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***Baker River Project License Implementation***

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**Aquatic Resource Group  
Final Meeting Notes**

August 10, 2010 ~ 9:00 am – 12:00 pm  
PSE Snoqualmie Operations Center

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

**ATTENDEES**

Cary Feldmann, Arnie Aspelund, Scott Williams (by phone) and Nick Verretto (PSE); Stan Walsh (SRSC); Lou Ellyn Jones (USFWS); Steve Fransen, NMFS); Chuck Ebel (USACE); Kevin Kurras (by phone) and Brock Applegate (WDFW), Bob Helton (Skagit County citizen); Phil Hilgert (by phone) (R2 Resource Consultants); Lyn Wiltse (PDSA Consulting)

**DECISIONS**

- None today

**2010 ARG MEETINGS:** Sept. 14 (9 a.m.-3 p.m. meeting at PSE's Snoqualmie Ops Center with video-conference link to PSE's Skagit Office), Oct. 12 (9-11 a.m. conference call), Nov. 9 (9 a.m.-3 p.m. meeting at Snoqualmie Ops Center), Dec. 14 (9-11 a.m. conference call)

**NEXT FPTWG MEETINGS:** August 26 conference call from 9 a.m.-1 p.m.

**NEW ACTION ITEMS**

- All Let Arnie know if you have people in your organization who are joining the Baker license implementation process who would benefit from a walk-through of the license and/or Settlement Agreement this Fall. (Consider including Skagit GI folks.)
- Nick Email Rebecca and Brett for catch numbers to update the PSE data to reflect total fish returns.
- Nick Send out details of FPTWG Conference call on August 26 and revised meeting schedule to all.
- Nick Send Bob a copy of the testing protocol spreadsheet for the electro-anesthesia system.
- Chuck Inform the ARG when the GI is underway.
- Arnie By end of August send email to Co-Managers reminding that an Annual Fish Production Plan for the hatchery is to be provided to PSE by September 30.
- Arnie Set up video conference option from Skagit Office for September meeting (*Done!*)
- Arnie Update long-term meeting schedule and send out to all (reversing conference call and meeting dates for 2010 (*Done!*))

**PREVIOUS - STILL RELEVANT - ACTION ITEMS**

- Steve Check with the co-managers and PSE about requirements for the HGMP for the Baker Hatchery.
- Kim See that ARG members are kept informed re decommissioning of Spawning Beaches 1, 2, 3.
- All Let Arnie know if you would like a tour of the new watered-up facilities.
- All Review the ARG representation list for your organization. This directs where reports are sent for official review. Let Arnie know of any changes.

## **ANNOUNCEMENT**

Cary announced that Steve Hocking is now Chief of the Biological section for Division of Hydro Administration and Compliance at FERC. He will send Steve an email of congratulations and our good wishes for him in this new position.

## **BRCC / LICENSING UPDATE**

The BRCC did not meet last month. Cary emailed out an overview of activities in the various resource groups. Cary will continue to do this for the months when the BRCC does not meet. The next BRCC meeting is scheduled for October 27 at a location to be determined. We will continue checking with folks at each of the resource groups and the BRCC to see if a license or settlement walk-through in conjunction with that meeting is warranted. The aim of this would be to bring new members up to speed on the content of the license / settlement agreement and to serve as a refresher for existing members as well.

## **SPAWNING BEACH 4 RENOVATION UPDATE**

PSE Project Manager Scott Williams walked us through a PowerPoint presentation update with recent photos of the renovation of Spawning Beach 4. Construction is on schedule, meaning it will be substantially complete by end of this year and operational by June of 2011.

## **FISH PASSAGE GENERAL UPDATES**

### **Fish Passage Technical Working Group Update**

Nick reported that this group last met in May for the 30% design review of the Lower Baker FSC. The schedule has since been delayed as a result of continued in-house discussions stemming from the Value Engineering session conducted in April. Since that time the proposed schedule for 60% and 90% design review has been suspended pending results of the VE session (configuration, siting issues, land ownership, etc.).

The next FPTWG meeting is scheduled as a conference call on August 26 from 9:00-1:00. That meeting will include discussion of the Upper Baker FSC performance study for 2011. The October and December FPTWG meetings look iffy. Nick suggested everyone keep these meetings on their calendars for now. Nick will update the schedule and send it out to all as soon as possible.

## **FISH FACILITY OPERATIONS UPDATES**

### **Season Outmigration Results**

We reviewed the chart for the sockeye juvenile outmigration captured at the Baker Project from 1990 – 2010. The figure for 2010 was a record 436,512! We also reviewed a chart depicting adult sockeye returns to Baker River from 1965 to 2010. We have achieved the highest return on record at 22,427! (includes ~ 4,000 harvest)

Cary observed that it would be useful to include harvest numbers so we can show the system-wide growth and get a more accurate picture of the size of the run. PSE's record keeping system should be expanded to include columns for data under the categories of: Return, Catch, and Total.

Nick has heard nothing but glowing praise for the lake fishery. Kevin reported people are still catching their limits. Stan explained that the basic management goal is not to have more than 4K fish in the reservoir. This is due to spawning capacity and persistence of the spawn. This comes from Stan's observations that about 50% of the fish spawn in the drawdown zone and are therefore subject to being dewatered or scoured. Stan sees this as an important insurance policy against a catastrophic failure of the hatchery.

Nick pointed out that there should be lake fishery selective gear rules for bull trout protection and statewide consistency. Brock will follow up on this.

The Upper Baker Juvenile Fish Trap data were reviewed. There were a total of 517,593 total smolts. The majority included the record sockeye, plus 71,853 coho. The Upper Baker FSC was shut down on August 3. We also reviewed the recovery rates on the groups – good return on sockeye juvenile ad clips.

Cary suggested that we may want to reconsider when we release the fish. It would be good to do some sensitivity testing so we can manage hatchery production to get the best return on our investment.

2010 Lower Baker Juvenile Fish Trap Data: There were a total of 7639 total smolts. These came from the coho planting. There were 1,277 sockeye and 5,860 coho.

### **Baker Fish Hatchery Operations and Fish Inventory**

Juvenile fish inventory: Kevin reported that they will move sockeye and coho down to new hatchery raceways as soon as they get the final bugs worked out. They took an extra 27 adults because of later fish coming in. Mortality rates look good (low) on the sockeye broodstock. Kevin doesn't see anything unusual in adults. The fish are doing well. They are controlling fungus with repeated Formalin treatments.

#### **Baker Hatchery Fish Inventory:**

- Sockeye fry – 65,533 (Held for October release at Baker lake and for biological study in 2011)
- Coho fry – 67,713 (Held for ad-clipped spring 2011 release, freeze branding or use in other 2010 studies)
- Rainbow Trout – 20,983 fingerlings in new hatchery rearing raceway #4 (received July 14 from Arlington hatchery)
- 200 catchable size rainbow trout are being held in Circular 4 for charity events.
- 3,825 adult sockeye broodstock in the new hatchery 4 holding raceways (~950 per raceway). They have room to take more if directed to do so by the co-managers.

The construction guys are working with Kevin and Doug and his crew.

### **Baker Adult Fish Trap Update**

Nick sent out an email on August 5 about a 1-day trap outage on August 9 (yesterday) followed by a 3-day outage planned for August 23-25. The aim of these outages is to allow for modifications to the trap to address injuries and mortalities due to unanticipated fish response to the trap design, including issues with the crowders. They have hired a contractor to work through a punch list of items to correct these issues prior to the onset of the coho run. Additional plans call for minimizing the flow (installing a deflector to divert some of the flow below the surface) and then making physical modifications to the trap.

After running the trap the morning of August 9, Doug's crew removed all the fish (went to tribal allocation). They closed the gates and started pumping out the trap. It drained in only 1 ½ hours. They pulled fish out of Holding Pond 2 and then Holding Pond 1. The trap was back online by 7:00 that evening. They hauled 255 sockeye that day and an additional 64 from the trap this morning (August 10).

### **Loading Distribution**

Nick plans to initiate some discussions about truck loading rates and possibly increasing transport times to accommodate larger runs such as those we are currently seeing. PSE currently operates one 2K gallon truck and one 1200 gallon truck. They were stretched during the peak of the sockeye run. Nick will be in discussions with the WDFW about various strategies to prepare for a similar high-number season in the future.

### **Electro-Anesthesia**

Nick reported that the electro-anesthesia system that was selected as most appropriate for the Baker facility is fully functional and has been working extremely well. It was thoroughly tested with Smith Root and included setting up various tests at different durations and voltage rates for different species. The fish are responding well. There is interest in seeing a demo of this system.

## **OTHER LICENSE IMPLEMENTATION ACTIVITIES / REPORTS**

### **Sockeye Smolt Production Capacity Study Update**

Phil reported that they are hard at work finishing up the report for sockeye production potential. It should be out for formal 30-day review by August 27 (two weeks before the September 14 meeting). It will be the main agenda topic of that meeting and we will review the report in detail. Based on the results of the study, Phil was pleased to report that we will be able to extrapolate the results of earlier years.

### **Request for Annual Fish Production Plan from Fish Co-Managers**

Arnie explained that according to the Fish Propagation Facilities Plan the co-managers are to provide PSE an Annual Fish Production Plan by September 30, re the out-planning for fish in the hatchery. This information may include broodstock allocation before the coho run starts this fall. Arnie will send an email to the co-managers as a reminder and list type of information needed in the plan.

## **PROGRESS ON PLANS AND REPORTS**

Arnie walked us through an updated table of the aquatic-related plans and reports. Highlights include:

- Article 101: Fish Propagation Article Report is due to the ARG on Oct. 31
- Article 101 (c) Reservoir Sockeye Capacity Study will be completed Oct 1, 2010. Look for the draft report to be out by August 27 for 30 day review followed by discussion at September 14 ARG meeting.
- Article 102: Overall Report is due to FERC April 30, 2011
- Article 103: Upstream Passage and 104: Connectivity draft article reports are due Aug. 31, 2010 to the ARG for 30 day review. The 104 report is already out with comments due from the ARG Aug. 18.
- Article 110: Shoreline Erosion draft article report – comments were due July 30.
- Article 505: ARHWG will meet again after the November 9 ARG meeting.
- Article 105: Downstream Fish Passage and 106: Flow Implementation article reports are due to the ARG by Nov. 30.
- Article 108: Gravel and 109: LWD reports have been completed and have gone through review periods. They will be compiled into the Article 102 Overall Report showing how comments have been addressed.
- Article 505: Aquatic Riparian and 602: Required Funding article reports just went out – comments are due by end of August.

## **MEETING EVALUATION**

### **Well Done:**

- Inspirational messages on Dove chocolates
- Deviled eggs were plentiful and delicious
- Nice facility
- Good to see each other in person

### **Do Differently:**

- Have video conferencing as well as WebEx for next meeting
- Put screens side by side for WebEx so remote viewers see more of the participants than the backs of their heads.
- Need to increase font size and centering of information on the screen to increase readability

## **HANDOUTS**

- 8/10/10 Meeting Agenda, 7/13/10 Final Meeting Notes, ARG Meeting Schedule and Participation List
- BRCC email report
- 2010 Upper Baker Fish Trap Data final Draft
- August 7, 2010 Baker Fish Inventory
- Baker Adult Trap Return Data 2011-2011
- Chart showing Sockeye Juvenile Outmigration Captured at the Baker Project from 1990–2010
- Chart depicting Adult Sockeye Returns to Baker River from 1965 to 2010
- Recent photos of Spawning Beach 4 Renovation
- Baker River Hatchery Fish Inventory
- Status of Baker River Project Aquatic Resource Plans