

---

## BAKER RIVER PROJECT RELICENSE

### Aquatic Resources Group

October 14, 2008 (9:00 a.m. - 3:00 p.m.)

WDFW Mill Creek Office  
16018 Mill Creek Boulevard  
Mill Creek, Washington 98012-1296  
Telephone (425) 775-1311

Conference Call Line: 1-888-228-0484, ID: 6058, Password: 12345

Please tell Arnie (425-462-3442 (w) or 206-276-0316 (c)) if you plan to call into meeting

### AGENDA

|   |               |
|---|---------------|
| 1. Review notes/agenda/action items from September 9th, 2008 meeting  | 9:00 - 9:30   |
| 2. Review recent BRICC meeting activities, licensing updates?   | 9:30 – 10:00  |
| 3. <b>Decisions Required at Today's meeting</b> (Detailed information Attached (if needed))<br>None [this is a placeholder for license implementation level decisions]  |               |
| 4. Brief Updates Fish Facilities Operations Topics <ul style="list-style-type: none"><li>• Sockeye Spawning Beach and AI Operations (WDFW/PSE)</li><li>• Sockeye Fry Releases (WDFW/SRSC/Upper Skagit)</li><li>• Fish Rearing Inventories &amp; Releases (PSE-Bruland)</li><li>• Adult Trap Protocol Update or Changes</li></ul> <p><i>Break at 10:30</i></p> | 10:00 – 11:00 |
| 5. Hatchery Update – 100% Design submittal<br><i>Lunch Provided at 12:00</i>  | 11:00 – 12:00 |
| 6. FPTWG Update <ul style="list-style-type: none"><li>• UB FSC 2008 (1<sup>st</sup> yr) performance review &amp; 2009 study development (PSE)</li><li>• LB FSC design initiation, Adult trap construction update, Article 104 (connectivity) status (PSE)</li></ul>   | 12:00 - 2:45  |
| 7. Other License Implementation Planning  | 2:45 - 2:55   |
| 8. Evaluate meeting, set agenda for next meeting (November 13 <sup>th</sup> , 2008 at Mill Creek)   | 2:55 – 3:00   |

---

---

## Baker River Project License Implementation

### Aquatics Resource Group Meeting Final Meeting Notes

October 14, 2008 ~ 9 am – 3 pm  
WDFW Office ~ Mill Creek, WA

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

#### PRESENT

Arnie Aspelund, Cary Feldmann, Ginette Lacasse, Anna Kopitov, and Doug Bruland (PSE); Phil Hilgert and Eric Jeanes (R2 Resource Consultants); Mort McMillen (McMillen Engineering); Jed Varney, Brett Barkdull, and Rich Johnson (WDFW); Jon-Paul Shannahan (Upper Skagit Tribe); Chuck Ebel (USACE); Arn Thoreen (Skagit Fisheries Enhancement Group); Steve Fransen and Ed Meyer (NMFS); Stan Walsh (SRSC); Bob Helton (Citizen); Stan Zyskowski (NPS); Lyn Wiltse and Jamie Riche (PDSA Consulting, Inc.).

**NEXT ARG MEETING:** Nov. 13, 2008 (*note: this is a Th*) ... then generally second Tuesdays: Dec. 9  
**Proposed for 2009:** 1/13, 2/10, 3/10, 4/14, 5/12, 6/9, 7/14, 8/11, 9/8, 10/13, 11/10, 12/8

#### NEW ACTION ITEMS

- Arnie: Attach PDF of Eric's PowerPoint presentation to these notes
- Jed: Report on fry allocation between the 2 reservoirs (in spring)
- Eric: See if we have acoustic tag data for sockeye in the river and throughout the system
- Jon Paul: Set up follow-up meeting with co-mgrs and PSE to discuss smolt releases
- Jed: Look into disease policy issues re: WDFW's request to plant Rainbow in Grandy and Vogler
- Cary: Check w/ PSE re: WDFW's request to plant Rainbow in Grandy and Vogler
- All: Review Appendix J (Response to Written Comments) of the hatchery design docs
- Eric: Create PDF of FSC Study PPT and send to Arnie for attaching to these notes
- Cary: Ensure PPT PDF is included in hard copy / disk of today's notes for folks w/o email

#### PREVIOUS, STILL RELEVANT, ACTION ITEMS

- Arnie: Schedule a reliability / mid-C study / climate change dialogue for an upcoming ARG meeting
- Arnie: After the summer field season, bring together smolt capacity study teamlet (Arnie, Stan Walsh, John-Paul, Peter Kiffney (NOAA), R2-Phil Hilgert, Tim Sullivan)  
[Teamlet met 9/29/08 will meet again 10/30, then plan to report at the Nov. ARG meeting]
- Brett: Set up meeting w/ co-mgrs to address holding early returns for lake plants of sockeye adults

#### BRICC / License Updates

The next BRICC meeting is scheduled for October 22 at our Mill Creek location. Steve Hocking (FERC) told Cary on 9/16 that he thought the license would be out within 30 days. We hope to get it by the end of

the month. The license is expected to mirror the Settlement Agreement very closely due to the Cushman decision about 4(e) conditions.

Whoever owns the project will be required by FERC to comply with the terms of the license.

## **FISH OPERATIONS**

**Sockeye Spawning Beaches & Artificial Incubation:** Sampling is underway, and Jed reported some observed spawning activity at the beaches. Pre-spawning mortality has been typically low this year, and there has been no IHN so far. We reviewed the season totals handout; there were 570-580 in each beach section and about 800 in the trout pond for artificial incubation brood stock.

We discussed the lack of adult escapement into the system, including the beaches, and wondered if we can compensate for this by increasing our fed fry capacity to increase the number in our late release program. Doug and Kevin will investigate. Note: Hatchery construction in 2009 will present some constraints.

**Sockeye Fry Releases:** Rich shared that the co-managers met 9/29 to discuss this issue. Fry do not seem to be migrating far from release sites, assumed based on a British Columbia study that found fry migrating no more than 1 km littoral from release. Co-managers would like to spread these fish out so they do not have to compete with each other, and so that predation opportunity is reduced. Possible release sites to investigate during fry release season include:

- Little Beaver near Sandy Cr. (would need acclimation ponds)
- Old Road crossing of Baker River at milepost 21 (would need to repair road, might be easy place to start)
- Blue Tarp (being used now)
- Channel Creek & Beach 3 (would require road work and channel excavation)
- Horseshoe Cove / Panorama Point / Seaplane Launch (problems with changing water levels)

**Next Steps:** Jed will work with Scott Lenz to do further evaluation of these sites. Another option would be to scatter plant the fish along the shoreline using a boat ... WDFW calculated that daily fry amounts could be safely done with a 50-gallon drum of water, enabling the use of an existing boat. Kevin and Doug will consider this idea further. They will also experiment with this approach for Lake Shannon (springtime over the next 1-2 years). Jed is investigating some possibilities for mass-marking the fry.

There are access issues, safety issues (people and fish), and costs to be considered. We want to take a practical approach. We also want to be safe, especially if we do night releases. Next steps could also include doing evaluations about how fish disperse in Baker Lake. We are looking for multiple strategies here and want to understand the efficiency and effectiveness of each. The co-managers would also like to evaluate doing some smolt releases above the barrier dam when not generating ... potential problems include the lower river level, smolt going into the fish trap or over the weir. Jon Paul will bring together a teamlet later this winter to discuss.

**Fish Rearing Inventories & Releases:** Doug walked us through the Baker Project Fish Inventory handout, noting that there aren't many changes since last time. Raceway 1 has ad-clipped sockeye; the majority will be released in late November. Raceway 2 has Coho; we just finished ad-clipping and plan to freeze-brand for migration study groups and provide groups for the 2009 bio-study, then release in spring.

Trout pond has 795 sockeye; they are doing well and will be spawning Wednesday. Rainbow are in the three 12' circulars; will hold those until done with sockeye spawning and will move them to the trout pond until opening day of fish season. Coho are halfway through the run, will start spawning around Thanksgiving ... we're at about 1,000 now (low).

Related to the use of formalin, PSE's safety dept. has commissioned a contractor to measure formaldehyde levels in the air in the incubation shed. WDFW asked about planting 1,000 Rainbow in Grandy Lake and 500 in Vogler Lake. Jed will look into disease policy issues; Cary will check with PSE.

**Adult Fish Trap Protocol:** No changes were suggested to the trap protocol which was last modified September 2, 2008 and discussed at the September ARG meeting.

### **HATCHERY UPDATE – 100% Design**

Construction is still slated to begin in March 2009 (mobilize Feb. '09 and estimated complete Nov. '10), assuming receipt of the license. Mort explained how the design documentation is organized. He walked us through a PowerPoint update of the 100% design, and noted that they have addressed comments from operations staff all along the way ... will be meeting with operations staff on October 21 to do a final 'ground truth' of the design. Responses to questions / comments from ARG members are in Appendix J of the 100% design drawing package. Additional comments from the vendors who are bidding for the work are also being taken into consideration. Note: construction crews will need to know which pipes will transport fish ... even a small burr can cause problems (ouch!). The 100% design package including the Design Document Report and Drawings were distributed at the meeting for reviewers.

### **FPTWG UPDATE**

**Upper Baker FSC, 1<sup>st</sup> year Performance Review:** We viewed the newer of the two FSC videos. This one focused on explaining the operations related to fish passage. Eric (R2) reviewed the 2008 FSC performance evaluation data with us. When looking at PIT-tagged fish of both species, the old FSC (before the NTS was installed) came in at 49%; when we added the NTS to the old FSC, we got 52%; and, the new FSC has brought that up to 79%. All in all, it met or exceeded expectations. Predation from char was a big challenge. Today's PowerPoint presentation is data-rich; Arnie will attach a PDF of it to these notes.

**2009 Study Development:** We discussed several scoping options for the 2009 study, including shorter tests for 500 vs. 1,000 cfs; two-week release window (4/20 Sockeye, 4/27 Coho); 8 release groups of 600 smolts; and FSC operator alternates between 500 and 1,000 cfs through May on 3 day intervals (tentative ... are one-day intervals possible?).

**Lower Baker FSC Design:** We all agreed that we want to apply lessons learned from the UB FSC to the LB FSC design. LB is a different setting. With existing data, including the effects of sunlight and predators, it is difficult to distinguish differences in efficiency between 500 and 1,000 cfs (are we looking at 'cause and effect' or coincidence?).

We want to have flexibility in the LB FSC design. Regardless of the 250/500/1,000 cfs flow, size of the facility may be a significant factor in reducing / eliminating rejection. Attraction flow and size of the box provide opportunities to synchronize and optimize.

## **ADULT TRAP CONSTRUCTION**

Staging to begin spring 2009, some pieces (pipelines) have been delivered to the project site; construction begins April 2009.

## **ARTICLE 104 UPDATE**

Char tissue samples are being analyzed at the WDFW lab; anticipating results in November, then will meet with the USFWS, ARG to review results and discuss, develop next study.

## **FLOATING LOON NESTING PLATFORMS**

Anna Kopitov (PSE) explained that the Settlement Agreement calls for three artificial floating nest platforms for loons. She showed us where the initial platform was installed and the locations targeted for the next platforms. The TRIG's loon teamlet is trying new designs for the new platforms because there were several issues with the original design, including: the height of the platform off the surface of the water, the angle of the incline, and anchoring of the platform are challenges. They plan to build two more platforms and will use different designs.

## **HANDOUTS**

- Agenda, Notes, 2008 – 2009 Meeting Schedule and ARG Representative List
- Baker Project Fish Inventory, October 2008
- Baker River Adult Fish Return, June 2008 – May 2009 Season Totals
- Baker River Adult Trap Protocol, Revised Sept. 2, 2008

## **MEETING EVALUATION:**

### **Worked Well:**

- Good trivia (green, 'compostable' bags that don't degrade)
- Mort's presentation ... wow, packed a LOT into short time!
- Eric's presentation was great ... includes interpretation of data
- FSC video very impressive
- Food excellent (thanks Arnie!),
- Facilitation adequate

### **Do Differently:**

- Dim lighting (learn how to use the track lighting)
- Leave the coffee!! We want access during whole meeting, not just a.m.
- Got out late
- Consider extending meeting to 3:30? (depending on agenda ...)

## **AGENDA FOR NEXT ARG MEETING**

**November 13, 2008; Mill Creek (Note that this is a Thursday)**

1. Welcome, review notes, action items, agenda
2. BRICC (BRCC?! ) and License Updates
3. Fish Operations Topics
4. FPTWG Updates
5. Other License Implementation Updates (e.g. Smolt Capacity Teamlet update)

6. Evaluate meeting, set next meeting agenda & location

