



Baker River Project License Implementation **Aquatic Resources Group**

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

PRESENT

Arnie Aspelund, Doug Bruland, Kim Lane by phone, Cary Feldmann, Paul Wetherbee, Jacob Venard, Nathanael Overman, Nick Verretto, Scott Williams by phone, and Mark Killgore (PSE); Kevin Kurras by phone, Brock Applegate (WDFW); Lorna Ellestad, Dan Berentson, Kara Symonds (Skagit County); Steve Fransen by phone (NOAA); Greta Movassaghi by phone (USFS), Bob Helton (Citizen); Stan Walsh (SRSC); Jon-Paul Shannahan (Upper Skagit Tribe); Phil Hilgert (R2); Eron Berg (Sedro-Woolley); Lyn Wiltse and Jamie Riche (facilitators, PDSA Consulting).

DECISIONS – none today

2011 ARG MEETING DATES: June 14 Mtg. (9-3 pm, at the lodge, including tours); July 12 Conf. Call (9-11 am); Aug. 9 Mtg. (9-3 pm); Sept. 13 Conf. Call (9-11 am); Oct. 11 Mtg. (9-3 pm); Nov. 8 Conf. Call (9-11 am); and Dec. 13 Mtg. (9-3 pm).

FPTWG: June 8 at the Coast Gateway Hotel in SeaTac, w/ WebEx and Conference Call capability

ACTION ITEMS

- Nick Add Stress Relief Pond Protocol to the June 8 FPTWG meeting agenda
- Chuck Research plans re: updating the Water Control Manual, send response to Arnie by 5/17
- Arnie Call Chuck to coordinate study activities by May 12
- Chuck Coordinate Corps' Water Control folks to join the July 12 ARG meeting

PREVIOUS - STILL RELEVANT - ACTION ITEMS

- Chuck Ask Linda Smith to give update on GI progress at upcoming ARG meeting
- Mark Add links to source data in future flood forecast advisories (*completed*)
- Steve Identify the Olympia contact to coordinate re. HGMP with WDFW (in process)
- Co-Mgrs Send a draft Fish Production Plan to Arnie ASAP (as per FPPF)
- All Review / update the ARG representation list for your organization (ongoing)

BRCC UPDATE

Cary reported that the BRCC met in-person at Snoqualmie April 27 and notes were distributed last week. The fourth Wednesdays will continue to be reserved throughout 2011 for BRCC conference calls as needed. They are anticipating in-person meetings semi-annually (spring and fall); the next get together is tentatively planned for late October.

FPTWG UPDATE

Nick reported that the net repair at Upper Baker was completed at the end of April, just in time for the peak of the run. He showed a diagram and photos of the tear and described the repair process, which included 23 people for the initial unfurling and a week's worth of divers' time to sew the patch in place under the water. PSE folks will be meeting to review the incident, and to discuss how to carry forward lessons learned.

Nick reported on the 2011 UB FSC performance study, that there were four sockeye releases last week, there will be four coho releases this week (600 per night). Fry tests are going well, no injuries/morts from screen impingement tests at 1,000 cfs. The sub-sampling tests were started last and will be reviewed at the next FPTWG meeting.

The LB FSC is scheduled for start-up March 1, 2013. Water Quality Protection Plan is complete. Shop fabrication has begun. They have finished the prototype for the hydraulic tests. The pier design is about 75% complete and should be finalized by the end of the month. Mobilization begins July 6 and construction will start this August.

Doug noted that this has been the coldest April on record. The water temperature is also down and the run is a little later than usual this year. He reported that the annual test, maintenance and cleaning of the LB upstream trap is underway. The stress-relief ponds are working well and are currently housing the juvenile downstream migrants. The group talked about the protocol related to managing large days and cycling fish through the ponds. Cary noted that PSE wants to follow the co-managers' interests on this. Nick will add this to the FPTWG agenda.

ARTICLE 104 CONNECTIVITY BETWEEN LAKE SHANNON AND BAKER LAKE

Nathanael updated the group on work related to Article 104, which calls for PSE to provide a fishway between Lake Shannon and Baker Lake for native char and to conduct studies to evaluate what kind of fishway should be implemented. The primary management goal for bull trout is to preserve reproductive potential among genetically unique populations by providing genetic-specific connectivity. Toward this end, genetic studies have been conducted to determine natal origins for bull trout collected throughout the Baker watershed. These studies identified in-basin populations from Sulphur Creek and the upper Baker River, and out-of-basin populations from the Sauk River and Illabot Creek. The results were used to develop location-specific protocols for native char management and an angling program designed to initiate fishway efforts in Lake Shannon

He reviewed the results of 2009 and 2010 char snorkel surveys in Sulphur Creek and the upper Baker River. Although low numbers were observed in Sulphur Creek in 2009, numbers were higher in 2010. More substantial numbers were observed in both years while surveying the upper Baker River. He summarized the numbers of bull trout at the various fish collection facilities (Upstream Fish Trap, FSC, Gulper); there were 78, more than in any previous year. He then described the Article 104 angling program and showed photos of the process.

Nathanael reported 119 tissue samples were submitted in November to the WDFW genetics lab. Of these, 116 had sufficient genetic data to be useful for this study, 101 were assignable to a population of origin, and 4 were identified as hybrids. It was interesting to note the high percentage of out-of-basin origin bull trout at the upstream fish trap (formerly called the adult fish trap). Of those caught in Lake Shannon, about half were Sulphur Creek origin and half Upper Baker origin. At the FSC, a high percentage were Upper Baker origin and a few were Sulphur Creek or Sauk River origin. The new upstream fish trap is much more efficient at capturing sub-adult and juvenile bull trout, most of which are out-of-basin origin fish. If this is a trend, it may lead to new management protocols for these smaller fish.

2011 Activities:

- Continue to capture and transport at fish facilities
- Continue native char snorkel surveys
- Perform the second year of angling program in Lake Shannon
- Continue the Upper Baker FSC predation angling
- Submit all samples to WDFW for genetic analysis
- Submit Fish Connectivity Implementation Plan to FERC in October (draft for ARG review in August)

DECOMMISSIONING OF SPAWNING BEACHES 1-3

Scott (PSE) updated the group on the next steps. He will be joining the next CRAG meeting to discuss in greater detail the matrix developed and reviewed at the April ARG meeting in response to the March ARG-CRAG workshop.

FISH OPERATIONS UPDATES

Doug (PSE) provided the update since Kevin (WDFW) was busy today with on-site work at the hatchery. He reported that they are nearly done incubating the Sockeye fry. The last group was removed from incubation trays recently; they'll be released in a couple weeks. All of the rest have already been released. Jed and Kevin of WDFW met with PSE's techs yesterday to review release sites and watch a test release, which Doug said went well (they schooled up quickly and moved along). He reported that the co-managers decided to distribute 4 million fry into Baker Lake and 734,000 into Lake Shannon.

Annual spawning beach and hatchery maintenance / cleaning will be done the first week of June in advance of the adult Sockeye return. The peak usually happens mid-July.

Fish Inventory: Doug walked the group through the fish inventory report. He pointed out that the program is fairly limited right now; the goal was to release fish to keep the population lower while the headwork screen was installed and sand separator monitored. They are re-watering the system today to make sure everything works as anticipated (this is why Kevin wasn't with us in-person today).

The rainbows are getting quite large and will be released into Depression Lake in advance of the big fishing days on Memorial Day and July 4th. All of the incubated Coho (286,000) were moved to the raceway; all but 65,000 of those will be released into Lake Shannon in mid-June.

The freezebranded Coho and Sockeye were released April 27. Although the juvenile outmigration has just started (a little later than usual), we've recovered 48% of the left-V branded Coho and 36% of the right-V branded Coho, and nearly 50% of the right-C branded Sockeye. He feels like this is a really good recovery for this time of year. He noted that the net repair was completed just in time (before the repair, about 200 fish ... after the repair, the numbers jumped up to 8,000-10,000).

Kevin joined the meeting by phone. He noted that the beach and hatchery loading/distribution plan will be completed at a meeting of the co-managers in the coming week. They are discussing 400 sockeye per section (4 sections) at the spawning beaches and 950 per AI holding pond (4 ponds) at the hatchery. This represents a sockeye fry production goal of 6 million. 3,125 eggs/female is the number they are using for calculation for female fecundity. He said he has learned a lot with the first year operations and reported that the water-up underway today is going very well. They are at full flow with no alarms yet. He anticipates the test will run through tonight.

UPCOMING ARG-RELATED PLANS:

Arnie briefly reviewed the schedule of upcoming article plans. The Article 104 plan and 107c report are due in October. We are also developing the 2010 annual reports for the various aquatic articles in accordance to the 102 schedule. Reports for Articles 108 and 109 have just concluded ARG review.

June 14 ARG Agenda, 9 – noon at the Baker Lodge, followed by tours

Arnie will build the agenda around our typical reports and updates. He noted that the agenda will also include a discussion about the Gravel Implementation Plan.

Meeting Evaluation – Worked Well

- Great Article 104 Connectivity presentation
- Very efficient meeting; covered a lot quickly
- Phone worked well; good volume
- Total number of fish continues to be impressive

Meeting Evaluation – Do Differently

- Next meeting at Baker Lodge, followed by tours