

BAKER RIVER PROJECT RELICENSE

Aquatic Resources Working Group

June 12, 2003
8:30 a.m. - 3:00 p.m.
USFS Office

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 Cary Feldmann (PSE), Arn Thoreen (Skagit Fisheries Enhancement Group), Phil Hilgert and Sue Madsen (R2), Dick Raisler (Fidalgo Fly Fishers), Lorna Ellestad (Skagit County Public Works), Steve Fransen (NMFS), Stan Walsh (Skagit Systems Cooperative), Scott Lentz (USFS) by phone, Rod Sakrison (DOE), Marc Daily (Meridian Environmental), Chuck Ebel (USACE), Gary Sprague (WDFW), Gene Stagner (USFWS), Ruth Mathews (The Nature Conservancy), Dee Endelman (Agreement Dynamics), Lyn Wiltse, facilitator and Mary Jean Bullock (PDSA Consulting, Inc.).

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

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.

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 2nd draft proposed actions (debrief of May 14th 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
 - 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 July 10, 2003 meeting @ DOE at Eastgate in Bellevue
 10. Evaluate meeting

NEW ACTION ITEMS

- Arnie: Do double-sided copying for handouts.
- Arnie: Send out Shared Resources section for the fall PDEA to working group members.
- Phil: Provide a list of all studies and when they will be complete
- Cary & Phil: Put together 1st RESOLVE agenda (button up with Dee on this).
- Lyn: Share RESOLVE dates with Roma Call (Lewis River).
- Arnie: Send out updated contact sheets with new PSE mailing address and Arn's corrected phone #.
- ALL: Review "Short Course on RESOLVE Method for Collaborative Negotiations" prior to the first RESOLVE session. (July 29)
- Stan: Prepare a slideshow presentation of Alaska trip for August 14 meeting
- Chuck and Ruth: Check on availability of a conference room for August 25 RESOLVE session. Let Arnie know by August 1.
- Arnie: Ensure that the Technical Scenarios Teamlet minutes, etc. are posted on the website.

ANNOUNCEMENTS

- Arn invited the group to attend the annual "Maltby Party" during the 2nd weekend of August. This event will include food and live music (thanks to Rod Sakrison and others) and will be at Arn's place. Families and pets are welcome to participate in this weekend of camping and fun!
- Note: Changes to long term schedule resulting from discussions with FERC in early May.
- Re: Packets of handouts. We agreed to do ALL double-sided copies in the future (in the spirit of conservation).

QUOTABLE QUOTES

"Kill what is cut off." This quote provided courtesy of Rod Sakrison (from the Japanese game *GO*).

"Pretty soon you can discover what is known rationally and what is known viscerally and it gets pretty interesting." This quote provided by Steve Fransen.

SETTLEMENT PROCESS

Dee walked us through a memo from Connie Freeland re: the attached aquatics section of draft actions that Louis-Berger will be using for the fall PDEA. Cary gave a brief overview of the changes since March. He noted that they included a MIF of 300 cfs. Also, a couple of the reservoir elevations were adjusted slightly to accommodate terrestrial interests (e.g., not exceeding 710 ft. before May 15).

Dee distributed a flow chart showing that the Working Groups will see what they can RESOLVE by the end of September. After that date, the Solution team will take over the resolution of any outstanding issues. A question was raised re: the date on the flow chart showing the Settlement Agreement with the License Articles being ready for filing by 4/30/04. In actuality, it was pointed out that we should have things pretty much ready to go by the end of this year to account for the iterations received from the legal team. The long-term schedule shows this complete by March 1.

Dee envisions intensive sessions in late summer or early fall to work through critical issues. The Terrestrial and Recreation Working Groups have added three special RESOLVE sessions through the summer in order to meet the September 30 deadline that the Solution Team set.

Given the status of our studies, and taking into consideration the list of issues where we are already in agreement in concept, we decided to devote time early on to resolve the easy issues and address the more difficult issues after that. Examples of these might be Large Woody Debris and sediment transport. We won't be getting any additional information on these. We just need to come to resolution. Phil suggested we set up an agenda for the July meeting to get started. We will specify how much time to devote to each issue, so the small issues don't end up consuming all the available time. We will also tie each issue to the various interests and lay out the information we already have and what, if any, additional information is needed in order to make a decision.

As a next step, Cary and Phil will get together with Dee to list all the PMEs/outstanding issues by degree of difficulty to resolve and come up with a draft for the agenda for the initial session. This list will feed into the agendas we develop as we move toward settlement.

We agree to set the following dates for RESOLVE (aka Get-Through-It) Sessions:

- July 29 from 8:30 to 3:00 at USFS Building in Mountlake Terrace
- August 12 from 8:30 to 3:00 at USFS Building in Mountlake Terrace
- August 25 from 8:30 to 3:00 at a location to be announced
- September 12 from 8:30 to 2:00 at USFS Building in Mountlake Terrace
- September 19 from 8:30 to 2:00 at USFS Building in Mountlake Terrace

We will put out agendas a month ahead of time with clearly delineated time frames for each issue. If you can't make a meeting that holds an issue that interests you, button up with Dee ahead of time. She can represent your interests. It may be possible also to shift topics among the above dates to accommodate participants' ability to attend.

The regular technical Working Group meetings will continue to take place as scheduled.

UPDATE FROM SOLUTION TEAM MEETING

There were further discussions about flood control and whether Skagit County's flood control study request to see if additional floor storage is warranted could be addressed within this Relicensing process, given the short timeline. PSE will be meeting offline with the County to discuss this further. The status of the flood control study request will be determined at the Economics Working Group meeting. A final determination of how to handle this issue should be made at the June Solution Team Meeting.

They also reviewed the Settlement Agreement outline prepared by PSE's Lorna Luebee. Several suggestions for edits were made. PSE will ensure this feedback is incorporated into the next, more expanded version of the outline.

It was agreed that we would attempt to convene the legal team to begin to review settlement language in August. All were asked to give Dee contact information for your attorneys. These sessions will be facilitated and members of the Solution Team will attend to protect intent.

It was announced that several PMEs (mostly from the Terrestrial Working Group) were ready to be translated into license article language. Louis Berger will be doing this. The Solution Team set a September 30 deadline for the individual resource working groups to come to agreement on issues for settlement.

FISH PASSAGE TECHNICAL WORKING GROUP REPORT

The fish passage Technical Working Group is meeting again June 17 to continue discussions around the stages of development for the floating surface collector system and performance criteria suggested by the Baker Agency Group. They are also putting together a storage downstream passage experts workshop to ensure that we are as well informed as possible re: all the attributes of a "silver bullet solution". We would then look at which of these we already know how to build vs. need to do further research to develop.

INSTREAM FLOWS TECHNICAL WORKING GROUP REPORT (A9)

Phil reported that the June 3 meeting was moved to June 30. For that meeting he is sending out a spawning and incubation analysis along with stage/discharge relationships.

STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT

| Study # | Title | Notes/Next Steps |
|----------------|--|--|
| A01a | Reservoir Tributary Habitat Surveys | Phil will see how easy it will be to add native non-salmonids to the A01/a/b report. He'll let us know at our July meeting. |
| A01b | Reservoir Tributary Biological Surveys | See A01a . |
| 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. |

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| 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 distributed a CD on the Daily Flow Record for regulated and synthesized unregulated conditions from 1975 to 2002 (adjusted for reservoir storage – elevation changes). He also said there is a “read me” file on the CD listing the full contents of the disk. Let Arnie know if you want additional copies of the CD. Synthesized daily in flows to Baker Lake will be on a second CD, along with synthesized hourly regulated flows for the Baker River at Concrete (for water years 1990 to 2002). Since “maximum generating pool” means different things to different people, Phil announced we now use “minimum generating pool”. Phil also explained a memo from R2 put together in response to a Skagit System Cooperative request to look at the ratio of incubation to spawning flows under unregulated conditions. Stan explained that the aim of this investigation is to get an idea of how often we would have a de-watering scenario under unregulated conditions. The pros and cons of each of the statistics and each of the periods will be the subject of discussion at the June 30 Instream Flow Technical Working Group meeting. We need to come up with statistics that best indicate spawning flows. Phil invited anyone who would like to suggest an additional statistics to calculate to let him know.</p> <p>Phil explained the tables in the memorandum. Next steps will include affinitizing redds with the stage/discharge relationship for each of the 24 transects.</p> |
| 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. |

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| 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 | This study is out for review. Comments were requested by May 30. 11-14% of shorelines were categorized as "high to severe". Arnie reported having received comments from Greta (USFS) and Laurie Vigue (WDFW). These comments were included in the handouts. We will discuss next steps at our meeting in July – especially as pertaining to the PME we are developing for this. This report was also shared with the Terrestrial, Cultural and Recreation Working Groups. Arnie will let Joetta know when we are moving toward a final draft. |
| A15 UB Delta Scour | Sue is in the process of writing this report. Stay tuned.... |
| A16 Lower Baker River Alluvial Fan Assessment | Sue received comments on the Study plan from Skagit System Cooperative. It looks like we will be moving forward with this. Next steps will be determined by a Technical Working Group that Sue is putting together. |
| 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. |
| 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 |

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| | 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 | The comment period for Part 1 was extended to June 9. Comments were received from Ruth. No additional comments will be received. For Part 2, comments are due July 15. Do we need to re-do the hydrologic portion of this to be consistent with what we are using for HYDROPS (1980-2002)? We agreed to add an addendum to the Part 1 report using the IHA and other statistics, so they will be consistent with how we will be evaluating HYDROPS runs. |
| A25 Unnatural Predation | Arnie distributed a handout on effort and catch data through June 10. This study was focused on three release areas. He walked us through the tables. This study will continue through the end of July. This sampling effort is linked to A38. |
| A26A Reservoir Limnology-Production Potential | Arnie distributed this report. Everyone should come to the July 10 meeting, ready to discuss. Asit will attend and we'll reserve three hours for this. Please get your comments to Arnie between now and then. |
| 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 | WDFW is collecting native trout fish samples. We |

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| Assessments | 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) | <p>Sue distributed the first stage of the results from this study. She explained that they are using channel response to predict recovery after dam removal. We will be using channel type to feed into the production potential model.</p> <p>Tables 1 and 2 present channel conditions in both reference and drawdown states.</p> <p>Table 3 looks at how much of each type of channel would become available if the dams weren't in place.</p> <p>Sue's Power Point presentation will be posted on the website.</p> |
| R-A38 Bull Trout Population Assessment & Risk Analysis | We are proceeding with implementation of this study plan. Phil facilitated a May 30 conference call with Scott, Gene, Cary and Arn. They discussed the comments provided by Gene and Chuck. Stay tuned. |
| R-39 Native Non Salmonid | <p>Scott added some detail to what he received from Ruth. He thinks that all this applies to is sculpin. The next question is whether the continued operation of the project is contributing to the risk of extinction of sculpin (the inverse of abundance). He suggested this study be done concurrently with A17. Perhaps this is more a question of species viability due to lack of connectivity up and down the basin vs. a question of abundance. Gene feels this would be pretty easy to assess, whereas the abundance question would be difficult to pursue since we don't have historical data on numbers of sculpin. Scott envisions a fairly rapid electro-fishing effort to determine abundance. Depending on what we find, we would either conclude or expand the study.</p> <p>The sampling effort needs to verify an assumption about a project effect that relates to relicensing. Scott sees the project effects as fragmentation and habitat loss. We need to determine whether this is the case. Maybe it is habitat modification instead of loss.</p> |

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| | <p>We agreed that specifically we are talking about torrent sculpin. Phil reported that from a biomass perspective, the sculpin population has actually increased since the project was built.</p> <p>Phil suggested we identify sculpin to species and tie that to each tributary. If we find a tributary that had torrent sculpin habitat, but no sculpin, we could implement a measure to move (torrent) sculpin into those tributaries.</p> <p>Gary suggested we may want to translate this study request into a PME enhancement measure for trout in terms of removing culverts, etc.</p> <p>Ruth reminded us that all species have value from an ecosystem perspective, regardless of whether they matter from an economic standpoint.</p> <p>After considerable discussion, Scott suggested that we start by collecting information to tell us whether there is a project effect specifically on torrent sculpin. We might allocate some money in the HERC funds to study this issue. We ended the discussion by agreeing to pursue this as a PME, with specific questions to be addressed re: project impacts to native non-salmonids. Scott and Ruth will work to continue to flesh this out and send what they come up with to Arnie to distribute.</p> <p><i>Ruth added: The PME will address project impacts to all native, non-salmonid fish in the Baker Basin and the middle Skagit River.</i></p> |
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REPORT ON OLD ACTION ITEMS

- Nick: Sent out electronic versions of the May 7, Downstream Fish Passage Alternative Status Summary by May 9th.
- ALL: Sent 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.

HANDOUTS

- Agenda for 6-12-03 meeting
- Updated Participant Contact List
- Final Minutes from 5-08-03 meeting
- Long-term Aquatics Schedule
- Updated Aquatics Study Request Index
- Updated Aquatics Study Index
- Flow Chart – PMEs to License Articles & Settlement Agreement

- Cover letter from Connie Freeland, Baker Licensing Program Manager concerning the attached Aquatic Resources Draft Actions – 3.0 through 3.5.3 to be included in the fall PDEA
- Short Course on RESOLVE method for Collaborative Negotiations (Agreement Dynamics)
- Draft MEMO – Downstream Fish Passage Alternatives Status Summary – Prepared for Fish Passage Technical Working Group by Montgomery Watson Harza
- Baker River Project Contents of Master CD 1 of 2
- Memorandum, June 11, 2003, To: Instream Flow Technical Committee, Baker Aquatic Resources Working Group, From: R2 Resource Consultants, Subject: Baker River Project Relicensing, Study A-09
- R E03 – Baker River Project Relicensing Study Request
- USFS Comments to PSE on Review Draft of Study A14a, Reservoir Shoreline Erosion (Incorporating reviews by Greta Movassaghi (USFS) and Jon Riedel (NPS))
- Comments on Study A-24 Part 1: Hydrology Baker River Project FERC Relicensing, the Nature Conservancy, June 5, 2003
- Summary Table – A-25 Unnatural Predation Summary of Effort to date (06/10/03)
- A37 Without Project Aquatic Habitats Channel Response Potential Summary (Discussion draft dated 6/10/03)
- A37 Without Project Aquatic Habitats – Channel Response Potential Summary
- Baker Lake Aquatic and Sockeye Salmon Productivity – Dr. Asit Mazumder Dept.of Biology at the University of Victoria – Produced for PSE

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

- Well attended
- Good food
- Comfy chairs
- Sue’s presentation
- Phil, too!
- Having Lorna here

To Do Differently Next Time

- Lost the southern contingent early
- Lyn to learn to speak more quickly

What's Hot?

- Timelines
- Flood control
- PME RESOLVE sessions!

Studies Update for Solution Team

- Hydrology data have been updated
- Alluvial fan is going forward
- Shoreline erosion is ready for cross-resource evaluation
- Made progress on the native non-salmonid study

Tentative July 10, 2003 Agenda

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

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

9:00 - 12:00 A26a – Reservoir Production Potential Report with Asit

12:00 - 12:20 LUNCH

12:20 - 1:30 Technical Working Group Reports:

- Instream Flows (A9a/b/c/d)
- Downstream Fish Passage

1:30 - 1:45 BREAK

1:45 - 2:40 Other Studies:

- A01a, b, and A26b – Reservoir Tributary Surveys
- A14a – Reservoir Shoreline Erosion
- A24 – Hydrologic & Geomorphic Analysis
- A25 – Inventory of Unnatural Predation Opportunity
- A37 – Evaluation of Aquatic/Riparian Habitats (Without Project Alternative)
- A39 – Native Non-Salmonid

2:40 - 2:45 Action Items

2:45 - 2:50 Update from Solution Team Meeting

2:50 - 2:52 Additional Issues?

2:52 - 2:57 Set agenda for August 14, 2003 meeting @ USFS Office, Mountlake Terrace,

2:57 - 3:00 Evaluate meeting