



BAKER RIVER PROJECT RELICENSE

FISH PASSAGE TECHNICAL WORKING GROUP LOWER BAKER FISH PASSAGE FACILITIES DESIGN

May 16, 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	9:30 - 9:35
Review/Develop Agenda	9:35 - 9:50
Review Meeting Minutes	9:50- 10:00
Hydraulics 101	10:00 - 10:20
Hydraulics Q & A	10:20 - 10:30
Break	10:30 - 10:45
Technical Discussions <ul style="list-style-type: none">▪ Temperature Data (10:45 - 11:15)▪ Intake Flow Test - Baffle and Gulper Pumps (11:15 - 11:45)▪ Hydroacoustics (11:45 - Noon)	10:45 - Noon
Lunch	Noon - 1:00
Technical Discussions <ul style="list-style-type: none">▪ Spill Frequency (1:00 - 1:20)▪ Generation Record (1:20 - 1:40)▪ UB vs. LB Design Differences (1:40 - 2:10)▪ Reservoir Drawdown/Run Timing (2:10 - 2:30)	1:00 - 3:00

▪ Fish Timing vs. spp., Emergence Timing, Length-Freq. (2:30 - 3:00)	
Other Issues	3:00 - 3:30
Evaluation, Set Agenda & Dates for Next Meetings	3:30 - 4:00

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Technical Working Group – Downstream Fish Passage

May 16, 2000

9:30 a.m. – 4:00 p.m.

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

MEETING NOTES

Mission Statement: To develop an efficient downstream fish passage design for the Baker River Project.

Attendees: Bob Barnes (PSE), Kevin Brink (PSE), Cary Feldmann (PSE), Mort McMillen (MW), Ed Meyer (NMFS), Wayne Porter (PSE), Fred Seavey (USFWS), Gary Sprague (WDFW), Nick Verretto (PSE), Stan Walsh (SSC)

Action Items:

- Bob Barnes will e-mail lake elevation charts and data to attendees by May 31.
- Gary Sprague will provide a Corps of Engineers contact to PSE to find reservoir productivity models by May 31.
- Nick Verretto will update his analysis of intake temperature data for high, average, and low flow years and match the data with available data for the Skagit.
- Nick Verretto will e-mail team regarding plans to gather temperature data in vertical water column. Stan Walsh will represent agencies in his response to Nick's e-mail
- Nick Verretto will look at Baker River species length-frequency data.
- Fred Seavey will look at Chinook length-frequency data.
- Fred Seavey will come up with a study design by May 23rd to conceptualize how we might test gulper efficiency based on attraction flow and e-mail to group for feedback.

Discussion Items:

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1. Lynn Wiltse was introduced as facilitator for the team.
 2. All comments regarding the minutes are due to Kevin Brink by May 30th. For this meeting we will have Lynn take notes on flip chart through out the meeting. This should simplify the logistics of reviewing and amending notes in the subsequent meetings.
 3. Bob Barnes compared & contrasted PSE's generation philosophy, history, physical conditions and restraints, and power value. See fact sheet & accompanying graphs.
 4. Temperature Data Collection.
 - Purpose: To identify potential thermal stratification problems related to fish migration, and to understand existing data to see if we need to collect more. Also to determine the implications to water temperature downstream.
 - Nick reviewed existing data with the team. Team members will review the data and discuss its adequacy for meeting the above purposes at the June meeting. At that meeting, Nick will update his analysis of the intake data. Pick years that reflect high medium, low flow where data also exist for the Skagit. Nick will e-mail group regarding PSE plans to gather temp data in the vertical column. Stan will be the point person for Agencies. It was agreed to gather data one or two times a week at 1 meter intervals to 200 feet deep.
 5. Intake Flow Test
 - Purpose: To see if there is a difference in juvenile attraction of the barge under different attraction flows and locations at the surface. Does having generation flow moved up to the surface increase gulper attractiveness?
 - Mort presented three options to change the existing intake baffle at Upper Baker. If the team chooses an option to implement, tests could be done to see if increasing the surface draw would increase guidance to the gulper system.
 6. Team Mission
 - The team discussed how its original intent of doing an early implementation gulper replacement had evolved into more of a developmental approach. They came to consensus on the following Mission Statement: "To develop an efficient downstream fish passage design for the Baker River Project."
 - They will concentrate on Lower Baker first. They will use a collaborative approach and make decisions based on facts and data.
 7. Hydroacoustics
 - This discussion was postponed until June

8. Spill Frequency, Generation, Reservoir Drawdown

- PSE spill and generation data is currently all on hard copy. Kevin will share a spreadsheet of data from 1980 at the June Meeting. He is also working on improving the accuracy of the computer model. Kevin will also overlay reservoir levels onto existing spill graphs as a 2nd Y axis.

9. Chinook Size

It was discussed that Baker Chinook lengths may be borderline between the 0.4 fps criteria and the 0.8 fps criteria used for screen design. Nick will look at existing temperature data from the penstock readings, the net pen readings, and the water quality readings to see whether it differs from the 1966 research that was done. Ed Meyer will confirm what NMFS temperature criteria is. Fred Seavey will look at cumulative percent by size/length. Should we use Chinook for the design for the screen? (We need to come to group consensus). Nick will look at all length-frequency data.

10. Logistics

The team agreed on the following:

- Continue to meet 9:30 a.m. - 4:00 p.m. monthly.
- Continue to use Lynn as facilitator. Team will continue to evaluate the effectiveness of this arrangement.
- Meeting minutes out via e-mail within five days of meeting
- Meeting minutes include mission statement at top, followed by list of action items, followed by summary of meeting, followed by agenda for next meeting.

Tentative Agenda for June 13 Meeting

1. Review agenda
2. Revisit costs of screened intake conceptual designs utilizing 0.8 fps approach velocity vs. 0.4 fps approach velocity.
3. Temperature Data
 - team assess adequacy of existing data
 - Nick Verretto review vertical column data
 - burst speed of fish vs. temperatures recorded at net pens
4. Intake flow test - baffle and pumps
 - update from test - if any
 - review test procedure proposal
 - evaluate whether to go ahead with incremental improvements
5. Hydroacoustic data
6. Spill frequency data
7. Generation record
8. Reservoir drawdown timing
9. Fish species run timing, emergent timing, length-frequency

10. Other issues

11. Meeting evaluation, set agenda and dates for upcoming meetings. Meetings currently scheduled are June 13 and July 26 for the same location and time.