

MEETING MINUTES
Upstream and Downstream Fish Passage Technical Working Group

Mission Statement: To develop an efficient fish passage design for the Baker River Project.

Project: Baker River Project
 FERC No. 2150

Written By: Kim Lane

Meeting Date: May 7, 2002

Location: Upper Baker Lodge, Baker River Project

Attendees:

Ken Bates WDFW	Ed Meyer, NMFS
Dee Endelman, AD	Wayne Porter, PSE
Cary Feldmann, PSE	Don Schluter, TU (conference line)
Steve Fransen, NMFS	Gary Sprague, WDFW
Brady Green, USFS	Jim Stow, USFWS
MaryLouise Keefe, MWH	Nick Verretto, PSE
Kim Lane, PSE	Stan Walsh, SSC

Purpose: The purpose of the meeting was to continue development of conceptual design alternatives required for evaluation of downstream and upstream fish passage facilities in the course of relicensing the Baker River Hydroelectric Project, and to select an alternative for upstream passage.

Future meeting dates:

July 9, Tuesday, 9 a.m. conference call to discuss biological studies/ phone no. 1-866-280-6429 (144995#)

August 6, Tuesday, 9 a.m. - 3 p.m. - passage design at Sea-Tac

September 11 Wednesday, 9 a.m. - 3 p.m. - passage design at Sea-Tac

Item	Description	Description	Action, By
5.1a	Report on Completed Action Items:	<p>Refer to notes from last meeting:</p> <ul style="list-style-type: none"> • A site visit was conducted of Lower and Upper Baker areas. • A weekly studies update call was conducted on May 6, 2002. • Mort - Modified the summary of alternative tables per comments and sorted the tables first by alternative and then chronologically. He e-mailed the group after incorporating these changes. • Ken - "Invited" (gave access to) Nick, Mort and Kim to review the documentation web site. • Mort - Continued advancing design alternatives LB F.9 & F.10, LB FL.6 & FL.7 for the next meeting. • Mort - Discussed UB FL.6 design limitations with a structural engineer. • Mort - Advanced designs U2.1 & U2.2, U3.1 & U3.2. • Kim - E-mailed upstream destination matrix spread sheets to group for review. 	All – will participate in weekly studies update calls.
5.1b	Carry-over Action Items	<ul style="list-style-type: none"> • Nick - Design of the PSE fish truck is in progress. A discussion will take place at a future meeting. (item 5.16 below) • Don - Contact Trout Unlimited office regarding the organization's position on acceptance of trap-and-haul alternative and need for fish ladder/volitional passage. • Nick – Will bring upstream correlation matrix issue to "flows" group and meet with Brian (MWH), Sue and Phil (R2). • Nick - Coordinate visit of Howard Hansen physical model after the May meeting. Contact Chick Sweeney of ENSR or Fred Goetz of ACE. • Don – Researched basis of tram at Cowlitz and current status. 	

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		<ul style="list-style-type: none"> Don - Report back regarding Trout Unlimited's position on removal of ladder. Destination matrix will be addressed at a future meeting. Nick – to contact TU and American Rivers. Dee – to contact Don. 	
5.2	Technical Memo Distribution	<p>The items distributed at the meeting were: May 7, 2002 agenda (PSE), April 2, 2002 meeting minutes (PSE), working group list (PSE), studies coordination summary sheets (PSE), upstream and downstream technical memo tracking documents (MWH), upstream & downstream alternatives tracking documents (MWH), studies information tracking document (MWH), summary of Ken's document tracking method (MWH), Draft TM Rev. 1 Alt. LB FL.3 (barge 20%), Draft TM Alt. LB FL.7 (MIS 60%), Draft TM Alt. UB FL.6 (MIS full); LB FL.3.0, LB FL.7.0 LB FL.6.0, LB F.9.0, LB F.6.0, UB FL.7.0, U2.1, U2.2 U3.1 , U3.2.</p>	<p>Mort and Nick are to draft a letter summarizing upstream design selection and e-mail to Don</p> <p>Dee: is to call Don regarding upstream design selection.</p>
5.3	Biological Studies Update	<p>MaryLou reported on studies in progress. Radio tag studies are to be moved to next week due to insufficient numbers of fish available for tagging. No kelts were attracted to gulper acoustic-tagging fish will be held for 24 hours to allow for a full five days to track. Fish are not moving as we had hoped due to low flows since it is too cold for ice to melt. Due to low fish collections at trap, choice of coho for study will be 1) wild 1+, 2) wild 2+, 3) previously marked 2+, 4) previously marked 2+ 4) net pen fish from LB.</p> <p>A good number of marked fish, which were put up in the reservoir to measure gulper efficiency, are coming out now. They have easily identifiable freeze brands.</p> <p>Also could not get enough fish to radio tag in one day, only 11 fish in two days (22 required). Will capture tag and release over two days.</p> <p>Nick – Discussion on Biological Studies Update; had one meeting and will have several more weekly updates.</p>	Progress report at next meeting.
5.4	Technical Memo Tracking Log	<p>Data management system was discussed. Quickbase was examined by Mort who reviewed limitations of this software system. MWH and PSE are examining alternative MS portal based systems for a more permanent comment tracking system. Quickbase has a limit of 550MB, which would fill up very quickly.</p> <p>Mort - Revised and issued templates of technical memo status. Ken Bates sent out an invite for web based document system.</p>	<p>A trial use of Quickbase is proposed to determine features that are important in Portal system. Mort and Kim to set up a plan on the EDM system and report by next meeting.</p>
5.5	Charles Howard Model	Will have a workshop June 12 th at PSE's Bellevue office. Hope to have some trail criteria before then. This workshop will allow attendees to get experience with the model.	
5.6	Review of Draft TM Rev. 1 LB FL.3	<p><i>Reservoir Fish Attraction Barge / 20% Flow / 0.4 fps.</i></p> <p>LB FL3 was presented Rev 1, which has a control weir with pumps and based on MaryLou's work one will be able to determine depth and location of fish. The location of the barrier net appears to be in good condition based upon today's site visit. The side discharge which avoids thrust may set up eddies that could affect attraction. It would be better to reduce vibration and consider alternative ways to</p>	

Item	Description	Description	Action, By
	Alternatives, TMs		
5.12	Review of Alternative U2.1 and U2.2	Reviewed see item 5.15 below	
5.13	Review of Alternative U3.1	Reviewed see item 5.15 below	
5.14	Review of Alternative U3.2	Reviewed see item 5.15 below	
5.15	Upstream Alternative Selection and Discussion	<p>All upstream alternatives were reviewed and discussed extensively.</p> <p>These alternative are U1.1 – LB/UB Fluctuating Pool Fish Ladder U1.2 – LB/UB Fixed Pool Fish Ladder U1.3 – Barrier Dam /Upper Baker Fish Ladder and Channel U2.1 – Trap and Haul at Barrier Dam U2.2 – Trap and Haul at both Barrier Dam and Upper Baker Dam U3.1. and U3.2 – Combination Trap and Haul, Fish Tramway and Fish Locks.</p> <p>Alteratives U1.1 - .3 were not carried forward due to decision by group that a fish ladder would have negative impact in seveeal areas on fish passage. There are many concerns with alternative U2.2 and U3.3 and U3.2, which are listed below. Decision was made to advance Alterantive 2.1 and not advance other upstream alternatives for the below reasons.</p> <ol style="list-style-type: none"> 1 Delay and loss of adults moving through the reservoir, possible straying of fish. 2. There is very minimal (lack of) spawning and rearing habitat in Lake Shannon tributaries. 3. Trapping fish at both locations would .result in handling fish twice for transit to upper reservoir. 4. Forced migration would increase stress from abrupt changes in physical and biological conditions. 5. Losses of fish due to fall back of fish due to spill. 6. Water Quality due to flow and temperature created fish losses. 7. Reservoir transit time compared to being trucked. 8. Environmental impacts of building two facilities instead of one. 9. Additional mechanical complexity with other alternatives. 10. Additional complexity adds to risk of failure of other alternatives. 11. Other alternatives do not allow for out of basin transport therefore a truck would still be required. 12. No one knows of a system with vertical lift. 13. Other alternatives are at risk of failure due to landslides or other possible acts of god. 	

Item	Description	Description	Action, By
		<p>14. Char and trout connectivity can be accommodated by the use of a portable trap at upstream end of Lake Shannon</p> <p>Summary:, For the reasons cited above the group has decided to advance a trap and haul alternative to be located at Lower Baker Dam, as defined in U2.1. This agreement will be formalized in more detail with documentation to be provided by MWH. At next meeting Group will meet then to provide consensus to a technical memorandum that will state reasoning for advancement of alternative 2.1.</p>	
5.16	Other Issues	<ul style="list-style-type: none"> • Fish truck - no additional design information on fish truck was available for this meeting. • Charles Howard Model - Full-day workshop scheduled June 12 at PSE Bellevue office. • Coordination of visit for Howard Hansen physical model will occur after the May meeting. 	
5.17	Meeting Evaluation, Review Assignments	<p>Positive: Good facilitation. Everyone worked hard. Decisions were made. Location not at SeaTac. Field visit completed.</p> <p>Negative: Trying to make phone work- distracting.</p>	
5.18	Next Meetings, Facilitation	<p>June 4th Tentative Meeting Agenda, 9 a.m. – 3 p.m. @ WestCoast SeaTac Hotel (CANCELLED) Review agenda & handouts Administrative tracking procedures development</p> <p><i>Downstream Passage</i> Review minutes & action items Biological studies update Summarize remaining alternatives, TMs Designs review – LB FL.3 & .7 & .6, F.9 & F.10, UB FL.7 Discussion of 3 downstream options (2 LB, 1 UB) maybe “part of shelf.” Trout and Char traps</p> <p><i>Upstream Passage</i> Review minutes & action items Review remaining alternatives & TMs Designs review – U2.1 & 2.2 & 3.1 & 3.2 Upstream alternative selection and discussion Fish transport destination matrix development Develop design of U2.1 Other issues – fish truck, operations model Evaluate meeting & review assignments Schedule next meetings, agenda, and facilitation</p>	