



Baker River Project License Implementation

Aquatics Resource Group Meeting Final Meeting Notes

February 9, 2010 ~ 9 am – 3:00 pm
**PSE Skagit Center, Burlington, WA
Conference Room**

Team Leader: Arnie Aspelund, PSE, (arnie.aspelund@pse.com)

PRESENT: Arnie Aspelund, Doug Bruland, Nathanael Overman, Cary Feldmann, Mark Killgore (by phone), Heidi Hansen, Jacob Venard, and Nick Verretto (by phone) (PSE); Phil Hilgert and Tim Sullivan (R2 Resources); Brock Applegate, Brett Barkdull and Steve Stout (WDFW); Kara Symonds (Skagit County Public Works); Lorna Ellestad and Jeff McGowan (Skagit County); Chuck Ebel (USACE) by phone; Stan Walsh and Devin Smith (SRSC); Craig Olson (NW Indian Fish), Bob Helton (Citizen); Ashley Rawhouser (NPS); Steve Fransen (NOAA) by phone; Scott Lentz (USDA Forest Service), Marty Vaughn (Biota Pacific), Lyn Wiltse and Candace Wilson (PDSA Consulting, Inc.)..

NEXT ARG MEETING: March 9, 2010 at 9-11 a.m. Conference Call and April 13, 9 a.m. – 3 p.m. at PSE Snoqualmie Operations Center. (Directions will be included on the agenda for that meeting.)

DECISIONS – Notification requirements were met, a quorum is present, and proxies were noted, so we agreed that we can make decisions today. **Proxies:** none.

NEW ACTION ITEMS

- All Let Arnie know of any updates to the ARG representation list.
- Heidi Get details on hatchery raceway coating colors to Arnie for interested members of the ARG.
- Craig Send Stan a copy of the current IHN protocol.
- Co-managers Define the brood stock allocation protocol and send it to Arnie by end of May.
- Jacob Send out Lewis River USF&W 2-step proposal process to ARHWG members.
- Marty Send out an updated draft of the ARP to ARHWG members by the end of February.

PREVIOUS, STILL RELEVANT, ACTION ITEMS

- Jed Reconvene a teamlet in April / May 2010 to address sockeye fry release strategies.

REVIEW OF AGENDA, NOTES, HANDOUTS

The notes were reviewed from the January conference call and accepted with no changes. The agenda was reviewed. The March 9 meeting will be a conference call and the April 13 meeting will be held at Snoqualmie Operations Center to continue the pattern of alternate conference calls and face-to-face meetings. Meeting notes were approved as submitted. New attendees Ashley Rawhouser (NPS) and Heidi

Hansen (PSE) introduced themselves.

BRICC / LICENSE UPDATES

Cary Feldmann reported. The BRCC has not met face-to-face for several months and will meet in person in April at the Snoqualmie Ops Center. They continue to send monthly email updates from each of the resource groups on the 4th Wednesday of every month.

FISH PASSAGE TWG

Article 103 - Nick reported that the Adult Trap construction is proceeding well. The superstructure has been removed. Substantial completion is scheduled for May 1; startup is June 1 after a month of testing. There will be post-construction evaluation to address decreased entrance flow issues to be discussed at the Fish Passage meeting on February 19. There will be another six meetings through this year to address design stages. The 30% design meeting for the Lower Baker FSC will be the end of April. There will be a design freeze at 30%, indicating that all major components have been determined and agreed, allowing focused detailed design development. A Value Engineering session will be held prior to that point. 100% design is scheduled for January 2011.

The emergency response plan and standard O&M plans for the trap will be out shortly for 30-day review.

Article 104 – Nathanael Overman will be the PSE lead on the connectivity study, with Phil Hilgert continuing in his central role.

Article 105 – The performance study at Upper Baker continues. This year the sample size will be the entire run to determine flow preference rather than performance. A tag study will be resumed in 2011.

A contract was signed with Montgomery Watson Harza last week. The siting decision on the location of the FSC was revisited and confirmed. Factors affecting this decision are biological studies, mooring considerations, tree survey, historical and archaeological considerations, and flow modeling, which is soon to start. All the tree survey and historical and archaeological information has been reviewed, and reinforce the previously proposed site. Flow modeling is the only remaining contingency, and will be conducted over the next two months.

Geotechnical work has been completed. Drilling was performed at mooring and pier locations. The FSC channel hydraulics model is being calibrated now and will be discussed at the Fish Passage meeting. A 30% design meeting will be conducted end of April with a reduced level Value Engineering session ahead of that. Alternatives for the Gulper, which is part of the historic district, are being discussed in the CRAG.

Land acquisition activities are also underway. Considerations include staging and access. Alternatives are being reviewed. Underwater tree removal is being planned for net alignment and possibly mooring. Tree removal will be carefully staged and most likely performed this summer. There will be consultation on this, but the plan has not been fully developed. Brock mentioned PSE will need to file a JARPA and will need to work with Habitat Biologist Wendy Cole.

The overall schedule is still being developed; a preliminary one may be ready by the Fish Passage meeting. If anyone needs more information, please contact Arnie.

BAKER FISH HATCHERY CONSTRUCTION UPDATE

Heidi Hansen, new Project Manager for the Hatchery Construction project, walked us through an update. Substantial completion is scheduled for June, followed by work on the spawning beaches. Two of the AI raceways have been completed and are being coated with epoxy. Leak testing for the head tanks has been completed. Next month the head tank and sand separator system will be used for water supply.

Excavation for the circular tanks has begun. The generator has been installed and tested. Retaining walls have been completed and backfilled. Craig asked for information on the raceway color choices. The spawning beaches will not be available this year. The new hatchery will have greater capacity (7 million fry). Production from the spawning beaches will be transferred to the new hatchery in 2010, while the beach is out of service for the planned improvements.

FISH OPERATIONS

Smolt - Doug Bruland reported that 5,000 sockeye have been freeze-branded and will be released into Baker Lake in April. There are three Coho groups: one will be released into Lake Shannon and two into Baker Lake in April. Rainbow trout: a little over 8000 were moved recently from circulars into the trout pond. This had to be delayed due to work on the retaining wall.

Incubation – Brood stock Coho: There are 230,000 Coho eggs shocked and mort picked and in the final stage of incubation. Starting the second week in March they will be moved into raceways. They are at 3% loss so far after shocking and picking; this will probably go up. There was significantly more loss on the last take.

Sockeye Spawning Beach and AI Operations

The adults have been removed from the spawning beach. A dozen fry have emerged so far from the gravel. They go through a counter and into a hopper and get hauled. The first haul went well. Within a week or so the numbers should start ramping up, and hauling will be adjusted to get them to Baker Lake. They look good so far. No evidence of IHN based on early removal from the beach.

If treatment for IHN becomes necessary, the new chlorine building should be ready by the time would typically be needed. Treatment has not been needed for about 8 years. Samples are regularly analyzed, and IHN has only been detected at the end of the run, if at all. Only the affected beach would need treatment. The process is to install a screen to capture the fry, destroy them, and send the effluent into the new raceway for treatment. Craig indicated the protocol has been updated with few changes.

Approximately, 1.7 million sockeye eggs are in the incubation stacks, shocked and picked, and 236,000 Coho eggs are also shocked and picked in the incubation stacks. The first fry will emerge in early March. They will go into the 3rd raceway, be fed for a short while, and then released to Baker Lake to give them a good start. There is under 5% loss this year.

ARTICLE 101(c) Update – Sockeye Productivity Study

Tim Sullivan from R2 walked us through the preliminary findings of a Sockeye Production Capacity report including study components, sampling status, sample sites, preliminary zooplankton data, and preliminary water quality data, euphotic zone depth (EZD) and Secchi disk transparency (SDT) – preliminary trends, and 2010 spring sampling.

The goals of the study are to study the zooplankton biomass to estimate production capacity, to identify

the bloom timing, and to corroborate 10-meter tows to see if any zooplankton has been missed in the past.

Full depth tow samples will resume this winter, starting in late February. Water quality, water temperature, and EZD and SDT sampling will also be performed, with the last sampling to be performed in April. Data should be available in the summer, with analysis and a final report due in September.

The sites may be more productive than thought due to the nutrient availability, but it's hard to say at this point. Earliest sampling was limited last year due to ice on the lakes.

The final report will be presented at the September ARG meeting.

ARTICLE 104 UPDATE – Connectivity, Native Char Study

Nathanael Overman walked us through his report on connectivity between Lake Shannon and Baker Lake, which focused on a genetic study of bull trout in the Baker basin. Tissues samples were collected between 2002 and 2009 at locations throughout the watershed including Sulphur Creek and the upper Baker River. Genetic analysis indicated several distinct populations of bull trout. Genetic diversity increases moving down through the system. Diversity in the tributaries appears to be lower than in the lakes. Despite years of transporting fish into Baker Lake, few out-of-basin bull trout show up in the analyses.

The primary goal of Article 104 as expressed by the USFWS is to get the majority of Upper Baker origin bull trout back into Baker Lake to preserve the reproductive potential for spawning in the upper Baker watershed. This will require some kind of fishway. Several options for a fishway were discussed including a weir on Sulphur Creek, a fish trap near Upper Baker Dam, and angling. There are pros and cons for each approach.

Next steps:

- Meeting with USFWS Feb. 26 to discuss whether to modify the current protocols.
- Continue tissue sampling and genetic analysis of bull trout at adult trap.
- Continue consideration of fishway options.

OTHER LICENSE IMPLEMENTATION UPDATES

Article 107(c) - Flood Management

Mark reported that PSE is in negotiations with Tetra Tech and is working with the Corps on consistency. There will be an update for the March 9 ARG conference call meeting. He hopes to have results of some of the analyses of critical flood events by May. There will be a draft of final results available for presentation at the June ARG meeting. The goal is to get as much done this year as possible and to have the protocol ready for the 2010-2011 flood season.

AQUATIC RIPARIAN HABITAT WORKING GROUP (ARHWG) Meeting

Article 505 Plan

Marty Vaughn presented the current draft of the Aquatic Riparian Habitat Plan, and outlined a table that tracks comments and responses. He recommended that ARHWG members review the ARP draft and make sure their comments have been incorporated. He reviewed a list of topics that will need further discussion. *Below, are the topics Marty presented, and the discussion by those who were present at*

today's meeting. On March 4, the group will meet all day at the Skagit Center to wordsmith and work through the most recent version of the ARP.

1. Resource Project Solicitation Process

RFP vs. open solicitation - The group *that was present expressed a preference* not to use a formal RFP process to solicit projects, but rather to have an open solicitation process including an annual announcement of available funds (by January 15?) to all ARG, TRIG and BRCC members. Timing needs to be worked out. Proposals will need to include information about timing issues. Proposals can also be presented at other times during the year as things come up. Marty will write up a couple of options for the group to review, and this will be discussed further at the March meeting.

Unrestricted vs. focused types / locations – This will be discussed further at the March meeting.

2. Resource Project Proposal Format

Appendix A – The group *expressed a preference* to include a list of proposal contents for FERC rather than an official proposal format. The format can be developed later. One item that needs to be included: “is this part of or contingent upon another project?”

3. Resource Project Evaluation and Selection Process

Step-by-step process vs. open – Two-step process with a pre-proposal, Q&A (e.g., does this project meet the goals of the article?) in November / December, followed by detailed proposal. This can be discussed further March 4. In the meantime, Jacob will send out Lewis River USF&W 2-step proposal process to ARHWG members.

4. Resource Project Evaluation and Selection Criteria

Predetermined vs. case-specific evaluation – Keep it simple! This will be discussed further in March.

5. Cost-Benefit Analyses

Need to define “cost”. This refers to evaluating the cost of this in comparison with other proposals and the amount of funds available. When analyzing costs we need to ask “What happens if this project doesn’t happen?” Are there alternate actions for the site?

6. Land Acquisitions

Process and responsibility for finding potential lands - Do we invite proposals or do a deliberate search?

Evaluation / selection process specific to lands – Will have to meet geographic constraints, etc. of the article.

AGENDA for March 4 ARHWG meeting.

1. Review edits to ARP
2. Review the 6 discussion items for more clarity
3. Interim Proposal Plan?

HANDOUTS

- Agenda, Notes

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- 2010 Meeting Schedule
 - Representation Schedule
 - Email from Cary on Monthly Updates
 - Fish Hatchery Update
 - Baker Sockeye Production Capacity – Interim Report
 - Baker Lake Sockeye Update
 - Baker Incubation Worksheet 2009
 - Genetic distribution of Baker Basin Bull Trout
 - 2009-10 Baker Adult Fish Trap Protocol
 - Baker River Adult Fish Return

MEETING EVALUATION

Worked Well:

- WebEx was great for conference calling
- Location works well
- Good that Arnie brought the eggs

Do Differently:

- Hard to hear at times on the phone

TOPICS FOR NEXT ARG MEETING – March 9, 2010 Conference call / WebEx Meeting

1. Review meeting notes/agenda/action items from February 9, 2010 meeting
2. BRCC and License Process Update
3. Fish Passage Technical Working Group Update
4. Baker Fish Hatchery Construction Update
5. Fish Facility Operations Updates
6. License Implementation Updates
 - Article 107(c) – Imminent Flood Management
 - Article 505 – Aquatic Riparian Habitat Plan
7. Evaluate meeting, set agenda for next meeting (April 13, 2010 in person meeting)