BAKER RIVER FISH PASSAGE FACILITIES DESIGN
FISH PASSAGE TECHNICAL COMMITTEE
BAKER RIVER PROJECT, FERC NO. 2150

West Coast Sea-Tac Hotel
18220 Pacific Hwy. S.
Seattle, WA 98188

9:00 a.m. - 3:00 p.m.
September 5, 2001

AGENDA

9:00 - 9:10	Edit Agenda
9:10 - 9:20	Review Meeting Minutes & Action Items
9:20 - 10:30	Review 2001 Surface Flow Migration Study
10:30 - 10:40	Break
10:40 - 11:15	Review Proposed 2002 Surface Flow Migration Study
11:15 - 11:45	Discuss 2002 Study Needs
11:45 - noon	Lunch - provided
noon - 2:45	Review M-W Upstream Facilities Conceptual Alternatives, Brainstorm Upstream Facilities Needs & Conceptual Designs
2:45 - 3:00	Evaluation, Set Agenda & Dates for Next Meetings

MEETING MINUTES
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:	Cary Feldmann
Meeting Date:	September 5, 2001
Location:	West Coast Sea-Tac Hotel, Seattle
Attendees:	Ken Bates, WDFW Cary Feldmann, PSE Ed Meyer, NMFS Fred Seavey, USFWS Clint Smith, M-W Gary Sprague, WDFW Jim Stow, USFWS Stan Walsh, SSC Karen Kloempken, WDFW (by phone)
Purpose:	The purpose of the meeting was to develop plans for the 2002 surface flow migration study and brainstorm conceptual design alternatives for replacement of upstream fish passage facilities at the Baker River Hydroelectric Project.

Future meeting dates: Wednesday, October 17, 2001 (downstream passage), and November 1, 2001 (upstream passage), 9:00 to 3:00, at the West Coast Sea-Tac Hotel.

Agenda:
1. Review minutes & agenda
2. Action items & parking lot review
3. Review 2001 surface flow migration study
4. Review proposed 2002 surface flow migration study
5. Discuss 2002 study needs
6. Review M-W upstream passage facilities conceptual alternatives
7. Brainstorm upstream facilities needs & conceptual designs
8. Meeting evaluation, set agenda and dates for next meeting

Review Minutes:
The minutes were accepted as written.

New Action Items:

- Group wanted better definition in the titles in e-mails, i.e., “Baker” and “fish passage meeting”.
- Paul DeVries, Nick Verretto not available. Therefore the baffle study report discussion was deferred until a later meeting.
- Nick – Discuss passage studies with Stan and coordinate development meeting with consultant and tagging contractors.
- Nick – Coordinate forebay velocity profiles data collection with Ed Meyer and David Hericks of Pacific International Engineering.
- Nick – Coordinate reservoir migration studies discussions with Stan Walsh and consultants, then follow up with tagging/marking contractor discussions.
- Nick – Coordinate hydroacoustics and temperature profile studies discussions with Stan Walsh and consultants and/or contractors.

“Old” Action Items:
- Fred - bring Skagit Chinook length-frequency data.
- Fred - look at statistical variation from year to year in the gulper mark and recovery data.
- Kevin Brink - analyze how fluctuation limits affect spill (# events, amounts, seasons, duration, flow-days by month), to facilitate discussions regarding limits to drawdown range and effects on screening designs. Kevin will report at a future meeting.

Report on Completed Action Items:
- Clint - Develop Gantt chart or road map/timeline of upstream and downstream facilities design - *Clint brought timeline and distributed.*
- Clint - Develop upstream passage matrix with full range of options for discussion at September 1 meeting (e.g., alternatives schematic from Cowlitz Falls and Lewis River) – *Clint brought matrix for meeting*.
- Paul – Complete 2001 study analysis and report, and further develop 2002 study - *Report not ready for distribution.*
- Arnie – Provide historical adult passage numbers that support conceptual design criteria - *Arnie provided*.
- Nick – Discuss passage studies with Stan and coordinate development meeting with consultant and tagging contractors - *not finished.*
- Nick – Coordinate forebay velocity profiles data collection with Ed Meyer and David Hericks of Pacific International Engineering - *not finished.*
- Nick – Coordinate reservoir migration studies discussions with Stan Walsh and consultants, then follow up with tagging/marking contractor discussions - *not finished.*
- Nick – Coordinate hydroacoustics and temperature profile studies discussions with Stan Walsh and consultants and contractors - *not finished.*
- Upper Baker intake baffle modification project completed, with exception of actuator assemblies installation scheduled for Fall 2001 - *Goal is to have the actuators installed by the end of the month.*
- 2001 Upper Baker surface flow attraction study completed by Paul DeVries and Doug Bruland - *not finished.*

Parking Lot:
- Hydroacoustic data - Arnie

- Fish species run timing, emergence timing, length-frequency data – Doug, Nick
- Design strategy process
- Conceptual designs as they relate to costs
- Sediment studies

Discuss proposed 2002 surface flow migration study

1. Should the study focus on 2 test groups with multiple replicates? Schedule limited based on fish timing and smoltification.
2. Should the study in 2002 look forward to additional studies that might have increased surface attraction flow options? Near field/far field attraction differences should be considered in the study plans. Near field will affect the design or evaluation of the collection facility. Far field hydraulic changes will have a lesser impact on the collection but may impact passage timing and reservoir management.
3. Tagging Little Park fish should give valuable information- Paul needs to include acoustic tags in study plan.
4. Both marks and tags may be desirable.
5. Group discussed various study limitations and permutations but the team needs information on tags before we can move ahead in protocol.
6. Work cannot proceed until we have a study plan in hand.

Discussion Summary of on-going data collection activities, needs

- Time-line discussion - timeline table needs to have descriptions and objectives and be updated/refined to reflect reality.
- Studies need to pass screening conducted by Aquatics Working Group.
- Need to have a meeting to brainstorm the kinds of studies needed to support design. This study needs meeting was scheduled for October 17. It would be good to look at the full Downstream package and the necessary studies. After they are listed the conflicts and sequencing will show how long the studies will take or may show sequencing priorities. If there are too many studies requested in the available time then a priority list can be assigned. The downstream passage matrix developed earlier can be used as a basis for discussions and it may be helpful to group alternatives in to a study needs list.
- A study of Kelt movement downstream through the reservoir might be needed. The study would look at ho they move and how close to the Gulper they get. How would you mark fish? What fish could be used for the test, hatchery stock?

Questions raised:

1. How does management of the reservoir affect migration?
2. Can we analyze existing data to provide any insight?
3. Are their studies that can be conducted to determine the influence of pool management?
4. Is the assumption that low reservoir pool elevation is better for migration valid?
5. Does low pool influence productivity such that it is not a good trade-off?
6. Need to consider near field vs. far field attraction.
7. Need to have the studies needs called out.
8. Need an independent review of data to develop recommendation for future test scenarios.

Brainstorming Upstream Passage Solutions:

- Copies of the upstream passage/fish trap sections from the Fish Facility Modernization Study from December 1999. Clint presented a brief overview of the alternative presented in the study. These alternatives were specific to modification to the existing trapping facility.
- Brainstorming was conducted for upstream passage systems. This began by identifying 31 goals and objectives for the upstream passage. A listing of these are attached. Passage options were brainstormed and recorded on the attached spreadsheet. MWH will develop these options to a conceptual level for presentation at the next fish passage meeting.

Meeting Evaluation
Well-Dones:
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Opportunities to Improve:
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Tentative Agenda for October 17 Downstream Passage meeting, 9 a.m. - 3 p.m., West Coast Sea-Tac Hotel
Objective: brainstorm downstream fish passage and develop course of action.

9:00 - 9:05	Review minutes & agenda, modify as necessary (Wiltse)
9:05 - 9:10	Baffle modification summary (Verretto)
9:10 - 9:25	Review 2001 surface flow migration study (DeVries)
9:25 - 9:45	Discuss proposed 2002 surface flow migration study (DeVries)
9:45 - 10:30	Brainstorm downstream fish passage study concepts (Wiltse)
10:30 - 10:45	Break
10:45 - 11:00	Brainstorm downstream fish passage study concepts (Wiltse)
11:00 - 11:15	Affinitize brainstorm results (McMillen)
11:15 - Noon	Outline realistic concepts for fish passage (McMillen)
Noon - 12:30	Lunch (working)
12:30 - 2:00	Continue to outline realistic concepts for fish passage (McMillen)
2:00 - 2:30	Determine Information needs – studies to support design (Wiltse)
2:30 - 2:50	Develop schedule implications (Wiltse)
2:50 - 2:55	Make assignments (Wiltse)
2:55 - 3:00	Meeting evaluation, set agenda and date for next meeting (Wiltse)
3:00	Adjourn

Tentative Agenda for November 1 Upstream Passage meeting, 9 a.m. - 3 p.m., West Coast Sea-Tac Hotel
Objective: review preliminary design concepts and develop direction for studies and design.
1. Review minutes & agenda
2. Action items & parking lot review
3. Review MWH upstream passage facilities conceptual alternatives
4. break
5. Brainstorm upstream facilities needs & conceptual designs
6. lunch
7. Meeting evaluation, set agenda and dates for next meeting

Attachment