



BAKER RIVER PROJECT RELICENSE

Aquatic Resources Working Group

September 11, 2003

8:30 a.m. – 3:00 p.m.

NOAA- U.S. Dept. Commerce, Western Administrative Support Center
Building 9, Room A (206-526-6383)
7600 Sand Point Way NE, Seattle, WA

AGENDA

1. Review Agenda, Minutes, Schedule	8:30 – 8:45
2. Settlement Process- Status of RESOLVE Meetings	8:45 – 9:15
3. Fish Passage Technical Work Group Report	9:15 – 9:30
4. Report from Technical Scenario Teamlet	9:30 – 9:45
5. Update from Solution Team Meeting-Status of Flood Control Studies	9:45 – 10:00
<i>Break</i>	10:00 – 10:15
6. Report from Instream Flow Technical Working Group (A09a), updates on A9 (b,c,d)	10:15 – 12:00
<i>Lunch (meeting snacks or bring your own)</i>	12:00 – 12:30
7. Review Studies: updates on A1 (a,b)/A26b, Review study schedule for updates (ARWG 7-10-03.doc)	12:30 – 2:30
8. Action Items	2:30 - 2:40
9. Additional Issues	2:40 - 2:50
10. Set Agenda for Oct. 9 th 2003 (USFS-Mountlake Terrace)	2:50 - 2:55
11. Evaluate Meeting	2:55 – 3:00



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MEETING NOTES

Aquatics Working Group Mission: "To identify issues and develop solutions and recommendations addressing fish and aquatic resource interests related to the Baker River Project and its operations, leading to a settlement agreement."

Fish Team Leader: Arnie Aspelund, 425-462-3442, arnie.aspelund@pse.com

PRESENT: Arnie Aspelund, and Doug Bruland, (PSE), Arn Thoreen (Skagit Fisheries Enhancement Group), Phil Hilgert and Mike Ramey (R2), Chuck Ebel (USACE), Scott Lentz and Greta Movassaghi, by phone (USFS), Gary Sprague (WDFW), Gene Stagner (USFWS), Steve Fransen (NOAA Fisheries), Lorna Ellestad (Skagit County Public Works), Stan Walsh (Sauk-Suiattle Indian Tribe/Swinomish Tribal Community), Marc Daily (Meridian Environmental, Inc.), Derek Marks (Upper Skagit Tribe), Rod Sakrison (DOE), by phone, Lyn Wiltse and Mary Jean Bullock, note taker (PDSA Consulting, Inc.).

FUTURE WORKING GROUP DATES AND LOCATIONS (2nd Thursday of each month):
2003: October 9, November 13, December 11, 2003 from 8:30-3:00 at USFS Office in Mountlake Terrace.

2004 Baker Aquatic Meetings (tentative schedule): January 8, February 12, March 11, April 8, May 13, June 10, July 8, August 12, September 9, October 14, November 11, December 9.

September 11, 2003 Agenda

NOAA, 7600 Sandpoint Way NE, Building 9, Room A

8:30 – 3:00 p.m.

8:30 – 8:45 Review Agenda, Minutes, Schedule

8:45 – 9:15 Settlement Process: RESOLVE Meetings

9:15 – 9:30 Fish Passage Technical Working Group Report
 9:30 - 9:45 Technical Scenarios Teamlet
 9:45-10:00 Solution Team Report
 10:00-10:15 *Break*
 10:15-12:00 Report from Instream Flow Technical Working Group (A09a)
 Study Updates:
 • A9a: Middle Skagit River Habitat Models
 • A9b: Salmonid Redd Selection and Maintenance in Middle Skagit River
 in Response to River Fluctuation from Hydro Power Peaking
 • A9c: Distribution, Timing and Depth of Salmonid Redds
 • A9d: Distribution, Timing of Salmonid Fry
 12:00 – 12:30 LUNCH
 12:30 – 2:30 Review studies: Updates on A1 (a, b)/A26b)
 Review study schedule for updates (ARWG 7-10-03.doc.)
 2:20 – 2:30 BREAK
 2:30 – 2:40 Action Items
 2:40 – 2:50 Additional Issues?
 2:50 – 2:55 Set agenda for October 9 Meeting (8:30-3:00 at USFS Building, Mountlake
 Terrace)
 2:55 – 3:00 Evaluate meeting

NEW ACTION ITEMS

- Arnie: At Team Leader Meeting bring up need for coordination for fragmented meeting content.
- Arnie: Send reminder email re: 9/25 Instream Flows Meeting to all participants.
- Phil: Present results of progress on Phase 2 of A16 at the November meeting.
- Sue: For A37, reproduce the data in graphical format (to supplement tables) and distribute to team members.
- Phil Tell Emily we like the gray tones she used in her graphs in the executive summary.
- Arnie: Touch base with Mark Downen re: his participation in this group.
- Arnie: Get peer feedback on Asit's limnology report.

INTRODUCTIONS

We welcomed Derek Marks who is representing the Upper Skagit Indian Tribe.

PDEA STATUS

Marc reported that they are on track to release the PDEA, October 1 for review.

SETTLEMENT PROCESS -RESOLVE SESSIONS

We are re-drafting language of the PMEs. The next RESOLVE session will be September 12. Our aim is to capture the intentions of each PME. License articles will be supplemented by appendices, with supporting detail. Additional RESOLVE meeting dates are: 9/26, 10/16, and 10/27.

SOLUTION TEAM REPORT

The first Attorney Meeting is set for 10/20. Some Solution Team members will attend to ensure nothing gets lost in the translation.

Flood Control: The USACE is working with Skagit County and PSE (though the re-licensing process) on separate studies to determine the economic feasibility of additional flood control. For now, we are using existing flood control levels as a baseline for our studies.

FISH PASSAGE TECHNICAL WORKING GROUP REPORT

Arnie reported that the group is continuing work on Floating Surface Collector design, guide net/barrier net and net transition structure. They are looking at three Floating Surface Collector alternatives. They are also reviewing the fish passage PME. They found no major issues around fish screening criteria. They are looking at acclimation facilities separately from fish stress relief facilities.

TECHNICAL SCENARIO TEAMLET (TST) UPDATE

- PSE White Paper is being prepared on 15 ft. flood control operating buffer.
- E-room is working well as a distribution mechanism.
- 2nd Hydrology CD out by September 12.
- USFS Runs: Analysis of recreational effects at Upper Baker; also Run of River
- Stan's Runs: Max/Min instream flows with 100% reliability
- PSE's Runs: Recent Conditions, also Draft Actions for PDEA

INSTREAM FLOWS TECHNICAL WORKING GROUP

Phil reported that they will be meeting again on September 25th from 9:00 to 3:00 at Mountlake Terrace. They will be sharing results of the hourly analysis at that time. Things are moving along well. HYDROPS can assist us in coming up with a recommended flow regime. We'll get a more detailed update at our October meeting.

STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT

Study #	Title	Notes/Next Steps
A01a	Reservoir Tributary Habitat Surveys	Phil walked us through the executive level summary of this report. R2 will be making a couple of hard copies of the full 360 page report. They will, for the most part, be distributing this by CD. Phil offered to, at a future date, lead us through a detailed review of the report. We'll let him know if we think this is necessary at our October meeting.
A01b	Reservoir Tributary Biological Surveys	See A01a. Are now also including native non-salmonids in the data tracking. There aren't a lot of data. ACTIVE
A01c	Reservoir Tributary Delta Surveys	See A01a. ACTIVE
A02	LB River Habitat Mapping	The draft report will be out for review by our November Working Group Meeting.

A03	Reservoir Fish Population Characteristics	Not discussed. No action yet. PSE will review existing information for the PDEA.
A04	LB/Skagit River Flow, Gaging	Not discussed. This is being incorporated into A09a hourly flow routing model. ACTIVE
A05	Water Quality Sampling	Nothing new to report.
A06	UB Passage Design Baffle Modification	Complete.
A07	Lower Baker Forebay Bathymetry	Complete.
A08	UB Passage System Evaluation	Complete.
A09A	Skagit River Flow and Habitat Assessment	Nothing new to report.
A09B	Salmonid Redd Selection and Maintenance in the Middle Skagit in Response to River Fluctuation from Hydropower Peaking	Nothing new to report.
A09C	Distribution, Timing and Depth of Salmonid Redds	PSE and R2 have initiated the mainstem Skagit River spawning surveys.
A09D	Distribution, Timing of Salmonid Fry	Nothing new to report.
A10	Baker River Delta Habitat Assessment-Char	Complete. Note: USFWS is concerned with impacts to char and indirectly to bald eagles through chum and also to cutthroat.
A11	Nutrient Addition	Tie to A26.
A12	Instream Flows for Bio-diversity	Split between R-A21 & R-A09.
A13a	Water Quality Impacts of Human Uses of the Reservoir and Adjacent Shorelines.	Not discussed. Removed from list of studies this group will address, reported by Brady in September. Greta reported the USFS will pursue this in the recreation working group.
A13b	Water Quality Impacts on Aquatic Habitat	Removed from list of studies we will address.
A14a	Reservoir Shoreline Erosion	We are moving toward a final draft on this report. This will be addressed through the RESOLVE process.
A15	UB Delta Scour	Phil distributed a handout outlining the proposed expanded survey schedule (who, what, when, where, etc.). R2 has assumed that PSE folks will conduct their standard reservoir shoreline surveys and other parties will have little involvement in the survey effort.
A16	Lower Baker River Alluvial Fan Assessment	Mike Ramey of R2 walked us through a Power Point Presentation on the results of the first phase of this study. Summary of Alternative 1: Spawning Gravel: <ul style="list-style-type: none"> • 35,000 yards of fill would need to be placed. • Velocities and depths acceptable over wide range of flows.

	<ul style="list-style-type: none"> • High flood flows in Baker with moderate flows in Skagit will scour gravels. • Reduced barrier height at fish facilities (2-3 feet reduction). • Flood levels will rise in lower Baker – maximum increase with 135,000 cfs in Skagit and 28,000 cfs in Baker – 0.5 feet rise. • Analysis based on very limited field data. <p>Summary of Alternative 2: Large Woody Debris and Rock Structures:</p> <ul style="list-style-type: none"> • Total length of channel approximately 2500 feet. • Assume 1 LWD structure and 1 Rock Structure per 100 feet of channel. • 25 anchored LWD structures within reach. • 25 rock structures within reach. <p>Summary of Alternative 3: Series of Weirs</p> <ul style="list-style-type: none"> • Due to backwater from the Skagit River, lower weirs would be submerged at moderate Skagit River flows. • Concept would not achieve goal. • Concept eliminated as not technically feasible. <p>Summary of Alternative 4A: Reconfigured Channel</p> <ul style="list-style-type: none"> • 30,000 yd (3) of cut and fill <p>Summary of Alternative 4B: Reconfigured Low-Flow Channel</p> <ul style="list-style-type: none"> • Riffle and Pool sequences at low flow • Requires channel filling consistent with Alternative 1. <p>Summary of Alternative 5: Backwater Slough</p> <ul style="list-style-type: none"> • 50 feet wide x 150 feet long and 6 feet deep excavation (1500 yds). At Skagit River Flow of 4,000 cfs – 25 feet wide x 150 feet long and 3 feet deep slough. <p>At the 7/28 teamlet meeting, it was decided to proceed to Phase 2 with the following Alternatives: 2, 4B (with some LWD, rocks), and 5.</p> <p>Mike explained that conducting the second phase analysis of alternatives 2 and 5 would be pretty easy. 4b would require significant additional level of effort.</p>
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	R2 will undertake the Phase 2 analysis for these three alternatives. We will get a status report from them at our November meeting. This analysis will include impacts to: the barrier dam, construction costs, flood control, fish passage and power production. It will also include habitat values lost in the Lower Baker channel. We will keep in mind the Little Baker restoration process. We don't want to duplicate efforts.
A17 Tributaries Surveys Upstream of Barriers	Steps 1 through 7 (from 3/11/03 outline document) to be completed by November ARWG meeting.
A18 Baker River Survey Upstream of 1 km.	Merged into A01a and A01b.
A19 Review Limnological Information	This study has been combined with A26a.
A20 Large Woody Debris Management	The final draft report was distributed..
A21 Skagit Wild & Scenic River Values	This is being addressed by A9 and A24.
A22 Baker Lake Trout Impacts Evaluation	Cancelled when non-native trout stocking in the reservoirs was discontinued.
A23 Baker River Wild & Scenic River Values	This is being addressed through A15.
A24 Hydrologic and Geomorphic Analysis	A Final Draft Part 1 will be submitted by our November meeting. (The Forest Service indicated they will be providing belated comments to part 1 to Arnie to be appended to the Final Draft.) A draft addendum to Part 1 (reporting IHA statistics for selected period of record for Baker and Skagit gages using updated hydrology) will be transmitted by the August meeting. Comments on Part 2 were due July 15. The schedule for revising Part 2 depends on scope of the comments.
A25 Unnatural Predation	Not discussed at this meeting. Arnie provided updated effort and catch data (see handouts). Field studies are continuing until the end of July/early August (depending on the out migration). Efforts are already complete at fry releases and are ongoing at smolt releases. Stay tuned...
A26A Reservoir Limnology-Production Potential	Not discussed at this meeting. The comment period for this study report ended August 14. Asit will be incorporating these into the report and getting it out in the near future. Arnie will pursue opportunities to get some peer review/feedback on this paper.
A26B Tributary Production Potential	See A01 above.
A27 Middle Skagit Incubation Flows	Addressed in A9.
A28 Fish Passage-Reservoir Management	Active: Now addressed in Fish Passage subcommittee.

A29 Estimate Sockeye Production from Different Incubation Sources	On hold for 2003.
R-A30 Near-Field Smolt Behavior	Completed.
R-A31 Fish Passage-Far Field Smolt Migration	Completed.
R-A32 Fish Passage-Kelt Radio telemetry	Completed.
R-A33 Fish Passage-PIT Tag Migration	Completed.
R-A34 Fish Passage-Downstream Run-Timing Correlation	Completed.
R-A35 Fish Passage-Upstream Run-Timing	Completed.
R-A36 Native & Wild Inland Fish Population Assessments	Revised study request pending from Mark Downen-WDFW.
R-A37 Without Project Alternative (evaluation of Aquatic & Riparian Habitat)	Not discussed at this meeting.
R-A38 Bull Trout Population Assessment & Risk Analysis	Not discussed at this meeting. We will discuss it at our November meeting.
R-39 Native Non Salmonid	Not discussed at this meeting.

REPORT ON OLD ACTION ITEMS

- ALL: If you couldn't attend a RESOLVE meeting, please get your interests to a colleague or to Dee ahead of time.
- Marc: Checked with Rob Mohn to see if the fall PDEA will be noticed by FERC. Mark says that it will be officially noticed.
- Paul: On the HYDROPS Summary Model output, changed the order of months to reflect the energy year (August through July) rather than as they are currently displayed (the normal calendar year).
- Paul: Saw that the HYDROPS Input Form is available on the relicensing website.
- Arnie: Verified that the Terrestrial Working Group Report on Without Project (T7b) is posted to the relicensing website.
- Sue: Worked with Stan and Doug to flesh out the schedule and locations for fall scour surveys in the Upper Baker reservoir and tributaries (other than what Doug is doing on Channel Creek). Included what areas, frequency, and when to start.

HANDOUTS

- 9-11-03 agenda and minutes from 8-14-03 Aquatics Resources Working Group Meeting
- Updated Participant Contact List
- Schedule of Study Plan Reports, July 10, 2003
- Long term Aquatics Schedule September 11, 2003
- Aquatic Working Group RESOLVE Meeting Draft Notes, September 12, 2003
- A16 – Lower Baker Alluvial Fan Assessment, Feasibility Assessment of Potential Protection, Mitigation and Enhancement Measures for Lower Baker Alluvial Fan Study, prepared by PSE
- A15 – Upper Baker Scour, Fall 2003 Expanded Study Effort – Sockeye Spawning Surveys and Delta Cross-sections
- Executive Summary Fish Production Potential

- Draft –Habitat Conditions of Tributary Reaches Accessible to Anadromous and Adfluvial Salmonids and Estimated Salmonid Production Potentials: Baker River Basin, prepared by R2 consultants
- The Redd: Newsletter of the Skagit Fisheries Enhancement Group Article: *Restoring Habitat on Finney Creek*, by Alison Studley (Summer 2003)

PARKING LOT

- State agency presentations re: mandates (agency direction)
- Create a master list of possible studies across all working groups and share with all
- Access to the Baker River Project hourly operational model (Charles Howard)
- Participate in Lower Skagit Work Group for native char
- Create Overall “Study Plan” for Studies that will drive the Relicensing Process
- Address Trap & Haul – other species
- PSE agreed to take over the Little Park Creek smolt trapping effort this year. Implementation is underway.

EVALUATION OF MEETING

Well-Dones

- Nice having Derek here representing Upper Skagit Tribe
- Thanks NOAA for hosting
- Scott on phone – great participation
- Mike’s A16 presentation
- Emily’s executive summary on A1

To Do Differently Next Time:

- Rod in/out on phone

What’s Hot?

- Nick’s smoked salmon

Studies Update for Solution Team

- Ready for substantive discussions re: flow regimes
- The Fish Passage Technical Working Group is continuing work on Floating Surface Collector design, guide net/barriers net and net transition structure. They are looking at three Floating Surface Collector alternatives. They are also reviewing the fish passage PME. They found no major issues around fish screening criteria. They are looking at acclimation facilities separately from fish stress relief facilities.
- Alluvial fan assessment: They are looking at restoring form and function to Lower Baker River below the barrier dam. Phase I is complete. This is a potential “big ticket item”.
- The draft report (Habitat Conditions of Tributary Reaches Accessible to Anadromous and Adfluvial Salmonids and Estimated Salmonid Production Potentials: Baker River Basin) is complete.

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Tentative October 9, 2003 Agenda

USFS Office, Mountlake Terrace, WA

8:30 – 3:00 p.m.

8:45 – 9:00 Review Agenda, Minutes, Schedule

9:00 – 9:15 Fish Passage Technical Working Group Report

9:15 – 12:00 Study Updates:

- A9a: Middle Skagit River Habitat Models
- A9b: Salmonid Redd Selection and Maintenance in Middle Skagit River
in Response to River Fluctuation from Hydro Power Peaking
- A9c: Distribution, Timing and Depth of Salmonid Redds
- A9d: Distribution, Timing of Salmonid Fry

12:00 – 12:20 LUNCH

12:20 – 1:30 Review of Study Report

- A01a: Reservoir Tributary Habitat Surveys (includes A26)
- A01b: Reservoir Tributary Biological Surveys
 - Apply to A37: Without Project Alternative?

1:30 – 1:45 Peer Review of Asit's A26a: Reservoir Limnology-Production Potential

1:45 – 2:15 Other Studies?

2:15 – 2:25 Action Items

2:25 – 2:30 Additional Issues?

2:30 – 2:40 Set agenda for November 13, 2003 Meeting (from 8:30 to 3:00 at USFS Building
in Mountlake Terrace)

2:40 – 3:00 Evaluate meeting: What's Hot and Studies Summary for Solution Team