



BAKER RIVER PROJECT RELICENSE

Aquatic Resources Working Group

February 13, 2003

8:30 a.m. – 3:00 p.m.

U.S. Forest Service

Conference Room A/B (425-775-9702)

21905 64th Avenue West, Mountlake Terrace, WA

AGENDA

1. Review Agenda and Minutes	8:30 – 8:45
2. Review Relicense Schedule	8:45 – 9:00
3. Settlement Process-Cross Resource Workshop, PME development	9:00 – 10:30
<i>Break</i>	10:30 – 10:45
4. Report from Fish Passage Technical Working Group	10:45 – 11:00
5. Report from Instream Flow Technical Working Group (A09)	11:00 – 12:00
<i>Lunch (meeting snacks or bring your own)</i>	12:00 – 12:30
6. Review Study Plans/Requests: updates on A14, A16, A17, A25, A26, A36, A37, A38, Others?	12:30 – 1:45
7. Action Items	1:45 - 2:00
8. Update from Solution Team Meeting	2:00 - 2:15
9. Additional Issues	2:15 - 2:30
10. Set Agenda for March 13 th 2003 (USFS Mountlake Terrace)	2:30 - 2:40
11. Evaluate Meeting	2:40 – 3:00



February 13, 2003

Driving Directions to US Forest Service Office:

- 1) Driving North from Seattle (or South from Everett) on I-5, take the 220th St. SW exit (exit 179).**
 - 2) Turn west (right if from southbound I-5, left if from northbound I-5) onto 220th St. SW.**
 - 3) Drive west about a block and turn right onto 64th Ave W.**
 - 4) The office building is about ¼ block down the street on the right side of the road.**
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February 13, 2003
8:30 a.m. - 3:00 p.m.
USFS Building, 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, arnie.aspelund@pse.com

PRESENT: Arnie Aspelund, Nick Verretto, Paul Wetherbee, Cary Feldmann (PSE), Arn Thoreen (Skagit Fisheries Enhancement Group), Phil Hilgert of (R2), Bill Reinard (Wildcat Steelhead Club), Steve Fransen (NOAA Fisheries), Dick Raisler (Fidalgo Fly Fishers/WA Council Federation Fly Fishers), Bob Wright (DOE), Gary Sprague (WDFW), Ruth Mathews (Nature Conservancy), Stan Walsh (Skagit System Cooperative), Brady Green and Greta Movassaghi, Margaret Beilharz, by phone (USFS), Chuck Ebel (USACE), Dee Endelman (Agreements Dynamics), Lyn Wiltse, facilitator and Mary Jean Bullock (PDSA Consulting, Inc.).

FUTURE DATES AND LOCATIONS (2nd Thursday of each month):

March 13, April 10 (*WA Ecology, Bellevue-Eastgate*), May 8 (*WA Ecology, Bellevue-Eastgate*), 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.

Note: Below are 2003 meeting dates where the USFS Office in Mountlake Terrace is NOT available: April 10, May 8, July 10, September 11

February 13, 2003 Agenda

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

1. Review Agenda and Minutes

2. Review Relicensing Schedule
3. Settlement Process – PMEs: Status of PMEs descriptions for March workshop
4. Fish Passage Technical Working Group Report
5. Instream Flows Update (A9)
6. Studies:
 - A9d - Skagit River Flow & Habitat Assessment
 - A14 - Reservoir Shoreline Erosion
 - A16 - Lower Baker Delta/Channelization
 - A17 - Tributaries Surveys Upstream of Barriers
 - A25 – Inventory of Unnatural Predation Opportunity
 - A26 - Reservoir Production Potential
 - A29 - Sockeye Smolt Incubation Origin Otolith
 - A36 - Native & Wild Inland Fish Population Assessments
 - A37 - Evaluation of Aquatic and Riparian Habitat under Without Project Alternative
 - A38 - Bull Trout Population Assessment
 - A39 – Native Non-Salmonid Fish
 - A40(?) – Chinook-related Study
7. Action Items
8. Update from Solution Team Meeting
9. Additional Issues?
10. Set agenda for March 13, 2003 meeting
11. Evaluate meeting

INTRODUCTIONS

The Group welcomed Paul Wetherbee of PSE . He is a hydrologist newly hired at PSE after working with them as a consultant on the White River Project. He will be working with Bob Barnes.

NEW ACTION ITEMS

- ALL: Send Stan comments on E03 (Examination of Spawning and Incubation Flows in the Skagit River below the Baker confluence in the Brood Year 2000) by January 31. The Economic Working Group will discuss this in March.
- Mark: Send out the revised Study Request on A36: Native & Wild Inland Fish Population Assessments (prior to our February meeting) for discussion at our March meeting.
- Mark: Send out the revised Study Request R-A38: Bull Trout Population Assessment & Risk Analysis (prior to our February meeting) for discussion at our February meeting.
- Nick: Talk with Stan re: A29.
- Mark: Get Emily juvenile density for multiple age classes in the Sauk.
- Nick: Send Ruth downstream passage option criteria.
- Phil: Email Large Woody Debris report to Arnie to distribute by February 14 (including a cover letter identifying opportunities).
- ALL: Get comments on Large Woody Debris report to Phil by February 28.
- Phil: Create a matrix of non-salmonids with relation to project effects and distribute by next meeting.

REPORT ON OLD ACTION ITEMS

- ALL: Sent ideas and comments to Bruce re: adaptive management.
- ALL: Reviewed 16 categories of PME for completeness – let Arnie know by January 15.
- ALL: Reviewed Draft PMES below and sent Arnie your comments by January 15, 2003
 - 303a-g-Flows
 - 305a – Reservoir Rule Curve
 - 302a – Upstream Fish Passage
- Arnie: Sent out consolidated list of comments on each of the three above PME drafts by January 22 for review.
- ALL: Reviewed January 22nd version of the three PMEs (above) and get Arnie feedback by January 31.
- Arnie: Verified reference numbers between current PME documents and October brainstorming session at the Lodge.
- ALL: Gave Brady feedback on A17 (Tributaries Surveys Upstream of Barriers) prior to this meeting.
- Brady: Sent out the revised Study Request on A17: Tributaries Surveys Upstream of Barriers (prior to our February meeting) for discussion at our February meeting.
- Cary: Worked with PSE team leaders to standardize PME numbering conventions.
- Phil: Met with Brady, Gene, Mark, PSE, Doug re: A38 on Jan. 29.
- Bill: Brought salmon poem and recited it beautifully- Thanks Bill
- Nick: Talked with Stan re: A29 (ongoing).
- Greta: Talked with Brady, Stan, Gary, etc. They decided PSE will fund and operate the Little Park Creek smolt trap this spring as part of its normal operations.
- Arnie: Checked with Joetta by March re: status of A14 (on shoreline erosion). Nearly done- expected in March.
- Arnie: Checked with Nick re: status of A25 (on unnatural predation). Starts next week.
- Lloyd: Checked with FERC re: Army Corps of Engineers flood control authority and the law that provides that authority. Keith Brooks of FERC will be issuing an interpretation of the legal mandates by Feb. 19.

REVIEW RELICENSE SCHEDULE

(This will occur only when there are substantive changes.)

PLAN FOR MARCH CROSS-RESOURCE WORKSHOP

Prior to the Workshop

A CD listing all the 1st draft PMEs that each Working Group is considering along with a draft agenda for the March Workshop will be out by February 18th.

Participants will be asked to fill out a pre-workshop worksheet to consider how to resolve conflicts, etc.

PSE will send out their proposal (with elements of Working Group PMEs) for review on Feb. 26. This proposal is a subset of the PMES brainstormed in the Working Groups and takes into account the interests of stakeholders in the process.

March 4, Tuesday (afternoon only)

1:00-5:00 High level PME presentations by a member of each Working Group (Cultural, Terrestrial, Aquatics, Recreation, Economics/Operations)

Phil has graciously accepted our request that he do our presentation. (Cary will be a back-up if there are “high flows”)

Probable Attendees: Phil (presenter), Nick, Gary, Brady, Scott, Steve, Arn, Ruth, Paul, Cary, Chuck, and Arnie

March 5, Wednesday (all day)

Dee will begin with a review of the background of our process to date. She will then do a brief training session on interest-based negotiations to kick things off.

Then we will walk through PSE’s Proposal, highlighting pieces that have cross-resource implications e.g., the proposed reservoir management regime. Joel Molander of PSE will explain how PSE came up with its reservoir management plan (share outputs from HYDROPS model runs, etc.)

Then we will split up into small cross-resource groups to:

- Flag impacts on resource (add conflicts to lists already posted from Feb. Working Group meeting)
- List how it affects the organizational interests
- Report back to the larger group

Probable Attendees: Phil, Nick, Gary, Steve, Arn, Ruth, Cary, Paul, Chuck, Arnie

March 6, Thursday (all day)

Finish PSE Proposal (pieces with cross resource implications)

Review other PMEs with cross resource implications

Review (amended) list of conflicts

Brainstorm to resolve conflicts

Review (amended) list of conflicts

Brainstorm to optimize synergies

Plan next steps

Probable Attendees: Phil, Nick, Gary, Steve, Arn, Ruth, Paul, Cary, Chuck, Arnie

General Feedback

- Concern was expressed about the process of PSE putting forth a “draft proposal”, as a more collaborative process would have involved a jointly developed proposal.
- Concern was also expressed about discussing what might end up in the Settlement Agreement when important studies were still outstanding.
- Concern was also expressed that there doesn’t seem to be a process (within or across) Working Groups where substantive issues are discussed.
- Appreciation was expressed for PSE responding to the Solution Team request that they take the first step by putting the initial draft proposal together.

FISH PASSAGE TECHNICAL WORKING GROUP REPORT

The Group met February 12. They are still narrowing options for downstream passage. Concern was expressed that the criteria being used to narrow this list take into consideration passage of all migrating fish. *Comment from Brady Green, USFS, to replace last sentence with: Brady stated that the USFW would like the fish passage (upstream & downstream) criteria for each alternative to clearly display how they will meet, or not meet, or if it is unknown whether they will meet migration requirements for all native fish species. How well alternatives meet migration criteria for each fish species needs to be carried forward through the entire alternative selection process.*

INSTREAM FLOWS UPDATE (A9)

See table below.

STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT

Study #	Title	Notes/Next Steps
A01.A	Reservoir Tributary Habitat Surveys	The draft report that R2 has prepared "Habitat Conditions and Salmonid Use of Tributaries" is nearly completed. The report will include summaries for each stream. Phil will distribute the report for our review prior to our meeting March 13 (in time for PDEA). ACTIVE
A01.B	Reservoir Tributary Biological Surveys	See report for 101.A. ACTIVE
A01.C	Reservoir Tributary Delta Surveys	See report for 101.A. ACTIVE
A02	LB River Habitat Mapping	Sue is working up with results on the physical habitat. This will tie in with A16.
A03	Reservoir Fish Population Characteristics	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	Data collection underway as per Study Plan. This study will be ongoing through Spring, 2004. Hoping to have all requirements fulfilled for Water Quality Certification.
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	Phil reported that R2 measured low (about 4.5K cfs) and median (about 11.5K cfs), conditions along 24 transects last fall. They also identified substrates and covers at that time.

	<p>On January 30 they were able to get the upper 8 of the 24 transect readings, which really represents about ¼ of the work since the remaining transects are more difficult to obtain. Since then, they have been waiting for high flow conditions (around 21K cfs) to get the remaining 16 measurements. Phil is hoping we can get these during the May/June time frame. In the meantime, they are beginning to process the data from the upper 8 transects. R2 will use examples of the 3 different flow conditions as input for HYDROPS runs. We will get an update at our April meeting.</p>
A09B Salmonid Redd Selection and Maintenance in the Middle Skagit in Response to River Fluctuation from Hydropower Peaking	<p>Adam is researching what type of spike in flow (over what window of time is required to influence spawning behavior. He observed fish moving over formerly shallow water redds after they had become submerged by a higher flow.</p> <p>It would be interesting to discover if fish will establish a redd in an 18-hour time period because that is a typical cycle for Baker Project peaking. Steve observed that as water comes up the fish come in to spawn.</p> <p>R2 will continue to look at this when PSE resumes a regular operating schedule.</p>
A09C Distribution, Timing and Depth of Salmonid Redds	<p>PDEA contractors have requested a description of life history and timing of spawning for all species. These data will be out prior to our March meeting for discussion.</p>
A09D Distribution, Timing of Salmonid Fry	<p>After our January meeting, Phil got 2001 and 2002 WDFW Mt. Vernon screw trap data. They are integrating this into a report to be out in the next couple of weeks (including scoop trap and Baker trap data).</p>
A10 Baker River Delta Habitat Assessment-Char	<p>Complete. Note: USFW is concerned with impacts to char and indirectly to bald eagles through chum and also to cutthroat.</p>
A11 Nutrient Addition	<p>Tie to A26.</p>
A12 Instream Flows for Bio-diversity	<p>Split between R-A21 & R-A09.</p>
A13A Water Quality Impacts of Human Uses of the Reservoir and Adjacent Shorelines.	<p>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.</p>
A13B Water Quality Impacts on Aquatic Habitat	<p>Removed from list of studies we will address. Tabled for now. Awaiting results of A14a.</p>
A14A Reservoir Shoreline Erosion	<p>The report will be out for review in the next few</p>

	weeks (prior to our March meeting).
A15 UB Delta Scour	Field work is complete. Hope to have the report in March 2003.
A16 Lower Baker River Alluvial Fan Assessment	A Technical Working Group met on this January 17. Sue is putting together a draft Study Plan to scope out alternatives for additional study in this area. In the meantime, the ACOE is working on narrowing down the list of Little Baker alternatives. We will consider also collecting data on numbers, types and locations of fish strandings. Depending on opportunities to combine with other studies we may include the Little Baker River as a Study site.
A17 Tributaries Surveys Upstream of Barriers	Brady walked us through the main edits he made to this Study Request as a result of feedback he received since our last meeting. The focus of the Study Request is to get some baseline data on resident fish populations above anadromous barriers and to identify potential PME's for Project effects on resident trout and trout habitats. Maybe this could become part of a resident trout package. One question we are trying to answer is how we can provide more low gradient habitat in the Basin. It may be appropriate to integrate this into A36 and A37 as a next step. Brady will take another look at this with that perspective.
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	Phil reported that the first draft of this report is ready for review. The report contains data that will be helpful in developing a woody Debris Management Plan. Phil will attach a letter to the report and send out for our review by February 18 th that identifies the opportunities being considered. At our March meeting, we will discuss this report and next steps. We need to agree on how to handle the wood.
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	R2 is making final edits to this report and is expected to be distributed for review by the March

	13 meeting.
A25 Unnatural Predation	Nick reported that Carl Hadley and Michelle will be getting started on this next week. This will include sampling at both traps. They will also look at sculpin. The original Study Request called for a mark-recapture. This is not included in the Study Plan. After considerable discussion around the statistical validity of data we might get from a mark – recapture, we agreed to try to integrate this into the Study Plan. Nick will follow up with Stan on this by the end of February.
A26A Reservoir Limnology-Production Potential	This Study is underway. At first blush, it appears that we are not nutrient limited in the reservoir. We expect to get a report from Asit Mazumder this Spring (possibly March).
A26B Tributary Production Potential	Results combined in the report for A01a and A01b and expected by the March 13 meeting.
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	Nick reported that there are no plans to collect data for this study this year, as last year, when we ran 2 samples, no sockeye fry from the Baker River were found and this year, we didn't place any adult sockeye in the reservoir. After some discussion, he agreed to go ahead and collect a sample of 100 fry from each source this year. We can determine at a later date if we analyze the data.
R-A30 Near-Field Smolt Behavior	Completed. Coordinated through Fish Passage Tech. Group. 2002 Field effort completed, data analysis underway- results will be reported at the Fish Passage meeting in December.
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	Not discussed. At the December meeting Mark reported that his field season wound up just before

	<p>the holidays. He is in the process of fleshing out (number of samples, location etc.) this Study Request</p> <p>Methodology would include WDFW crews taking samples in the river and PSE taking samples from PSE's traps. PSE would cover the costs of lab work for genetic analysis, which would be performed by WDFW.</p> <p>Mark will send the revised Study Request out for our review prior to February meeting. We will discuss of that request at that meeting.</p>
R-A37 Without Project Alternative (evaluation of Aquatic & Riparian Habitat)	ACTIVE; Will proceed. Update at the March 13 meeting.
R-A38 Bull Trout Population Assessment & Risk Analysis	A Technical Working Group met on January 29 to discuss char in the Baker System. They propose we take genetic samples on all char captured during the A-25, fish transport and other activities, and floy-tag and fin clip char at selected sites to identify movement.
R-39 Native Non Salmonid	<p>Ruth wants to propose that this Study address project effects on non-salmonid species, specifically:</p> <ul style="list-style-type: none"> • Habitat that is being inundated and therefore unavailable • Impacts of reservoir separating populations <p>She is looking for someone to partner with in fleshing out this Study. Given the late date, it may make sense to suggest how to address this as a PME instead of going through the formal study process. We could also look at increasing the scope of other studies to include non-salmonids. As a next step, Phil will put together a table of non-salmonids and project affects on each. We will review this at our March meeting.</p>

SOLUTION TEAM UPDATE

The Solution Team requested that PSE put together a “straw” proposal to help move us along in terms of putting together the PDEA and, ultimately, moving toward a Settlement Agreement.

PSE will send this out prior to the Cross-Resource Workshop.

The discussion on Settlement Process was deferred until the March meeting.

ADDITIONAL ISSUES?

Brady brought copies of the Watershed Analysis to share with interested folks.

HANDOUTS

- Baker River Watershed Native Char Population Assessment Request A16
- Relicense of the Baker River Hydroelectric Project FERC Project NO. 2150 Meeting Record
- Cross Resource Workshop Baker River Hydroelectric Project No. 2150 (Conflicts, Synergies, Shared Interests/Concern
- A17 Distribution of Native and Wild Inland Trout and Habitat Conditions Above Anadromous Fish Barriers in the Baker River Basin.
- *Comment from Brady Green, USFS: Brady handed out copies of a recent white sturgeon study (Perrin et. al. 2003) conducted in the Fraser River. The study unexpectedly found that side channel habitat was critical for sturgeon spawning and rearing. Since white sturgeon are found this the middle Skagit River and there are some similarities between the two river systems, these study results may have some applicability to instream flow studies in the middle Skagit River below the Baker Project. [C.J. Perrin, L.L. Rempel & M.L. Rosenau, 2003. White sturgeon spawning habitat in an unregulated river: Fraser River, Canada. Transactions of the American Fisheries Society 132:154-165]*

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
- Do we continue to collect Little Park Creek density info? Funding?

EVALUATION OF MEETING

Well-Dones

- Sushi
- Covered a lot
- All the food!
- Listened well to each other
- Frank discussions
- Bill’s recitation of salmon poem

What Needs to Be Changed

- Workloads are affecting attendance

What’s Hot?

- Need for substantive discussion re: PMEs
- Need to prioritize study review/rest of work load

Studies Update for Solution Team

- A9a: Got 8 out of 24 transects done (instream flows study).
- A1: Tributary Surveys - reports almost out
- A37: Without Project - increased awareness of importance. This will tie to A36 and A17.

Tentative March 13, 2003 Agenda

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

1. Review Agenda and Minutes
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 - A40 (?) – Chinook-related Study
7. Action Items
8. Update from Solution Team Meeting
9. Additional Issues?
10. Set agenda for April 10, 2003 meeting (*@ WA Ecology, Bellevue-Eastgate*)
11. Location for May 8 meeting (*@ WA Ecology, Bellevue-Eastgate*)
12. Evaluate meeting