



BAKER RIVER PROJECT RELICENSE

Technical Scenario Teamlet Conference Call

April 25, 2003

10:00 a.m. – 11:30 a.m.

Dial in: (866) 280-6429

Guest #: 144995

OBC-14N Conference Room

AGENDA

1. Review Notes	10:00 – 10:10
2. Review Action Items	10:10 – 10:20
3. HYDROPS Status Report	10:20 – 10:40
4. Review Draft Analysis Request Form	10:40 – 11:00
5. Review Baseline Scenario Elements	11:00 – 11:10
6. Discuss Comparative Analysis	11:10 – 11:25
7. Schedule Next Meeting or Conference Call	11:25 - 11:30

April 25, 2003



BAKER RIVER PROJECT RELICENSE

Technical Scenario Teamlet

April 25, 2003
10:00 to noon
PSE Office (One Bellevue Center)
Bellevue, WA

FINAL MEETING NOTES

Teamlet Leader: Paul Wetherbee, 425-462-3746, paul.wetherbee@pse.com

PRESENT: Paul Wetherbee, Lloyd Pernela, Cary Feldman, Bob Barnes, and Arnie Asplund (PSE), Stan Walsh on phone (Skagit System Cooperative), Margaret Beilharz and Scott Lentz on phone (USFS), Mark Killgore (The Louis Berger Group), Chuck Howard (Consultant), Gary Sprague on phone (WDFW), Phil Hilgert and Sue Madsen on phone (R2), and Lyn Wiltse, facilitator (PDSA Consulting, Inc.).

Note: Ruth Mathews called to let us know she would be unable to attend the meeting.

FUTURE REGULAR WORKING GROUP DATES/LOCATIONS

NOTE: *The May 2 meeting has been changed to May 5 so we can incorporate feedback from the May 2 Instream Flows Technical Working Group meeting. On the 5th we will meet from 10:00 to noon.*

May 5 (changed from May 2), May 9 from 10:00-noon at PSE Office in Bellevue. These meetings will mostly be by conference call: Dial 1-866-280-6429. Enter participant code 144995#. For those planning to attend in person, the meetings will be in the conference room of OBC (One Bellevue Center) on the 14th floor.

DRAFT AGENDA FOR APRIL 25, 2003

10:00 – noon at PSE Office in Bellevue (14th floor conference room)

1. Review Notes
2. Review Action Items (and draft norms)

3. HYDROPS Status Report
4. Report from Instream Flows Technical Working Group
5. Review draft of input request form
6. Review Baseline scenario(s)
7. Set agenda for May 5 meeting

NEW ACTION ITEMS

- All: Review HYDROPS request Form, and send suggested changes to Paul to incorporate as soon as possible (before our May 5 meeting if possible).
- Paul: Send out Stan's description of desired HYDROPS runs.
- Paul: Incorporate changes to April 17 notes and send them out as final.
- Mark: Get notetaker for May 2 meeting (as Lyn is unable to facilitate/do notes then).
- Bob: Determine the apparent sensitivity of daily unregulated flow calculations to the reduction in storage volumes of Upper and Lower Baker Reservoirs. Also, provide basic explanations to support.
- Bob: Look at gross statistical analysis of historical unregulated flows to determine what, if any, impacts result from differences in storage calculation.
- Paul: Update description of "Recent Conditions (Pre IPP)".
- Paul: Send out sample scenarios (proposed base-case) run and results.
- Lloyd: Send out list of all HYDROPS technical background information available on the website.
- Lloyd: Check back with Powel to see when they can update and distribute HYDROPS demonstration PowerPoint slides.
- Ruth/Sue: Button up with each other re: treatment of IHA analysis in A24.
- Mark: Draft white paper on dependable capacity and model implementation and send to Paul to distribute prior to our May 5 meeting.
- Bob: Give the updated model curves to Powel by June 1.

REPORT ON OLD ACTION ITEMS

- Lyn: Updated the draft of norms for review at our April 25 meeting and sent them to Paul to distribute along with draft meeting notes.
- Paul: Incorporated suggested changes (in italics) to draft minutes from April 9 meeting and send out final version of notes prior to April 25 meeting.
- Paul: Sent out draft of what constitutes the "baseline" scenario(s).
- Paul: Updated TST Operations diagram and distribute to teamlet members: Include title, revision date, double arrows, Solution Team, definition of Q_{SRNC} , add #7 and 8 to list of teamlet activities, etc.
- Stan: Sent Paul written text for at least of one of desired scenarios by April 21.
- Paul: Drafted input request form based on example(s) provided by Stan and Phil and send it to Margaret for review by April 23.
- Margaret: Reviewed/edited Paul's draft of input request form and send it back to him on April 24.
- Paul: Incorporated Margaret's feedback and send draft input request form out to teamlet members for review on April 24.

- All: Reviewed draft input request form on April 24 and be ready to discuss at our April 25 meeting.

HYDROPS STATUS REPORT

Paul reported that he was joining us from Bellevue instead of Victoria, as the Powel folks had informed him that they required the weekend to finish incorporating the first tier of software edits (A1 – A17) into the HYDROPS model. He will return to Victoria on Monday to pick up these changes.

TREATMENT OF IHA

We will run the IHA Package on baseline year and unregulated flows for the same period (gages at Skagit River near Concrete and at the Baker River Gage). Beyond that, we can calculate the IHA statistics to compare the same year under various scenarios. *Unregulated flows on the Skagit are not intended to be modeled using IHA.* Sue will button up with Ruth on this.

REVIEW BASELINE SCENARIO ELEMENTS

Since ‘baseline’ *is a term that has different interpretations by different agencies*, we decided to call these “Recent Conditions (Pre IPP)” instead. Paul will update these descriptions and send out the revised 5 elements for our review at our May 5 meeting.

1st Data Element: Storage Area Curves

Bob walked us through the data on reservoir surface volume from the Walker Aerial Survey of 2001. He reported that the difference shown in the reservoir surface area from 1959 to 2001 is primarily a function of different methodologies used. The following analogy is a Cary Feldman analogy: The difference is akin to using a sun dial vs. an atomic clock. This is the case, even though some reservoir shrinkage is due to infill (sediment deposition). It appears the initial survey data overestimated surface by up to 4-9% *depending on the elevation*. We agreed to use the new GIS estimates for the stage storage curve. We won’t change the unregulated flow estimates.

As we move forward, when we look at baseline flood control issues, the potential implications of the new data may be that we will be talking about 706’+/- instead of 707.8’. Our study of flood control scenarios *may be* impacted by the new volume-area-stage curves.

Phil warned that we should keep in mind that, due to differing measurement methods, some of the studies being done by different resource groups won’t be consistent necessarily with the Walker survey data. *Mark emphasized that what’s most important to the NEPA analysis in the APEA is the delta or change between alternatives so that as long as we use an apples to apples comparison (i.e. use consistent volume curves and not switch from one to the other over the course of the analysis) and then we should have a technically defensible analysis.*

We should also keep in mind that implementation actions *and subsequent compliance* will be based on the more current accurate data.

Other Data Elements

Mark made the following points regarding data development issues for input into the model:

- 1) Attempting to get hourly project outflow data at Upper Baker to develop updated *tailwater* rating curves at Upper Baker. This data is transferred by hand from microfiche.
- 2) Status of hourly flow data gathering exercise to support our flood control analysis – this included hourly reservoir levels and project outflows

Re: Flood control, we are considering using hourly observations from at least three flood events to tell HYDROPS how the USACE operated (according to their Water Control Manual) *by specifying the outflows from both Upper Baker and Lower Baker.*

R2 MODEL(S) UPDATE

The downstream habitat models are near completion. R2 has received the data from Acoustic Doppler Profiler runs. They are getting missing data from PIE. We will get an update on when these will be complete at our May 5 meeting.

The timing of when the models are complete should work out, as both models will be ready as we move into summer.

In the meantime, we shouldn't wait to identify scenarios and start looking at HYDROPS outputs using IHA parameters. While we wait for the R2 models to be complete, we will be able to make good use of the time by using it to fine tune some scenarios and get close to workable solutions. Then we can use the habitat model to further refine these scenarios.

FUTURE ISSUES TO ADDRESS

Global Assumptions (e.g., economic price factors, water years, etc.)

Global Assumptions (e.g., economic parameters, dependable capacity, price factors, water years, force majeure etc.)

Fisheries Definition: Tie to R2 outputs format (flow sections from A24)

BPA- Corp Agreement on Baker Flood Control Compensation

DRAFT AGENDA FOR MAY 5, 2003

10:00 – noon at PSE Office in Bellevue (14th floor conference room)

1. Review Notes
2. Review Action Items (and draft norms)
 - Review Updated Description of “Recent Conditions” (formerly known as “Baseline Scenarios”)
 - Mark’s Dependability Capacity White Paper
 - Bob’s Analysis *of recent storage measurements*
3. HYDROPS Status Report
4. Report from Instream Flows Technical Working Group
5. Report from Economics Working Group Meeting
6. Review draft of Input Request Form
7. Discussion of Global Assumptions
8. Set agenda for May 9 meeting
9. Set additional future meeting dates and times

Coreen Johnson of the Louis Berger Group will act as notetaker for this meeting.

Technical Scenerio Teamlet

Last Name	First Name	Organization	Address	City	State	Zip	Work Phone	Fax Number	Email
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Walker Aerial Survey--2001

			Volume of Segment (m-n) in ac-ft		
Contour (Ft)*	Area-2001	Area-1959	Vol-2001	Vol-1959	Delta %
685	2603	2943			
690	2898	3198	13745	15348	10.44
695	3136	3474	15081	16675	9.56
700	3407	3751	16352	18058	9.45
705	3714	4031	17796	19451	8.51
710	4025	4310	19341	20849	7.23
715	4313	4555	20841	22160	5.95
720	4598	4798	22275	23380	4.73
724	4794	4985	18783	19565	4.00

Volume in acft above 685

Contour (Ft)*	Old	New
685	0	0
690	15348	13745
695	32023	28826
700	50081	45178
705	69532	62974
710	90381	82315
715	112540	103156
720	135920	125431
724	155485	144214

DISCUSSION DRAFT BASELINE CONDITION

For analysis purposes, the following elements of the Baker River Project comprise the baseline condition for the HYDROPs model configuration.

Turbine Capacity: Existing LB turbine capacity (77 MW). Existing UB combined turbine capacity (108 MW).

Flood Control: Existing Corps flood control at Upper Baker. UB WSEL 715' by 1-Nov, 707.8 from 15-Nov through 28-Feb. No flood control at Lower Baker. Lost energy compensation in the amount of 1750 MWh per month for November through February up to 7 MWh per hour from the BPA-Corps Agreement.

Recreational Reservoir Levels:

Upper Baker: WSEL 715' 4-Jul through 3-Sep (nominal Labor Day weekend).

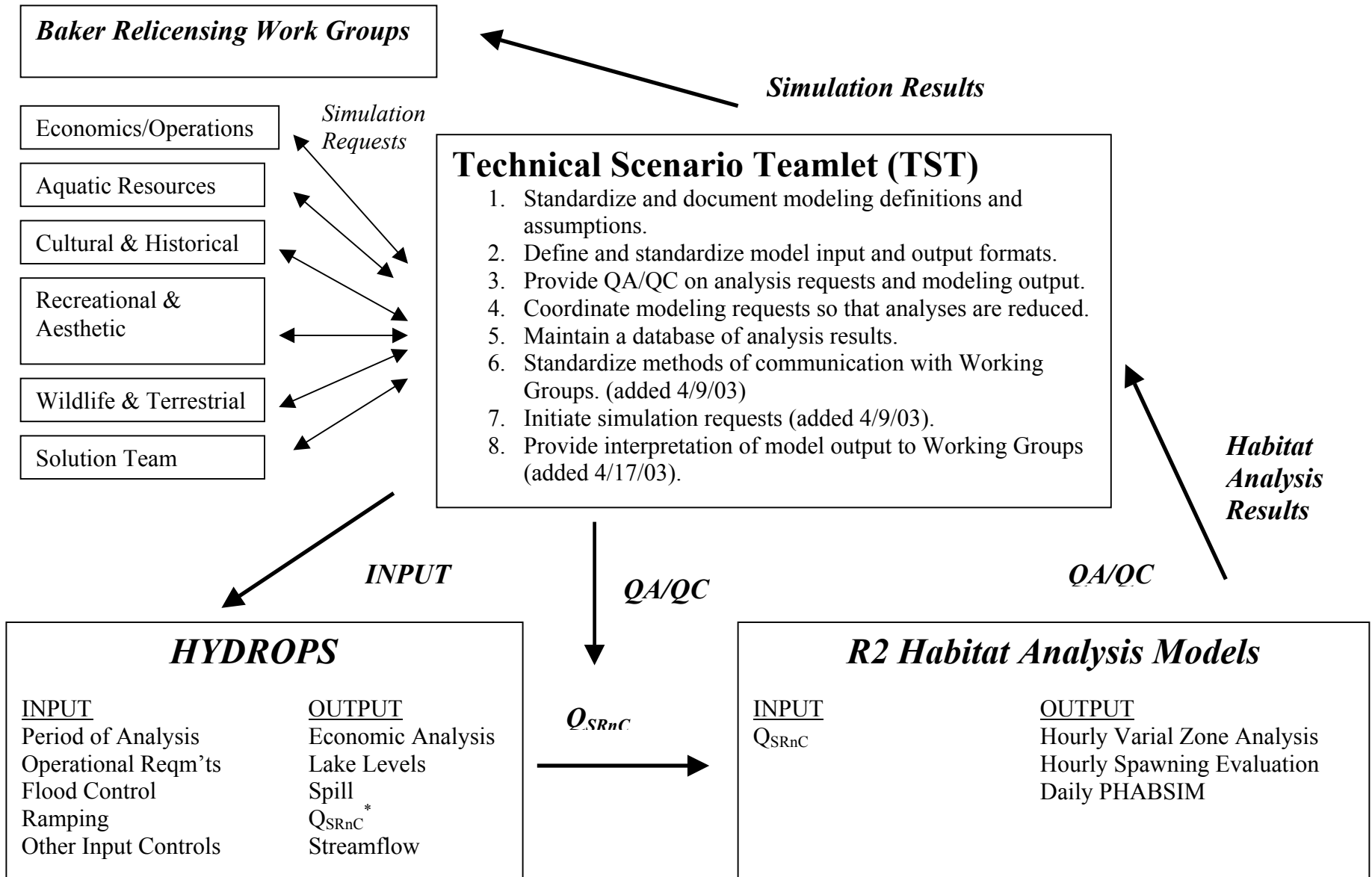
Lower Baker: WSEL 401' 15-Apr through 3-Sep (nominal Labor Day weekend).

Ramping: 1978 Ramping Restrictions: 2000 cfs/hr downramping restriction at the Baker River USGS gage when Skagit River near Concrete flows are $\leq 18,000$ cfs.

Minimum Instream Flow (MIF): 80 cfs (mean daily flow) at the Baker River USGS gage independent of Skagit River streamflow

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Technical Scenario Teamlet (TST) Functional Flow Diagram



Q_{SRnC}* - Skagit River near
Concrete Streamflow

TECHNICAL SCENARIOS TEAMLET
DRAFT MEETING NORMS

April 25, 2003

The teamlet will review this list of logistical and social norms over time according to its needs:

1. Meet periodically (usually by conference call) to address the technical needs of the other Working Groups, offer analysis and initiate additional model runs as appropriate
2. Meetings will start and end on time (usually 10:00 to noon).
3. If you can't attend, let team leader (Paul Wetherbee) know.
4. Make appropriate use of technology to maximize participation by team members in remote locations (conference calling, video conferencing, etc.)
5. No backing up for late comers.
6. No long speeches. Must receive permission from if talk is over 3 minutes
7. Begin each meeting with review/amendments of minutes.
8. At the end of each meeting, set the agenda for the next meeting (and determine whether facilitation is called for).
9. Do quick (informal) evaluation at end of each meeting
10. No official quorum.
11. May need to "park" ideas and move on.
12. Since some members are participating by phone, identify yourself as you begin to speak the first two times you speak.
13. Phone participants will signal a desire to be heard by pressing the # button on the phone.
14. Humor is appreciated.
15. Avoid side conversations.
16. Listen to each other and paraphrase back to ensure understanding as needed.
17. Celebrate diverse opinions.
18. Keep an open mind.
19. Be honest and kind at the same time.
20. Seek first to understand, then to be understood.
21. Have fun.
22. Don't interrupt each other.
22. Celebrate (even small) accomplishments.
23. Decisions will be made by consensus where possible.
24. Define acronyms before you use them.
25. 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' ability to attend.
26. Minutes will include list of attendees, action items, summary of discussions, and the proposed agenda for the next meeting.
27. The minutes will be emailed or hard copies sent if requested to team members within 5 working days of each meeting.
28. PSE will email the initial draft of minutes to team members. Members will send their comments to Paul within 5 working days of receiving them. Team leader will then post the minutes on the web.
29. Monitor caffeine intake of facilitator (as intervention may be required).