

MEETING

Priest Rapids Coordinating Committee

Wednesday, March 24, 2010

9:00 a.m. – 3:00 p.m.

Grant PUD SeaTac Office

PRCC Members

Scott Carlon/Bryan Nordlund, NMFS
Jerry Marco, CCT
Bob Rose, YN
Bill Tweit/ Teresa Scott, WDFW

Jim Craig, USFWS
Tom Dresser/Curt Dotson, GCPUD
Carl Merkle, CTUIR
Denny Rohr, Facilitator

Attendees: (*Denotes PRCC member)

Bryan Nordlund, NMFS*
Bob Rose, YN*
Jim Craig, USFWS*
Curt Dotson, GCPUD*
Elizabeth McManus, HSC Facilitator
Brad Strickler, GCPUD
Denny Rohr, Facilitator

Jerry Marco, CT*
Teresa Scott, WDFW*
Scott Carlon, NMFS*
Tom Dresser, GCPUD*
Stuart Hammond, GCPUD
Debbie Williams, GCPUD (on phone)

Action Items:

1. Rohr will send an electronic copy of the Habitat Funds spreadsheet to members.
2. Dotson will distribute the PR Tailrace Pumping Plan presentation to PRCC members prior to the April meeting.
3. Hammond will notify Rohr of possible dates in April for the PRCC to view the 4,000 hr turbine inspection at Wanapum Dam.
4. Dresser will talk to Chelan-Douglas Land Trust regarding Conservation Easements and acclimation sites.
5. A document regarding acclimation site assessment in the White River is being drafted by Greg Ferguson, Sea Springs, and will be distributed to PRCC members prior to the April meeting.
6. Dotson will draft a sub-yearling white paper by the June PRCC meeting.
7. Dotson will speak to Kevin Nordt concerning PRP Fish Mode Operations questions: What happens if Fish Mode is exceeded more than 3 times a season, and if a utility has requested power from all other sources, can Grant PUD deny that request if it means Fish Mode will be exceeded?
8. Regarding Fish Mode, Dotson will report back to the members regarding acoustic fish modeling with certain hours of 100 % turbine passage. Dotson will run the model using data from 2008 and 2009 fish in a low, middle and high passage scenario.
9. PRCC members will talk within their own organizations about the possible interfacing of acclimation at the Grant PUD property (McComas) and Tall Timbers.
10. A fry conversion discussion between Grant PUD and SSSA signatories will be added to the next agenda.
11. Rohr will distribute PRFF, Fall Chinook Work Group (FCWG), and Habitat Subcommittee reports electronically to PRCC.
12. Rohr will distribute an electronic copy of a memo he drafted outlining information on the potential of a Wanapum Northern Pikeminnow Fishing Derby.

13. Williams will distribute the January 27, 2010 PRCC meeting minutes to the committee.
14. Rohr will make corrections to item X of the February 24th PRCC draft minutes re the agenda item of "Follow Up Discussion of White River Nason View Property" stating that a Conservation Easement will not preclude an acclimation site for the Tall Timber proposal.

Decisions:

1. PRCC members affirmed their March 15th email vote to operate the Priest Rapids Top-Spill Bypass configuration to pass 5 kcfs bottom flow through tainter gates 21 and 22, and to pass 7 kcfs through each of the top spill bulkhead bays during the 2010 out migration only.
2. PRCC members approved use of NNI Funds in the amount of up to \$139,395 for purchase of the White River Nason View property, and up to \$55,000 for purchase of a Conservation Easement at the Tall Timber property, with the caveat that the Conservation Easement would not preclude an acclimation site for the Tall Timber proposal.
3. PRCC members agreed that the previously unused Priest Rapids fish ladder entrance that faces the left bank near tainter gate 22 can be removed.

Final Meeting Minutes

- I. **Welcome and Introductions:** Rohr welcomed PRCC members and guests.
- II. **Agenda Review:** Right Bank Fish Ladder entrance, as it relates to the Priest Rapids Bypass, was added to the agenda by Dotson.
- III. **Action Item Review:** Action items identified during the February meeting had all been completed. No discussion took place.
- IV. **Review of Current Habitat Funds:** Rohr reported that annual contributions of \$2,563,156.47 were deposited into the three available Habitat funds on February 15th 2010; No Net Impact (\$1,290,851.87), Habitat Supplemental (\$937,441.74), and Habitat (BiOp) (\$334,862.86). Currently, combined funds total \$8,973,137.39 with \$7.3 million uncommitted. To date, the Predator Index Study has used \$600,000.00 of the \$1.6 million committed to the study, and \$600,000 remains of the \$1.7 million committed from the NNI Fund for McIntyre Dam renovations. **Rohr will send an electronic copy of the Habitat Funds spreadsheet to members.**
- V. **Coordination of trip to Iowa:** PRCC members will travel to Iowa the week of May 17th to view the 1:20 sectional Priest Rapids Bypass model. Members will travel to Iowa on May 18th, spend May 19th & 20th in the lab, and return home on May 21st. Dotson reminded members that participants usually stay at the Hampton Inn, and that the government rate is around \$79.00 a night. Car pooling will be available via Grant PUD staff if PRCC members do not want to rent a car in Iowa. Shuttle service is provided to and from the airport by local hotels. Discussions regarding modeling activities seen during the day normally take place at dinner by all participants. Dotson explained it's possible some of Grant PUD's upper management and one or two Grant PUD commissioners might be in attendance on this trip.
- VI. **Affirmation of Decision Regarding Gate Operations - 2010 PR Steelhead and Sockeye Behavior Study Plan:** PRCC members affirmed their March 15th email vote to operate the Priest Rapids Top-Spill Bypass configuration to pass 5 kcfs bottom flow through tainter gates 21 and 22, and to pass 7 kcfs through each of the top spill bulkhead bays during the 2010 out migration only. The PowerPoint presentation, which included a slide showing the cross section of a spillway gate, showing the energy dissipater at the end of the end-seal, was uploaded to the PRCC

website, and also sent to members electronically. A DVD showing the four different flow scenarios ran at the Iowa lab and viewed from the forebay and tailrace sides of PRD was handed out to members.

- VII. PR Tailrace Pumping Plan, LA 403:** On March 16, 2010, Bryan Nordlund, NMFS; Aaron Beavers, NMFS; Jim Craig, USFWS; Patrick Verhey, WDFW; Curt Dotson, GCPUD; Tom Dresser, GCPUD; George Thompson, GCPUD; Skyler Street, GCPUD and Denny Rohr attended a tour to look at Priest Rapids Tailrace Pumping Plan options being presented by Grant PUD. Dresser explained that Grant PUD originally presented seven options that ranged from not doing anything to installing a turbine on the right bank. Options have been narrowed down to two. The first option is to install two additional pumps into the Left Bank Pump House, and to use existing pipes from the right bank flood draw-down system to supply a back-up emergency water supply on the right bank. The second option is to install a new pump station on the right bank. Grant PUD engineers will attend the April PRCC meeting to walk through each option in detail, as well as discuss biological aspects of each option. Dresser explained that Option #1 is Grant PUD's first choice. Grant PUD hopes to have an option selected by May and a PRCC decision by June in order to develop schedules to meet FERC's October 16, 2010 deadline of submittal of the final plan. **Dotson will distribute the PR Tailrace Pumping Plan presentation to PRCC members prior to the April meeting.**

Nordlund noted a couple of things to think about in regards to the options. The first being that both options would result in taking water from the tailrace and the second is to consider how water intakes would be screened. Dresser expressed some concern that a new downstream pumping station might cause some confusion with lamprey attraction flows. Nordlund explained that approximately 1000 cfs of water will be pumped with the new plan, and that it will eliminate use of the Gravity Intake Gate (GIG) which is unscreened, and not a good route for juvenile fish. Nordlund believes discontinuing use of the GIG is a plus for fish, and a plus for Grant PUD from a power standpoint. Nordlund stated that both options presented by Grant PUD answered all of the comments he raised on the plan, and he would be happy with either option.

Nordlund stated his surprise that while reviewing original blueprints of the dam, Grant PUD engineer, Skyler Street found pipes that could provide an emergency water supply to the right bank ladder that no one knew existed. The pipes that were found range from 36" to 48" and are capped on both ends.

A. Update of March 16th Site Visit: See discussion above.

- VIII. Reschedule: WDFW/USGS NNI Predator Program:** Dotson reported that due to scheduling conflicts, USGS and WDFW (contractors conducting the NNI Predator Index Study) weren't able to give a presentation at today's meeting, but are scheduled for the April PRCC meeting. Dotson went on to say that year-one of the study has been completed and the goal of the presentation is to present first year results, discuss year-two field season plans, and narrow the focus for future work details.

- IX. Presentation of PR New Turbine Design:** Dotson explained that while Wanapum Dam is in the process of installing new turbines, within the last few months, Grant PUD has been discussing the turbine replacement project at Priest Rapids Dam and wanted to address the fish component up front and get the PRCC involved from the beginning. Stuart Hammond, Grant PUD Engineering Supervisor and Brad Strickler Grant PUD Engineer, gave a PowerPoint presentation on concepts and issues surrounding new turbine designs for Priest Rapids Dam and how they relate to fish passage. Hammond explained that turbine affects (hydraulic, mechanical and biological) on fish are a high priority in the design and development of the new turbines. Grant PUD's ultimate goal is to deal with those issues in the design process while they are bidding the contract. Hammond didn't know of anyone else

that has ever approached turbine design in this manner. This method will require that Grant PUD find a way to directly associate hydraulic, structural, or mechanical criteria within the design of a new turbine that is definable and that has a significant relationship to the biological impact Grant PUD is trying to address.

Hammond said that discussions with Pacific Northwest National Labs (PNNL) have taken place because they have conducted a lot of research on this topic. Turbine models of the old and new Wanapum turbines were brought to today's meeting in order to provide a visual of what would be discussed.

Strickler explained that Grant PUD wants to take what was learned at Wanapum and bring it forward and incorporate any emerging ideas. Turbine designer's use two primarily tools, including physical models and computational fluid dynamic (CFD) models, both computer based models. CFD modeling for Wanapum was a key design tool to validate industry turbine models. A physical 1:20 scale model of a PR turbine was built to gather baseline data. Because mid-Columbia powerhouses were designed very accurately from the design drawings, Strickler noted the ease with which Grant PUD has been able to have models built. Pictures of the model shown to PRCC members are located at Grant PUD's independent lab in Switzerland. Three models have been built to conduct the modeling.

CFD models and studies at Priest Rapids will also be used, but haven't been started yet and won't be for a while. There are a lot of things that CFD modeling does that can't be captured in a physical model, such as looking for flow discontinuities in areas to correct the water path to make it flow more efficiently. This helps get rid of eddies that may be harmful to performance goals and fish passage. CFD modeling will accurately indicate where water streamlines will go. Nordlund recalled that during the new Wanapum turbine design, there was an attempt to line up the wicket gates and stay veins. He asked if gaps at the bottom of the wicket gates will be redesigned. Strickler explained that in the total open position, the gate extended out into the space, but with the new wicket gates, even in the full open position, the wicket gate never sticks out into the overhang. Hammond explained that the overhang was a source of hydraulic disruption and turbulence and wasn't good for fish. That's why wicket gates are now smaller and don't have an overhang on the ring. CFD studies are quick and can help to determine if design is going in the right direction prior to modifying the physical model. For projects of this magnitude, Strickler noted that physical modeling is always completed.

Everything learned during turbine upgrades at Wanapum will be built upon at PR. Five primary areas of concern looked at where to eliminate cavitation, minimize gaps, minimize flow circulation in the draft tube, flows through the wicket gate stay vein cascades, and to minimize flow shear and disturbances in the rest of the water passage areas. Members discussed old and new wicket gate designs, blade designs, causes of fish injuries (cavitation and turbine passage), effects on fish from pressure drops, and survival rates.

Hammond invited PRCC members to attend the 4,000 hr inspection on Unit 9, one of the new turbines, at Wanapum Dam in April. He explained that a cat walk will be placed in the unit for easy viewing. Hammond noted that the 30,000 hour inspection on Unit 8, the first "new turbine" at Wanapum, showed no cavitation damage at all. **Hammond will notify Rohr of possible dates in April for the PRCC to view the 4,000 hr turbine inspection at Wanapum Dam.**

- X. Follow Up Discussion of White River Nason View Property Proposal - Tall Timber Ranch Conservation Easement Funding:** Rohr reminded members that at the last PRCC meeting, approval to spend up to \$139,395 from the No Net Impact (NNI) Fund for the purchase of the White River Nason View property, and up to \$55,000 for a Tall Timber Ranch (TT) Conservation Easement, was approved with the exception of Marco and Tweit who asked for more time to discuss this matter with their Habitat Subcommittee (HSC) member. Rohr reported that since the last

meeting, Marco and Tweit have given their approval of both proposals via email and he wanted the meeting minutes to reflect their decisions. Additionally, Rohr stated the PRCC Habitat Subcommittee (HSC) also approved use of NNI Funds for purchase of the White River Nason View property, and purchase of a Conservation Easement at TT. Both committees have now approved these proposals.

However, Rohr went on to explain that during the March 11th HSC meeting, the spec sheets for both projects were reviewed, and a question on TT acclimation came up. Accordingly, Rohr asked PRCC members if their intent when approving the TT proposal on February 24th was with a requirement that acclimation must be included, or was there approval of TT with the understanding that acclimation would be studied after the fact. Rohr noted that he initially presented the TT proposal to the PRCC with the understanding that acclimation was an included requirement. He stated he could have presented it wrong, and he wanted to bring it back to the PRCC for discussion and clarification. Additionally, at the March 11th HSC meeting, Rohr asked the HSC to reaffirm their position on TT. The HSC affirmed that acclimation would be discussed after the fact in the TT proposal, and that acclimation is not a pre-condition to the funding. The HSC's concern is that TT property could be lost if quick action isn't taken. Rose and Carlon recalled the original proposal as acclimation not being a requirement to the purchase. Marco noted that the draft February 24th PRCC meeting minute's state acclimation must be included if the proposal will be funded. Dresser stated that when he voted it was with the understanding that acclimation would be considered as a potential option, but there was no guarantee that Grant PUD would build an acclimation site there. After discussion, PRCC members concluded that the TT proposal was approved at the February 24th PRCC meeting with the requirement that acclimation not be precluded. The PRCC members also instructed Rohr to edit the draft February 24th PRCC meeting minutes, which have yet to be approved, to reflect the concluded language as the position taken when the PRCC approved the TT proposal. Dresser offered that he would talk with the Chelan Douglas Land Trust and explain the requirements under which the TT proposal was approved, and that acclimation was to not be precluded. Further, Dresser stated he felt that Tweit was depending on Grant PUD to make sure that acclimation was an option before Tweit agreed to fund this proposal. Dresser will report back at the next meeting after his discussion with the Chelan Douglas Land Trust.

Dresser reminded members that Grant PUD purchased property (originally called McComas Property) on the White River based on a recommendation of the Hatchery Subcommittee, realizing it wasn't the best place to put hatchery facilities. He explained that now some are saying the property isn't workable because the property is too low in the basin, and there are comments being made to have all production moved to TT. Dresser asked PRCC committee members to talk to their respective subcommittee members to assure support of the program being developed for the Grant PUD property, and to avoid negative comments. PRCC members agreed.

Dresser stated that Grant PUD is committed to over wintering facilities, but there seems to be some confusion at the moment. Acclimation can range from natural ponds to hard buildings, and there are a whole range of options. Dresser noted the TT site may not work for acclimation because of the difficulties associated with holding adequate flow of an intake structure over winter. Carlon reminded members that if the committee doesn't move quickly, TT might be sold to developers. Dresser would like to keep all options on the table until the PRCC knows where they stand. Carlon said he would push for the lower river site to be the default site because he doesn't have the same concerns others have regarding natural spawning as long as fish are returning. Craig said he could support using the upper site for most of the winter acclimation, then moving the fish to the lower site prior to release. The PRCC again concluded that acclimation is to not be precluded in the TT proposal, and the subject will be discussed further at the next meeting after Dresser talks with the Chelan Douglas Land Trust. Rohr reminded members that the final decision for the

TT proposal remains with the PRCC because funding would come from the NNI Fund.

Dresser also informed the PRCC that a document regarding the assessment of acclimation sites in the White River is being drafted by Greg Ferguson, Sea Springs, and will be distributed to PRCC members prior to the April meeting.

Dresser further notified PRCC members that on April 20th the White River Working Group will be touring acclimation sites in the White River and also visiting other hatchery facilities.

A. Affirmation of Marco and Tweit Action post February 24th PRCC meeting:
- See discussion above.

XI. Follow Up Discussion of Sub-Yearling Chinook: Rohr started the discussion by asking if there was any additional discussion in the HCP meeting the day prior regarding the Sub-Yearling Workshop. Nordlund explained that the HCP (Chelan and Douglas PUD's) has a due date prior to their April meeting to draft a path forward paper. It will list what can potentially be done at their respected Projects, rather than what can't be done. Nordlund thinks their conclusion will be that sub-yearling studies can't be conducted at this time. Nordlund explained that the HCP is also in discussions with Skalski about setting up statistical designs that would get around some of the issues Shane Bickford pointed out as "study assumption violations" due to multiple life stages of fall Chinook that might be in the river at the same time. Nordlund said Bickford stated they might have different behaviors, and Bickford wondered if that can be captured in a statistical design. The reason the question was asked of Skalski is because Nordlund asked if it's possible to do dam survival type of modeling if you use a "virtual release" technique talked about in the November subyearling workshop. X number of fish in the reservoir would be the active migrants, and then you would release a similar test group in the tailrace. The problem with that is you can't guarantee that the fish released in the tailrace will have the same life history as the fish that arrived at the dam. Dotson explained that two years (2008 & 09) of pilot studies conducted at PR, using control fish being released into the PR tailrace, showed that control fish migrated very quickly down to Vernita Bar without any problems both years, so the survival percentage (99%) was high. Dotson believes the PR tailrace is unique because it doesn't have backwater reservoir impoundment taking place, but that if you're looking at Wanapum, those control fish do not migrate as quickly due to "lake-like" environment, compared to the swift moving "river" environment of the PR tailrace. Nordlund stated that Bickford gave a statement, more or less, that instead of trying to collect fish from Rocky Reach bypass, that they release a group of hatchery fish that have the same life history and use Pit-tags on them. Bickford thought it was possible. Grant PUD is proceeding with dialog with Chelan and Douglas PUDs with the intent of drafting a paper for the PRCC on this topic. Dotson would like to have it completed by the end of June.

XII. 2010 Fish spill Representatives: Curt Dotson, Jim Craig and Teresa Scott were selected as the 2010 spill representatives.

XIII. Follow Up to Fish Mode Operations Request from K. Nordt, Director of Power Management, GPUD: Dotson reminded members that at the November 2009 PRCC meeting, Kevin Nordt, Director of Power Management for Grant PUD, presented to the members an over-view of some of what the NERC requirements of Power Management are. At that meeting it was agreed that Grant PUD would provide a Statement of Agreement (SOA) asking for the PRCC's permission to utilize the generating capacity in excess of the maximum operating limit established by "Fish Mode" (FM), for each turbine-generator, as Emergency Contingency Reserve (ECR). ECR (spinning reserve) is a NERC/WECC required service for increased secure operation of the electric grid. Dotson distributed the draft Statement of Agreement and demonstrated on the white board what FM turbine operations look like. Turbines

are operated in FM from the end of April to the end of August. Dotson explained that the hydraulic capacity of a turbine is 17.5 kcfs, and that 15.7 kcfs is the upper limit on FM. Nordt has asked if Grant PUD can use the reserve above Fish Mode up to 60 minutes in case of an 'energy delivery' emergency. These instances would typically only happen in high flow years, so 2009 and 2010 would likely not see such a request for ECR. Going above FM would not occur very often, maybe 2 to 3 times a year. If it happened three times in a season (April - August), 180 minutes would be the maximum amount of time spent out of FM, and that not being all of the turbines at one time. What impact it would have on out migrating fish is a factor, noted Dotson, but he reiterated that Grant PUD intends on sticking to the number defined in the FM agreement. Carlon thought that with the new turbines, you could run a little higher and still be fairly safe with fish passage. He questioned if there is a way to prioritize the increase in generation to the new turbines when spinning reserve is requested. "Yes", stated Dotson, Grant PUD will establish a prioritized list starting with the new turbines. If more power were needed, operating procedures would be written outlining the plan, Dotson noted. Carlon asked if FM is the same for all turbines. Dotson explained that FM is the same for the entire power house, and that the limit on the new turbines is dictated by the old turbines. Carlon questioned to what extent PRCC approval would be able to set exceedance conditions. Dotson reminded members that Nordt had said the PRCC could re-visit their position if FM was exceeded 3 times in one year, or a minute limit per season could also be used. **Dotson will speak to Nordt concerning PRCC Fish Mode questions: What happens if FM is exceeded more than 3 times a season, and if a utility has requested power from all other sources, can Grant PUD deny that request if it means FM will be exceeded?** Dotson will send Nordt's response to questions asked via email.

Scott said that there was probably a lot of time and energy spent negotiating FM, and questioned why the PRCC would deviate from that. Dotson explained that FM was developed by Dotson and Jeske in 1996 when they were looking for the sweet spot to operate turbines for fish survival. Fish Mode seems to work well, and helps achieve good survival, especially through Wanapum, it was then added to the 2004 BiOp. Carlon explained that FM seems to work pretty well, as survival through the powerhouse has been a better route than spill has, especially at Wanapum. Dresser noted that FM is a requirement of the BiOp, but now we have new NERC standards that we have to meet as well. That's why Nordt's proposal is trying to allow Grant PUD the most flexibility it can. Dotson asked for any additional comments or questions. Rose asked what the impact of the survival measurement would be if all of the fish through the project were killed in one hour out of one month. Dotson said he can run that model on acoustic fish used in the past two survival studies. Rose noted that if survival was demonstrated to be at 93.5% that Grant PUD would still be over the survival standard if the PRCC had to use this authority. Rose suggests Dotson run a model rather than have Nordt come back to discuss this any further. **Regarding Fish Mode, Dotson will run the analysis using the three dates as 100% mortality date. Rose and Nordlund suggested taking the fish passage numbers for an hour of the highest passage and assign 100% mortality to them. Dotson will run the model using data from 2008 and 2009 fish in a low, middle and high scenario.** Nordlund's point is that if you're at 92.4% and you subtract from that, you are not meeting your standards.

XIV. Presentation by Elizabeth McManus, facilitator for the PRCC Hatchery Subcommittee:

- A. Discussion of Planning Activities in the White River Basin and Hatchery SC Coordination:** - McManus explained that she circulated her notes to the Hatchery Subcommittee so they are aware of the update she is giving today. She reported on the history of the White River (WR) program, long and intermediate program goals, current/future efforts, and challenges.

History: The WR stock is critically endangered and is one of the most genetically distinct stocks in the Columbia River Basin. Recovery of this stock is critical to meeting recovery goals in the Wenatchee Basin. The need to recover this stock was identified in 1995 with the first eggs being collected in 1997 when the captive brood was established. The 2004 Biological Opinion formalized Grant PUD's responsibility for supplementation in the WR and Nason Creek.

Program goals: The long term program goal is recovery of the fish. Recovery is calculated as a minimum of 20 natural redds, or 5% of natural origin spawners for the Wenatchee Basin. Which calculates to 50 redds, or 100 natural origin adults in the WR. Last year 400 fish returned to the entire Wenatchee Basin. The immediate goals are to establish over winter acclimation in the WR Basin, including temporary early spring acclimation sites that are relatively high in the system. Understand a significant outmigration problem, and to transition the captive brood to an adult based program.

Captive Brood: Captive Brood has been disappointing to date. Last year fish were moved to the Little White Salmon National Fish Hatchery (LWSNFH) to improve their survival. 1320 fish currently on station. A pedigree analysis is conducted after eggs and fry are collected in the wild. The wild by wild fish are moved to LWSNFH, raised for 4 yrs, spawned out, and raised at the hatchery until release in the WR in the spring.

Fish are being moved into the net pens at Lake Wenatchee this week, as well as a temporary acclimation pen at the McComas site later in the week. Tall Timbers (TT) isn't watered up yet (400 cfs is needed to water up this site), so fish might not be placed there this year. The hope to get one or two loads of fish this week. The Hatchery Subcommittee (HSC) identified priorities for fish placement at their last meeting. 48,000 BY 08 fish are being planted this year.

This year there has been a concerted effort by the HSC to provide for different release and acclimation strategies to try to figure out why outmigration survival is 3-4% rather than 65%. Return data: first captive brood marked fish were released in 2005. No adult returns observed from the 2005 or 2006 releases. In 2009, 19 BY 05 (released in 2007) adults and 35 Jacks and Mini Jack's returned. The HSC hypothesis' that the low survival numbers of out going migrants is caused by fish not ever making it to the ocean. Post release survival to McNary Dam was 3.5%+- 1% in 2008, and 8.3%+- 1.5% in 2009. The HSC drafted a Study Plan to try and find out what is happening. The Study Plan utilizes three main ideas. The first is to isolate Lake Wenatchee by releasing one group of fish from the net pens, and another at outlet in an effort to determine if predation in the lake is a problem. The second is to have temporary acclimation (McComas and TT if it waters up in time) sites higher in the system and use volitional releases. This will tell if volitional releases higher up in the system help with survival. Each of the four groups is individually marked. The third idea is to gather information on how the TT and McComas sites work for fish acclimation. 10,000 fish will be released from each location. If TT doesn't water up in time, those 10,000 will be added to the net pens. The 10,000 fish being released at the mouth of the lake will be flown there by helicopter. Data collected will help determine the future of the program. Dresser explained that data collected will be used to determine if the program should continue, or if a different direction should be taken. Dresser noted that the survival study was a request by the stakeholders. In 3 to 5 years, data will be collected from this study. Dresser is concerned how the data might be used, especially by those people that don't want anything done until the data is collected. Dotson suggests using an acoustic tag to conduct mobile tracking to see if residulization of the smolt in the lake is taking place.

Current/future efforts: The HSC is trying to decide if the captive brood program needs to continue. 2009 was the last year broodstock was collected. The HSC has talked about information they want to evaluate, and a decision process that will help them understand whether they think it would be a good idea to do additional captive brood collection or not. The HSC knows that due to policy implications, this issue will be teed up to the PRCC. HSC members have developed a list of information gathering responsibilities, and a timeline for putting together their concept of what the process should be to make a determination about the captive brood. McManus doesn't think it will be a surprise to hear that some HSC members think additional captive brood collection would be a terrible thing, and they are looking for information to convince them otherwise.

Facility designs will be worked on by the HSC this year. The overall thought for the McComas site is a small footprint for over winter acclimation on two acres, with significant habitat improvements being made to the remaining 15 acres. Vessel type and placement need to be determined at this location. The McComas site has great potential for habitat improvements and restoration.

McManus stated that the HSC has been pushing hard to achieve NNI soon. The date for McComas to be online is 2014. Substantive designs will be provided to the HSC in April 2010, and hope to have designs agreed upon by June 2010.

McManus thinks HSC members understand it is their job to look at the designs brought forth by Grant PUD carefully, and to work with each other to come up with a durable agreement so design and construction can move forward to completion. Rose asked McManus if a common understanding will be reached within the next six months with regards to how the McComas site will look, how it will function, and how it will work. She thinks so.

McComas was a compromise, but it was realistic. McManus thinks the HSC has found good ways to manage weaknesses associated with the McComas site by utilizing temporary upstream acclimation sites. McManus told PRCC members that if they think their organizations will change their policy views regarding site location, they need to do so soon.

PRCC members will talk within their own organizations about changing the acclimation site at McComas to Tall Timbers.

Happening this year to support transition to an adult based program is the exploration of broodstock collection using the parental based tagging approach. This pilot implementation plan was developed by WDFW and the tribes as an alternative to weirs on the Wenatchee River. This approach is conducted at Tumwater.

In an effort to accelerate the Nason Creek program, Grant PUD is exploring adult management spawning and early rearing at Eastbank Hatchery. An over winter acclimation facility would be built followed by a full blown hatchery.

Strengthening coordination, understanding, and insuring a consistent message between the Hatchery and Habitat Subcommittee's is important. It's also important that both committees' move forward in parallel paths while following the policy direction from their organizations.

Challenges: Stakeholder challenges makes working in the WR hard sometimes. McManus noted that the current effort to engage stakeholders is helping the movement move forward in a productive way. Figuring out outmigration can be tricky to figure out. McManus believes that generally HSC members have well aligned interests that help them work toward a common goal. They are doing better at decision making, but they need to make decisions faster and make them more durable because it holds Grant PUD up

from making decisions within the timelines they are working under. The HSC has asked that Grant PUD supply them with information faster so they can make decisions faster. She wants to remind people that Grant PUD's desire for clear and durable decisions isn't an isolated interest, everyone wants that. The main challenge of the committee is that members are super busy. McManus spends time getting them ready for decision making prior to meetings, but they don't always have enough time between meetings to do the work that needs to be done, to show up prepared to get things done. To help with this issue, she works hard with Grant PUD to identify decisions they need answered, and with committee members to make sure they know which decisions they will be asked to make at a meeting. It doesn't always work though. At the last HSC meeting the following decisions were made: pedigree fish analysis, fish placement in the WR. SOAs were agreed upon for work at the Carlton and Dryden Ponds. Two months ago, Methow acclimation sites were agreed upon. Personalities are challenging, but she thinks the committee is finding their stride. When to ask for policy direction has been challenging for all members of the HSC.

Fry conversion discussion between Grant PUD and SSSA signatories will be added to the next agenda.

Contact McManus if members would like to discuss anything further.

XV. UPDATES:

- A. Record of the PRCC Studies and Reports:** Rohr is currently updating the spreadsheet, but noted there have been no new additions.
- B. Committee Reports:** Committee Reports were distributed by Rohr for the PRFF, Fall Chinook Work Group (FCWG), and Habitat Subcommittee. **Rohr will distribute PRFF, Fall Chinook Work Group (FCWG), and Habitat Subcommittee committee reports electronically.**
- C. PR Left Bank Fish Ladder Maintenance:** Dotson reported that both Wanapum ladders were watered on March 18th. The PR ladders have not been watered up. There will be a Priest Rapids Fish Forum (PRFF) tour of the ladders on March 26th to look at lamprey modifications. The ladders will be watered up after the tour. Because modifications were completed earlier than originally thought, PR ladders will be watered up before April 1, 2010.
- D. Priest Rapids Bypass:** Dotson reported that tainter gate 22 will be part of the PR Bypass. He explained there is a metal bulkhead (gate) that sits in the west-facing entrance of the Left Bank (LB) Fish Ladder; an entrance that has never been used for fish ladder operations. In this area of the LB fish ladder (corner of the transformer deck next to TG-22) there are three entrances: two looking downstream and one facing toward the right bank, perpendicular to the flow. Dotson explained that when the Bypass is built, velocities will be 60 feet per second and this gate will most likely bounce back and forth, be very loud and create an area that causes rough hydraulic conditions for smolts. Dotson proposes that when the concrete work takes place on the Bypass production model, this metal gate be removed to smooth out the ladder entrance area creating one continuous wall for flow to pass. The fish ladder entrance would be taken out; it hasn't been used in the past and it's not anticipated it would be used in the future noted Dotson. The wall would be smoothed out to clean it up hydraulically, cutting down on maintenance issues created by high velocity flows. Because the 1:20 model is currently being built in Iowa and they have asked if this area needs to be built in the model, or if the wall can be smoothed, Dotson would like to have a decision on this soon. Members questioned the risk of smoothing it out? Dotson stated the only risk is that there would no longer be an option to have an entrance to the fish ladder in this location.
PRCC members agreed that the previously unused Priest Rapids fish

ladder entrance near tainter gate 22 be removed and smoothed out with concrete during construction of the PR Bypass and to incorporate this concept into the modeling of the Priest Rapids Bypass.

- E. Investigation of Wanapum Northern Pikeminnow Fishing Derby: Rohr will distribute a memo he drafted outlining information on Wanapum Northern Pikeminnow Fishing Derby.** PRCC members don't anticipate that a derby could take place this year.
- F. Mass Marking Dispute:** Rohr reported that the decision regarding mass marking of PR fall Chinook decision has been extended to May 31, 2010. Discussions are ongoing regarding this topic.

XVI. Approval of Meeting Minutes

- A. January 27, 2010 minutes - Approved. Williams will distribute the January 27, 2010 PRCC meeting minutes to the committee.**
- B. February 24, 2010 minutes - Nordlund requested additional review time. Rohr was asked to edit the minutes to reflect that acclimation shall not be precluded from the Tall Timber proposal.**

XVII. Next Meeting: April 28, 2010; Grant PUD SeaTac Office