



Grant County
PUBLIC UTILITY DISTRICT
Excellence in Service and Leadership

Priest Rapids Coordinating Committee

Wednesday, November 29, 2006

9:00 – 3:00 am

Grant PUD SeaTac Office

PRCC Committee Members

Scott Carlon/Bryan Nordlund, NMFS	Brian Cates, USFWS
Jerry Marco, CCT	Tom Dresser, GCPUD
Steve Parker/Bob Rose, YN	Carl Merkle, CTUIR
Carmen Andonaegui, WDFW	Denny Rohr, Facilitator

Meeting Agenda

- I. Welcome and Introductions
- II. Agenda Review
- III. Approval/Finalize Meeting Minutes: October 25, 2006
- IV. Updates
 - A. 2006 Survival Study Report
 - B. 2006 PR Top Spill Behavior Study
 - C. Wanapum Future Unit Bypass
 - D. OLAFT
 - E. Video Fish Counting
 - F. Northern Pikeminnow Program
 - G. Avian Predator Program
- V. Discussion of Scientific Review
 - A. American Rivers Letter dated October, 2006
 - B. Review/Discussion of Meetings, Events, Data Review
- VI. PRCC Hatchery Subcommittee Update (Russell)
- VII. PRCC Habitat Subcommittee Update (Ben)
- VIII. Update on PR BiOp
- IX. Update on PR Certification Process
- X. Update on PR Final EIS Schedule
- XI. Update on Hanford Reach
- XII. Future Meeting Schedule
 - A. Wednesday, December 27 (discuss need to change to week of December 18th)

ATTENDEES: Carmen Andonaegui, WDFW; Brian Cates, USFWS; Scott Carlon, NMFS; Bob Heinith, CRITFC; Tom Dresser, Grant PUD; Curt Dotson, Grant PUD; Shannon Lowry, Grant PUD; Denny Rohr, facilitator; Jerry Marco, CCT (by phone); Bryan Nordlund, NMFS (by phone).

Decision summary:

Action items:

- Dotson will send 2006 Survival Study Report PPT to those members who were present via phone

FINAL MEETING MINUTES

- I. Welcome and Introductions
- II. Agenda Review
- III. Approval/Finalize Meeting Minutes: October 25, 2006 - approved, November 6, 2006 – approved (upon Marco's e-mail approval)
- IV. Updates
 - A. 2006 Survival Study Report – Dotson presented results of the 2006 steelhead survival study with the following draft estimates: Rock Island tailrace to Wanapum Dam tailrace – 71.95% (SE 2.85%) survival and Wanapum tailrace to Priest Rapids Dam tailrace -71.07% (SE 2.94%) survival). Grant PUD staff is exploring possible causes of the high mortality rate, including possible effects from high TDG levels in the river (due to high flows in 2006), stress from collection method and transport to tagging (altered due to WFUFB construction activity), and/or poor surgical technique. Dotson discussed a comparative look at Chelan PUD's steelhead survival study results, Chelan had an estimated overall survival rate of the upper 90's% (Rock Island tailrace to Sunland Estates – 97.9% Chelan; 88.7% Grant). Chelan PUD's 48 hr. post-surgical mortality rate was 0.07% compared to Grant PUD 2.30%, supporting the possibility that surgical technique was a factor in the low survival percentage. Survival rates of yearling Chinook used for Grant PUD's 2006 behavior study (involving fish held, tagged and released at the same points) were similar to those for steelhead, stated Dotson, indicating that surgical technique is likely the primary cause for the difference in survival estimates between Chelan and Grant PUD studies. Other survival studies occurring upstream and downstream of Wanapum and Priest Rapids dams had survival estimates in the upper 90% in 2006, noted Dotson. Grant PUD has determined that it must modify and improve fish-tagging procedures and conduct an additional steelhead acoustic-tag survival study in 2009. A prior three-year yearling Chinook study resulted in a survival rate of over 93%. Grant PUD is requesting to use survival estimates from 2007, 2008 and 2009 (invalidating the 2006 results) to determine Grant PUD's performance standard for steelhead in the Priest Rapids Project. Carlon asked whether HTI can determine if there is a difference in behavior (route choices) between Chelan and Grant PUD's steelhead. Dotson stated that HTI could make that comparison, but noted that behavior was not measured at Wanapum Dam because the study was only designed to measure survival (detected in the forebay and tailrace). Behavior through Priest Rapids Dam (which was wired for the spring Chinook behavior study) can be measured. Nordlund asked whether route-specific behavior in a spill environment and resulting survival can be measured at each dam and questioned whether fish going through the spillway with high TDG in the tailrace could be a factor in the mortality rate.

The high (across-the-board) mortality rate eliminates the significance of route-specific survival, stated Dotson. Grant PUD does not have results on Chelan steelhead survival estimates from Sunland to Priest Rapids Dam and beyond. Due to the high cost of obtaining that data, Andonaegui stated the study data should be approached programmatically between Chelan and Grant PUDs. Dotson further noted that the standard error of 2.85% and 2.94% is over the 2.5% stated in the Biological Opinion. Grant PUD staff based release numbers and sample size on historical data of 98% detection efficiency rates at its detection arrays and an expected survival rate in the upper 80 percent tile, i.e. with 505 released, an estimated 470 were expected at Wanapum Dam, resulting in the standard error below 2.5%. With the high in-river mortality rate (drop out rate) taking place with the treatment fish, the number detected at the down stream detection sites was too low to keep the SE under 2.50%, which, in effect, invalidated the study results. Dotson noted that Chelan PUD collects fish at Rocky Reach, conducts their own tagging, and transports to Wells and Rock Island dams for release. Because it was Grant PUD's first acoustic reservoir survival study, staff is working with Chelan PUD to determine the significant differences in methodologies. Heinith noted that project survival should be measured with the Wanapum Future Unit Fish Bypass in operation (2007). Dotson, agreed, noting that a three-year comparison should have consistent passage factors. Andonaegui noted that the Army Corps of Engineers also has a high-quality tagging staff and stated WDFW's support for Grant PUD using survival estimates from 2007, 2008 and 2009 (invalidating the 2006 results because of faulty methodology) to determine Grant PUD's performance standard for steelhead in the Priest Rapids Project.

- B. 2006 PR Top Spill Behavior Study – Preliminary numbers have been received for yearling Chinook, steelhead and sockeye. From a horizontal perspective, within 50 feet of the dam, 99.5% of the sockeye, 95% of the yearling Chinook, and 100% of the steelhead went through the top-spill. Dotson noted that the draft study report should be sent to Grant PUD staff in the next couple of weeks and a follow-up PRCC conference call will be scheduled. Dotson noted that in the 2006 study plan, spill wasn't factored into the behavior study, but because of spill occurring as a result of high flows, 11% of the fish used the tainter-gate spill (making it the least traveled route). Dotson noted that Grant PUD would like to repeat the 2006 study in 2007 due to the fact that the 2006 study parameters were not fulfilled due to all the inadvertent spill in 2006
- C. Wanapum Future Unit Bypass – Construction completion is scheduled for mid-April, but low temperatures is slowing progress on concrete pours. Dotson provided updated photos on construction progress.
- D. OLAFT – Construction continues on schedule, with completion estimated for late April. Dotson provided updated photos on construction progress.
- E. Video Fish Counting –Grant PUD staff provided an update on its revamped Video Fish Count system. Dotson noted that information he provided at the Oct. 25 PRCC meeting concerning counts at Priest Rapids Dam was incorrect and that discrepancies occurred at both Priest Rapids and Wanapum dams. Steps have been taken to identify problems with the current video-stream data, including lost data due to disposal of clips showing no movement, power failures, automated alarm system failure, and motion filter failure (significant number of fish passing uncounted). Staff is now developing a new system with a digital video recorder (DVR) system which will record all fish passage with no filtering (initially until confidence is established). The system uses existing in-ladder infrastructure with no modifications required and will require eight fish counters per eight-hour day (one per camera). QA/QC program will involve better training and testing for fish counters. Counters will review the streaming video and enter numbers on a keypad, with posting within an estimated 48

hours. The new system will also have a VHS backup. Nordlund suggested that Grant PUD consider use of an acoustic motion sensor to turn the video recorder on and off as movement is detected. Dresser noted that the DVR equipment should be on-site in December and installed and tested in January. A functioning system should be in place by mid-February 2007, with official fish counting occurring on April 15 at both dams. Andonaegui requested a summary of the system failure timeline for internal use by WDFW.

- F. Northern Pikeminnow (NPM) Program – The 2006 NPM report and 2007 study plan were distributed electronically to the PRCC on Nov. 27, 2006 (copies are also available on the Document Gateway). Comments are due within 30 days and approval at the January 2007 PRCC meeting will be requested. The 2006 northern pikeminnow removal effort resulted in the removal of 4,344 northern pikeminnow, including 10 recaptured fish from the 2005 marking event. A Jolly-Seber open population model and Schnabel Multiple Census Estimate were used to calculate a northern pikeminnow population of $161,134 \pm 167,725$ S.E. The high variance in the estimate is due to the low number of fish initially tagged and the low number of recaptures. Based on these results, in order to reduce predation on migrating salmonid smolts by 50%, an exploitation rate of 14,502 to 27,393 northern pikeminnow must be achieved annually, stated Dresser, noting that a higher and focused catch-per-unit effort will be conducted in 2007. Lowry will send a copy of the report and accompanying study plan to Bob Heinith.
 - G. Avian Predator Program – The 2006 report and 2007 study plan will be distributed by Lowry on Friday, Dec. 1, beginning a 30-day comment period. Approval will be requested at the January 2007 PRCC meeting. During the 2006 smolt out-migration period, control actions on 23,226 avian predators were performed at Priest Rapids Dam and on 10,669 avian predators at Wanapum Dam. These numbers represented a 450% and 150% increase in the number of gulls hazed at Priest Rapids and Wanapum dams between 2005 and 2006, respectively. A total of 384 avian predators were lethally taken at Priest Rapids Dam and 286 avian predators were lethally taken at Wanapum Dam. Lethal control actions (used to reinforce non-lethal hazing) increased the amount of time predatory activity was interrupted at both dams. A total of 559 avian predator stomachs were examined in 2006 with 85% containing salmonid smolts. Avian predators consumed Chinook in a greater proportion than the Rock Island Smolt Index Count (RISIC), sockeye at the same proportion, and coho and steelhead were consumed at lesser proportions. A total of 353 coded-wire tags, 19 PIT-tags, and two acoustic tags were collectively found in the stomach samples of 559 birds. These tags were used to identify salmonid remains to species. In 2007, the study plan objectives include: determining patterns of use in areas favored by gulls and identifying sources of predating birds; evaluating the effectiveness of control measures on avian predators at Wanapum and Priest Rapids dams; evaluating and enhancing existing methods of non-lethal control and attempting to develop new non-lethal methods for reducing predation on salmon smolts; evaluating avian predator behavior with respect to spill programs at Wanapum and Priest Rapids dams; and evaluating avian concentrations below the Wanapum Future Unit Fish Bypass (WFUFB) for future construction of additional wire arrays.
- V. Discussion of Scientific Review
- A. American Rivers Letter dated October, 2006
 - B. Review/Discussion of Meetings, Events, Data Review – Dresser provided background on Grant PUD's requirement under the Biological Opinion to artificially supplement the White River spring Chinook and public reaction to related activities involving captive brood efforts and facility development in the White River and Nason Creek areas. Next spring, 70,000 to 80,000 fish need to

be released in the White River, with 300,000 to 350,000 released in 2008. Chelan County has requested independent scientific review of the entire program, stated Dresser. NMFS has scheduled a meeting with stakeholders for Nov. 30 from 9-11 a.m., to respond to that request. Attendees include WDFW, NOAA Fisheries Science Center staff, Grant PUD, Yakama Nation, and representatives from Chelan County. NMFS is requesting specific information from those requesting the review. Andonaegui noted WDFW's continued support of the White River program based on studies which indicate the genetic uniqueness of the White River spring Chinook stock. Grant PUD purchased a 17-acre parcel on the White River for the rearing and acclimation facilities required under the Biological Opinion, noting most of the parcel has flooded three times in the past two years. While rearing is currently occurring off-site at both AquaSeed and Little White Salmon facilities, tributary acclimation has not yet been established, due primarily to public resistance to construction of any necessary infrastructure. Andonaegui noted that the issue has potential implication on Grant PUD's requirement to implement the program.

VI. PRCC Hatchery Subcommittee Update (Russell) –

- Priest Rapids Hatchery – Grant PUD fish and engineering staff are working with WDFW Priest Rapids Hatchery (PRH) staff to detail a practical and feasible construction schedule (based on the 2003 Jacobs Civil report) that allows for a phased construction approach. Because WDFW has expressed concern about deviating from existing density levels, Grant PUD is working with PRH staff on those issues. Dresser noted that Army Corps of Engineers (COE) requested the rearing of an additional 17.5 million fish at the modified facility. Grant PUD declined the proposal because of limited water availability. The current 1.7 million John Day mitigation fish being raised for COE are also under discussion to develop an appropriate O&M contract. WDFW also takes 14 million eggs for programs outside of Grant PUD. The modified design includes the space necessary for that egg take, in addition to the 1.7 John Day fish, and Grant PUD's production requirements for fall Chinook under the Salmon Settlement Agreement. Heinith noted that state-of-the-art hatchery facilities are being developed in Alaska and that Grant PUD staff should consider those designs when planning its modifications to PRH. Langshaw noted that Priest Rapids is one of the most efficient hatcheries in the Columbia Basin. Langshaw noted that the Waldo group is doing a hatchery review and will likely review PRH in April 2007. Dresser noted that the first construction component to the modification is the adult weir, which could potentially be completed by fall 2007. Lowry will send Heinith the latest information presented to the PRCC Hatchery Subcommittee concerning the Priest Rapids Hatchery modifications.
- The PRCC Hatchery Subcommittee is currently finalizing a template for future agreements (finalized agreements will be provided as an update to the PRCC).
- The PRCC HSC is currently working on defining the summer Chinook program. The subcommittee is recommending tributary-specific rearing and acclimation, but, based on feasibility concerns, discussion is occurring on the possibility of downstream rearing with over-winter acclimation. A decision on such an approach will be delayed until the program splits are determined. EDT models, habitat availability, spawning ground composition, and HCP program requirements will be considered in making that decision. An agreement statement is being drafted to extend the timeline for HGMP (due in February 2007 under the SSA) development. Dresser noted that such a timeline adjustment should be approved at the policy (PRCC) level, rather than at the subcommittee level. Marco noted that the subcommittee is also exploring other in-basin (but not necessarily tributary-specific) rearing opportunities.
- Steelhead – Discussion is occurring on how to meet the 100,000 yearling steelhead requirements. Because the Wells program (where production is

currently occurring) is temporary, discussion has occurred on an immediate split between the two facilities (80,000 at Wells, 20,000 at Omak Creek).

- Transfer of 150,000 Wells study fish to Ringold Hatchery. The contract is in process and transfer should occur on Dec. 11.
- Nason Creek – Received approval for the preliminary design for access from WSDOT. Pump test is scheduled at Cascade Gardens for Nov. 30 and land surveys are underway. Dresser noted that a variance has been requested from Chelan County for an easement across the Cascade Gardens property. Chelan County has responded with a request for justification of supplementation programs.
- WDFW has requested discussion on how the ONA sockeye reintroduction program can meet both Grant and Chelan PUD's requirements at the upcoming combined HCP/PRCC combined meeting in January. Both program requirements can be met at ONA with proposed facility modifications, stated Langshaw.
- White River – a newsletter will be sent out following posting of the Section 10 permit to the Federal Register. Alternative release strategies for 150,000 excess fish are being identified. Based on 313,000 eyed-eggs, a proposal concerning direct fry and par plants and release from net pens starting in August (after marking) in smaller groups will be presented at the PRCC HSC December meeting. ELISA levels indicate much higher levels than in past years (only 9% low and below low). Langshaw noted that rearing densities have not changed and staff is unsure why the higher disease rates are occurring.
 - Section 10 permit – EA and NEPA are under review at NMFS' regional office and the permit is expected to be released soon.
 - Net pens – Grant PUD, WDFW and WDOE staff met on Nov. 17 concerning permitting. Options for net pen acclimation were discussed, WDOE is reviewing Chelan County water quality data concerning the net pens. WDOE will likely temporarily allow such acclimation under the agency's general water quality permit. The scenario will likely occur for the next three years.
 - Because no permit is in place for egg-pumping, fry trapping through dip-nets and redd capping is being proposed by WDFW with follow-up genetics testing to determine origin.
 - Grant PUD's alternative to reference stream measurement. Langshaw stated that Grant PUD has proposed using pedigree analysis as an alternative. A proposal to measure carrying capacity was also presented and is being pursued by Grant PUD. It would be beneficial to conduct the alternative simultaneously with reference stream evaluation.
 - Following a genetic analysis, WDFW is proposing that two redds of wild-by-wild parentage be taken in addition to four others with at least a portion of unknown origin (these will be tested to determine parentage). Five families of F2s will also be incorporated back into the program (third time out of four years).
- Hanford Reach Spawning Experiment is complete. Final redd count under the HRA requirement occurred last Sunday, but because of weather conditions an additional redd count will occur on Sunday, Dec. 3 at 10 a.m. On Nov. 19, 43 redds were counted above 65kcf.

VII. PRCC Habitat Subcommittee Update (Dresser)

- Four projects have been approved, including Skookumchuck Land Acquisition, Fulton Diversion Dam, Omak Creek Culvert Replacement, and LiDAR flights. Grant PUD has also proposed purchase of 67 acres in the Nason Creek area for habitat protection, but when Chelan Douglas Land Trust was approached concerning purchase of the property, Chelan County requested that a formal presentation of the proposal first be brought forth to determine whether it is in line with other recovery efforts.

- VIII. Update on PR BiOp – Carlon noted that Grant PUD provided RPA update suggestions, which has assisted in the process, but that a new BiOp is not expected before Jan. 1. Because the FEIS has been released, FERC has indicated that anything not consistent with the new BiOP will likely be included in the final license ordered by FERC.
- IX. Update on PR 401 Certification Process – the comment period has been extended to Jan. 8.
- X. Update on PR Final EIS Schedule – Was issued on Nov. 17, 2006.
- XI. Update on Hanford Reach (see above)
- XII. PRCC/HCP Joint Meeting – Denny Rohr and Mike Schiewe are discussing a date for the meeting and have proposed that the HCP and PRCC meeting individually on Jan. 23 and jointly on Jan. 24 (all committees) in the Wenatchee area. Andonaegui noted she is working with Bob Rose on possible agenda items. Rohr will distribute a draft agenda for committee input.
- XIII. Future Meeting Schedule
 - C. No December meeting. Conference call to discuss the joint meeting agenda will be scheduled for early January.