

**BAKER R. FISH PASSAGE FACILITIES DESIGN
FISH PASSAGE TECHNICAL COMMITTEE**

9:00 a.m. - 3:00 p.m.
July 24, 2003

AGENDA

Objective: Develop performance standards and other issues supporting the settlement agreement and continue engineering design development.

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|---------------------------|--|
| 9:00 - 9:10 | Review agenda and handouts (Wiltse) |
| 9:10 - 9:15 | Review minutes & action items – N/A (Wiltse) |
| Downstream Passage | |
| 9:15 - 9:35 | FSC Workshop Summary (Verretto) |
| 9:35 - 10:35 | FSC Capacity Determination – 500/1000 cfs (Feldmann/Verretto) |
| 10:35 - 10:45 | Break |
| 10:45 - 11:00 | NMFS performance standards – new, old, where and why employed (Fransen) |
| 11:00 - 11:45 | Performance standards and settlement agreement article development (Feldmann/Verretto) |
| 11:45 - 12:15 | Lunch (provided) |
| 12:15 - 2:15 | Performance standards and settlement agreement article development (Feldmann/Verretto) |
| 2:15 - 2:25 | Schedule overview & technical design mtgs. agenda (Verretto) |
| 2:25 - 2:40 | Livelink Meeting Zone demonstration (Welch) |
| 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) |



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: July 24, 2003

Location: Red Lion SeaTac Hotel

Attendees:

Arnie Aspelund, PSE	Gene Stagner, USFWS
Kevin Brink, PSE	Jim Stow, USFWS
Ray Eldridge, MWH	Nick Verretto, PSE
Cary Feldmann, PSE	Stan Walsh, SCC
Frank Hella, PSE	Kate Welch, MWH
Ed Meyer, NMFS	Lyn Wiltse, PDSA
Gary Sprague, WDFW	

Purpose: Develop performance standards and other issues supporting the settlement agreement and continue engineering design development.

Future Meeting Dates:

Aug. 05, 2003 9-3 passage technical criteria committee mtg at Red Lion SeaTac Hotel.

Sept. 03 or 04, 2003 9-3 passage technical criteria committee 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. 07, 2003 9-3 passage technical criteria committee mtg at Red Lion SeaTac Hotel.

Oct. 14, 2003 9-3 passage design mtg at lodge or Red Lion SeaTac Hotel.

Oct. 15, 2003 9-3 technical design mtg at lodge or Red Lion SeaTac Hotel.

Dec. 03, 2003 9-3 technical design mtg at Red Lion SeaTac Hotel.

Dec. 04, 2003 9-3 passage design mtg at Red Lion SeaTac Hotel.

See handout for additional meeting dates, through license submittal date.

New Action Items

Verretto – Check availability of Baker Lodge for Oct. 14-15, 2003 and March 8-9, 2003 passage and technical meetings.

Verretto – Schedule time/meeting to address destressing ponds and acclimation facilities.

Verretto – Announce changes to long-term schedule at each meeting.

Stagner – Set up BAG meeting/conference call to discuss 500 vs. 1,000 cfs FSC capacity, by end of July. Let Nick know the outcome.

Verretto – Schedule visits to other surface collection facilities.

Group – Submit comments on updated documents via Livelink.

Verretto & Welch – Do future copies double-sided, where possible.



Eldridge – Complete surface collectors review memo. Include UB and LB, Wells, Rocky Reach, Wanapum, Rock Island, Lower Granite RSW, John Day RSW, Bonneville #1 & 2, Ice Harbor, Cowlitz Falls, Green Peter, Howard Hansen, Mayfield, North Fork Clackamas, Pelton Round Butte.

Meyer – Discuss with Steve Fransen and others at NMFS whether biological testing of the screens would be required if PSE builds the screens to criteria, and clarify the issue of shared responsibility between the agencies and PSE for testing.

Technical Memos/Reports Distributed

The items distributed and reviewed at the meeting were: 07/24/03 agenda (PSE), 06/17/03 draft meeting minutes (PSE), updated long-term schedule (PSE), 07/23-24/03 agenda from Surface Collection Workshop (PSE), Downstream Fish Passage Performance Standards Proposal (PSE) NMFS criteria, 1995 (MWH), Draft NMFS criteria, 2003 (MWH), juvenile swimming speeds data (MWH), Surface Collection Technology memo (MWH).

Review Agenda, Minutes & Action Items

Minutes from the June 17 meeting were distributed and action items reviewed:

Eldridge & Verretto – Continue advancement of surface collectors study. – Memo distributed.

Eldridge & Verretto – Identify/evaluate marine architects for consultation. – Glosten Associates

Verretto – Add list of Technical Design Committee members to design Team Planning Schedule. – Completed

Fransen – Get website link for NMFS draft passage standards criteria, downstream and upstream. – Distributed in hard copy.

Verretto – By June 20, e-mail finalized dates for Surface Collection Workshop. – Completed

Eldridge – Distribute new surface collector memo prior to Surface Collection Workshop – Completed

Verretto – Coordinate PSE effort to incorporate 6/17/03 discussion into next PME draft. – Completed

Verretto – Contact Ed Meyer regarding changes and additions to the project schedule. – Completed

Group – Submit comments via Livelink on updated document tracking memo. – Ongoing

Verretto & Welch – Do future copies double-sided, where possible. – Ongoing.

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

New Business

Gary Sprague raised the question about when/how this group will consider the destressing ponds and acclimation facilities. How will this be included in the Settlement Agreement? How will PSE get input from the agencies? Is there research that can be gathered and presented to the group? It was suggested that Nick include this item in the long-term schedule and decide how it would be incorporated.

FSC Workshop Summary

The group reviewed discussions from the Surface Collection Workshop that took place July 23-24, 2003 at Baker Lake Lodge. Interesting concepts that were presented included the effect of turbulence on juvenile migration, different configurations of the entrance module, and a guidenet configuration that includes 30-50 feet of solid material at the top, with the goal of creating a turbulent flownet that creates an attraction flow at the entrance of the FSC. Ray suggested a test of this concept at the existing Gulper, and configuring the net at a sharper angle to create flow fields leading to the gulper.

Regarding previous discussions of velocity and acceleration at and through the entrance module, the group agreed not to be bound by the 0.1 fps velocity and 0.1 fps/ft gradient criteria discussed. We could use others, as long as the group agrees.

PSE agreed to investigate what types of tests can and should be done on the existing Gulper to test turbulent flow and attraction into the system.



Ed Meyer expressed concern that we should exercise caution in putting too much stock in laboratory tests, when reality in nature can be so different. There are many stimuli in the natural environment that can't be mimicked in the lab.

FSC Capacity Determination – 500/1000 cfs

Ray reviewed information in the Surface Collection Technology memo as it relates to passage system capacity relative to Project generating capacity. In most cases of existing surface collection technology, flow through the collector is 3-10% of Project flow.

PSE has modified its original proposal to start at 250 cfs and has agreed with the agencies' position to start at 500 cfs, with the capacity to test to 1,000 cfs in phase 1 of the project (500 cfs is 10% of project flow).

The group agreed that fish attraction involves more than flow. Location and entrance design/conditions are also significant. Data from the 2002 acoustic tagging study indicate that the location of the current FSC is good. It also appears that increased FSC capacity would increase collection effectiveness. Discussions of additional testing (5-10 years) concluded that while additional data would be provided, it was uncertain that it would be beneficial to the decision-making process. Ed Meyer commented that he does not want to delay the schedule to gather more data and information, unless the group can all agree that it would be beneficial, and not a waste of time.

The issue of initial FSC capacity being unresolved, the group began discussions to resolve the issue, but soon tabled them due to the absence of key agency representatives. The BAG agreed to talk by conference call by the end of July to agree on their position regarding starting flow for the surface collectors.

Performance standards and settlement agreement article development

There have been recent discussions regarding the wisdom of building structures based on data in order to minimize "fits and starts", saving time in the long run. Cary asked for feedback regarding PSE's emphasis of recent efforts to stick to the aggressive schedule versus collecting more data to influence the design of what we build. The general consensus seems to be that we want to use the best available data to build the best FSC we can, as quickly as possible. We would then "tweak" it to meet the performance standards, a process that would be continuous throughout the life of the facility.

It was agreed that PSE would incorporate check points/flexibility into the wording of the settlement agreement to allow for appropriate decision-making throughout the process.

Discussions regarding performance criteria versus prescription criteria ensued, with agreement that some sort of post-construction functional testing would be required. Ed Meyer will follow up with Steve Fransen and others at NMFS whether biological testing of the screens would be required if PSE builds the screens to criteria. If PSE build screens to criteria, there should be shared responsibility between the agencies and PSE.

Cary reviewed the three testing elements that PSE developed in response to the BAG performance standards memo. The BRCC will oversee all aspects of standards, methods, and implementation. The testing elements are:

1. Collection survival
2. Collection efficiency
3. Reservoir survival

Schedule overview & technical design mtgs. agenda

Nick reviewed the upcoming technical design meetings and the long-term schedule.

Livelihood Meeting Zone demonstration



The Meeting Zone demo was postponed to the Aug. 19 and 20 meetings because there was insufficient data/phone connectivity in the meeting room.

Other Issues

Nick proposed to schedule site visits for the group to see other surface collectors. The suggested facilities included:

White River (during de-watered phase, prior to Aug. 15)

Bonneville

Lower Granite

Rocky Reach

Wells

Green Peter

Grand Coulee

Cowlitz Falls

Cowlitz Hatchery

Mayfield

Meeting Evaluation & Assignments Review

The group elected to forego the opportunity to evaluate the meeting.

Long-Term Schedule, Agenda, Facilitation

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Tuesday, Sept. 9, 2003, 9-3 passage design mtg at Red Lion SeaTac Hotel.

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Review agenda and handouts (Wiltse)

Review minutes & action items – N/A (Wiltse)

FSC Capacity Determination – 500/1000 cfs (Feldmann/Verretto)

Performance standards and settlement agreement article development (Feldmann/Verretto)

Discussion of field trip to other surface collectors (Verretto)

Other Issues (Verretto)

Evaluate meeting & review assignments (Verretto)

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