



Priest Rapids Coordinating Committee Meeting

In person at Wanapum Dam, HOB Room 107 and Webex
Tuesday, October 24, 2023
2:00 p.m. to 3:45 p.m.

Meeting Minutes

PRCC Representatives and Alternatives

Curt Dotson, Tom Dresser (Alt), GPUD
 Kirk Truscott, Casey Baldwin (Alt), CTCR
 Tom Lorz, CTUIR
 Scott Carlon, Justin Yeager (Alt), NMFS

Bill Gale, USFWS
 Chad Jackson, Andrew Murdoch (Alt) WDFW
 Keely Murdoch, Brandon Rogers (Alt), YN

Meeting Attendees

Larissa Rohrbach, Anchor QEA
 Bryan Nordlund, Facilitator (Online)
 Tom Lorz, CRITFC (Online)
 Kirk Truscott, CTCR (Online)
 Curt Dotson, GPUD
 Rod O'Connor GPUD
 Scott Carlon, NMFS (Online)

Tim Taylor, GPUD
 Bill Gale, USFWS
 Nathan Buck, Wanapum (Online)
 Chad Jackson, WDFW
 Andrew Murdoch, WDFW (Online)
 Keely Murdoch, YN

Action Items

- PRCC members will review the 2016 sub-yearling workshop agenda and materials, and recommend topics or speakers for the 2024 workshop.
- C. Dotson will share information on change in number of tern nests in Columbia Plateau.

Review Items

- The most recent version of Grant PUD's Draft 2025-2027 Smolt Survival Study Plan (V7a) was distributed following the meeting, on November 14, 2023.
- *2023 Fish Mode Operations Report*, fulfilling a condition of PRCC SOA 2022-03, sent on November 14, 2023.

Decisions and Approvals

- None

I. Welcome, Announcements and Agenda Review

- No changes to the agenda were requested, and the PRCC approved the agenda.

II. Meeting Minutes Status

- The September 26 PRCC meeting minutes were distributed by email on October 6, with revisions due by October 16. No revisions were made, and they were approved in the meeting by Representatives in attendance. Bill Gale did not attend the meeting and so he abstained.

III. Action Items Review

- *C. Dotson will issue the handling and holding protocols to Grant PUD's Draft 2025-2027 Smolt Survival Study Plan (Appendix B of the plan) for review by the PRCC.*

The version of the Survival Study Plan (V7) sent on October 20 included the handling and holding protocols. The associated draft SOA 2023-02 was also distributed in that same email for review.

- *T. Lorz will compile and provide feedback from CRITFC on Grant PUD's Draft 2025-2027 Smolt Survival Study Plan, focused on lessons learned from the Snake River and Lower Columbia River studies.*

T. Lorz said all anticipated feedback has been provided.

- *L. Rohrbach will distribute materials from past subyearling Chinook salmon workshops to the PRCC.*

These materials were forwarded on October 6, 2023.

IV. Survival Study Plan: Goal to Approve in November

B. Nordlund asked if the PRCC members had reviewed the materials provided on October 20, and whether representatives would be able to work toward approval in the November 28 meeting.

C. Dotson said the only change to the tagging and handling protocols would be related to the smaller surgical incision for smaller-size tags compared to the last survival study.

K. Truscott shared new comments.

K. Truscott asked why tags are being implanted surgically even though they are an injectable tag. Dotson said it has become common practice to reduce tissue damage caused by the size of needle necessary for injection.

K. Truscott said the introduction of the document mentions the 2014 survival study, but he asked for clarity whether that was done as an emergency response due to the

Wanapum Dam (WAN) fracture. C. Dotson said yearling Chinook salmon and steelhead were studied in 2014 in accordance with an SOA. K. Truscott said he thought the PRCC agreed not to include the results of that survival study as a check-in, nor for inclusion in the multi-year averages. C. Dotson said the steelhead survival study was done in 2015, 2016, and 2017. C. Dotson followed up via email on October 31 to explain that he reviewed the administrative records, and found that PRCC SOA 2017-05 was presented to the PRCC to approve acceptance of the 2014 study results as a “valid study,” representative of smolt passage through the Priest Rapids P project; SOA 2017-05 did not receive a consensus approval vote from the committee.

K. Truscott said in the objectives for task 1, it is clear that this test will not provide a per-development survival estimate, and to reiterate this point, if survival does not meet standards, it will not be known where the target was missed. C. Dotson said that is a correct interpretation of the objectives. There will be a virtual release in the WAN tailrace, which will provide less precision than an actual release, however three release points will provide better precision. The next detection point for the virtual release is at Beverly Bridge, approximately 2 km below WAN. If survival falls short of standards, and Grant PUD has to redo the survival study in 2026, additional release points are likely to be needed. Truscott said he acknowledges that this plan is allowable under the Settlement Agreement and two or three fish release points is Grant PUD’s choice.

K. Truscott said at the Beverly Bridge detection point it will not be known whether fish detected are alive or dead. C. Dotson agreed that mortality that takes place at WAN would be assigned to Priest Rapids Dam (PRD) reservoir due to false-positive detection of a dead fish at the Beverly Bridge detection array, as part of the virtual release to assess the PRD development. K. Truscott said that might cause us to attribute the mortality to the wrong location and that he would not have a lot of confidence in those detections. C. Dotson said there will be another detection point at Desert Aire which may provide additional resolution. K. Truscott said having the best data available would allow for the most expedited assessment of where that mortality occurs rather than spending another 3 to 4 years of study. C. Dotson said each fish as it goes past each detection point includes a time stamp allows you to narrow in on mortality location.

K. Murdoch asked if it would be much more costly to implement a dead (tagged) fish release in the WAN tailrace to refine estimates. Dotson said Grant PUD staff have had a conversation with Ryan Harnish (PNNL), author of the Virtual Release with Dead Fish Correction (ViRDcT) model study. Grant PUD’s project and Settlement Agreement has 2 reservoirs and 2 concrete structures, which presented some additional complexity for using the ViRDcT model. K. Murdoch said she was only suggesting releasing dead fish just as a verification of assumptions that all fish detected downstream at Beverly Bridge are alive; she said she is not familiar with the statistical approaches for incorporating the validation of this assumption. C. Dotson said that was done in the past, similar to the R. Buchanan (Columbia Basin Research) article, and Grant PUD found that the two detection points downstream of the PRD tailrace are so far downstream it avoids these false positives of a dead smolt T. Lorz said K. Murdoch’s idea would move toward a single release model with a dead fish release. R. O’Connor said what would be gained by implementing a dead fish release at WAN would be a similar approximation of the ViRDcT model as it has been applied at the federal dams. Live fish will be released in the reservoir, with a virtual release at WAN combined with a dead fish release at WAN.

One of the concerns is that the ViRDICt model does not address handling effects and the paired release does do that; releases at two different sites allows for handling effects to cancel out. Whether fish releases in the forebay versus the tailrace experience different handling or release effects has always been in question. A way to use the ViRDICt approach more simply would be to release fish far enough upstream in the reservoir to avoid differences in handling/release effects. Dotson said that Grant PUD did discuss methods with Harnish, although the paired release is the better approach for understanding handling effects. T. Lorz said Grant PUD could send existing datasets to R. Harnish without the tailrace releases to run in his model and determine whether he arrives at a similar answer as the previous survival estimates. C. Dotson said their conversation with R. Harnish is ongoing, but Grant PUD is still favoring the paired release, because that's what has been done in the past. S. Carlon said a dead fish release in the WAN tailrace would inform how far dead fish would drift downstream. K. Murdoch said there would be a probability obtained of downstream detection of a dead fish, but how that becomes worked into the statistics is uncertain.

T. Lorz asked if Grant PUD has reviewed survival data from past survival studies and from avian predation studies to determine if they were similar. C. Dotson said they have not used the avian mortality data to incorporate it into estimates of Project survival.

K. Truscott said there are two ways to carry out the study being discussed; one provides more information than the other on where the mortality occurs if the survival standards are not met. B. Nordlund said if survival standards are not achieved, it a risk Grant PUD is accepting that they would have to repeat the study.

K. Truscott said a dead fish release in the tail races could be used to confirm whether or not the Beverly Bridge detection site is a legitimate virtual release site, to confirm whether there is risk of incorporating tags from dead fish into the denominator. It's probably not far enough downstream of WAN for use as a potential virtual release site.

K. Truscott continued with his comments.

K. Truscott said the tag burden limits are stated differently in different places in the document; he asked for confirmation whether the threshold is "3% or less" or "less than 3%", and suggested revising to "3% or less". Gale suggested using the criteria that are cited (ACOE 2011). C. Dotson said he will look for the ACOE 2011 criteria and will revise the text throughout the document to make it consistent.

K. Truscott said there is also inconsistency in how weights will be recorded; to nearest tenth or half gram, and he suggested tenth of a gram. He continued that in Appendix B, metrics used for rejecting fish, it would be nice for consistency if there was a list showing the metric, e.g., descaling over 20%. S. Carlon noted there is a list stating the metrics used for accepting fish and K. Truscott agreed that is acceptable, but wants it to be clear what will be reported for why fish are rejected. C. Dotson said in the past studies that has been included and he can ensure it will be reported in that same format. K. Truscott asked if the tally for fish included or excluded will be presented as ad-present/ad-absent, noting that the only way to estimate proportion of hatchery and wild fish would be to wand them for coded wire tags (CWT). K. Truscott said this should be considered to know the origins of the fish that are that are being tagged and those that are being rejected. If fish will be anaesthetized, it will not take much time to pass

them through a detection box. C. Dotson said he would have to pose that question to the consultant (LGL).

K. Murdoch said she agrees with Truscott's comments and will need more time to review the survival study plan. A. Murdoch also indicated he will need more time to review the plan. S. Carlon said he is likely to be ready to vote whether to approve by November. S. Carlon said he understands Grant PUD has weighed the risk to them whether to model survival per project. B. Gale said he will be ready to vote whether to approve in November. C. Jackson said he will be ready to vote whether to approve; he has reviewed V7 but has not reviewed the final appendix.

Kirk Truscott said he would like to commend C. Dotson and Grant PUD staff on engaging with the PRCC and having open discussions on this survival study plan.

V. Subyearling Chinook Salmon Workshop Planning

Meeting materials from the 2016 subyearling workshop were distributed on October 6, 2023.

B. Nordlund asked if the PRCC has ideas for additional agenda topics. The HCP-CC discussed the topic this morning; there was a call for what questions committee members might have and what experts might be best to address them.

B. Nordlund asked if there has been any update to B. Connor's (USFWS) work on the Snake River. B. Gale said Ken Tiffan (USGS) may have taken the lead from the previous work done by B. Connor.

K. Murdoch said the federal projects have been measuring subyearling Chinook salmon survival; the mid-Columbia Coordinating Committees may want to learn more about smaller tags and survival study implementation for smaller fish. Chelan PUD will have 3 years of subyearling study at Rock Island Dam and Rocky Reach Dam to share with the group, which will inform whether it is possible to evaluate subyearling survival at least for Chelan PUD's projects. B. Nordlund asked if the federal projects have to estimate survival through the reservoirs; C. Dotson said subyearling survival standards are 2% lower than the other salmonid species studied and the survival standard for all species (at federal dams) is only at the concrete.

K. Murdoch said preliminary results from Chelan PUD's behavior studies indicated fish that are collected at RR bypass are actively migrating, suggesting there may be ways to collect fish for survival studies to ensure they are active migrants.

B. Nordlund said a question is how to be sure a subyearling that is actively migrating through upstream projects represents the run of the river fish. K. Truscott agreed that selection of fish for tagging will be an issue with subyearlings because they migrate and rear at the same time; however for fish that are captured at a project it's likely that a large proportion are detected again at downstream projects because they are actively moving. A discussion is warranted on what constitutes an actively-migrating fish. For instance in the Okanogan River smolt traps, there are periods of time early in the season when migrating subyearlings are captured that are too small for passive integrated transponder (PIT) tags, but those fish may be subject to the reservoir

environment. Fish passing through the project is not likely to be the best representation group of the population at large. As long as fish can be randomly assigned to different groups in a survival study, it doesn't matter if some don't migrate down past the reservoir. The question is, how many fish need to be tagged for sufficient statistical power. B. Nordlund agreed this would be a good agenda topic.

B. Nordlund asked PRCC members to review the 2016 agenda and identify new information available and what new topics or speakers should be added.

VI. 2023 Fish Passage Operations Report

- ***Fish ladder inspections***

K. Murdoch said she will attend an inspection on Thursday. B. Nordlund recommended inspecting for debris.

- ***Fish spill updates***

Adult spill will continue until November 15 at PRD and WAN.

- ***Fish counts for 2023 (April 15 – November 15)***

The following were fish counts as of October 24, 2023:

Project	Spring Chinook Salmon (Adult + Jack)	Summer Chinook Salmon (Adult + Jack)	Fall Chinook Salmon	Sockeye Salmon	Coho Salmon	Steelhead
Priest Rapids	18,888	49,547	42,655	231,356	15,844	7,545
Wanapum	19,152	57,251	26,127	228,172	10,896	7,466
Rock Island	17,619	51,574	14,495	247,771	16,544	8,215

Updates

VII. Review of Outstanding No Net Impact-Funded Projects

- **Lower Wenatchee Instream Flow Enhancement Project Phase II**
No update.
- **Northern Pike Removal (2022 to 2024)**
No update.
- **Washington State Department of Fish and Wildlife PIT-Tag Detection Barge**
No update.
- **Quincy Northern Pikeminnow Derby (planned for May 12 to 14).**
Completed for 2023.
- **2023 Real Time Research (RTR), Inc., Avian Predation Study.**

C. Dotson said RTR has completed review of aerial photos of tern nests, counts of steelhead PIT tag recoveries and PIT tag scanning. The numbers of nests for Columbia Plateau sites has dropped considerably. These include Sprague Lake

(11 nests), Banks Lake (8 nests), Goose Island (9 nests), and Lake Lenore (62 nests). Lake Lenore tag recovery has dropped by about 50% (to 257 tags); Goose Lake tag recovery tripled (to 130 tags). K. Truscott asked if the change in number of tags recovered is commensurate with the change in number of nests and C. Dotson said he would look for that information. K. Truscott said it might be interesting to know if the birds are actually nesting or loafing in these areas. C. Dotson said he anticipates a draft report in the next 4 to 6 weeks.

VIII. Subcommittee Updates

Subcommittees that report up to the PRCC are the hatchery and habitat subcommittees convened under the Priest Rapids Salmon and Steelhead Settlement Agreement. The Fall Chinook Work Group and Priest Rapids Fish Forum have policy representatives convened under the Clean Water Act Section 401 Certification. All are signatories to the Fall Chinook Protection Act.

B. Nordlund has forwarded the subcommittee distributions received to date via email to PRCC members and alternates.

- Priest Rapids Fish Forum—met October 4, next meeting November 1.
- Habitat Subcommittee— met September 14, no meeting in October.
- Fall Chinook Work Group— met October 3, next meeting May 7.
- Hatchery Subcommittee— met October 18, next meeting November 15.

R. O’Connor provided an updated on Hanford Reach operations. The Hanford reverse load factor operation began on October 15, the designated day for starting each year. The first redd survey occurred this past Sunday on Vernita Bar, and as usual, no redds were observed. Redd surveys will be repeated this Sunday and they are likely to observe redds next week. K. Truscott said discharge has been relatively low and asked what the target discharge is for PRD. O’Connor said that update was shared at the Fall Chinook Work Group meeting by Peter Graf; typically we would aim for ___kcfs, but that 40 to 50 kcfs is the target this year. Discharge is at 44 kcfs today, and will be going above that at night to maintain the reverse load factoring operation.

IX. SOAs Discussed in 2023

SOA number	Key Words	Last Discussed	Status
2022-03	Fish Mode revision	January 24, 2023	Approved
2023-01	Sockeye Salmon Program	January 24, 2023	Approved
2022-02	Hatchery Production Objectives, 2024–2033	February 28, 2023	Approved
2023-02	Survival Study	Discussed in today's meeting	In Review

X. Next Meetings

The next PRCC meeting will be virtual only, scheduled for November 28 at 1:00 p.m. (links included in the agenda).

The PRCC agreed to move the last PRCC meeting of the year to December 19. It will be a virtual meeting.

The PRCC reviewed the proposed 2024 meeting schedule and had questions about blocking the dates, but no objections to the meeting schedule were raised.