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## BAKER RIVER PROJECT RELICENSE

### Aquatic Resources Working Group

May 8, 2003

8:30 a.m. – 3:00 p.m.  
WA Department of Ecology  
Room 1B/1C  
3190 160<sup>th</sup> Ave. SE, Bellevue, WA

### AGENDA

1. Review Agenda, Minutes, Schedule	8:30 – 8:45
2. Settlement Process- Status of 2 <sup>nd</sup> Draft PMEs-Prep for May 14 Cross-Resource Workshop	8:45 – 10:00
<i>Break</i>	10:00 – 10:15
3. Fish Passage Technical Work Group Report	10:15 – 10:30
4. Report from Instream Flow Technical Working Group (A09a)	10:30 – 11:30
5. Review Study Plans/Requests: updates on A01a/b (A26b)	11:30 – 12:00
<i>Lunch (meeting snacks or bring your own)</i>	12:00 – 12:30
6. Review Study Plans/Requests: updates on A9 (b,c,d), A14a, A16, A17, A20, A24, A25, A26a, A37, A38, A39, Others?	12:30 – 2:30
7. Action Items	2:30 - 2:35
8. Update from Solution Team Meeting	2:35 - 2:40
9. Additional Issues	2:40 - 2:50
10. Set Agenda for June 12 <sup>th</sup> 2003 (USFS Building-Mt. Lake Terrace)	2:50 - 2:55
11. Evaluate Meeting	2:55 – 3:00



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May 8, 2003

**Driving Directions to Dept. of Ecology Office (Bellevue):**

- 1) Eastbound on I-90 from I-5 or I-405: Take exit 11A, Keep left, drive past the 150<sup>th</sup> Ave. SE exit and take the 156<sup>th</sup> Ave. SE exit.**
  - 2) Cross over the freeway and move one lane to the left to avoid the 'exit only' lane.**
  - 3) At the first light, turn right onto Eastgate Way. Follow Eastgate to 160<sup>th</sup> Ave. SE (3<sup>rd</sup> light) and turn left.**
  - 4) Once on 160<sup>th</sup> Ave. SE, turn into the third driveway on the right. Beige two story building. Parking in front of the building or one block on the opposite side of 160<sup>th</sup> Ave. SE.**
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### Aquatic Resources Working Group

May 8, 2003

8:30 a.m. - 3:00 p.m.

Department of Ecology, Bellevue - Eastgate

### 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](mailto:arnie.aspelund@pse.com)

**PRESENT:** Arnie Aspelund, Nick Verretto, Cary Feldmann (PSE), Arn Thoreen (Skagit Fisheries Enhancement Group), Mike Ramey, Phil Hilgert and Sue Madsen (R2), Bill Reinard (Wildcat Steelhead Club), Steve Fransen (NMFS), Stan Walsh (Skagit Systems Cooperative), Greta Movassaghi, Scott Lentz, by phone (USFS), Rod Sakrison and Bob Wright (DOE), Marc Daily (Meridian Environmental), Gary Sprague (WDFW), Gene Stagner (USFWS), Ruth Mathews (The Nature Conservancy), Terry Key (Lotek Wireless), Lyn Wiltse, facilitator and Mary Jean Bullock (PDSA Consulting, Inc.).

The next CROSS RESOURCE WORKSHOP MEETING will be MAY 14, 8:00 – 5:00 at the EMBASSY SUITES in LYNNWOOD. Stay tuned for details. Presenter: Steve Fransen

**FUTURE WORKING GROUP DATES AND LOCATIONS (2<sup>nd</sup> Thursday of each month):**

June 12, July 10 (WA Ecology, Bellevue - Eastgate), August 14, September 11 (TBD), October 9, November 13, December 11, 2003 from 8:30-3:00 at USFS Office in Mountlake Terrace.

## **May 8, 2003 Agenda**

### **8:30 – 3:00 p.m. at WA Dept. of Ecology, Bellevue – Eastgate**

1. Review Agenda, Minutes, Schedule
2. Settlement Process – Status of 2<sup>nd</sup> draft proposed actions after April 1, 2 Retreat
  - Prep for May 14 Cross-Resource Workshop
3. Fish Passage Technical Working Group Report
4. Instream Flows Technical Working Group Report (A9)
5. Studies
  - A01a, b, and A26 (b) – Reservoir Tributary Surveys
  - A9 (a, b, c, d) - Skagit River Flow & Habitat Assessment
  - A14a - Reservoir Shoreline Erosion
  - A16 - Lower Baker Alluvial Fan Assessment
  - A17 – Tributaries Surveys Upstream of Barriers
  - A20 – Large Woody Debris Management
  - A24 - Hydrologic & Geomorphic Analysis
  - A25 – Inventory of Unnatural Predation Opportunity
  - A26 (a) - Reservoir Production Potential
  - A37 – Evaluation of Aquatic/Riparian Habitats (Without Project Alternative)
  - A38 - Bull Trout Population Assessment
  - A39 – Native Non-Salmonid
6. Action Items
7. Update from Solution Team Meeting
8. Additional Issues?
9. Set agenda for June 12, 2003 meeting @ USFS Building in Mountlake Terrace
10. Evaluate meeting

## **INTRODUCTIONS**

We were pleased to welcome observer Terry Key (of Lotek Wireless) and Mike Ramey (R2 Resource Consultants)!

## **NEW ACTION ITEMS**

- Nick: Send out electronic versions of the May 7, Downstream Fish Passage Alternative Status Summary by May 9<sup>th</sup>.
- ALL: Send in comments on A16 Study Plan by May 22.
- ALL: Let Phil know of any other important data sources that R2 should include in A09c or A09d.
- Arnie: Ensure that the Technical Scenarios Teamlet minutes, etc. are posted on the website.

## **SETTLEMENT PROCESS**

The Second Draft PME's were sent out May 7<sup>th</sup>. These will be discussed during the morning of the May 14<sup>th</sup> workshop. The afternoon of the workshop will be devoted to apparent cross-resource conflicts. There is no official comment period for these as the process to continually

refine this is on going. Steve Fransen will be our presenter of these at the workshop. Thanks Steve!

## **PDEA**

The partial preliminary PDEA is freshly out for review. It has been sent to Solution Team members already and Arnie will make sure that folks from this Working Group also receive a copy by May 9<sup>th</sup>. Everyone should submit their comments through their Solution Team representative. Comments on this partial PDEA and the draft license application are due by June 2.

## **FISH PASSAGE TECHNICAL WORKING GROUP REPORT**

The group met April 28<sup>th</sup>. For now, they are pursuing a modification of the gulper option. Jim Stowe is doing some additional research on a floating screen tower option used at Pelton Round Butte.

They will discuss the potential cost and design of the modified gulper alternative at the next meeting on May 19. Once they agree, PSE has committed to begin designing the preferred option immediately. Other downstream passage options are tabled at this point. Agency prescription authority is reserved.

In the meantime, the Baker Agency Group met on May 6 and came up with a list of performance and standards to ensure fish passage success. A key standard is fish passage overall through the system. Steve distributed a memo outlining what they came up with. For survival rates, they would like to see:

- 1) At least 98% fish passage survival through collection facilities (upstream and downstream)
- 2) At least 95% for smolts that migrate to the dam fore bay.
- 3) At least 80% reservoir passage survival

Multiplying these three points together gives at least a 75% level for over all fish survival. Since perfect fish passage is not likely achievable, they are also calling for a supplementation program to secure full reservoir seeding for sockeye and coho since they have historically high survival rate in the Baker System.

They are also suggesting a Chinook and steelhead program. (The Skagit *River* System may already be “maxed” out on the number of hatchery steelhead that can be released *under current management directives based on hatchery/wildstock interaction concerns* and we remember Dick’s concern with these. It was noted that philosophical differences exist around use of hatchery fish among Working Group members.)

This memo also asks for immediate PME implementation by PSE.

It also calls for the Floating Surface Collector to be initiated with a 1,000 cfs flow, assuming it’s technically feasible. Otherwise, the initial collector may be sized at 500 cfs.

There would be a penalty associated with non-performance (paid into the HERC fund).

Monitoring, maintenance and reporting are expected for all PME's and are not intended to be limited to Section 18 prescriptions.

Next steps: We will need to identify what criteria measurement methods would be used. We will also come up with a schedule for implementation.

### **INTERIM PROTECTION PLAN (IPP)**

PSE submitted the draft Chinook Biographical Assessment in May, 2002 to FERC. FERC passed it to NMFS in August. NMFS asked for additional data. FERC said "No – Go with what you've got."

PSE submitted a bull trout BA to FERC on December, 2002. FERC sent it to USFWS in mid-January. USFWS wrote back asking for additional data.

There will be an Interim IPP meeting on July 18 to review action items and see if it is possible to get an extension.

### **INSTREAM FLOWS TECHNICAL WORKING GROUP REPORT (A9)**

The Technical Working Group met May 2. After the participants have reviewed the notes, they will be provided for broader distribution. They will meet again June 3 somewhere in the Seattle Area. See below for details.

### **GENERAL NOTE RE: DATA DISCREPANCY!**

Due to changes in vertical datum, calculations using GIS datums may need to be changed. A memo on this will be forthcoming.

### **R-2 STUDIES REPORT PROTOCOL**

Phil announced that draft versions are being sent out for review for the first time will have a color title page and no comment section appended at the front or back.

Subsequent versions of the report (no document change) will show comments at the front of the document. The document footer will not be changed and the version date will remain the same as that distributed for preliminary review.

Subsequent versions of the report (with document changes) will show comments appended to the back of the document. The document footer will be changed and the version updated to distinguish the document from previous versions.

Final draft documents and comments (with or without document changes) will be denoted by "Final Draft". Any comments will be appended to the back of the document and a response provided for each. The document footer will be changed and the version updated to distinguish the document from previous versions.

### **STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT**

<b>Study #</b>	<b>Title</b>	<b>Notes/Next Steps</b>
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A01a Reservoir Tributary Habitat Surveys	Ron Campbell of R2 has reviewed Emily's report. He and Phil will be meeting in the next few days with Emily to finalize this report for distribution.
A01b Reservoir Tributary Biological Surveys	See A26b
A01 Reservoir Tributary Delta Surveys	See report for 101.A. ACTIVE
A02 LB River Habitat Mapping	Sue walked us through a PowerPoint presentation of the results of this report. The report will be out for review by the July 10 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. Last meeting Phil reported that they downloaded pressure sensors last and are still in the process of collecting data. Links to A9. 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	<p>Phil reported that by their next meeting on June 3, the stage discharge relationship for all 24 transects will be determined. They will re-do 2002 spawning data using the 24 transect stage discharge relationships.</p> <p>They will also be looking at spawning vs. incubation and emergence flows for the unregulated Baker River at Concrete (daily flows). We will be looking at various ways to define spawning periods, using Stan's E03 as a starting point. Using the 10 highest days during the spawning period (average daily), they will identify the frequency, timing duration of instances where, under unregulated conditions, the spawning flow wouldn't be met (less than 1/3).</p> <p>This should help us identify what we want to run, through HYDROPS when the habitat models are available, we can use them to fine tune the data we get from HYDROPS.</p> <p>They will be using results from A9c and A9d to come up with a proposed periodicity for various life stages of species. They will also be identifying non-species- specific evaluation criteria (in the context of periodicity as per the previous sentence). In terms of prioritizing analyses to be done, they want to look at hourly information first (stranding, trapping, spawning, and incubation analysis).</p>

	They will be working with Brad Caldwell to identify various assumptions used in the lower Skagit River Instream Flow Study (for consistency). Finally, they will be overlaying lower Skagit River HSI curves with those of the Middle Skagit River data.
A09B Salmonid Redd Selection and Maintenance in the Middle Skagit in Response to River Fluctuation from Hydropower Peaking	Phil reported that this draft report is complete. He is reviewing it and will send it out for our review by April 28. Prepared by Adam Weybright.
A09C Distribution, Timing and Depth of Salmonid Redds	Comments were due April 21. All were asked to identify any additional data sources that R2 has not included in the references in this report.
A09D Distribution, Timing of Salmonid Fry	All were asked to let Phil know of any other references ASAP. This report will be out by June 2.
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. Tabled for now. Awaiting results of A14a.
A14A Reservoir Shoreline Erosion	Comments on report were due April 30 <sup>th</sup> . Issues with the vertical datum will push this period back 1 month. Greta will meet with a representative from National Park Service on May 12 and will be sending in comments on this report shortly thereafter. Arnie will be the contact on this across all resource area Working Groups.
A15 UB Delta Scour	Sue is in the process of writing this report. Stay tuned....
A16 Lower Baker River Alluvial Fan Assessment	The draft study plan was distributed. Sue explained that R2 sees a strong tie of this study to PMEs. On January 17 <sup>th</sup> the Lower Baker Technical Group met and identified five alternatives for PMEs and recommend that, as Phase 1, R2 would do a preliminary feasibility analysis of each of these five alternatives (listed on page 5 of the Study Plan). Note: They will continue to button up with the USACE and the Skagit Fisheries Enhancement Group as these affect their plans for the Little



	<p>Baker Side Channel Restoration Project. Phase 2 would give a conceptual level design (+50%-30%).</p> <p>After receiving comments on this (due by May 22) the Technical Working Group will get together again and identify the alternatives to move forward to Phase 2. They will get the approval from this group before initiating Phase 2. A technical memo will be the deliverable from Phase 1. This memo will contain one to two pages of analysis for each alternative.</p> <p>The Phase 1 analysis will include technical feasibility, potential consequences, potential benefits, any “flags” that may indicate a reason for some of the alternatives not to move on to Phase 2.</p>
A17 Tributaries Surveys Upstream of Barriers	This is on hold due to changes/inconsistencies in vertical datum data calculations.
A18 Baker River Survey Upstream of 1 km.	Merged into A01a and A01b. ACTIVE.
A19 Review Limnological Information	This study has been combined with A26.
A20 Large Woody Debris Management	The deadline for comments on this report was April 21. The final draft report will be out as by our June meeting.
A21 Skagit Wild & Scenic River Values	This is being addressed by A9 and A24.
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. Removed from list of studies we will consider.
A23 Baker River Wild & Scenic River Values	This is being addressed through A15.
A24 Hydrologic and Geomorphic Analysis	<p>Comments on Part 1 (hydrology portion) were due April 30. This period was extended to the end of day June 9. The final report will be out by our July 10 meeting.</p> <p>Part 2 (Geomorphic Analysis) is out for review. Three figures (mostly photos) are missing from Section 4 of this report. Sue will get those out to folks electronically and bring hard (color) copies to our next meeting. Comments due by July 15.</p>
A25 Unnatural Predation	Study is ongoing. The catch data have not yet been summarized. We will discuss this at our June meeting
A26A Reservoir Limnology-Production Potential	Nick reported that he received the draft report from Asit in late April. He did not distribute it as he had planned for our review prior to this meeting, because he (Nick) had some serious concerns with

	<p>the validity of some of Asit's analysis methods and interpretations. Nick has met with him to discuss his concerns and has also asked him to re-format the report so it will be better understood and more useable for our analyses.</p> <p>Nick will receive this revised report by May 22. He will send it out at that time for our review. He will invite Asit to attend our July 10 meeting to discuss the report with this group. In the meantime, Nick will get Asit some additional scale information.</p>
A26B Tributary Production Potential	See A1 above.
A27 Middle Skagit Incubation Flows	Addressed in A9.
A28 Fish Passage-Reservoir Management	Now addressed in Fish Passage Studies A30 to A34. ACTIVE
A29 Estimate Sockeye Production from Different Incubation Sources	This year, we have sockeye emerging out of Beach 3 and 4. For now, we have agreed to collect and preserve 100 samples. We can determine what to do with them latter on (otolith analysis).
R-A30 Near-Field Smolt Behavior	Completed. Coordinated through Fish Passage Tech. Group.
R-A31 Fish Passage-Far Field Smolt Migration	Completed. Coordinated through Fish Passage Tech. Group.
R-A32 Fish Passage-Kelt Radio telemetry	Completed. Coordinated through Fish Passage Tech. Group.
R-A33 Fish Passage-PIT Tag Migration	Completed. Coordinated through Fish Passage Tech. Group.
R-A34 Fish Passage-Downstream Run-Timing Correlation	Completed. Coordinated through Fish Passage Tech. Group.
R-A35 Fish Passage-Upstream Run-Timing	Completed. Coordinated through Fish Passage Tech. Group.
R-A36 Native & Wild Inland Fish Population Assessments	WDFW is collecting native trout fish samples. We are participating in this sampling in our other surveys, taking tissue samples in support of this study. Mark will send out the revised Study Request on A36: Native & Wild Inland Fish Population Assessments for discussion at a future meeting.
R-A37 Without Project Alternative (evaluation of Aquatic & Riparian Habitat)	This Study is ready to go once a decision on reference numbers has been made (datum issue).
R-A38 Bull Trout Population Assessment & Risk Analysis	<p>This report was distributed. There are tasks in this Study that need to get started in the near future, so comments need to be in as soon as possible.</p> <p>Phil will be coordinating a Technical Working Group on this (Gene, Scott). At the latest bring your comments with you to our July 10<sup>th</sup> meeting.</p>

R-39 Native Non Salmonid	Ruth passed her initial Study Request on to Scott. He will help flesh this out and send it to Phil to review by the end of May. We may handle this in a similar manner as A17.
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## REPORT ON OLD ACTION ITEMS

- Scott: Emailed a copy of Habitat Restoration/Conservation PME to Arnie to distribute to Working Group members by April 18.
- Cary: Put together conference call to discuss new language for second draft proposed actions (April 21 from 3:00 to 5:00).
- Cary: Sent out electronic version of a red-line draft of the 2<sup>nd</sup> draft proposed actions on April 1.
- Arnie: Emailed out Greta's erosion control PME.
- ALL: Sent Arnie your comments on 2<sup>nd</sup> draft actions by April 17.
- ALL: Planned to phone in for the April 21 conference call!
- Sue: Sent Arnie sediment proposed actions to distribute.
- ALL: Reviewed A24 Part 1 report and got comments to Sue by end of April.
- All: Reviewed Study Report for A9c. Be ready to discuss at our May 8 meeting.
- Stan (Gary): Set up a meeting of BAG (Baker Agency Group) to address goals for fish passage (May 6).
- All: Sent Stan your ideas on goals for fish passage by April 15.
- Sue: Put together draft study plan for alluvial fan (A16) and draft PME language by May 1.

## ACTION ITEM CARRIED OVER FROM APRIL 1 AND 2 RETREAT

- Paul: Get folks results from the 11 runs. Need to verify input data, along with corresponding explanation.
- Note: Others related to the HYDROPS Model were transferred to the Technical Scenarios Teamlet (TST).

## UPDATE FROM SOLUTION TEAM MEETING

The main topics at the April Solution Team meeting were flood control (it was agreed that this is a responsibility of the USACE and that PSE is not in the business of, or in any position to assume risk for, providing flood control.

Also, we discussed the settlement process, in particular that the Louis Berger Group would prepare the license articles in addition to the draft PDEA. Rob Mohn outlines what would be included in the partial draft that came out last week. We also discussed the upcoming May 14 Cross Resource Workshop.

## ADDITIONAL ISSUES?

There were none.

## HANDOUTS

- Agenda for 5-08-03 meeting

- Updated Participant Contact List
- Final Minutes from 4-10-03 meeting
- Long-term Aquatics Schedule
- Updated Aquatics Study Request Index
- Updates Aquatics Study Index
- Proposed language for 3.4.1 Implement Fluvial Geomorphic Management (R2)
- Baker Agency Group (BAG) conference of 5/6/03 – Memorandum from Steve Fransen to the Baker Aquatics Work Group
- Fish Habitat Model of the Middle Skagit River
- Table – Summary of Middle Skagit River juvenile salmonid life history dynamics. (Study A-09d)
- Comments on Baker River Hydropower Project, Draft Study A-20 Large Woody Debris (USFS 3/27/2003)
- Cross Resource Working Group Meeting, May 14, 2003 Agenda
- Draft Memo – Downstream Fish Passage Alternatives Status Summary, Prepared for Fish Passage Technical Working Group; Prepared by Kate Welch, MWH, May 7, 2003
- Feasibility Assessment of Potential Protection, Mitigation and Enhancement Measures for Lower Baker Alluvial Fan Study Plan A-16
- Hydrology and Geomorphology of the Baker and Middle Skagit Rivers (Study A-24) R2 Resource Consultants
- Native Char Investigations Baker River Watershed Study Plan A-38 R2 Resource Consultants

## **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**

- Thanks to DOE for hosting us this month and last!
- Sue’s A2 and A16 presentation
- Abbreviated studies report for Solution Team
- Short Solution Team update
- Got out early
- Cary’s analogy to watches

### **What Needs to Be Changed**

- Traffic

- Cracker juggling “knee”ds attention

### **What’s Hot?**

- Datum issue
- Fish passage
- Alluvial fan

### **Studies Update for Solution Team**

- Lots! Comments are due.

### **Tentative June 12, 2003 Agenda**

#### **8:30 – 3:00 p.m. at USFS Building in Mountlake Terrace**

1. Review Agenda, Minutes, Schedule
2. Settlement Process – Status of 2<sup>nd</sup> draft proposed actions (debrief of May 14<sup>th</sup> workshop)
3. Fish Passage Technical Working Group Report
4. Instream Flows Technical Working Group Report (A9)
5. Studies
  - A01a, b, and A26 (b) – Reservoir Tributary Surveys
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