an update in September.
- E. **Other White Sturgeon Items** – Mike Clement reported that the Columbia River White Sturgeon Workshop will be held on 15 and 16 November in Coeur d' Alene. The purpose of the workshop is to discuss current and future activities, opportunities, and challenges related to white sturgeon.

#### V. Native Resident Fish Management Plan

**Study Methods and Sampling Dates** – Mike Clement reported they are planning to sample resident fish in the Project Area in September. He said Grant PUD is required to conduct resident fish studies every five years. Surveys are conducted by the WDFW Large Lakes Research Team using electrofishing gear. The objective is to assess changes in resident fish assemblages in the Project Area. Sampling will occur in September with a report generated quickly thereafter to meet Department of Ecology and FERC requirements. Mike asked members to send their questions or comments on the study to Chad Jackson. Mike noted that during the last five years, there have been changes in the legal harvest of bass and walleye. These changes may result in changes in diversity indices.

Steve Lewis asked if the resident fish study will include juvenile lamprey sampling. Mike Clement and Rod O'Conner responded that the electrofishing techniques used to sample resident fish are not set up to sample juvenile lamprey. Sampling juvenile lamprey within the fluctuation zone of the reservoir falls under a different objective, which is included in the Pacific Lamprey Management Plan, not the Native Resident Fish Management Plan.

#### VI. Pacific Lamprey Management Plan

- A. **Review of Pacific Lamprey Management Plan and Definition of Baseline Condition** – Tracy Hillman walked the Forum through the Pacific Lamprey Management Plan and reviewed each objective and accomplishments. Members present noted that the Forum is still developing criteria for Objective 4.2.2. Regarding Objective 4.2.6, Ralph Lampman indicated that entrance efficiency does not appear to be close to 100% as suggested by Grant PUD. Indeed, the radio-telemetry report indicates entrance efficiencies range from 53% to 100% (from Table 10 in the 2001 and 2002 radio telemetry report). These studies were conducted in 2001 and 2002. Mike Clement said that five years ago the PRFF agreed that entrance efficiency was a non-issue, primarily because of the hourglass design that creates very low velocities near the floor of the fishway entrances. Mike said he will share the velocity profiles with the PRFF. Kirk Truscott indicated that it would be useful to repeat the entrance efficiency studies. Mike said there is no requirement in the management plan to do entrance efficiency studies. He added that the 2001 and 2002 results may be biased

low because of the types of radio tags used and the burden associated with tagging adult lamprey with radio tags. Mike said the study would have been better if they had used PIT or acoustic tags.

Mike Clement indicated that before fishway improvements, it took 1.8 days for adult lamprey to pass through the fishways. Following improvements, adult lamprey pass through the fishways in less than a day. Mike indicated that they have video showing the passage of adult lamprey through the fishways. Ralph Lampman complemented the PUD on their within-fishway passage improvements, but questioned the entrance efficiency. He suggested that it is time to reevaluate entrance efficiencies. Kirk Truscott suggested that project operations may affect how effectively adult lamprey find the entrances to the fishways. Mike said that most of the spill is over by the time adult lamprey reach the Project Area. He added that salmonids pass during May and June, and adult lamprey pass at night.

Regarding Objective 3, Mike Clement asked if there is any information on the juvenile passage studies conducted by the Umatillas. Ralph Lampman said tagged macrophthalmia were released in the John Day River and recaptured at a screw trap. So far, 99 of 100 tagged fish have been detected.

Tracy Hillman noted that there is no definition of NNI under Objective 1 or anywhere within the Management Plan. Given there is no definition of NNI, it will be difficult to estimate NNI or unavoidable effects from project operations. Mike Clement noted that the Management Plan under Objective 1 states, "Grant PUD will evaluate any reasonable and feasible improvements to the upstream fishways at Priest Rapids and Wanapum dams which are identified through passage evaluations throughout the Columbia Basin." Thus, NNI may be defined as the best adult passage efficiency achieved in the region. Tracy said it may be necessary to ask the Policy Group to provide a definition for NNI.

- B. Identification of Testable Hypotheses Addressing Lamprey Fate in Reservoirs** – Steve Lewis sent out FERC's definition of baseline condition. In short, baseline includes existing project conditions and therefore the presence of the reservoir is part of baseline condition. Thus, the Forum needs to link the fate of adult lamprey within the reservoir to project operations, not to the presence of the reservoir. Mike Clement said that Grant PUD is required to mitigate for negative effects associated with project operations and the PUD is not opposed to doing studies if they are linked to project operations. He said project operations affect reservoir levels, which can fluctuate about 11.6 vertical feet in 38 miles of Wanapum reservoir and 6.8 vertical feet in 18 miles of Priest Rapids reservoir. Tracy said that given that the first step in adaptive management is to develop initial hypotheses regarding ongoing project effects and potential remedial measures (see Grant PUD 401 Certification, Section 6.1, General Condition #21), the Forum needs to identify testable hypotheses.

Steve Lewis offered sturgeon predation on adult lamprey as a testable hypothesis. Mike asked how sturgeon predation is linked to project operations. Steve indicated that the stocking of sturgeon in the Project Area is a requirement of the license and therefore it is included as part of the project effect. Mike disagreed but was open to further discussion. It was noted that the current diet studies have found no adult lamprey within sampled sturgeon, only juvenile lamprey.

Kirk Truscott suggested that changes in operations associated with salmonid passage may affect flow patterns and velocities, which may affect adult lamprey passage at the dams. Rod O'Connor said he would have to revisit the data to see if overall counts were affected by changes in operations. Mike said the 2014 annual report would show the time series of counts at the dams. Kirk said this only applies to adult lamprey entrance efficiency and

within-fishway passage efficiency. It does not address operation effects on adult lamprey within the reservoirs. He added that any potential studies would have to be conducted without putting "permit-covered" species at risk.

Kirk Truscott suggested there may be lamprey spawning areas within the reservoirs that are affected by project operations either through dewatering (shallow redds within the fluctuation zone) or sedimentation (deeper redds that are affected by water velocities and sediment deposition). Mike Clement noted that most of the suitable spawning habitat is just downstream from Rock Island Dam or just below Wanapum Dam. Kirk asked if project operations affect lamprey passage into small tributaries. Mike indicated that juvenile lamprey studies (Objective 4 in the Management Plan) found no juveniles at the mouths of any Project tributaries. He added that there are only eight perennial tributaries. Ralph Lampman commented that Pacific lamprey can spawn in small perennial tributaries but generally prefer to spawn in larger rivers.

Given that several members were missing, members present agreed to continue this discussion during the September meeting.

**Update on Adult Lamprey Monitoring** – Mike Clement reported that Grant PUD has been trapping adult lamprey at Priest Rapids Dam in support of Chelan PUD's tagging study. Trapping started on 25 July with the capture of ten adult lamprey. The next two days of trapping resulted in the capture of 151 adults. One trap captured 88 adult lamprey. Four days of trapping has resulted in the capture of about 500 lamprey. Mike said he notified both Chelan PUD and Douglas PUD that Grant PUD is capturing large numbers of adult lamprey that can be used to support passage studies or translocation efforts. He said Chelan PUD responded and asked for an additional 100 fish for their study. Thus, the sample size for the Rocky Reach passage study increased from 200 fish to 300 fish. Blue Leaf Environmental is PIT tagging and releasing Chelan's fish at Kirby Billingsley Hydro Park, which is located upstream from Rock Island Dam. Kirk Truscott said he will check with his staff to see if they can relocate some of the adult lamprey upstream from Wells Dam and into the Similkameen River. Ralph Lampman indicated that they (Yakama Nation) collected adult lamprey at Bonneville, John Day, and The Dalles dams. They will be releasing some of these fish upstream from Wells Dam. He said they can coordinate with the Colville Tribes on transporting fish to locations upstream from Wells Dam.

- C. **Other Pacific Lamprey Items** – Mike Clement reported that the Warms Springs Tribe started PIT tagging adult lamprey at Bonneville Dam.

VII. **Next Meeting:** 6 September 2017 – Grant PUD Natural Resources Wenatchee Office