BAKER RIVER PROJECT RELICENSE

Economics/Operations Working Group

April 9, 2003

9:00 a.m. – 1:00 p.m.
PSE Office Building
Mt. Vernon, WA

FINAL MEETING NOTES

[For initials of author of italicized-corrections, see superscript]

The Economics Working Group Mission Statement:

"To ensure that alternative project proposals, operations and emergency plans for the Baker River Project and its components provide for: (1) Public health and safety; and (2) Thorough analysis and evaluation of the economic costs and benefits (including non-market and economic impacts.)"

Team Leader: Lloyd Pernela (PSE), 425-462-3507; lloyd.pernela@pse.com

Note: Please let the team leader know if you are unable to attend a meeting. If something comes up at the last minute, please call Lyn prior to the meeting. Lyn's cell phone is 425-890-3613.

PRESENT

Lloyd Pernela and Paul Wetherbee (PSE), Linda Lehman and Keith Brooks (FERC) by phone, Mark Kilgore (Louis Berger Group), Bob Helton (interested citizen), Ken Brettmann (USACE), Jerry Louthain (EES for City of Anacortes, Skagit Co. PUD, and Town Concrete), Stan Walsh (Skagit Systems Cooperative), Dave Brookings (Skagit County Public Works Department), Gary Sprague (WA Dept. Fish & Wildlife) on phone, Chuck Howard, (Water Resources Systems, consultant), Margaret Beilharz (USFS) on phone, Stuart Beck, (R2), Mary Jean Bullock -note-taker - and Lyn Wiltse – facilitator -(PDSA Consulting Inc.)

The next CROSS RESOURCE WORKSHOP MEETING will be MAY 14, 8:00 – 5:00 at the EMBASSY SUITES in LYNNWOOD. Stay tuned for details.

DATES OF FUTURE MEETING DATES/LOCATION
Note: Our next meeting will be held on May 7 (instead of the previously scheduled May 14th). The location will be at the Cottontree Inn, 2300 Riverside, Mt. Vernon.

Other future dates: June 11, July 9, August 13, September 10, October 8, November 12, December 10, 2003 at PSE Office, 1700 East College Way, Mt. Vernon.

AGENDA
April 9, 2003 at PSE Office, Mt. Vernon, WA
9:00 to 2:00 PM

9:00 - 9:05 Introductions
9:05 – 9:10 Review/revise minutes and agenda
9:10 – 9:15 Review Action Items
9:15 - 10:45 Debrief of cross Resource Workshop and review of Econ/Ops activities:
Status of PMEs
- Status of 5.01: CZMA, 5.02: Instream Flows and Water Rights, 5.03: Submerged Lands,
- Status of Flood control including an update on CORPS flood control process
- Skagit's County preliminary flood control at Baker study

10:45 – 11:05 Modeling process HYDROPS and R2 models
Technical Studies Committee (TSC) to address modeling effort
11:05 – 11:30 Sample HYDROPS model outputs
11:30 – 11:45 Economic Criteria
11:45 – noon Project Dependability Capacity (PME to recognize PNCA agreement?)
12:00 – 12:15 LUNCH
12:15 – 12:30 Status of R-E03
12:30 – 12:45 Set Agenda for May 7 meeting
12:45 – 12:55 Study Summary and Meeting evaluation

NEW ACTION ITEMS
- Lloyd: Distribute PIE flood control report to Working Group members.
- Lloyd: Let Working Group members know the deadline for getting feedback to Sue Madsen (R2) on A24 Draft Study Report. ***PROVIDE FEEDBACK BY APRIL 30TH TO SUE MADSEN.*** smadsen@r2usa.com. ***LP***
- Lloyd: Set up presentations on how PSE operates/traders, etc for June/July timeframe.
- Lloyd/Mark: Draft drought PME and distribute to Working Group members to review.
- Paul: Email out handout on Aquatics Working Group Run Requests to team members.
- Lyn: Add timeframes to May 7 agenda.

INTRODUCTIONS
We welcomed Stuart Beck of R2 Resource Consultants.

REPORT ON OLD ACTION ITEMS
- ALL: Sent Lloyd feedback by February 28, on Mark's draft economic considerations list.

- ALL: Reviewed R-01 (*Low flow augmentation from Baker Project*) **JL** for discussion at our March 12 meeting – Gave feedback to Jerry.
- ALL: Reviewed R-02 (flood control storage) for discussion with our March meeting. Gave feedback to Dave.
- Dave: Got with Mark K., Ken, and others to work on study plan for R02.
- Keith: Issued on February 19th FERC's interpretation of the legal interpretation (preliminary analysis) on flood control, and how FERC would respond if the settlement agreement included a request to change the existing amount of flood storage [e.g. through Flood Control Act or amount in addition to Congressional authorization]. Also commented on which Acts trump FCA, etc.
- Lloyd: Sent Keith distribution list of working group participants so he could send out his paper on Feb. 19.
- Lyn: Added estimated time frames to March agenda.

PME STATUS

5.01 – CZMA Consistency

This is a checklist of what needs to be accomplished for the license. (It is not moving forward as a study or PME.)

5.02 Additional Flows

Jerry reported that EES met with the City of Anacortes and Skagit County PUD to discuss how this problem (domestic water supply) might be addressed. They hope to take their proposed solution (in the form of a MOA) to Ecology with the hope that DOE would sign it and administer it. Jerry will keep us posted. (The PME is not moving forward *at this time until some other issues are resolved, such as working toward resolution through a MOA with DOE, and awaiting the results of the R2 instream flow study for fisheries resources.)* **JL** *It was clarified that minimum instream flows (MIFs) are based on the Mount Vernon gage and releases for domestic water supply are requested to be in addition to MIFs.* ***MK***

5.03 Submerged Lands

For the FERC license, PSE has to control (own or have easement for lands within the FERC boundary.) Currently, PSE's control of submerged lands is 99% documented. There are a few small areas of question. DNR claims all lands beneath navigable waterways. PSE hopes to resolve this issue directly with DNR.

5.06 Flood Control

The USACE proposed a study plan to examine this issue. ~~Skagit County disagreed about the scope~~. *Skagit County and the Corps mutually agreed at the Executive Committee to initiate a* ~~The County initiated~~**DB** a 30-day technical study to identify potential benefits from additional flood control. Dave reported that this reconnaissance level study is now complete. Lloyd will send out copies of the study to members. Skagit County is inviting representatives from the USACE and PSE to walk through the findings of this study on April 15. They will then review this study also with the executive committee May 1 and determine the next steps.

PSE expressed concern that folding an additional flood control study with its aquatic resource impacts into the re-licensing process might cause delays. They feel that Baker flood control is a Corps issue.

Keith said we could put a placeholder in the license (as a specific license re-opener) for the planning of storage after study or USACE process complete. *For purposes of the EA it would be sufficient to look at flood control options between 74 KAF and 100 KAF*[MK].

Skagit County's interest is to *see that the issue of public health and safety is given adequate consid*eration ~~have this study done as soon as possible~~[DB] and would like to see it folded into the re-licensing process.

Ken Brettmann suggested that the Corp's proposal to use existing license article language, stating "…up to 100K acre feet is good as it allows for flexibility as to the optimal level of flood storage." If, at the May 2nd Skagit Flood Executive Committee Meeting, it is determined that more detailed study is warranted, he is doubtful that the Corps could come up with anything substantive by July, 2003 for inclusion in the PDEA (if it stays within the Corp's process.)

TECHNICAL SCENARIOS TEAMLET AND REVIEW OF HYDROPS OUTPUTS

Paul walked us through the draft paper he put together describing the integration of hydropower operations and habitat assessment models. There are two models: HYDROPS and R2's Habitat Analysis Model. These models will be working together to produce simulation results. HYDROPS runs with a set of operational conditions imposed (can be posed as hard or soft constraints) on it. R2's model considers potential environmental effects associated with simulated Project operations. *Additional post processing of output data may occur in Excel*[MK]. Note: ~~Natural~~[MK] unregulated flows are used as basic inputs from the Baker River.

Paul will be heading up a newly formed group: the Technical Scenarios Teamlet (TST). The role of this teamlet will include technical definitions, defining scenarios, tracking runs, QA, QC, and defining I/O formats. Their first meeting (by conference call) will be today at 1:00. Jerry, Dave, Bob, and Chuck indicated interest in attending the first meeting of the TST and possibly joining the group.

Paul projected sample model output charts and asked for feedback. A standardized output package will be one of the early deliverables of the TST.

ECONOMIC CRITERIA

We reviewed the Draft Economic Considerations in evaluating PME costs that Mark put together last November. These include *costs*[MK] ~~money~~[MK] (e.g., studies, future capital expenses, O&M, construction, etc.), megawatts of dependable capacity, and reduction in benefits and increased costs associated with shifting energy from peak windows to off-peak windows. This list was developed ~~based on~~ *to support*[MK] the Developmental Analysis portion of the PDEA. The PDEA will show the incremental costs and benefits of each alternative.

PROJECT DEPENDABILITY DROUGHT PME CAPACITY

Mark shared with us information about something that is resulting in our coming up with an additional ~~PME for~~ *analysis for Baker Project operations under drought conditions*[MK]. The Pacific Northwest Coordination Agreement was signed in 1964 by USACE, BPA and many NW utilities (including PSE) *and renewed in 1997*. The agreement formed an important component of regional plans to ~~maximize~~ *optimize*[MK] hydro capability. The terms of this agreement extend through 2024.

Agreement stipulates that parties agree to coordinate the operations of their respective systems to make available to each systems its optimum Firm Energy Load Carrying Capacity, provide FELCC for the coordinated systems, improve regional power production as a whole, annual planning period, set refill requirements for whole reservoir systems, guidance on shifting and shaping FLCC, reliability standards, integration of resources incl. maintenance, coordinate outages, and improve flexibility.

Critical period refers to the portion of historical stream flow record, which, when combined with the drafting of all storage reservoirs from full to empty, would produce the least amount of energy shaped to seasonal load patterns.

PSE's role: As one of the signatories of the agreement, PSE sends to the Power Pool outage forecasts and capacity estimates each winter. PSE's dependable capacity at Baker is affected by *Corps-BPA*[MK] agreement *for Replacement Power for Upper Baker Flood Control*[MK] (1750 MWh per month for November through February and *not to exceed 7 MW per hour*)[MK].

We are talking with the Powel Group about taking this Dependable Capacity PME into consideration.

Call 1-800-622-4520 to request copy of document: Power System Coordination: "A Guide to the Pacific Northwest Coordination Agreement." *This document explains in great detail how the hydro systems in the Northwest are integrated under PNCA*[MK].

STUDY REQUESTS

- R-E01- Low Flow Augmentation from Baker Project – Continuing Discussion
- R-E03- Examination of spawning and Incubation Flows in the Skagit River below the Baker confluence during Brood year 2000 – Stan reported that he re-drafted this Study Request to examine all years from 1991 forward (since the Seattle City Light settlement went into effect) and re-submitted the request. We will discuss this at our May 7th meeting.

HANDOUTS (bolded handouts will be posted on the website)

- Preliminary Review Draft of *Integration of Hydropower Operations and Habitat Assessment Models*, April 2003.
- List of Aquatics Requests for HYDROPS runs

PARKING LOT

- New Baker EAP Inundation maps are available at end October 2002
- Consider who will be the number cruncher for this team: PSE? Other?
- Presentations:
  - USFS Baker Watershed Analysis
  - Wild and scenic river 101 Jon Vanderheyden
  - Fisheries/Hydraulics 102
  - FEMA
- How will we define and share economic analysis (methods, assumptions re: unit costs, etc.) across Working Groups?

EVALUATION OF THE MEETING

Well Done
- Facilitation moved us along
- M.J. serving coffee
- Stan was "walking wounded" and still participated

Change for Next Time
- Need notes to accompany presentations
- Ran out of coffee

What's Hot?
- Flood Control
- Will there be a draught PME?
- Need to discuss priorities of elements that will roll into models.

TENTATIVE AGENDA FOR NEXT MEETING
May 7, 2003 at Mt. Vernon, WA
9:00 to 2:00 PM

9:00 - 9:05 Introductions
9:05 – 9:10 Review/revise minutes and agenda
9:10 – 9:15 Review Action Items
9:15 – 9:30 Prep for May 14 Cross Resource Workshop
9:30 – 9:35 PDEA Update
9:35 – 10:00 Status of PMEs
- Status of 5.01: CZMA, 5.02: Instream Flows and Water Rights, 5.03: Submerged Lands, 5.07 Drought conditions

10:00 – 11:00 5.06: Flood control (management)
11:00 – 11:15 Break
11:15 – 11:30 Role of Econ/Ops Working Group
11:30 – 12:00 Review Study Requests:
- R-01 –Low Flow Augmentation from Baker Project – Continuing discussion
- R-03 –Examination of Spawning and Incubation Flows in the Skagit River below the Baker Confluence during Brood year 2000

Noon – 12:20 Lunch
12:20 – 12:45 TST Report
12:45 – 12:50 Set June 11, 2003 agenda (at PSE Office in Mt. Vernon at USFS)
12:50 – 1:00 Evaluate Meeting
- What's hot?
- Studies report for Baker Solution Team