BAKER RIVER PROJECT RELICENSE

FISH PASSAGE TECHNICAL WORKING GROUP
LOWER BAKER FISH PASSAGE FACILITIES DESIGN

April 6, 2000

9:30 a.m. - 4:00 p.m.
West Coast Sea-Tac Hotel
18220 Pacific Hwy. S.
Seattle, WA 98188

AGENDA

Item	Time
Introductions/Agenda	9:30-9:40
Meeting Minutes Review/Comment	9:40-9:50
Review Screened Intake Drawings/Estimate	9:50-10:30
Break	10:30-10:35
Additional Alternatives	10:35-12:00
Lunch - One Hour	12:00-1:00
Fish Passage Efficiency	1:00-2:00
Other Issues	2:00-3:15
Meeting Evaluation	3:15-3:30
Develop Goals for Month and Next Agenda	3:30-4:00

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MEETING NOTES

Attendees:

Arnie Aspelund, PSE
Ken Bates, WDFW
Kevin Brink, PSE
Doug Bruland, PSE
Dennis Dorratcague, MW
Cary Feldmann, PSE (part-time)
Steve Fransen, NMFS
Mort McMillen, MW
Ed Meyer, NMFS
Wayne Porter, PSE
Fred Seavey, USFWS
Gary Sprague, WDFW
Nick Verretto, PSE
Stan Walsh, SSC

Purpose: The purpose of the meeting was to continue design activities for replacement of the Lower Baker juvenile fish passage facilities.

INTRODUCTION/AGENDA
The meeting began about 9:45 a.m. with an introduction of all participants. The agenda was passed out to all participants.

MEETING MINUTES
The participants were asked whether there were any comments concerning the meeting minutes from the last meeting. There were some changes requested. It was decided that in the future, comments to the minutes would be appended to the original minutes rather than spending time during each meeting to debate how to change the minutes. (For the last meeting, the comments will be attached to the previous minutes and reissued.)

SCREENED INTAKE REVIEW
Montgomery Watson reviewed the conceptual design that was developed over the past month. The concept was a fully screened deep intake incorporating a v-screen arrangement and a new tunnel section. This option allows about 41' of reservoir fluctuation. A wide ranging discussion developed surrounding this concept. It was decided that the minutes would list the various concerns with the concept that was presented.

- no holding area is provided
- fish might get trapped under hopper
- no sampling facilities
- needs a volitional exit system
- may need a crowder
- clogging the screens could collapse the structure
- very expensive to implement
- screen cleaning is difficult
- geology of the area may be difficult to deal with

ADDITIONAL ALTERNATIVES
The agencies proposed that a shallow screened intake with restricted reservoir fluctuation would be less expensive and could be optimized to be fish friendly. Fluctuation limits that were discussed ranged from 5' to 15'. PSE advised that this type of arrangement would be very expensive in terms of spill. They felt that large amounts of spill would likely result which would cause lost generation as well as harm to fish.

The agencies asked for information about generation, reservoir elevations, and migration that might illustrate how they overlap with each other seasonally. PSE agreed to gather this information.

The agencies proposed that the new passage facility may need to include water temperature control functionality to eliminate thermal blockages from the Baker River. PSE noted that adult returns have been increasing with a number of very large returns occuring in some years and wondered whether it was wise to change the water temperature. There were several action items related to this item that were agreed upon and they are noted below.

FISH PASSAGE EFFICIENCY
The participants discussed the different views on what constitutes fish passage efficiency. It was decided that the marked fish would continue to be released in the same location as they have been in the past. Methods for testing the differences between the Upper Baker and the Lower Baker barges were discussed. One method was to increase the surface flow in the area of the Upper Baker barge by breaching the fish baffle siding near the top. Another method was to turn off one of the Upper Baker barge primary pumps to test it under lower flow. These optional testing scenarios are in an action item listed below.

MEETING EVALUATION
The team discussed developing a mission statement, utilizing meeting facilitators, and other methods to try to better focus the meetings and increase the productivity. Additionally, there was some discussion on developing a procedure for deciding on and implementing studies as they come up. No conclusion was reached here.

GOALS FOR MONTH AND NEXT AGENDA

The following is the action item list for the month. PSE will plan the agenda around these items based on time required.

Action items:

Seavey - track down Skagit chinook size and timing data. Will send to PSE.

PSE - gather migration data for Baker system including timing by species
- analyze fish passage numbers with flow and reservoir elevation
- develop test procedure for baffle breaching experiment and single pump operation at Upper Baker barge
- gather existing hydroacoustic fish data, develop plan for collecting more
- gather existing water temperature data for lake profile and river
- develop plan and procedures for installing temperature data loggers
- gather hydrologic data and analyze spill quantity and timing ramifications of limited lake fluctuation at Lake Shannon (fluctuations of 5 -15 feet were discussed) - timing needs to be compared to fish timing
- develop information session detailing reservoir and generation management

The next meeting had already been scheduled for May 16, 2000. It was decided that the following meeting would be June 13, 2000.