



**Priest Rapids Coordinating Committee
Final Meeting Minutes
Douglas PUD Video Conference Room
and
WebEx**

Tuesday, October 25, 2022, 9 AM

PRCC Representatives

Scott Carlon, Justin Yeager (Alt), NMFS	Jim Craig, USFWS
Keely Murdoch, Brandon Rogers (Alt), YN	Kirk Truscott, Casey Baldwin (alt), CCT
Chad Jackson, A. Murdoch (Alt) WDFW	Tom Skiles, CTUIR
Curt Dotson, Tom Dresser (Alt), GPUD	

PRCC Meeting Attendees

Curt Dotson, GPUD	Keely Murdoch, YN
Scott Carlon, NMFS (Via Zoom)	Jim Craig, USFWS
Chad Jackson, WDFW (Via Zoom)	Tim Taylor, GPUD (Via Zoom)
Tom Skiles, CTUIR (Via Zoom)	Erin Harris, GPUD
Kirk Truscott, CCT	Tom Dresser, GPUD (Via Zoom)
Bryan Nordlund, FPE (Facilitator)	Rod O'Connor (GPUD via Zoom)

Decisions, Actions and Approvals Made During October 25, 2022, Meeting

1. **APPROVAL:** Keely Murdoch's edits to the PRCC meeting operation protocols were approved by all committee members.
2. **ACTION:** C. Dotson will work with Mike Clement (Grant PUD) to schedule a visit for T. Skiles to observe the fish ladders when dewatered for annual maintenance.
3. **ACTION:** C. Dotson to send DRAFT SOA-2022-03, Revised Fish Mode at Wanapum Dam, to be distributed electronically.
4. **ACTION:** T. Dresser will provide a DRAFT SOA for Survival Standards Achieved prior to the November PRCC meeting and will request a vote at that time.

Meeting Minutes

I. Welcome, Announcements and Introductions

- II. **Agenda Review** – Two additional agenda items were brought to the meeting. The 2023 HCP/PRCC joint meeting schedule by B. Nordlund. And Grant PUD's new SOA NNI Funds Contributions by T. Dresser

III. Meeting Minutes Status –

- A. September 27, 2022, PRCC meeting minutes were distributed by Bryan Nordlund by email on October 10, with comments due November 10.

IV. Status of Actions Items and Approvals from September 27, 2022, Meeting

- A. **APPROVALS:** July and August 2022 Meeting Minutes were approved as final.
- B. **ACTION:** Survival Study Talking Points: C. Dotson will continue to update the survival study talking points for PRCC review and comment. PRCC members should pass any comments, questions, or suggestions to C. Dotson.

C. Dotson shared he updated the draft study plan; no further changes have been made at this time. This will be reviewed at the November PRCC meeting. **-Ongoing**

- C. **ACTION:** Fish Counts 2022: C. Dotson has been asked by the PRCC to follow up with Dave Duvall, Grant PUD staff, on adult steelhead counts as there is approximately a 2400 fish difference between PR and RI Dams. **-Ongoing**

- D. **ACTION:** PRCC Operations Protocol (working document): B. Nordlund will add the Excel spreadsheet as an attachment to the PRCC Operations Protocols Word document - **Completed**

- E. **ACTION:** Fish Survival Studies: C. Dotson will draft an example document (i.e., draft study proposal) describing how Grant PUD could conduct a fish survival study. - **Ongoing**

V. 2021 Fish Passage Operations Report –

- A. **Update on investigations for fish count discrepancy:** Grant PUD staff T. Dresser reported that daily records are continuing to be kept at both Dams. These records capture information on the numbers of times picketed leads are opened, amount they are opened and if individuals see any fish passing during the cycling. Information will be collected through November 15, 2022.

T. Dresser reported that that QA/QC was discontinued to allow the independent contractor to support fish counting. The reason for this is that Grant PUD is currently

down to four fish counters as result of retirements, individuals leaving, and some individuals that can only work weekends. Grant PUD is also having difficulties hiring additional counters. Currently, the contractor is focusing primarily on getting Priest Rapids fish counts up to date, while Grant PUD counters are focusing on Wanapum Dam fish counts.

Currently, there are substantial delays in getting fish counts to Grant PUD external website and the Fish Passage Center. The contractor has been tasked with working backwards from current daily counts. Currently counts are complete to October 11, 2022. There have been delays in this process due to the contractor needing to hire and train staff on a short notice and because several steps of the process are still not automated. It will likely be after the fish count season is over when counts will be complete for 2022. Grant PUD will need to work with the Fish Passage Center to update their site.

Looking ahead to 2023, T. Dresser reported that there is much work needed to be completed. This includes hardware, software, and platform, upgrades, as well as determining the best approach to secure fish counters for 2023. Options under consideration include, (1) using a contractor for all, (2) Grant PUD staff for all, or (3) a blend of both.

T. Dresser reported that Grant PUD has a meeting with WDFW to review a model they developed to correct adult steelhead counts for the Priest Rapids Project. There is some hope that maybe it could be used/adjusted to correct adult sockeye counts and/or other species as necessary.

K. Truscott shared his appreciation to Grant PUD for working to correct the fish counts at the Priest Rapids Project. He also noted that count discrepancies between Priest Rapids Dam and Rock Island for adult steelhead were off by approximately 2,400 and asked why that could be. T. Dresser explained that a limited amount is due to overwintering in the Project reservoirs, as can be seen by counts early in the season, but this may not explain a difference of 2,400 fish. T. Dresser also mentioned that it was likely due to misidentification of fish by the fish counters. K. Truscott also asked about potentially missing adult steelhead when the picketed leads are opened for cleaning. T. Dresser mentioned that there has only been a few times in which the operators reported fish in the area when leads were opened, but no fish had been reported passing.

B. Nordlund asked what percentage of steelhead in the Upper Columbia River are PIT tagged. C. Jackson shared the PIT tag percentage is 10-20%.

- B. ***Fish ladder Inspections:*** T. Skiles reported he previously conducted a fish ladder inspection by reviewing screen shots and said everything looked good. He plans to be a Priest Rapids and Wanapum tomorrow, October 26, 2022. C. Dotson shared at the end of November one ladder will be dewatered for winterizing. T. Skiles asked C. Dotson if he and his staff could attend the

November dewatering process, C. Dotson will work with Mike Clement, Grant PUD staff to schedule this. – Ongoing

C. **Fish spill updates:** Spill season is complete for juvenile passage. – C. Dotson updated the committee members on the fish spill timeline.

D. **Fish counts for 2022 (April 15 – October 14)**

Project	Spring Chinook (final)	Summer Chinook (final)	Sockeye	Fall Chinook	Steelhead	Coho
Priest Rapids	21091	61927	654390	25182	4401	14639
Wanapum	21165	59778	724533	13469	3777	5366
Rock Island	22487	64497	659924	8057	6945	12264

Priest Rapids and Wanapum counts may be incomplete.

Fish Count Updates provided by T. Dresser from email 10/26/2022:

“Positive progress is being made on getting fish count data reviewed and posted. Here’s where we currently stand. I have also included the links to GPUD’s external website. We will likely need to work with FPC to manually back-fill data for Wanapum and maybe PR at some point.

(1) Priest Rapids Dam (FishCount-PR-2022.xls (live.com))

- (a) Count data is posted up to Oct 11.
- (b) Count data from Oct 19 is posted.
- (c) Counting of data is in process for Oct 12-18 and Oct 19-25.
- (d) We are likely looking at a 4-day lag once we get caught up.

(1) Wanapum Dam (FishCount-WAN-2022.xls (live.com))

- (a) Data missing and non-recoverable for Oct 5, 12, 13 & 14 (based on what I am being told).
- (b) Count data completed and posted from Oct 15-21.”

VI. Discussion on revised Fish Mode at Wanapum Dam. C. Dotson reviewed both the history of developing the original Fish Mode turbine operations, and Grant PUD’s request to revise Fish Mode as presented at last month’s PRCC meeting. Fish Mode was re-considered in 2005 when a new advanced turbine installation was complete. Grant PUD was mostly interested in expanding fish mode in the upper flow range and there was little thought of revising the lower flow range. This interest was to increase hydraulic capacity through the new Wanapum turbines to increase energy production. Based on the required biological testing, it was apparent that the upper range of fish mode (15.7 kcfs) should remain the same as was developed in 1996, since smolt passage survival through the new turbines (at the higher flow range) was very similar to that seen in the old turbines.

C. Dotson reported that during the testing of the Advance Hydro Turbine System (AHTS) the smolt survival design goal for turbine passage agreed to by the PRCC

was 95%. In review of the best available data, the lower range (9.5 -11.8 kcfs) of the AHTS also achieves a 95% survival rate (see Figure 1). Curt reported that expanding the lower range in 2005 was not a priority by Grant PUD, because it would not increase energy production at Wanapum, so was not even given a second thought.

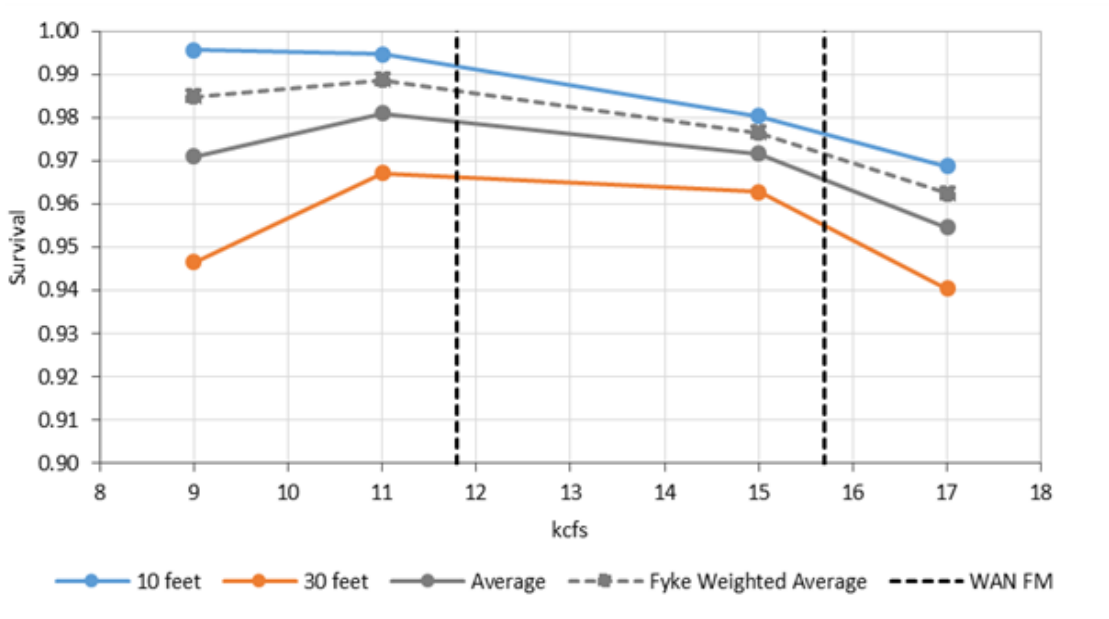


Figure 1. (from handout) Wanapum (new) unit discharge at 9, 11, 15 and 17 kcfs and fish survival results from 2005.

Grant’s interest in expanding fish mode to include the lower flow range between 9.5 - 11.8 kcfs is to reduce the overall number of starts/stops of turbine units that take place, particularly during times of low river flows and restrictions on the water output from PRD due to Hanford Reach requirements, which is known to increase wear and tear on the AHTS. Utilizing this lower range does not provide any additional hydraulic capacity, as it only shifts loads from turbine units that are used on the margin (see Figure 2). For example, with the new Fish Mode operation, Figure 2 shows how the load that is allocated to turbine units 2-5 could be shifted to turbine units 6-10. This would reduce turbine unit starts/stops, as well as decrease smolt exposure to unfavorable turbine hydraulics in the lower flow range between 0-9.5 kcfs.

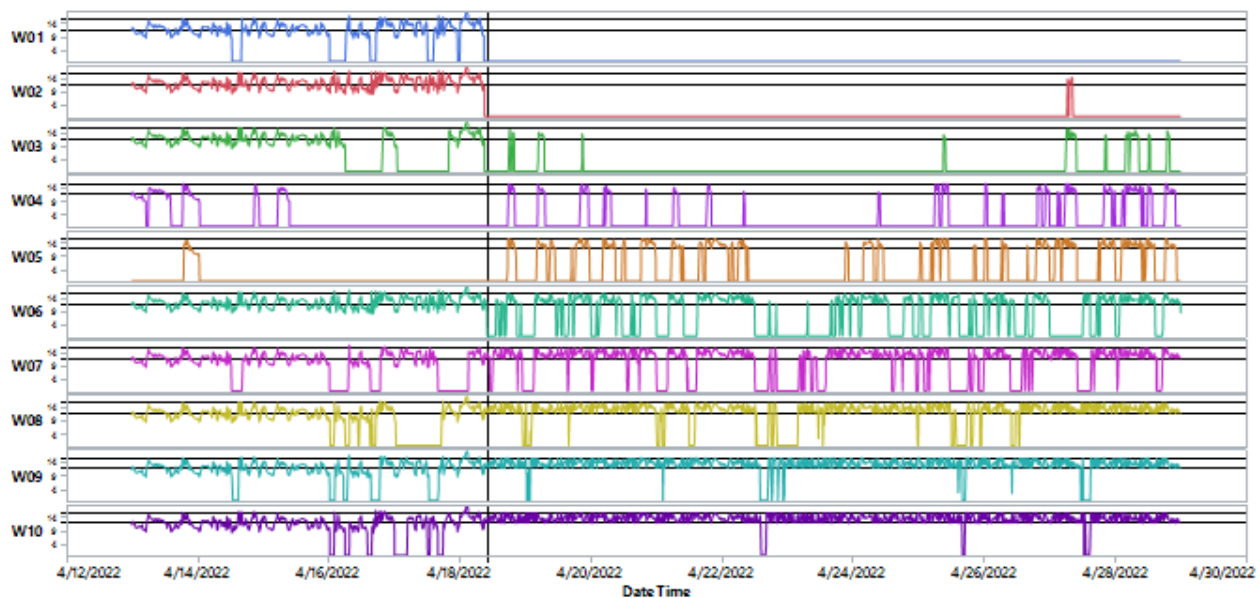


Figure 2. Unit dispatch at Wanapum to match load before and after Fish Mode began on April 19, 2022. Up to nine units are rapidly dispatched to meet load and operate within the Fish Mode band (11.8-15.7 kcfs).

T. Skiles asked a question regarding the distribution and depth weighting of fish entering a turbine in the 1996 turbine survival evaluation. C. Dotson reported fyke net data from 1988 indicated that 87% of the fish entered a turbine unit in the upper 18 feet of the water column. The 1988 fyke net data was used in both the 1996 and 2005 turbine survival evaluations and resulted in the 10-foot deep release groups being weighted higher than the 30-foot deep release groups.

T. Skiles inquired on how the fish depth data were weighted in the current Fish Mode proposal. He also asked about how the fyke net test was conducted. C. Dotson shared the fyke net test used a series of 9-foot tall nets installed the entire width and height of the turbine intake. The nets were placed within the gatewell slot. The collected data allows identification of the elevation where fish enter the turbine. As mentioned, it was found that 87% of the fish sampled were in the upper top 18-feet of the net array, and therefore the 10-foot deep release represented the higher percent of the population than the 30-foot release.

K. Truscott asked what amount of fish were in the top 10 feet. Curt didn't have that information. T. Skiles commented that it sounded like the fyke nets were very close to the penstocks and may not represent the depth of the fish experiencing the turbines. T. Skiles also asked when seasonally the fyke-nets were deployed and if the collected data represented the run at large, therefore providing a good estimate of species composition. C. Dotson stated that the result of the AHTS survival tests at Wanapum showed smolt survival above 95% for both release depths for the flow range of 9.5 – 11.8 kcfs, and as such achieved the standard agreed to by the PRCC. T. Skiles asked for the fyke net study report and C. Dotson stated that he would try to provide those.

T. Dresser stressed that all previous studies and evaluations had been reviewed and approved by the previous members of the PRCC and that Grant PUD had no interest in debating the previous work approved by this committee and ultimately reviewed and approved by FERC. T. Dresser also stated that if folks were interested, he could share the License Amendment Request that was proved to FERC, as well as the order issued by FERC to proceed with the installation of the remaining AHTS at Wanapum.

R. O'Conner pointed out that the slide that shows depth distribution of smolts as they approach the dam (slide #10?) indicates that the bulk of the fish are near the surface. They are likely seeking a surface passage route, and what we saw in previous survival studies is that the majority of the fish use the top-spill. Looking at the depth distribution, it's likely that most of the fish that end up sounding to reach the turbines would enter near the top of the intake.

K. Murdoch indicated that the data provided appears to indicate that 95% turbine survival will still be met. However, she is concerned that future project survival studies will test a shift in Fish Mode turbine operations, if the revised Fish Mode is implemented. She clarified that previous survival studies were conducted with normal operations including the current Fish Mode and we would now be looking at different operations not comparable to the earlier survival studies. As such, Keely stated the new survival result could not be averaged in with the old results. A key question for future discussion would be how we could compare or use previous evaluations with new survival test results, to evaluate whether survival standards are being achieved.

PRCC members had a question regarding current turbine operation requirements. In response, T. Dresser provided the following 2008 Biological Opinion Language:

1.8. Turbine Operations, Wanapum Dam (adapted from Action 9, NMFS 2004).

"FERC shall require Grant PUD to operate the Wanapum turbines in "fish mode" for 95 percent of the juvenile spring migration, as determined by in-season monitoring and index counts at Chelan County PUD's Rock Island Dam. Monitoring shall begin on or before April 1 each year, and "fish mode" operation must commence before more than 2.5 percent of the spring migrants have passed and can conclude when 97.5 percent of the spring migration is complete, or on June 15, whichever occurs first. Any changes to turbine operations shall require approval from NMFS and consultation with the PRCC. FERC shall require Grant PUD to evaluate powerhouse passage with the new advanced turbines in place. A preliminary schedule describing the timing and nature of future studies shall be completed for approval by the PRCC within 1 year after licensing issuance."

After asking if discussion on this was complete for today's meeting, B. Nordlund called for a vote on the proposed revision to Fish Mode. All members approved except for T. Skiles, who asked for more time to consider his decision. K. Murdoch also suggested that an SOA be developed to lay out the process.

T. Skiles followed up with additional questions regarding approach information and if we have technology to evaluate multiple species and if there is an interest in pursuing that? T. Dresser shared that the previous PRCC went through a very extensive process to design and conduct previous evaluations and the PRCC and Grant PUD had very specific testing requirements and achieved a 95% survival rate. T. Dresser also stated that prior evaluations were more focused on survival and less on behavior. Behavior

evaluations were generally only conducted when detailed information was necessary to determine best location for the new bypass systems. T. Dresser also indicated that to get detailed information on which fish passed a specific route would require an extensive array system, which would at least double the cost of evaluations. C. Dotson also discussed that the test fish releases would be limited and not likely to provide meaningful data on a route specific basis, because most fish pass via the bypass systems and not through the powerhouse.

T. Skiles questioned the validity of the turbine survival data and commented that this was not real passage survival data. T. Dresser challenged his assertion, stating that this was real data and that the 2005 design followed the same methodology used in 1996. The intent of these studies was to compare turbine passage survival between the original units and the AHTS. He added that these studies were reviewed and approved by the PRCC and ultimately accepted by FERC.

Bryan Nordlund proposed taking another month and vote in November.

ACTION: C. Dotson to send DRAFT SOA-2022-03, Revised Fish Mode at Wanapum Dam, to be distributed electronically.

VII. Continuing preliminary discussion - Survival study talking points.

Curt will distribute his updates to the working document based on previous survival study experience and the PRCC will discuss:

- timing, species, life stage(s)
- future workshops needed?
- tag type
- standard to measure (combine projects? combine adult + juvenile?)
- accuracy/precision of data analysis
- fish source
- release points
- assessing tag and tagger effects detection points
- dealing with adverse river flow conditions
- plant operations
- achieving standard or not – path forward
- factoring in avian predation
- others, per PRCC discussion?
- New - Preliminary Draft Survival study plan – status?

Discussion deferred until the November PRCC meeting.

VIII. Continued discussion – Path forward from check-in survival study results –

Discussion deferred until the November PRCC meeting.

IX. Revived discussion – PRCC definition of survival standards – Discussion deferred until the November PRCC meeting.

UPDATES

X. Review of Outstanding NNI Funded Projects

- A. Lower Wenatchee Instream Flow Enhancement Project Phase II. (No updates)
- B. Avian Predation on ESA-listed Juvenile Salmonids on the Mid-Columbia River, 2022. (Presentation forthcoming?)
- C. Northern Pike Removal (2022-2024). (Presentation forthcoming?)

XI. Sub-Committee Updates

Bryan Nordlund has forwarded the latest subcommittee distributions he has received to date via email.

- A. Priest Rapids Fish Forum – no meeting this month
- B. Habitat Subcommittee – Canadian project tour.
- C. Fall Chinook Work Group – no update.
- D. Hatchery Subcommittee – Meetings scheduled for October 19 with a conference call on 10-17, and November 16.

XII. SOA discussed in 2022

SOA number	Key words	Last Discussed	Status
2021-06	Facilitator selection	January 25, 2022	closed

XIII. (ADDITIONAL AGENDA ITEM) The 2023 HCP/PRCC Joint Meeting Schedule: Committee members reviewed the HCP/PRCC joint meeting schedule and agreed on the following 2023 schedule.

Coordinating Committee Meeting schedule for 2023				
Date	PRCC meeting location	HCP meeting location	PRCC meeting time	HCP meeting time
January 2023	Virtual	Virtual	AM	PM
February 2023	Virtual	Virtual	AM	PM
March 2023	DPUD Auditorium	DPUD Auditorium	AM	PM
April 2023	DPUD Auditorium	DPUD Auditorium	AM	PM
May 2023	DPUD Auditorium	DPUD Auditorium	AM	PM
June 2023	DPUD Auditorium	DPUD Auditorium	AM	PM
July 2023	Wanapum HOB	Wanapum HOB	PM	AM
August 2023	Wanapum HOB	Wanapum HOB	PM	AM
September 2023	Wanapum HOB	Wanapum HOB	PM	AM
October 2023	Wanapum HOB	Wanapum HOB	PM	AM
November 2023	Virtual	Virtual	PM	AM
December 2023	Virtual	Virtual	PM	AM

XIV. (ADDITIONAL AGENDA ITEM) PRCC MEETING OPERATIONS PROTOCOLS:

K. Murdoch made the following edits (see highlight) to the PRCC meeting operations protocols document and committee members approved her edits:

Statement of Agreement

Statement of Agreement (SOA) development – SOA’s can be submitted for the purpose of memorializing decisions made during the implementation of the Salmon and Steelhead Settlement Agreement at a PRCC meeting. After discussion and potentially modification, 10 business days shall be allowed for voting on a SOA after the final draft of the SOA has been presented. As the need arises, voting on a particular SOA can be expedited by either by voting at the PRCC meeting where the SOA is presented, or by email vote after the meeting ends. Similarly, voting on a particular SOA can be delayed if Members need time for internal deliberation. If members are absent when the vote is taken, the Facilitator will contact each absent Member for their vote as soon as possible. Any Member can request a one-time time delay of up to five business days to submit their vote.

XV. (ADDITIONAL AGENDA ITEM) New SOA NNI Funds Contributions:

T. Dresser informed the PRCC that Grant PUD intends to continue contributions into the NNI Fund for sub-yearling Chinook until juvenile survival studies are conducted and juvenile standards achieved.

T. Dresser further added that he believes that a SOA needs to be developed and approved by the PRCC that illustrates that NNI funds contributions for yearling Chinook, sockeye and steelhead have been terminated per Section XV of the Settlement Agreement. Although Grant PUD has reported this to FERC on an annual basis per its Progress and Implementation Report, T. Dresser believes it is necessary to fully complete Grant PUDs administrative record per license Article 401(b).

ACTION: T. Dresser will provide a DRAFT SOA for Survival Standards Achieved prior to the November PRCC meeting and will request a vote at that time.

XVI. Next Meetings

The next PRCC meetings are scheduled for November 15 at 1 PM (virtual) and December 16 at 1 PM (virtual).