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## **BAKER RIVER PROJECT RELICENSE**

### **Aquatic Resources Working Group**

March 14, 2002

8:30 a.m. – 3:00 p.m.

US Forest Service Office  
21905 64th Avenue West  
Mountlake Terrace, WA 98043

### **AGENDA**

1. Review Agenda and Minutes
2. Review Study Plans and Requests  
A9a, A9d; A14, A26; A29
3. Review Strawman prioritization matrix and schedule prepared by Sue (R2)
4. Action Items
5. Update from Solution Team Meeting
6. Reports from Fish Passage Technical Working Group
7. IPP Review
8. Additional Issues?
9. Set agenda for April 11, 2002
10. Evaluate Meeting



## BAKER RIVER PROJECT RELICENSE

### Aquatic Resources Working Group

March 14, 2002  
8:30 a.m. – 2:30 p.m.  
USFS Office  
Mountlake Terrace, WA

### 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, [aaspel@puget.com](mailto:aaspel@puget.com)

**PRESENT:** Arnie Aspelund, Nick Verretto, Doug Bruland, Bob Barnes, and Cary Feldmann (PSE), Sue Madsen and Phil Hilgert (R2), Mark Downen (WDFW), Stan Walsh (SSC), Dick Raisler (Fidalgo Fly Fishers), Arn Thoreen (Skagit Fisheries Enhancement Group), Gary Sprague (WDFW), Bill Reinard (Wildcat Steelhead Club), Tom Hardy (Watershed Systems Group for the USFS), Don Schluter (Trout Unlimited, by phone), Rod Sakrison (DOE), Lyn Wiltse and Mary Jean Bullock (PDSA Consulting, Inc.)

**Note:** If unable to attend meetings, please notify Team Leader.

### FUTURE DATES AND LOCATIONS

April 11, May 9, June 13 from 8:30 to 2:30 at USFS Office in Mountlake Terrace unless otherwise specified.

### INTRODUCTIONS

We welcomed Carl Hadley of Cedarock Consultants.

### AGENDA

**March 14, 2002**  
**8:30 a.m. – 3:00 p.m.**

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**U. S. Forest Service Office  
Mountlake Terrace, WA**

1. Review Agenda and Minutes
2. Review Study Plans and Requests  
A25, 29, 36, A9c, A9, A14a, A20; A24, A26
3. Action Items
4. Update from Solution Team Meeting
5. Reports from Fish Passage Technical Working Group
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7. Set agenda for April 11, 2002
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**NEW ACTION ITEMS**

- All: Send Carl suggestions for citations/studies on salmonid predation. Also send site-specific information on predation.
- All: Get steelhead comments (A9c) to Phil Hilgert ASAP (want to begin spring surveys). Other related comments before July.
- All: Review study plans: A14a, A20, and A24 and get comments to Phil Hilgert by end of March.
- All: Review study plans A25 and A29 and send comments to Carl Hadley by end of March.
- Carl: Send Nick study plans A25 and A29 to distribute for team members to review.
- Carl: Find out if otoliths can be read by next spring.
- Phil: Set up Instream Flow technical Workshop.
- Don: Provide references on information on cutthroat and char passage through Cascades to Arnie.
- Tom: Email power point presentation to Nick so he can burn CDs to distribute to team members.
- Sue: Send out prioritization strawman and schedule.
- Ruth: Draft Interest statements and accompanying issues for the Nature Conservancy.
- Nick: Meet with Brady and Greta re: A13.

**REPORT ON OLD ACTION ITEMS**

- Nick: Followed-up with Don Schluter re: fish traps.
- Nick: Followed-up with Stan Zyskowski (Park Service) re: coordination on Little Park Creek sampling.
- Arnie: Got printout of adult returns (last season) to Arn Thoreen.
- Craig: Identified issues to be addressed in A9 Study Request and send to Sue/R2 by the end of February.
- Arnie: Buttoned up with Recreation Working Group Team Leader re: A13
- Gary: Got Arnie recommendation on fry sample size and medium.

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**STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT**

<b>Study #</b>	<b>Title</b>	<b>Notes/Next Steps</b>
A01.A	Reservoir Tributary Habitat Surveys	Not discussed at this meeting. The full report will be complete prior to our March 14 meeting. Results will be used to assess fish production potentials in the three basins and also to identify areas for P/M/E measures.
A01.B	Reservoir Tributary Biological Surveys	Not discussed at this meeting. We will have a draft report this spring.
A01.C	Reservoir Tributary Delta Surveys	Not discussed at this meeting. The delta portions of tributaries in the drawdown zone will be surveyed in the next few months. This will be a supplemental report.
A02	LB River Habitat Mapping	No changes since last meeting.
A03	Reservoir Fish Population Characteristics	No changes since last meeting.
A04	LB/Skagit River Flow, Gaging	No changes since last meeting.
A05	Water Quality Sampling	No changes since last meeting.
A06	UB Passage Design Baffle Modification	Complete.
A07	Lower Baker Forebay Bathymetric Survey	Complete.
A08	UB Passage System Evaluation	The study report from R-2 is complete.
A09A	Skagit River Flow and Habitat Assessment (HIGH PRIORITY)	Phil walked us through a Power Point presentation describing the Interim Protection Plan between PSE and the service agencies (ESA consultation). Phil will set up a workshop to discuss instream flow and invite Hal Beecher and Brad Caldwell. Tom distributed the initial draft of a technical approach for assessing instream flow issues that he and Craig put together. This will assist the technical working group that Phil puts together.
A09B	Salmonid Redd Selection and Maintenance in the Middle Skagit in Response to River Fluctuation from Hydropower Peaking	Not discussed at this meeting. We'll address it by this summer. We'll submit the Study Plan for member review in June for discussion at July meeting.
A09C	Distribution, Timing and Depth of Salmonid Redds	A study plan prepared by R2 was distributed for comments. Phil reviewed the methodology and preliminary budget estimates for this survey. We agreed to do the spring surveys with modifications. The spring surveys will be pre-survey flights from Baker to Sedro-

	Woolley. We'll decide next steps in July. Please send comments ASAP to begin spring surveys.
A09D Distribution, Timing of Salmonid Fry	Not discussed at this meeting. Need Study Plan by March.
A10 Baker River Delta Habitat Assessment-Char	Complete. Note: USFW is concerned with impacts to char and indirectly to bald eagles through chum and also to cutthroat.
A11 Nutrient Addition	Not Discussed. Parking Lot.
A12 Instream Flows for Bio-diversity	Not Discussed. Split between R-A21 & R-A09.
A13A Water Quality Impacts of Human Uses of the Reservoir and Adjacent Shorelines.	Not discussed at this meeting. Arnie will follow up with Recreation Working Group re: existing data and possible PME's. Nick and Brady will discuss this offline with Greta.
A13B Water Quality Impacts on Aquatic Habitat	Not discussed at this meeting. Nick and Arnie will discuss this offline.
A14A Reservoir Shoreline Erosion	A study plan prepared by Associated Earth Sciences, Inc. was distributed for comments. We will decide next steps in April.
A15 UB Delta Scour	Not discussed at this meeting. Status as of October meeting: Data collection underway.
A16 Lower Baker River Alluvial Fan Assessment	Not discussed at this meeting. This is not time sensitive. We agreed to wait until the completion of A24 in March before developing a Study Plan. The US Corps of Engineers funded Little Baker Project to be a tie to this Study.
A17 Tributaries Surveys Upstream of Barriers	Not discussed. Request pending; not for 2001.
A18 Baker River Survey Upstream of 1 km.	Not discussed at this meeting. Status as of October meeting: Merged into A-01.A habitat surveys conducted Aug & Sept 2001.
A19 Review Limnological Information	Not discussed at this meeting. Status as of October meeting: PSE is talking to a University of Washington researcher to review existing data.
A20 Large Woody Debris Management	A study plan prepared by R2 was distributed for comments. We will decide next steps in April. R2 reviewed and provided a response to Stetson Engineer's comments to study outline.
A21 Skagit Wild & Scenic River Values	Not discussed at this meeting. Status as of October meeting: Study Request is under review.

A22 Baker Lake Trout Impacts Evaluation	No longer necessary due to change in management direction in favor of cancellation of non-native trout stocking in the reservoirs.
A23 Baker River Wild & Scenic River Values	Not discussed at this meeting. Status as of October meeting: Study Request needs clarification.
A24 Hydrologic and Geomorphic Analysis	R2 reviewed and provided a response to Stetson Engineer's comments to final study plan.
A25 Unnatural Predation	A study plan prepared by Carl Hadley (Cedarock Consultants) was distributed for comments. We will decide next steps in April. The study purpose is to look for opportunities to reduce the incidence of sockeye predation. Carl walked us through the revised study plan, reviewing the proposed methodology. Concern was expressed re: the limited literature available on sockeye predation in lake systems. An acclimation facility might be an option for solution. This study employs an environmental risk strategy so we can suggest management practices accordingly. We hope to begin this study immediately.
A26 Reservoir Limnology-Production Potential	We reviewed a one-page proposal submitted last year by David Beauchamp, of University of Washington. Nick reported that there have been unanticipated contract delays that have hindered the development of this study plan. We are seriously behind on this two-year study. It was suggested this study be put on a fast track due to perceived relicensing implications. Nick will work to push this forward.
A27 Middle Skagit Incubation Flows	Not discussed at this meeting. Status as of October meeting: Covered in A9.
A28 Fish Passage-Reservoir Management	Not discussed at this meeting. This is being further developed in the Fish Passage Technical Working Group.
A29 Estimate Sockeye Production from Different Incubation Sources	A study plan prepared by Carl Hadley (Cedarock Consultants) was distributed for comments. We will decide next steps in April. The key question posed here is what is the contribution to sockeye smolt out-migration from different incubation sources? Phase I is the fry origin analysis. Phase 2 involves smolt

	collection at the gulper one and possibly two years after the initial fry collection. This would occur only if the fry otoliths show a significant difference between origins.
R-A30 Fish Passage-Near Field Smolt Behavior	Not discussed at this meeting. Coordinated through Fish Passage Tech. Group.
R-A31 Fish Passage-Far Field Smolt Migration	Not discussed at this meeting. Coordinated through Fish Passage Tech. Group
R-A32 Fish Passage-Kelt Radio telemetry	Not discussed at this meeting. Coordinated through Fish Passage Tech. Group
R-A33 Fish Passage-PIT Tag Migration	Not discussed at this meeting. Coordinated through Fish Passage Tech. Group
R-A34 Fish Passage-Downstream Run-Timing Correlation	Not discussed at this meeting. Coordinated through Fish Passage Tech. Group
R-A35 Fish Passage-Upstream Run-Timing	Not discussed at this meeting. Coordinated through Fish Passage Tech. Group
R-A36 Native & Wild Inland Fish Population Assessments	The purpose of this study is to identify the origin, status, and potential for preservation and enhancement of native and wild rainbow trout and cutthroat trout populations in the Baker Lake drainage. Mark (WDFW) reviewed the purpose. Arnie suggested that the connectivity issues related to this study are already being addressed in fish passage studies. After considerable discussion, we agreed the outstanding issues are whether we will do a spring spawning survey in the deltas, decision data needs and identifying the genetic tie to relicensing. If we do the delta spawning, Mark said they would withdraw the request for the genetic study. R2 (as part of A1C) will draft a protocol to do delta spawning surveys this spring and send it out for our review prior to the next meeting. If we go forward with this survey, it will take some money from follow-up surveys above potential barriers. Trout Unlimited expressed a strong desire that the barrier-related surveys be done. The Fidalgo Fly Fishers & Washington Council of Federation of Fly Fishers expressed that it is very important to preserve and enhance a native and wild rainbow and cutthroat trout population in the Baker Lake drainage.

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## **REPORT FROM FISH PASSAGE TECHNICAL WORKING GROUPS**

The Upstream and Downstream Fish Passage Design Groups combined and met March 4th. They continue conceptual design development and alternatives selection, and focused discussions on 2002 behavioral studies at Upper Baker. Handouts were included in Members' packets on the studies schedule. These studies will run through the middle of June. The studies are separated into near-field (acoustic tag tracking of coho and sockeye for three-dimensional identification of fish movement) and far-field (radio tag tracking) releases. The studies will test movement during two treatments: low pool vs. high pool, and generation on vs. generation off. The timeline will be the seven weeks beginning April 29. Three additional studies include: radio-tagged kelts release at the upper end of the reservoir, PIT-tag & recovery of coho and sockeye in the near- and far-fields, as well as continuation of past releases of freeze-branded coho groups. There will be weekly conference calls on these studies in case we need to change a timely design. The next meeting will be April 2. It will be a combined meeting dealing with both upstream and downstream passage.

## **SOLUTION TEAM UPDATE**

The teamlet of agency and PSE attorneys continues their review and report that they are nearly complete with the Communication Protocol and Process Document. Solution Team members are also conducting a final review. PSE has removed confidentiality language that might have afforded them protection against a would-be competitor. The tribes are attempting to secure confidentiality around culturally sensitive resources through a separate agreement with participants in the process. They hope to have these complete prior to the next Solution Team Meeting. PSE may request permission from FERC to use the Alternative Licensing Process at the end of the month.

## **LIST OF MEETING HANDOUTS**

- Agenda, February 2002 meeting notes, updated mail list, revised request A26- Baker Basin Salmonid Production Potential, with an emphasis on reservoir rearing sockeye and coho, A36- Native and Wild Inland Trout Population Assessments.
- Draft Study Plan A25- Evaluation of Project-Influenced Predation on Juvenile Sockeye
- Draft Study Plan A29- Sockeye Fry Origin Study-Otolith Approach
- Baker River Project, FERC No. 2150 Study Request Index (02/13/02)
- Hydrology and Aquatic Resource Working Group Middle Skagit River Spawning Surveys Study Plan A-09c (R2 Consultants (03/12/02
- Interim Protection Plan and A-09 Instream Flow Issues
- Draft Reservoir Shoreline Erosion and Deposition Study Plan A-14a (Skagit and Whatcom Counties, WA)
- Study Plan A-20 Aquatic Resource Study Large Woody Debris Budget (R2)
- R2 Response to Comments on the Final Study Plan for Study A24 Distributed via e-mail on 12/14/01 (Memorandum) Suggested Study Plan Components for Analysis of Hydropower Project Impacts on Fluvial Geomorphology of Baker River and Skagit River Wild and Scenic Reach.
- R2 Response to Comments on the Outline of a Proposed Approach for Study Request A20 Distributed at the November 20, 2001HARWG



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- Beauchamp Proposal: Review of Existing Data and Development of a Study Plan to Examine Factors Limiting Production of Juvenile Sockeye Salmon, Juvenile Coho Salmon, and Bull Trout in Baker-Shannon Reservoirs
  - 2002 Downstream Studies Weekly Release Schedule (02/13/02)
  - Technical Approach for Assessing Instream Flow Issues (Prepared by Watershed Systems Group, Inc., Logan, Utah (February 27, 2002)s

### **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 Traps & Haul – other species

### **EVALUATION OF MEETING**

#### **Well-Dones**

- Great food!
- Phil’s presentation

#### **Opportunities to Improve**

- Missing some people
- Drier weather

### **Tentative Agenda for Next Meeting**

**April 11, 2002**

**8:30 p.m. – 3:00 p.m.**

**U. S. Forest Service Office  
Mountlake Terrace, WA**

1. Review Agenda and Minutes
2. Review Study Plans /Requests  
A1, A25, A29, A9, A9C, A26
3. Approve Study Plans: A14a, A20
4. Charles Howard Model Preview/Demo (1.5 hrs.)
5. Update from Solution Team Meeting
6. Reports from Fish Passage Technical Working Group
7. Additional Issues?
8. Set agenda for May 9, 2002
9. Evaluate Meeting