



BAKER RIVER PROJECT RELICENSE

Aquatic Resources Working Group

October 23, 2001

9:00 a.m. – 2:30 p.m.

U.S. Forest Service (360-856-1934)

810 State Route 20, Sedro Woolley, WA

(Highway 9 N. & SR 20 E. -Across from 3 Rivers Hotel)

AGENDA

1. Review Agenda and Minutes
2. Review Action Items
3. Report from Fish Passage Technical Working Group & Baker River Committee
4. Update on Ramping Rates
5. Presentations: A01- Tributary Habitat Survey
6. Continue Review of Study Plans and Requests
7. Additional Issues
8. Set Agenda for November 8 Meeting (USFS-Mountlake Terrace)
9. Evaluate Meeting

October 23, 2001



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9:00 a.m. – 2:30 p.m.
USFS Office, 810 State Route 20
Sedro-Woolley, 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

PRESENT: Arnie Aspelund (PSE), Cary Feldmann (PSE), Phil Hilgert and Sue Madsen (R2 Resource Consultants), Nick Verretto (PSE), Stan Walsh (Skagit System Cooperative), Brady Green (U.S. Forest Service), Arn Thoreen (Skagit Fisheries Enhancement Group), Fred Seavey (USFWS), Gary Sprague (WDFW), Doug Bruland, (PSE), Bob Wright (WA Dept. of Ecology), Rod Sakrison (WA Dept. of Ecology), Don Schluter (Trout Unlimited, by phone), Lyn Wiltse (facilitator, PDSA Consulting)

INTRODUCTIONS:

The group welcomed visitor Ardis Bynum (U.S. Forest Service) who is a member of the Recreation and Cultural Working Groups.

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

FUTURE DATES AND LOCATIONS:

November 20 at FS Office in Mountlake Terrace from 8:30 to 2:30.

December 13 at FS Office in Mountlake Terrace from 9:00 to 2:30.

AGENDA

October 23, 2001
9:00 a.m. - 2:30 p.m.
US Forest Service Office
Sedro-Woolley, WA

1. Review Agenda and Minutes
2. Review Action Items
3. Reports from Fish Passage Technical Working Group and Baker River Committee
4. Update on Ramping Rates
5. Presentations:
 - A01: Habitat Survey Results (Doug Bruland)
 - ESA (Fred Seavey)
6. Review of Study Plans and Requests
7. Additional Issues?
8. Set agenda for November 8 (now rescheduled for 20th) meeting (USFS Office-Mountlake Terrace)
9. Evaluate Meeting

NEW ACTION ITEMS

- **ALL:** Get additional reference data to Arnie or Phil before November 20 meeting.
- **ALL:** Give Nick your gaging requirements/input.
- **ALL:** Send references (unpublished white papers, etc.) on char/native cutthroat passing through impassable areas to Don.
- **Nick:** Give update on new boat purchase progress.
- **Don:** Provide references on information on cutthroat and char passage through cascades to Arnie
- **Brady:** Email Adult Trap protocol rationale text to Arnie to distribute.

REPORT ON OLD ACTION ITEMS

- **All:** Reviewed recently submitted Study Requests for A-25, 26, 28.
- **Arnie:** Had Connie Freeland contact Bill Ryan/EPA Hydro at 206-553-856 to give overview of relicense process and invite him to working group meetings. He will likely begin attending the Solution Team Meetings beginning in November this year.
- **Fred:** Talked with Terrestrial Group re: wetlands that are hydrologically but not directly connected to the river.
- **Stan:** Invited Bob Hayman to present to us in November an update of Lower Skagit Fall Chinook, etc. We decided to postpone this presentation until after the new year.
- **Nick:** Coordinated with DOE and Forest Service re: A-13 – Draft Study Plan for review prior to next meeting.
- **Doug:** Got new hip and chest waders!
- **Phil:** Contacted Ed Connor re: radio tags for native char. Distributed email from Ed. Ed is trying to establish a working group for the middle and lower Skagit. There are radio tags available. We may want to use them for native char. We'll get an update after this meeting takes place.

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- **Arnie:** Checked with Fred re: ESA presentation at October 23 meeting.
 - **Arnie:** Got summary data of average daily flows over the last 10 years (inflow to Baker Lake).and for Watershed.
 - **Arnie:** Got information on trap protocol. Distributed spreadsheet *Baker Adult Fish Trap Protocol* (revised 9/19/2001 – Baker River Committee). And also a Draft of *Baker Hydroelectric Project Adult Trap Protocols* – Baker River Committee, Proposed 6/12/2001. This text was prepared by Brady Green and explained the rationale behind the protocol.
 - **Phil:** Compiled list of existing data regarding fish population characteristics.
 - **Phil:** Sue distributed plots of raw stage: discharge data
 - **Bob W:** Talked with Bob Barnes re: existing water quality data. Bob will be proposing a plan of different parameters/locations/frequencies, etc. to be examined for 401 certification.
 - **Phil & Don:** Discussed boats.
 - **Brady:** Sent Phil standards and guidelines relating to the affected section of Upper Baker River
 - **Nick/Bob:** Provided update on PSE plans for gaging of Baker River. Still considering this. Need input from the group. Potential Wild & Scenic River Act designation may limit what we can do here. This will be handled as part of A9.
 - **Chuck:** Sent Phil a copy of Scope of Work for Little Baker Feasibility Study.

WILD & SCENIC RIVERS

Brady reported that Congress awarded \$2 million to the USFS to buy and protect land along the Wild & Scenic River corridor. He distributed a copy of the Seattle Times, October 22, 2001 article.

REPORT FROM FISH PASSAGE TECHNICAL WORKING GROUP

They are narrowing down the downstream passage options to those that are most feasible. They postponed the October 17 session due to multiple scheduling conflicts among participants. During the November 1 meeting, they are going to brainstorm upstream passage options. They will also be looking at process and considering studies that will be helpful in narrowing options. The firm of Montgomery-Watson is developing a conceptual overview of some options such as fish ladders at both dams.

REPORT FROM BAKER RIVER COMMITTEE

This group is an ad hoc technical group that has been meeting quarterly for the last fifteen years. Participants include USFS, PSE, NMFS, USFWS, WDFW, SSC, NPS and other interested persons. These meetings are open to anyone interested in attending. The goal of the group is to address fish issues and on going project operations related to fish. They discuss a variety of systemic issues. They are not dealing directly with any relicensing issues. We will continue to share information back and forth with this group as appropriate. We'll share the minutes from each of these quarterly meeting of the Baker River Committee with this Working Group. The 2002 meetings will be January 16, at the U.S. Forest Service Bldg, Sedro-Woolley; March 20 at Mountlake Terrace; June 19 at the Baker Project; and September 18 at La Conner.

UPDATE ON RAMPING RATES

PSE has put together a ramping protocol that meets the 2000 cfs/hour voluntary gradual unit shutdown that was established in 1978. This is achieved in two steps. First, they take the unit from 3000 cfs down to 1600 cfs and hold it for an hour. Then from there they drop it to minimum flow. PSE is continuing to investigate other opportunities.

PRESENTATION ON A01: TRIBUTARY HABITAT SURVEY RESULTS

Doug Bruland gave an enjoyable PowerPoint presentation that summarized the results of the Tributary Habitat Survey. It is available on the PSE Relicensing Website. This is only the beginning of the data analysis. The field data will be analyzed to quantify the areas accessible to anadromous fish to identify basin production potential. Areas will be identified for potential enhancement as will surface areas available to specific species and habitat areas above barriers.

PRESENTATION ON ENDANGERED SPECIES ACT (ESA)

Fred Seavey gave a very informative PowerPoint presentation on the details of the law as outlined in the Endangered Species Act (ESA) established by Congress in 1973. He did a great job of illustrating the various points (and confusing terms) with Baker-specific examples. He will email the presentation to Arnie to send out to meeting participants. The presentation will also be available on the PSE Relicensing Website.

STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT

Study #	Title	Notes/Next Steps
A01.A	Reservoir Tributary Habitat Surveys	Follow up meeting in January
A01.B	Reservoir Tributary Biological Surveys	Since the last meeting, PSE and R2 staff conducted a combo walking/snorkel of the Baker River from Crystal Creek (RM 24.7) to the reservoir (RM 19) on 9/27-28, 10/4 and 10/16, NPS staff conducted a similar survey downstream from Bald Eagle Creek waterfall (RM 1 @ Baker RM 26.9) on 10/17/01. NPS provided a copy of the year 2000 walk/snorkel survey of Baker River from Sulphide Creek (RM 23) to reservoir (RM 19) conducted on 10/31/00, 11/14/00 and 11/28/00.
A01.C	Reservoir Tributary Delta Surveys	We've been hitting these when we do delta spawning surveys. Hasn't been a lot to see. Another part of this project is to map potential habitat along the margins. We will begin to do this now that the reservoir pool is dropping. We also also looking for redds.
A02	LB River Habitat Mapping	Doug & Sue got out on Sept. 30 to identify habitat areas, pebble counts, and measure cross-sections. Nick and Phil will be going out in next two weeks to assess fish usage.

A03	Reservoir Fish Population Characteristics	R2 summarized and distributed a list of data they already have. They are looking for additional data. All were asked to give them references for additional data not included in the handout (Baker Lake and Lake Shannon Fish Information Sources – DRAFT : October 17, 2001) before next mtg. PSE is talking to a University of Washington researcher about providing technical support.
A04	LB/Skagit River Flow, Gaging	Distributed charts showing stage relationships for each of the temporary stage recorders (“rulers in the river”). Sue also distributed an updated map showing the locations of the various gages. There are 2 new sites at wide locations. The new sites show in green, whereas the old sites show in red.
A05	Water Quality Sampling	Bob is working with Bob Barnes to put together a plan to address water quality. Stay tuned.
A06	UB Passage Design Baffle Modification	Complete.
A07	Lower Baker Forebay Bathymetric Survey	Complete.
A08	UB Passage System Evaluation	2001 Study portion complete.
A09	Skagit River Flow and Habitat Assessment (HIGH PRIORITY)	DOE needs to be kept in the loop.
A10	Baker River Delta Habitat Assessment-Char	There has been a revision made to the data mapped from Chuck’s survey. Fred is following up with Joetta to update the map.
A11	Nutrient Addition	Parking Lot.
A12	Instream Flows for Bio-diversity	Split between R-A21 & R-A09
A13	Water Quality Assessment	Distinct from R-A05
A14	Reservoir Shoreline Erosion	Not for 2001; needs further development
A15	UB Delta Scour	Data collection underway
A16	LB Delta/Channelization	Request pending; not for 2001. Stan will do a Study Request by end of year. Results of A02 are expected to fold into A16
A17	Tributaries Surveys Upstream of Barriers	Request pending; not for 2001
A18	Baker River Survey Upstream of 1 km.	Merged into A-01.A habitat surveys conducted Aug & Sept 2001
A19	Review Limnological Information	PSE is talking to a University of Washington researcher to review existing data.

A20	Large Woody Debris Management	R2 will draft a Study Request for Brady to review.
A21	Skagit Wild & Scenic River Values	Study Request is under review
A22	Baker Lake Trout Impacts Evaluation	Discussion will be deferred to Baker River Committee
A23	Baker River Wild & Scenic River Values	Study Request needs clarification
A24	Hydrologic and Geomorphic Analysis	We have the algorithms prepared to compare various hydrologic metrics for regulated and unregulated flows. They are awaiting a record of daily inflows from Bob before running the analyses.
A25	Reservoir Predation	Discuss at November meeting
A26	Reservoir Production Potential	Discuss at November Meeting
A27	Middle Skagit Incubation Flows	Covered in A9.
A28	Fish Passage-Reservoir Management	Discuss at November Meeting

LIST OF MEETING HANDOUTS

- Email exchange between Ed Connor to Phil Hilgert (9/18 and 9/26) re: native char radio tagging efforts in the Middle Skagit River
- Draft of *Baker River Natural Daily Flows At Concrete, Summarized By Month For The 1926-2000 Calendar Years* - Based on observed discharges corrected for changes in storage at upstream dam d(s). Unpublished work, Copyright 2001 PSE, Inc. These data have a 10-15% error rate (increases as flow magnitude decreases). Based upon both dams. Intakes in forebay at dams.
- Spreadsheet: Baker Adult Fish Trap Protocol (Rev. 9/19/01- Baker River Committee)
- Draft paper authored by Brady Green: *Baker Hydroelectric Project Adult Trap Protocols* (explains the history of the Baker River Committee and the rationale behind the fish trap protocols.
- Newly-Updated Draft of constraints section of the Skagit Chinook Restoration Plan (from Bob Hayman)
- Seattle Times October 23, 01 article: *\$2 Million Awarded to Protect Skagit River*
- R2 Summary: Baker Lake and Lake Shannon Fish Information Sources – DRAFT : October 17, 2001
- Stage Relationships for Temporary Stage Recorders (draft sage vs. discharge charts)
- Updated gage map.
- Technical Report by Brenkman, S.J. 2001. Spawning Migration of Lacustrine-Adfluvial Bull Trout in a Natural Area. Transactions of the American Fisheries Society 130:981-987.

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
- Participate in Lower Skagit Work Group for native char

EVALUATION OF MEETING

Well-Dones

- Thank you Brady for being a wonderful host at this beautiful new location!
- Great presentations by Doug and Fred!
- Wonderful food, as usual! Thanks Arnie and Nick!
- We're doing a lot.
- Good to have everybody on same page.

Opportunities to Improve

- Took a while to get through action items
- Need better speaker phone
- Parking
- Get Don's Federal Express out a day earlier

Tentative Agenda for Next Meeting

November 20, 2001

8:30 a.m. - 2:30 p.m.

U. S. Forest Service Office

Mountlake Terrace, WA

1. Review Agenda and Minutes
2. Review Action Items
3. Reports from Fish Passage Technical Working Group
4. Study Plans/Requests
 - R-A25
 - R-A26
 - R-A29
 - R-A20
 - R-A14
5. Review of Study Requests/Plans
6. Additional Issues?
7. Set agenda for December 13 meeting at USFS Office in Mountlake Terrace
8. Evaluate Meeting