
Rocky Reach Meeting Minutes

To: Distribution List
From: Jeff Osborn
Date: March 9, 2000
Subject: Rocky Reach Natural Resource Issues
Attendees: Refer to Sign-Up Sheet
Location: Chelan PUD Auditorium, Wenatchee, WA
Time: 9:00 a.m. – 3:00 p.m.

Meeting Purpose

- 1) Finalize 2000 Study Plans:
 - a) Bull Trout Investigation
 - b) White Sturgeon Investigation
 - c) Literature Review
- 2) Provide Updates on issues and studies related to Rocky Reach relicensing

Bull Trout Investigation Study Plan (Methodology Comments)

The purpose of the study is to assess the effects the project has on bull trout migration. Jeff (PUD) stated the main issue is how to capture the bull trout. He indicated that 1998 & 1999 ladder counts (available on the Web site) show that of the 130 bull trout that passed through the Rocky Reach adult fishways, approximately 70% passed within a three week to 4 week period (3rd week of May and 3rd week of June). A more condensed movement through the ladders within a 2 week time period (between May 31 and June 15) show that a significant amount of fish passed in a relatively short period of time. He realizes that to trap in the ladders would pose the issue of incidental catch of spring chinook and summer steelhead. The trapping facility at Rocky Reach could close off the entire ladder and it is not intended to prohibit species other than bull trout from passing.

The trap that would be used is a wooden trap that would be lowered into the adult fish way, just below the fish counting window. It has two “V” shaped entrances that fit over the upstream orifices and has a narrow exit down in the lower right hand corner of the fish ladder; the trap covers the entire fishway. The trap was initially designed to trap fish and transport them to Turtle Rock. The proposed modification is to install video cameras on the “V” entrances. The idea is that if a bull trout entered the trap it would be isolated, instead of trapping everything.

Jeff explained that fish would only be handled when the trap was raised and the trap would only be closed when a bull trout was observed in the trap. The goal is to tag 20 at Rocky Reach, 10 at Rock Island and 10 at Wells Dam. He explained that there is not a trapping facility at Rock Island. A suggestion made by one of the fishway attendants was that if a large number of spring chinook were observed passing the project, the trap could be pulled up and not used. If the working group agrees on this method, Jeff will write a proposal in order to get the necessary permits.

Jeff (PUD) explained that currently there is a monitoring system in place for the adult steelhead migration study. Fish are being tagged at Priest Rapids and tracked through the whole mid-Columbia into the tributaries. There are fixed monitoring stations, not only at the dams, but the Wenatchee, Entiat, Methow and Okanogan tributaries. An idea is to piggyback the bull trout study with the steelhead study. Bull trout tags could be read at the same

frequency, but still could be distinguishable from the steelhead. Shane Bickford, Douglas PUD mentioned that the fixed monitors would be pulled in June. Jeff (PUD) commented that if monitoring can not be done before the monitors are pulled, the group could work on the logistics and is ready for implementation in 2001. He continued by saying that there may be some initial trapping studies that could be investigated in 2000 to determine if there is a significant delay in the proposed trap and help the group determine if that is the method that should be used. Tony Eldred (WDFW) suggested testing the trap early in the chinook run to determine if the physical presence of the trap effects the movement of the run through the ladder. The fishway attendant could assess delayed success of passage. Jeff (PUD) stated that if we took that approach he would include Chris Nystrom and Lowell Rainey, who are two attendants at Rocky Reach.

Phil Archibald (USFS) asked if it would be possible to dive for fish in the fishway at night. He explained that in 1998 WDFW dove at night for bull trout tissue sampling. The advantages of diving would be that it would be more selective and less intrusive overall than trapping. Jeff (PUD) will ask what the velocities are in the fishway. The general consensus of the group was that this would be very difficult and dangerous.

Jeff (PUD) mentioned that it is also difficult to obtain monitoring equipment. Phil (USFS) stated that there are good reasons to sample in 2000 because based on spawning surveys, it appears that 2000 is going to be a good year for spawners. Also, from the 1998 & 1999 Rocky Reach counts, the investigation could begin as late as June and still be effective. Gregg (PUD) pointed out that there are two major issues that need to be resolved before proceeding:

- 1) Monitoring Equipment
- 2) Consultation with NMFS

Barb Kelly Ringel, (USFWS) explained that USFWS would be conducting a study to assess the fish passage issue in the Icicle River. They will tag 15 fish in the Icicle, 10 fish in each Lake Wenatchee, Chiwawa River and at Tumwater. USFWS would like to coordinate with the PUD if fixed monitoring stations are used in our bull trout investigation.

Gregg (PUD) referred to a letter that was sent to FERC from Mark Miller (USFWS) regarding the ESA listing, and asked how does the discussions today fit in with the letter to FERC and the ESA consultation. Mark (USFWS) explained that the concern is that bull trout have been given very little consideration and the letter was to notify FERC that USFWS has ESA concerns with bull trout in the main stem Columbia related to FERC relicensing. Mark mentioned that the USFWS has no immediate plans for bull trout, but the letter was intended to put everyone on notice that bull trout need to be studied and to initiate consultation. Mark Miller also stated that the current studies proposed for relicensing would satisfy the USFWS's current needs.

Additional recommendation was made by Rod Woodin (WDFW) to conduct mobile tracking. Tony (WDFW) suggested one monitor at the mouth of the Wenatchee to determine if they come down the main stem and if they do, where do they go and does the project affect them. However, if fish do come into the main stem he does not support mobile tracking. Barb (USFWS) had concern of the release of fish. Her opinion is that 24-hours is too long to hold the fish and would like the fish released where they were captured except if they were captured in the fish ladder. Jeff (PUD) stated that 24-hours was discussed to assure recovery and if fish were captured in the ladder, he would recommend releasing in the forebay, however both issues are open to recommendations and discussion. The group also discussed the hook and line method if traps are not feasible. Art (WDFW) indicated that one advantage of hook and line is that it can be very selective and would avoid effects on salmon. USFWS would consider this method, but would first have to look at the situation.

In conclusion, Gregg (PUD) highlighted the next steps:

- 1) Stations/monitor, logistics and availability
 - a. Fixed
 - b. Mobile
- 2) Trap logistics and design
- 3) Trap testing
- 4) Consultation with NMFS/USFWS
- 5) Fixed stations at Wenatchee
- 6) Literature Review (can be done in 2000)
- 7) Hire Consultant
- 8) Radio Tagging Study (contingent upon 1-7)

White Sturgeon Study Plan (Methodology Comments)

The PUD has proposed and is in the process of getting a better definition of long-lining and gill-netting in the study plan. The plan is to initiate spring sampling in April. Grant PUD is conducting an extensive 3-year survey. Phil (USFS) agreed that we should stay in contact with Grant PUD and the work they are doing. Rod (WDFW) recommended to conduct a literature review on spawning in the lower Columbia and Snake Rivers. Jeff (PUD) pointed out the literature review is "Task 1" as well as being addressed in the Aquatic Habitat Mapping.

Literature Investigation

The Literature Investigation describes six issues that were identified by the working group during the issue identification phase. These issues needed more discussion, but did not require a full study at this time. The issues are pacific lamprey, access at the Wenatchee River, function of large woody debris, sediment transport, resident fish predation on anadromous fish and modified pool operations on riparian vegetation. Based on the information gathered, a field study may be proposed in the future. A proposal will be put out for bid to a consultant.

Habitat Conservation Plan (HCP) Whitepaper

The whitepaper is a brief describing what the HCP is and how it is related to Rocky Reach relicensing. USFWS has submitted a comment letter. Jeff (PUD) pointed out that "Section 4" describes the relationship, which explains that the HCP will be a sub-component of the licensee that deals with anadromous fish. The first draft of the EIS for the HCP was received today and after PUD review will be available for public review and comment. Rod (WDFW) asked how proposed conflicts will be identified between relicensing and the HCP Forum. Steve (PUD) stated that Chelan PUD would not develop anything in conflict with the HCP. Gregg (PUD) added that the goal is to develop a plan that everyone can live with.

Mule Deer Mortality Study Update

Jeff (PUD) distributed a study update that was prepared by Woody Myers (WDFW). The focus of the study is on mule deer, but the emphasis for Rocky Reach relicensing is to use mule deer as an indicator species to assess the health of wildlife habitat on the 20,000 acres of mitigation lands. Joe Kastenholz (USFS) would like a clarification on where the focus is on capturing and radio collaring. Jeff will check with either Woody or Paul Fielder (PUD). Tony (WDFW) explained that Paul Ashley has just completed an impact assessment caused by the Box Canyon Project. Tony has asked Paul to discuss with Lou Bender (WDFW) to make a more informed assessment of how comprehensive the mule deer landscape analysis will be. When that is completed, Tony would recommend that Paul present his assessment to the working group. He concluded by saying that the original license did not include O&M funds for the mitigation lands and WDFW would like to see funds for the three wildlife areas, Swakane, Entiat and Chelan Butte. Gregg (PUD) stated that the original license purchased 20,000 acres of land to compensate for the inundation of 1,300 acres and the one of the reasons for this 15:1 ratio was to cover future O&M costs. He concluded by saying that the Recreation Working group has expressed the desire that some of the lands be used from an educational perspective. For example, if it was decided to revegetate those areas, it could be used as potential classroom activity. It has also been suggested to possibly develop trails for nature and educational purposes.

Washington Department of Ecology (DOE) Expectations

Chris Maynard (DOE) discussed their expectations on water quality and total dissolved gas issues. Chris is responsible for the Columbia Basin. His main focus is dissolved gas at the PUDs but also works on temperature issues for the federal dams.

The Washington Department of Ecology (DOE) has a water quality standard that is 110% saturation for dissolved gas that have been increased in order to pass fish over the dams. DOE also looks at temperature. However, since temperature is a fairly difficult issue, the focus of this presentation will be on total dissolved gas. Chris stressed that the 401 Certification for relicensing the Rocky Reach Project is very important and DOE can not write the 401 Certification unless dissolved gas standards of 120% are met.

The total dissolved gas standard is 120% during fish spill season; however, that standard is temporary until 2003. The reason for the temporary standard is, which DOE understands, that dams cannot provide spill for fish passage and meet the 110% standard. However, DOE is requesting that the projects do as much as they can, including spending a fair amount of money to investigate all of the options. The options could be spending millions of dollars in structural modifications, dam removal, or the installation of deflectors that would push the water over rather than

plunging, which creates gas. If the standards can not be met, there will be a solid place to start from in terms of how to deal with not being able to meet the standards in order to proceed with the FERC license.

Chris explained Canada has many storage dams that do not have a hydropower element. These dams spill all of the water and that creates a tremendous amount of gas. That water comes into the United States all the way through the turbines at Lake Roosevelt and Grand Coulee eventually making its way to Rocky Reach. He mentioned that passing total dissolved gas from one dam to another is a big issue. Currently, DOE is working with Canada and having some success; however, they do not have regulatory oversight. Washington has adjusted its standards to 120% total dissolved gas for fish passage; but, in order to do that, the operators need to provide an abatement plan and also do biological monitoring.

Rod Woodin (WDFW) wanted to clarify that the goal for the abatement plan should be directed at reducing the dissolved gas to 110%. Chris responded yes. He felt that there will be engineering solutions that will indicate if fish can pass and stay at 110%. DOE will re-evaluate that in 2003 and rebalance the equation.

Steve Hays (PUD) mentioned that almost all other water quality issues are expressed as Total Maximum Daily Load (TMDL) and dissolved gas. As he is aware, the law is read in a very narrow manner and could be responsible for reducing gas arriving at the dam to meet the standard. He heard there are possible efforts being directed toward changing the standards with TMDLs. Chris explained that The Clean Water Act has a TMDL, which is a way to deal with waters that are exceeding standards. Pollutant loads are allocated in order to reach standards. If there are many polluters on the river, then you figure out how much each polluter can put in. EPA is supposed to be responsible for doing the TMDL for the Columbia River. He explained that DOE cannot enforce the TMDL standards because the river crosses state boundaries and they do not have say in Oregon, Idaho or Canada. A TMDL will probably have to be done before a water certification can be issued but that is not "cast in stone." A TMDL will show if you will meet water quality standards. The dams operations are responsible for the pollution they create.

He mentioned that Rocky Reach may be at 120% because of Wells Dam, Chief Joseph Dam, Grand Coulee Dam or Canadian dams. If a TMDL is done and those loads are allocated, it can make it more system wide and a fair distribution of responsibility for creating gas. Steve (PUD) wondered if DOE would require that a project be responsible of always reducing dissolved gas arriving higher than the standard. He questioned this because outside the fish spill season, it is conceivable that you can have gas levels coming in above 110% at our projects. Would the PUD be responsible to lower them to 110% in order to get a 401 Certification? Chris responded that the PUD would not be able to increase the gas. Jeff (PUD) asked if gas coming into the project was at 122%, would DOE expect that it would go out at 120% or just no more than 122%? Chris stated that the PUD would not be responsible, with the caveat that there might be opportunities for gas reduction at some dams and not others, so there might be some "horse trading" that could be done. He continued saying that water quality is a very unusual situation because what is really being done is cleaning up pollution as it is being created over the dams. Traditionally, a facility is not responsible for the pollution coming in. Steve (PUD) asked if in 2003, would the standard be reviewed in a biological perspective as well as from an engineering practicality perspective? Chris (DOE) mentioned that it would have to be considered because the standards change, it needs to be evaluated based on the use of the river, benefits versus potential problems being over 110%. Impacts on resident fish and benthic organisms also need to be considered.

Chris distributed letters outlining DOE's expectations under the water quality standards. He noted that it comes down to biological monitoring, physical monitoring and gas abatement plan. The biggest part, in his mind, is the gas abatement planning and developing a plan and schedule for conforming to standards. He mentioned that the agenda is fairly aggressive in the way of planning and implementing an operations or structural modifications for the dams in order to come as close as possible to the standards by the time the license is due. Chris's main message is to do everything possible to get as close to the standard and to develop a basis to show that PUD has done everything possible to either come close or in meeting the standard. It is in the PUD's best interest to do it. The goal is to meet current standards.

Jeff (PUD) asked if the standard is 110% or 120% during the fish spill season. Chris replied that the standard is to strive toward 110%. The 120% is a standard that has been adjusted for five years based on the risk balance for passing fish versus the damage caused by gas. It was an emergency measure adopted into the standards and it will be

reviewed to see how far the operators have been able to move to pass fish and still get below 120% to 110%. He concluded by saying that it is an ongoing expensive learning experience.

STUDY UPDATES (see study summary handouts)

Aquatic Habitat Mapping

The purpose of the study is to map the habitat in the Rocky Reach reservoir. The study was also designed to lead in to the fish studies. The mapping is a data intensive study, and Duke Engineering is in the process of analyzing the data.

Fish Presence & Habitat

The handout summarizes the fall inventory of species in the reservoir. The brief summary documents where the sampling occurred, gear types and the fish that were captured. Jeff (PUD) mentioned his desire to do some electrofishing to get a better representation of fish presence. The survey will resume in April 2000.

Creel Survey

The methodology used in the Rocky Reach survey was the same as Lake Chelan. Initial sampling was conducted during the day, but realized that most fishing occurred early in the morning and late evening. Overall, the number of survey days and the number of anglers surveyed were very low and it is assumed that the use of Rocky Reach is much different than Lake Chelan. The survey will resume in April and run through July 2000. Jeff understands that there is a lot of use on the reservoir right now (the walleye fishery), that will not be captured and asked the group that if there are other sources that can be accessed to capture the time frame not being addressed.

Macroinvertebrate Sampling

Sampling is complete and the organisms have been sent to the taxonomist, but have not all been identified. Preliminary results indicate that there is a limited macroinvertebrate diversity and abundance in the reservoir. Final results will be available sometime in May.

RTE Wildlife Study

Chris Vera, Duke Engineering & Services conducted the initial survey, and he will provide a more detailed summary of the survey so the working group can identify index sites for a more intensive study. Jeff added that this work would be done in coordination with Douglas County, as they are doing their Shoreline Master Plan and are interested in gathering or adding to the data.

Next Meeting

April 2000

Action Items

- ✓ Jeff will develop bull trout proposal for NMFS/USFWS consultation
- ✓ Jeff will check with Woody Myers or Paul Fielder the focus of capturing and radio collaring mule deer.

Reference materials are posted on the web site, www.chelanpud.org/relicence. Please contact Rosana Sokolowski, (888) 663-8121, Extension 4290, if hard copies are required.

- ✓ Sign-up Sheet
- ✓ Distribution List
- ✓ Aquatic Habitat Mapping Summary
- ✓ Creel Survey Summary
- ✓ Fish Inventory Surveys Summary
- ✓ Macroinvertebrate Sampling Summary
- ✓ RTE Wildlife Study Status Report