

**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:** September 17, 2002

**Location:** WestCoast SeaTac Hotel

**Attendees:**

Arnie Aspelund, PSE	Ed Meyer, NMFS
Ken Bates, WDFW	Wayne Porter, PSE
Miriam Decker, PSE	Kristen Schuldt, PSE
Cary Feldmann, PSE	Gary Sprague, WDFW
Steve Fransen, NMFS	Gene Stagner, USFWS
Brady Green, USFS (conference line)	Jim Stow, USFWS
MaryLouise Keefe, MWH	Nick Verretto, PSE
Kim Lane, PSE	Stan Walsh, SSC
Mort McMillen, MWH	Kate Welch, MWH

**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:***

October 8th Tuesday, 9 a.m. - 3 p.m. - passage design at Sea-Tac (no Gary or Ken)

November 5th Tuesday, 9 a.m. - 3 p.m. - passage design at Sea-Tac

December 10th Tuesday, 9 a.m. - 3 p.m. - passage design at Sea-Tac (no Ed)

January 14<sup>th</sup> Tuesday, 9 a.m. - 3 p.m. - passage design at Sea-Tac

***Upstream Passage Site Visits***

Purpose: To review existing facility as examples of various sorting, holding, acclimation and crowding designs.

October 2-3, 2002 West Side Sites

October 22-23, 2002 East Side Sites

Item	Description	Description	Action, By
	<b>Introductions</b>	Agenda and Meeting Minutes from the May 7, 2002 meeting were handed out. Brady Green joined by conference call.	
	<b>Report on Completed Action Items:</b>	Mort reviewed list of alternatives for Lower Baker and Upper Baker.  Nick reviewed action items listed in previous meeting notes. <ul style="list-style-type: none"><li>• Nick - Design of the PSE fish truck is in progress. A discussion will take place at a future meeting.</li><li>• Don - Contact Trout Unlimited office regarding the organization's position on acceptance of trap-and-haul alternative and need for fish ladder/volitional passage.</li><li>• Nick – Will bring upstream correlation matrix to "flows"</li></ul>	

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		<p>group and meet with Brian (MWH), Sue and Phil (R2).</p> <ul style="list-style-type: none"> <li>• Nick - Coordinate visit of Howard Hansen physical model after the May meeting. Contact Chick Sweeney of ENSR or Fred Goetz of ACE.</li> <li>• Don – Researched basis of tram at Cowlitz and current status.</li> <li>• Don - Report back regarding Trout Unlimited's position on removal of ladder.</li> <li>• Destination matrix will be addressed at a future meeting.</li> </ul> <p>Nick – to contact TU and American Rivers. Dee is to contact Don.</p>	
	<b>Technical Memo Tracking Log</b>	<p>Kate Welch of MWH discussed an electronic document management system called LiveLink. This software would allow all parties of the Fish Passage Technical Working Group a central place to access and check in and out of current working documents yet control revisions to the document. The Baker Relicensing team of PSE is seeking to have this approved as a budget item for next year and plan to implement at the first part of 2003.</p>	
	<b>Biological Studies Update</b>	<p><b>Hydroacoustic:</b></p> <p>MaryLou presented a graphic display of the results of the hydroacoustic study. This study provided Near Field tracking of fish as they entered the fish trap, comparing generation on and off within high pool and low pool.</p> <p>Density spots can be valuable if all fish moved at uniform rate, but not for fish that track directly to one area and stayed there, or to determine differences between high pool and low pool.</p> <p>Time series over life of tag is available. Stan would like to see what happens in first twelve hours. However, if the fish are released at night the first few hours may only be a time of adjustment for them to get acclimatized to a new environment.</p> <p><b>Radiotelemetry:</b></p> <p>Kelts: A behavioral look at a small number of fish in reservoir. Tagged fish are tracked and shown on a map. An example was shown of fish #1414, which moved up and down reservoir many times.</p> <p>Smolts: Released 174 fish of which 22 fish had inoperable tags and 2 tags separated from fish. Handed out sample map with tracks and four documents from Swift study as an example of graphic display of radiotelemetry with table showing fish released with date and matrix of movement to sections of reservoir. Elevation on map will be elevation day of recording. Provided proposed breakdown of Upper Baker. Still need to provide additional sections showing forebay. This is in lieu of 150 tracks (combining tracks). If fish are going up and down reservoir, either fish are not finding attraction, fish are not migrating for life of tag, or there is no biological drive to out migrate (used different fish for tagging so this may be a factor</p>	

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		also) Also have different tables.  Next step: By end of month the Kelt and Pit Tag Report are expected to be finished. A month later the hydroacoustic and radiotelemetry report may be able to segment hydroacoustic study.	
	<b>Downstream Alternatives</b>	Mort reviewed tech memo listing 20 remaining alternatives left to screen. Now need to develop criteria for second filter.  Status of Downstream Passage was reviewed. Conventional: .4 and .6 fps and operational concerns on limiting reservoir-reducing design flow are primary concerns. MIS Screens: Adjustable MIS screen was removed as an alternative. Floating: F11 was eliminated due to construction reasons. Gulper: need results of biological studies. MIS 60% flow, need results of biological studies.	
	<b>Project Schedule</b>	For Downstream will have to have alternatives short-listed by January to decide if we need further studies next year.	Biological Study Needs on agenda next week.
	<b>Upstream Passage – Existing Trap Data</b>	Adult Trap Operation has had a historical number of fish this year. The relationship of annual to daily counts was discussed as basis for trap design. Number of destinations needs to be looked at better to refine trap design.	
	<b>Upstream Passage – Conceptual Design</b>	Mort presented a conceptual design for the revised adult trap, which is a sorting facility constructed above present system. A limiting factor on transport will be the existing bail pond. Concept requires an elevator to lift fish up to sorting structure. Ed suggested use of sorting weir so one fish comes over at a time to keep up with sorting. Recommended looking at Bonneville. System also at Lower Granite facility has a false bottom that comes up and bumps fish out one at a time. Rosa has a sorting ladder and processes 1500 fish per day.	
	<b>Next Meeting Agenda</b>	Oct 8 <sup>th</sup> SeaTac West Coast Hotel  Look at MIS Screen Ensir Labs considering Dec 9 <sup>th</sup> , 11 <sup>th</sup> or 16 <sup>th</sup> , 17 <sup>th</sup> . Dec 11 <sup>th</sup> most preferable. <b>Downstream Passage</b> Downstream Passage – Biological Studies Review 1 ½ hour “ “ - Alternative Review  Biological Studies Needs to consider for next year (consider next meeting) ½ hour <b>Upstream Passage</b> Upstream Passage – Updated Information ½ hour Trip Review ½ hour Review minutes & action items  <b>Facilitation</b> Agreed by all that facilitation should not be required for next two meeting.	

