2001 Operations Plan Update
Summary of Comments
June 26, 2001

Are there alternative actions that may have comparable or better biological benefits if no summer spill or a modified amount of summer spill is available within the criteria?

Northwest Requirements Utilities:

…regional decision makers should stand back for a moment and consider re-deploying the financial resources resulting from the higher generation potential of the FCRPS absent... summer spill, into habitat improvements in tributaries and watersheds.

American Rivers, Columbia River Inter-Tribal Fish Commission, et. al.:

Opportunities exist for BPA to reinstitute spill through market purchases of energy and capacity. For example, arrangements for the sale or exchange or power can be made with Southwest generators for delivery now and also for this winter. Similarly, BPA can also purchase the 1500 MW-mo. additional storage cited in the Power Council's study. Until the agency has done so, there exists no basis for declaring an emergency pursuant to the Criteria.

Public Power Council:

Reducing harvest can deliver significantly better biological benefits than can summer spill.

Reduction of predation by bass, walleye and pike minnow in the mainstem would benefit migrating salmon. There are short-term and longer-term measures that could reduce the number of predators.

When this year's cohort returns, improvements to their spawning and rearing habitat could increase their spawning success rate.

Pacific Northwest Generating Cooperative:

First, potential losses in the mainstem pools indicate that predator control is an important area to pursue this year. Also on the topic of predator control in the longer term, disrupting the spawning cycle of these predator through flow control measures should be considered. Second, a more sophisticated approach to adopting strategies on release of smolts from barges should be adopted. Third, other longer-term strategies to benefit this year class of fish should be pursued including reducing harvest on these fish when they become adults, and improvement of habitat for when they return to spawn. … Finally, all of these strategies depend on collecting good information on what is happening to these

fish. An increased monitoring and evaluation effort in the region is critical to addressing the needs of these species.

Maia E. Genaux:

I strongly support NMFS's recent efforts to obtain releases of water from the Idaho Power's Hell's Canyon dams. NWPPC, BPA and the other Agencies should support NMFS in this effort.

I support installation of solar panels on residential, commercial and industrial roofs throughout the Western region, tied into existing building circuitry and the grid, and also the development and widespread use of fuel cells.

Do you have comments on the updates to the biological, financial and reliability analyses and conclusions? (We are not seeking comment on the power emergency criteria or methodologies.)

Biological Analysis

Northwest Requirements Utilities:

Biological benefits that may have accrued from a limited spring spill program do not appear to be sustained by continuing spill in the summer.

The [June 13, 2001 draft report from the National Marine Fisheries Service] recognizes in the Summary of Results that "Low flows prolong the migration time through the reservoirs, which increases the exposure time of juvenile salmon to predations and higher water temperatures." This would lead to a conclusion that absent other information, in low water years, barging of Snake River Fall Chinook passing through collection facilities is a far better strategy for protecting fish than in river migration. NMFS states "considerable uncertainty" and "caution" regarding post Bonneville Dam survival of transported fish, but provides no information to refute a view that the percentage of barged fish should be increased from the current 79% to a higher level. This would of course have the impact of eliminating the difference in survival for Fall Chinook that appears under the with and without summer spill scenarios.

Public Power Council:

PPC recommends that the federal agencies and the Council calculate the historic harvest mortality and estimated spill-related mortality in common terms --either smolt equivalents or adult equivalents -- and compare the impact of reduced harvest to reduced spill.

The June 13, 2001, Draft paper shows that the estimated impact of eliminating summer spill (1000 mw-mos worth of energy) is remarkably low…. PPC suggests that the benefit of spill is miniscule when compared to the value of 1000 mw-mos in terms of meeting federal criterion #2 (improved winter reliability this year).

Pacific Northwest Generating Cooperative:

Regardless of how the hydro system is managed, low water years are very hard on fish. Many of the fish will not ever reach the federal projects. Most of the remaining fish will be barged down river to give them the best chance at survival.

The NMFS analysis bares this out not only in demonstrating almost no benefit to Snake River Chinook, but also in showing minimal benefits to Hanford Reach fall chinook. Moreover, the few Hanford Reach fish that benefit should be of less concern under this analysis for two important reasons: (1) This stock is not listed under the Endangered

Species Act, and (2) This stock is a strong and healthy population that exceeds goals for the large harvest rates that it experiences from both in-river and ocean harvest.

The *actual* change in total system survival from full BiOp spill to no spill is only –0.12 from the dam (19.24 to 19.11) and an imperceptible –0.02% from the head of the pool (3.56 to 3.54). Assuming some error in data and modeling, there may be no benefit whatsoever for Snake River Chinook from conducting this risky spill operation.

Maia E. Genaux:

It is not true that the "No Spill Option" has no effect on Snake River runs. That comparison is between either 3 or 4 Snake River dams with no spill. Comparing the "No Spill Option" against in-river survival with average flows and spill, the loss is a staggering 50-94%. [4]

[4] Approximately 80% average loss for Hatchery SR Fall Chinook migrating in-river with spill, 90% average loss for all SR Fall Chinook migrating in-river with and without spill, 95% average loss for in-river Wild and Hatchery SR Fall Chinook migrating without spill, for 1995-2000. With estimated additional 76% transport-related loss, an estimated total loss of 98.8% of Wild and Hatchery Snake River Fall Chinook migrating without spill and with transport this year, 2001. – Sources: CBR-DART at http://www.cqs.washington.edu/dart/esu.html; NMFS "Expected Effects of 2001 Water Conditions..." June 13, 2001; NWPPC "Analysis of 2001 FCRPS Operations..." March 28, 2001.

<u>Financial Analysis</u>

Northwest Requirements Utilities:

During a June 18, 2001 conference call to discuss the financial analysis supporting the 2001 FCRPS Operations Plan Update, a number of comments were made suggesting or recommending that BPA should decrease its financial reserves to zero or below, rely upon a $250 million letter of credit, trigger all of the cost recovery adjustment mechanisms etc, all as needed to provide the financial capability to increase the level of spill. NRU objects to any party bringing these rate case related issues into this forum. We believe that the rate proposal provides sufficient risk mitigation devices, and that all parties have had a reasonable opportunity to make their arguments.

American Rivers, Columbia River Inter-Tribal Fish Commission, et. al.:

We are aware of several sources of additional funds that are available to Bonneville-above and beyond the $300 million the agency claims is needed[1] for end-of-year cashflow-that could be used to purchase power now to obviate a power emergency:

- BPA announced on June 6 that its latest estimates of FY2001 ending reserves rose to $560 million from a previous estimate of only $300 million.
- BPA revealed in its "2002 Draft supplemental Record of Decision for Wholesale Power Rate Proposal," that, "BPA has access to a $250 million short-term Treasury note, which could provide additional liquidity, if necessary." (WP-02-A-07, p. 4-44)

This resource has not been mentioned previously or analyzed in the Emergency Declaration.

- BPA will have available to it the ability to trigger the "Financial Based Cost Recovery Adjustment Clause" ("FB CRAC") to go into affect on October 1 of this year.
- BPA can make payment and exchange arrangements with power suppliers and Treasury to delay when bills come due until several months into FY02, thus reducing the need for cash in the current fiscal year.
- BPA has the ability to impose a transmission surcharge to its transmission rates in order to help its Power Business Line meet its financial obligations.

[1] Bonneville has asserted that it needs at least $300 million in reserves beginning Oct. 1, in order to cover its cash flow needs in the first few months of the new rate period because of the Energy NW Net Billing arrangements with customers. BPA has thus used this level as a target in deciding how much to deviate from the 2000 FCPRS Biological Opinion's spill targets. The presence of the FB CRAC, however, lessens this need considerably. Since BPA can raise additional money beginning October 1 utilizing this mechanism, the lag time between the implementation of new rates and cash arriving from Net Billing customers can be reduced to two months--one month after the first month's use--if necessary.

Public Power Council:

The most recent financial analysis does not offer comfort. Recognizing that the analysis contains numerous assumptions about the volatility of the market, regional load and generation, weatehr and water runoff, PPC suggests that the financial risks to the region are great if BPA fails to act prudently regarding summer spill and other river operations decisions. Financial risk to BPA can translate into decreased reliability. As we see in California, credit problems can have an impact on reliability. BPA needs sufficient funds on hand to cover the full range of possible winter power purchases. BPA's customers intend to hold BPA accountable for the consequences if BPA fails to take prudent action and the result is severe financial or public safety harm to the region.

Reliability Analysis

Northwest Requirements Utilities:

NRU members are going through painstaking efforts to cut back on projected energy purchases from [BPA] for the next two years. While some of these reductions are guaranteed, other are associated with assumed end use consumer responses, which may or may not be realized. There is a chance that loads could be higher than projected in the June 15th analysis, especially under severe weather conditions. This would potentially violate the Planning Power System Reliability Criteria.

This analysis includes an assumption of "normal temperatures" and a "planned outage schedule." In the event that these assumptions change negatively, the potential reliability problem increases dramatically under a summer spill regime.

American Rivers, Columbia River Inter-Tribal Fish Commission, et. al:

The high loss-of-load-probabilities ("LOLP") the Criteria are intended to avoid occur during the winter. Spill this spring and summer can be provided by purchasing the power to increase winter reliability. Purchasing more power now to provide spill levels more consistent with the BiOp will not increase the LOLP. The "reliability" problems referenced in the Criteria really amount to financial issues for BPA.

The Council determined in 1991 and again in 1996 that the Northwest would be deficit by about 3000 megawatts in the year 2002. The Council also forecasted that the region could rely on energy imports from the Southwest to cover the deficit. For BPA to assert the current circumstances in some way constitute an emergency mocks the information that has been available for a least a decade.

Public Power Council:

PPC reminds the federal agencies that

1. The Columbia Basin is in the second worst water year on record and the hydroelectric power system, at 52% of normal water, is in an emergency situation;
2. None of the analyses suggest that criterion #2 (the goal is 5% loss of load probability) can be met (the closest at this point is approximately 11%); and
3. The levels of reduced load and increased generation now being modeled are probably not sustainable.

We understand that generation hardware and water flow affect the winter loss of load probability. We do not accept the analysis and conclusion, though, that storing more water would not help reduce loss of load probability. We believe that storing more water in the Grand Coulee pool, for instance, or Montana reservoirs, could further reduce the winter loss of load probability. The federal agencies' summary analysis suggest that 55.9-53.3= 2.6 MAF could be spilled and not reduce the loss of load probability. We do not think that this decision would be plausible or prudent.

At least one alternate action warrants consideration: negotiating additional generation swaps with out-of-region generators to provide increased capacity in winter.

Pacific Northwest Generating Cooperative:

…we do not agree that the decision is "too close to call". Criterion 2 (the <5% LOLP threshold) is not being met—this should be clearly stated in the update, and the clear decision should be *not* to engage in summer spill.

One of the principal uncertainties [in the reliability analysis] is the attempt to determine runoff volume (i.e., literally forecasting the weather). Because of the uncertainties inherent in predicting weather the River Forecast Center suggested that a buffer of 4 MAF is appropriate for the June estimate of January-July runoff. However, in the most recent federal Reliability Update the forecast buffer had been lowered to two options including 1.7 MAF or 1.1 MAF! This is not a prudent buffer to use in determining reliability for the entire Northwest power system.

Other uncertainties in the analyses are equally troubling including assumption of normal temperatures (what happens in a severe cold snap?), the amount of thermal generation expected (what happens if WNP2 or other major units are offline longer than expected? or, what happens if the new generators assumed in the analysis do not come on line because market prices are softening?), and energy market prices (the gas and electricity markets are seeing unprecedented volatility this year).

Is the point of diminishing return really at 12% LOLP? Even under the Agency and NPPC analyses, there are some benefits to reliability that can be achieved from storage beyond 1500 megawatt months. If you can move the LOLP down to 10%, for example, why not consider using the water in that way? If the answer is that it takes too much water for too little benefit, then there are two responses to that contention: (a) The biological benefit is even smaller per megawatt month of water (See discussion in II. below), and (b) Your stated criteria is to achieve a <5% LOLP; we remain in an emergency situation; deciding that a 12% chance of blackouts is "good enough" during a time of year when exposure to freezing temperatures is possible is neither wise nor prudent.

In addition, you might have the ability to clarify even greater reliability benefits from additional water if you conduct further analysis of different storage scenarios making use of higher water levels or different placement of that water within the system. The Agencies and NPPC should immediately undertake such analyses.

It appears that the analysis does not include any consideration of the potential for using additional water to swap with out of region energy generators. At times BPA has been able to swap power in the near-term for commitments to power at a later date. Swapping with out of region producers, who may need additional power this summer, in return for power next winter could enhance winter reliability further towards the established standard.

Other Comments

Continuing a voluntary spill into the summer period will be of negligible biological benefit for fish, perpetuates a mitigation program that is main stem hydro centric, places too much burden on power generation, and potentially further compromises the reliability of the FCRPS during the ensuing winter period. Finally, no information has been presented to demonstrate that a continuing spill program will meet the Federal Agencies' Power Emergency Criteria that were previously adopted. Therefore, we recommend terminating the spill program immediately. We need to run the river to meet load and for reliability purposes, as well as to manage for listed species. - *Northwest Requirements Utilities*

…BPA's application of the Criteria violates the [Northwest Power Act's] equitable treatment requirement. The federal agencies must immediately begin operating the FCRPS in a manner that at a minimum satisfies the equitable treatment mandate of the NPA, including but not limited to providing the spill and flows required by the 2000 FCRPS Biological Opinion. - *American Rivers, Columbia River Inter-Tribal Fish Commission, et. al*

Those being asked to offer up load curtailments as a needed solution to the shortage of resources that BPA faces under its new contracts are concerned about the loss of jobs and other economic impacts that these efforts entail. At a time when so many utilities and their customers in the Northwest are struggling to find ways to conserve energy, it makes no sense to spill scarce water (energy) down the system for very negligible benefits to fish. The level of system reliability has been made slightly better by these load reductions in the region. Even a minimal reduction in reliability for negligible benefits to fish would be an affront to those workers and farmers asked to sacrifice during this power and water emergency. - *Pacific Northwest Generating Cooperative*