BAKER R. FISH PASSAGE FACILITIES DESIGN
FISH PASSAGE TECHNICAL COMMITTEE

9:00 a.m. - 3:00 p.m.
June 17, 2003

AGENDA

Objective: Develop performance standards and other issues supporting the settlement agreement, continue engineering design development, finalize downstream alternative selection administrative record, and continue development of FSC design schedule.

9:00 - 9:10	Review agenda and handouts (Wiltse)
9:10 - 9:15	Review minutes & action items – N/A (Wiltse)
	Downstream Passage
9:15 - 10:15	Performance standards memo and settlement agreement article development (Verretto)
10:15 - 10:25	Break
10:25 - 11:45	Performance standards memo and settlement agreement article development (Verretto)
11:45 - 12:15	Lunch (provided)
12:15 - 1:00	Review of other surface collectors (Eldridge)
1:00 - 1:20	Update/develop agenda for 2-day FSC expert workshop (Eldridge)
1:20 - 1:30	Alternatives status TM description (Welch, Eldridge)
1:30 - 2:25	FSC development schedule (Eldridge, Verretto) (components, schedule, technical committees & communication options)
2:25 - 2:40	2003 surface collection barge studies update (Verretto)
2:40 - 2:50	Pelton Round Butte (tower) design discussion (Eldridge)
2:40 - 2:50	Other Issues (Verretto)
2:50 - 2:55	Evaluate meeting & review assignments (Verretto)
2:55 - 3:00	Long-term schedule, agenda, facilitation (Verretto)

PUGET SOUND ENERGY

Baker River Project Relicense

Red Lion SeaTac Hotel 206-246-5535

DRAFT 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: Kate Welch, MWH

Meeting Date: June 17, 2003

Location: Red Lion SeaTac Hotel

Attendees:

Arnie Aspelund, PSE	Gary Sprague, WDFW
Kevin Brink, PSE	Gene Stagner, USFWS
Ray Eldridge, MWH	Jim Stow, USFWS
Cary Feldmann, PSE	Nick Verretto, PSE
Steve Fransen, NMFS	Kate Welch, MWH
Frank Hella, PSE	Lyn Wiltse, PDSA
Bruce Heiner, WDFW	

Purpose: Develop performance standards and other issues supporting the settlement agreement, continue engineering design development, finalize downstream alternative selection administrative record, and continue development of FSC design schedule.

Future Meeting Dates:
July 22 &23 (tentative) Downstream Fish Passage Surface Collection Workshop at the Lodge.
July 24, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.
Sept. 08, 2003 9-3 technical design mtg at Red Lion SeaTac Hotel.
Sept. 09, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.
Oct. 14, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.
Oct. 15, 2003 9-3 technical design mtg at Red Lion SeaTac Hotel
See handout for additional meeting dates, through license submittal date.

New Action Items
Eldridge & Verretto – Continue advancement of surface collectors study.
Eldridge & Verretto – Identify/evaluate marine architects for consultation.
Group – Submit comments on updated documents via Livelink.
Verretto & Welch – Do future copies double-sided, where possible.
Verretto – Add list of Technical Design Committee members to design Team Planning Schedule.
Welch – Schedule MeetingZone demo for July 24, 2003 meeting.
Fransen – Get references for 99.5% goal for fish passage.
Fransen – Get website link for NMFS draft passage standards criteria, both downstream and upstream.
Fransen – Get additional information to support development work on clarifying how we would test for performance standards. To what degree have definitions been developed?
Verretto – By June 20, e-mail finalized dates for Downstream Fish Passage Surface Collection Workshop.
Group – Consider plan to start with 500 cfs -- at least provisionally.
Eldridge – Distribute new surface collector memo prior to Surface Collection Workshop.

Verretto – Coordinate PSE effort to incorporate today's discussion into next PME draft and distribute prior to July 24 meeting.
Verretto – Contact Ed Meyer regarding changes and additions to the project schedule.

Technical Memos/Reports Distributed
The items distributed and reviewed at the meeting were: 05/19/03 agenda (PSE), 05/19/03 draft meeting minutes (PSE), updated long-term schedule (PSE), performance standards memo from BAG (NMFS), downstream alternatives status table (MWH), FSC design development schedule (MWH), updated dam schematics (PSE), draft PME Fish Passage Management Implementation Plan (PSE), Section 4 from Dec. 1999 Concept Design Report for Fish Facility Modernization (MWH), FPTWG updated contacts list (PSE), FPTWG meeting norms (PSE), 2003 FSC studies update information (PSE), summary of other surface collectors (MWH).

Review Agenda, Minutes & Action Items
Minutes from the May 19 meeting were distributed and action items reviewed:
Eldridge & Welch – Finalize upstream passage cost estimate.
Welch & Verretto – Place updated document tracking memo on Livelink and send link to group for comments.
Welch & Verretto – Update DS Alternatives Summary to reflect group comments and load into Livelink for further comments by group.
Welch & Eldridge – Advance the FSC facility and technology study.
Verretto & Welch – Check records for information about a tower alternative that may have been considered during the relicensing process.
Eldridge – Coordinate FSC workshop agenda and attendees.
Eldridge – Request information from PG&E regarding tower alternative at Pelton Round Butte.
Eldridge – Add adult trap to overall schedule.
Verretto & Eldridge – Set up design teams and develop design team meeting schedule.
Verretto & Eldridge – Identify marine architects for consultation.
Eldridge – Schedule technical criteria committee meeting.
Group – Submit comments via Livelink on updated document tracking memo.

Nick asked the group to review the minutes and submit comments via Livelink to capture them in the record.

New Business
No new business was discussed. Two new PSE team members were introduced to the group. Kevin Brink has returned as the engineering lead on design development. Frank Hella will handle all administrative support responsibilities.

Long-Term Design Team Schedule
Nick reviewed the long-term design team schedule. The design teams (there are 6 – FSC, Guide Net, Entrance Module, Net Transition, UB Intake, and Upstream Trap) will meet for one full day, usually scheduled the day before or the day following the passage team meetings. In scheduling the design team meetings, the team's other Baker relicensing obligations were considered in order to minimize conflicts. The first design team meeting will be September 8, 2003 at SeaTac. PSE and MWH will begin design work following the Fish Passage Surface Collection Workshop so there will be substantive information to discuss during the first design team meetings.

Gene Stagner expressed concern that there are no biologists on the technical design teams that are responsible for Bull Trout. If a biologist is not assigned specifically to represent the interests of Bull Trout, he asked that members of the design teams keep in mind that Bull Trout are an integral part of the system and must be considered in design of the fish passage facilities. The group assured him that his interests would be addressed.

Performance Standards and Settlement Agreement Article Development

Discussions were held regarding each of the numbered elements of the Baker Agency Group memo submitted by Steve Fransen on May 7, 2003.

Item 1.
Fish passage survival through fish collection facilities (transport), upstream and downstream – 98%, or better.

Steve Fransen mentioned that there has been an update to this number. The new standard is 98% threshold, and a goal of 99.5%. A discussion ensued about what these numbers mean. The new NMFS standard requires achievement of a 98% survival threshold of fish once they enter the fish collection facility. The goal is to eventually achieve 99.5% survival of fish once they enter the fish collection facility. If the project is at or above 98%, NMFS will request improvements to the facilities until they reach 99.5% survival.

According to NMFS, these current standards apply at North Fork Clackamas and Leaburg Walterville. Steve Fransen will research projects where these standards apply, other precedent cases, where the standards have been achieved, and forward a link to the new NMFS standards to the team.

Cary Feldmann raised the question of what happens if a NMFS-approved design does not meet 99.5% survival? Jim Stow responded that it depends on the settlement agreement. Usually there are threshold brackets that determine what needs to be done. For example, at X%, you might be required to start over, whereas at Y% you might only be required to continue to make modifications to the system.

Cary then asked how mortality from prescribed handling fits into the percentages? In other words, if NMFS requires PSE to sample or to conduct tests on fish, and fish mortality increases due simply to this increased handling, is the standard modified to account for this influence? Steve Fransen explained that if NMFS requires PSE to enumerate fish, then the agencies will allow for mortality, assuming that "best practices" are used in sampling and handling.

The group agreed that it might not be prudent to try to define "best practices" in 2003 for facilities that will not be in operation until 2007, but that it would have to be done at some point. Best practices should be developed closer to the time of facilities installation and operation to account for new technologies and knowledge that is developed between now and then. Standard methods should be defined, allowing for flexibility as technology and knowledge improves.

Item 2.
Juvenile collection efficiency – 95% or better, of the smolts that migrate to the dam forebay.

This performance metric was called "getting fish to cross the finish line", or getting fish that are in the forebay to enter and be captured by the FSC. The group needs to define what constitutes a "migrating fish". This should be worked out through sampling protocols. It may be necessary to do a series of studies to figure out which studies make sense. It is necessary to determine the percentage of "migrating fish" which are being captured today. These protocols and baselines must be defined in order to accurately measure the effectiveness of the new facilities. Doug Kramer of PGE and Normandeau Associates were suggested as possible contacts in developing the studies.

Items 3 & 4.
Reservoir passage and survival – 80% or better.

Steve Fransen explained the derivation of 80% as the goal for reservoir passage and survival. It is the level of reservoir passage necessary to get an overall downstream passage survival rate of 75%, which is the estimated level to support self-sustaining salmon and steelhead populations.

There are a couple rules of thumb you can apply to fish populations and sustainability:

- Once you have a smolt population, if you lose 50% of that population, then the viability of the population overall is questionable.
- Why 75% and not 50%? The goal of fisheries resource agencies is to manage the public resource to build fish populations for recreational harvest, commercial harvest, and treaty-protected fisheries. It is not appropriate for hydroelectric projects to consume any portion of this allocation.

Item 5.
A supplementation program to assure full reservoir seeding for sockeye and coho, plus a chinook and steelhead program. The intent is to secure as much of the potential fish production from natural, as opposed to hatchery, production as is feasible.

The group agreed that this is an issue for the Aquatics group to address, not necessarily the FPTWG. This is perhaps a compensation issue. WDFW sees anything less than 100% replacement as requiring something (whether monetary or hatchery supplementation) to make the resource whole.

Item 6.
No PSE delay, nor footdragging, in implementation of PMEs.

Discussion was held around the wording of this item. While internally (within the FPTWG) there is minimal sensitivity to this issue, when documents such as this memo from the BAG are read and interpreted by non-FPTWG, wording such as this can be taken out of context. The group agreed to choose words more carefully on documents that will be distributed beyond the FPTWG.

This item will be accounted for by the inclusion of an implementation schedule in the PME.

Item 7.
The Floating Surface Collector will be initiated with a 1,000-cfs flow, assuming it's technically feasible. Otherwise, the initial collector may be sized at 500 cfs.

Steve Fransen said that Section 18 requirements would not be written for 250 cfs. Upper Baker is rated at 5,000 cfs, and he will not write recommendations for less than 10% flow, so that is how they got to the 500-1,000 cfs range. In juvenile fish passage, evidence shows that more flow is better, so they will lean toward more flow.

Discussion ensued regarding whether the group had previously agreed to start with 500 cfs. Ray Eldridge summarized his understanding of the "provisional agreement" which was to build four components of the downstream passage facilities (FSC, Net, Entrance Module, Net Transition) at UB to be in place by 03/01/07. The design would be such that it could scale from 500 to 1,000 cfs by using VFD pumps. Testing would be with flows of 500 cfs at .4 fps and up to 1,000 cfs at .8 fps. After one full season of testing, the decision would be made whether to scale to 1,000 cfs at .4 fps for installation by 03/01/09.

The agencies met in a caucus to discuss 500 vs. 1,000 cfs starting points. It was agreed that more thought and discussion with absent agency representatives must occur before the group will provisionally agree to start at 500 cfs. Jim Stow cautioned the group against attempts to measure and test multiple variables in one season. Such study methods usually result in an absence of useable data.

The group agreed that they would decide on the 500 or 1,000 cfs starting point in the July 24 meeting. In addition, thresholds and standards must be established so that PSE knows what types of modifications will be required, depending on the results of the tests. These will need to be part of the settlement agreement.

Items 8 & 9.
Compensation for non-performance, and monitoring and maintenance schedule.

The group decided that these are items for consideration by the Aquatics group, rather than the FPTWG. Nick expressed the pressing need to move forward in developing PMEs and defining standards and performance criteria. In consideration of tight schedules of members of the FPTWG, PSE will draft standards and performance criteria for consideration and comment by the FPTWG. Jim Stow mentioned examples of standards that have been written which could be useful references in developing articles of the Baker River settlement agreement, including North Umpqua, Pelton Round Butte, Willamette Falls, Leaburg -Walterville, Cowlitz Falls, Clackamas, Lewis River, Wells, Rock Island and Rocky Reach.

Gene Stagner cautioned against using the mid-Columbia HCP's as models.

Alternatives Status TM Description
Attendees received a copy of the updated alternatives status tables that reflect the change in terminology regarding the reason for "not advancing" the conventional alternatives. The reason is now listed as "Cost-prohibitive, technical, biological uncertainty."

Pelton Round Butte (Tower) Design Discussion
At the April 28 meeting, Jim Stow suggested consideration of a tower and floating screen structure similar to that being considered at Pelton Round Butte, because it would provide another alternative at lower cost than the conventional screening alternatives. Following the May 19 meeting, MWH resurrected a section of the 1999 Fish Facility Modernization report in which a tower alternative was evaluated as an alternative for downstream fish passage. A cost estimate is included in that report, which puts the tower alternative (which is not exactly similar to the Pelton Round Butte design) at approximately $56 million (1999 dollars). Assuming approximately 3% annual increase in construction costs, the estimate becomes approximately $64 million, which is similar to the estimate at Pelton Round Butte. This is approximately half the cost of conventional screens.

The group agreed to consider, but not advance this option at this time.

FSC Development Schedule
The schedule is aggressive, however, the group agreed that we couldn't sacrifice good decision-making in the interest of an aggressive schedule. Gary Sprague supports following an aggressive schedule as it exists, but with the agreement to implement a pause, if necessary. We might want more time to make a good decision. We could pause to test more variables in future years. For example, if after the first year, measured passage success is only 50%, then we should move ahead with major changes, but if we're within 10% of the goal, we might want to modify the facility and conduct more tests.

The entire group expressed optimism that settlement would be reached, but exactly when has not been determined. PSE is moving forward with design, under the assumption that settlement will be achieved. Steve Fransen admitted that the agencies cannot pinpoint exposure, but will work with PSE to bracket it as accurately as possible. He suggested that there might be opportunities to make the resource whole in other ways if perfect passage cannot be achieved.

Review of Other Surface Collectors
Ray Eldridge explained the next steps of the surface collector study, which is to conduct site visits of several surface collectors, including Rocky Reach, Wells Dam, and possibly a couple of USACE projects. The surface collector memo will be completed and distributed to the FPTWG prior to the surface collection workshop.

Two-Day FSC Workshop
The 2-day FSC workshop will focus on fish passage at storage reservoirs. PSE and MWH will confirm dates with invitees and inform FPTWG members by June 20.

2003 Surface Collection Barge Studies Update
This discussion was postponed until the workshop or July 24 meeting.

Meeting Evaluation & Assignments Review
The group elected to forego the opportunity to evaluate the meeting.

Long-Term Schedule, Agenda, Facilitation
July 22 & 23, 2003 FSC workshop at Lodge
July 24, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.
Sept. 08, 2003 9-3 technical design mtg at Red Lion SeaTac Hotel.
Sept. 09, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.
Oct. 14, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.
Oct. 15, 2003 9-3 technical design mtg at Red Lion SeaTac Hotel
See handout for additional meeting dates through license submittal date.

Thursday, July 24, 2003, 9-3 passage design mtg at Red Lion SeaTac Hotel.
Objective: Develop performance standards and other issues supporting the settlement agreement and continue engineering design development.
Review agenda and handouts (Wiltse)
Review minutes & action items – N/A (Wiltse)
FSC Workshop Summary (Verretto)
FSC Capacity Determination – 500/1000 cfs (Feldmann/Verretto)
NMFS performance standards – new, old, where and why employed (Fransen)
Performance standards and settlement agreement article development (Feldmann/Verretto)
Livelink Meeting Zone demonstration (Welch)
Other Issues (Verretto)
Evaluate meeting & review assignments (Verretto)

Facilitation: Will be provided for future meetings, unless otherwise noted.

BAKER RIVER FISH PASSAGE TECHNICAL COMMITTEE

MEETING NORMS

Aquatic Working Group Mission Statement: *"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 Passage Technical Committee Mission Statement: *"To develop an efficient fish passage design for the Baker River Project."*

The team developed this list of logistical and social norms, and will revise over time to suit the needs of the team:

1. Meet the second Tuesday of the month from 9:00 to 3:00 p.m. at Sea-Tac to accommodate participants who must fly in.
2. Meetings will start and end on time (exceptions will be made as agreed to by team).
3. If must miss, let team leader know and send representative if possible (prep them first).
4. No backing up for late comers.
5. No long speeches. Must receive permission from the team if talk is over 3 minutes.
6. Begin each meeting with review/amendments of minutes.
7. Do quick evaluation at end of each meeting.
8. No physical/psychological violence (no poke in the eye/cheap shots).
9. No official quorum.
10. Average a 10-15 minute break halfway through the morning and afternoon sessions.
11. PSE will provide food service and lunch to allow working lunches.
12. If get to points of disagreement, may need to "park" ideas and move on. The minutes will reflect the disagreement.
13. Have report from technical working groups as a regular part of the agenda.
14. "Teamlets" will do lots of work outside of the meeting and come back and share with the larger team.
15. Humor is good!
16. Avoid side conversations.
17. Listen to each other.
18. Celebrate diverse opinions.
19. Keep an open mind.
20. Be honest and kind at the same time.
21. Seek first to understand, then to be understood.
22. Have fun.
23. Don't interrupt each other.
24. Celebrate (even small) accomplishments.
25. Decisions will be made by consensus where possible.
26. Share data and information.
27. Define acronyms.
28. Have a facilitator present.
29. Do active listening (paraphrase back).
30. If you can't make a meeting, notify team leader by phone ASAP.
31. Team leader will communicate to the team if there is a change in the meeting agenda, location, etc. due to a sudden change in participants.
32. Minutes will include mission statement, list of attendees, action items, summary of discussions, and the proposed agenda for the next meeting.
33. The minutes will be e-mailed to team members within 3 working days.
34. PSE will e-mail the first round of minutes to team members. Members will e-mail their comments to Nick within 5 working days of receiving them. Nick will then post them on the web and LiveLink.

PSE PUGET SOUND ENERGY

Baker River Project Relicense