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From: Judy Nuzum [mailto:]

Sent: Tuesday, February 18, 2003 8:13 PM

To: comments@nwppc.org

Subject: Fw: Comments on ISAB's "Review of Flow Augmentation"

To: Mark Walker
Director, Public Affairs Division
Northwest Power Council
comments@nwppc.org

Dear Mr. Walker:

The lack of support or value associated with flow augmentation that was clearly determined by the ISAB and included in their February 10, 2003 report is not surprising and is in keeping with what has been found in many river systems with anadromous fish stocks up and down the Pacific Coast. Neither is it surprising to find some statistical support for holding fluctuating flows to a minimum, especially if the fluctuation is during a 24 hour period or amounts to significant flow variations over time that do not coincide with the demonstrated needs of salmonids, i.e. pulse flows at any time, flows beyond the optimum flow range during migration and spawning, flows too high during rearing and emigration, flows that cause de-watering of redds at any time and low flows created by quick changes in release reductions and/or flow fluctuations that can strand juveniles for any significant period of time.

The key limitation of this report (in my opinion) is the speculation or hypothecating by the ISAB about what MIGHT effect salmonids in one manner or another. In my professional opinion as a Fisheries Scientist of long standing it was dangerous speculation that focused too much reliance on flow augmentation in the first place and this report makes the same err in professional judgment.

I must add that it is inappropriate and perplexing to find comments made in the Summary denigrating the Columbia's hydroelectric system and how it is responsible for reducing spring freshets and flooding which were "almost certainly good for salmon". While these comments about the possible benefits of unregulated systems may or may not be true in comparison to regulated or controlled flows they have no place in this report. The clock cannot be turned back a hundred years and the Columbia's system of dams and powerhouses, resident and anadromous fisheries, drinking water supplies, irrigation systems and recreation has been a blessing to the Pacific Northwest and to your neighboring states. This is today and the salmon fishery and its vitality must be considered for what it can be TODAY and not compared to what it might have been (in someone's biased opinion) had it been left alone to function as an uncontrolled "natural" river system. It is a fact worth consideration that salmonids and their vitality are not the only important beneficiary of the Columbia River System and its hydropower, water supply, irrigation and recreation facilities.

Pervasive throughout the ISAB report is what I would call a "designed perspective" that is characterized by ----although we have found that the flow-augmentation paradigm is not supportable--our statistical analysis of the available data indicates that "other" mechanisms are at work that are worthy of additional study and evaluation. That is an evasive answer to the question asked by the Council. The answer is that flow augmentation does not work and the never ending debate over this issue must stop.

Obviously there are many important variables that affect salmonid populations throughout the greater Columbia River Basin and regardless of how much money is allocated to developing the science on this system it would not be prudent or possible to study all of the variables. Similar to other large river systems along the Pacific Coast there are "Limiting Factors" that effect salmonid populations and it has been my experience over more then 30 years that these are more dynamic in terms of variables then we can perceive. An assessment of the key limiting factors would indicate that other variables such as uncontrollable oceanic conditions are probably the most critical to salmonid populations. Then in order of priority would follow commercial, re>creational and tribal "take" and mortality associated with these efforts. This "take" and its hooking/netting mortality are critically important to salmonid populations but the issue appears to be too politically driven on the Columbia to arrive at a workable solution and the regulations have merely compounded the problem. The next key factor is the major impact upon juveniles caused by excessive predation from birds (especially Terns), fish and mammals. Predation on juveniles is regarded as excessive by all accounts but "acceptable" to some in positions of authority.....putting this impasse into a category of a major population impact without a rationale solution. There is no question that these limiting factors are of more consequence to salmonid populations then many of the in-river factors that still exist (timing of flow releases, duration of releases, fluctuating releases, etc.). Nevertheless the Council appears to be agonizing over a narrow set of in-river factors and the various BiOps are confounding the situation. The Council's questions (in my opinion) are too narrowly focused on the value of all the in-river flow factors. These factors are important but to the extent that their impact can be further reduced to the point of being a non-issue is just not possible. Many of the in-river, dam/powerhouse and diversion related issues have been the source of much investigation, research, statistical analysis and action to avoid what was believed to be avoidable significant impacts. However, putting variable and uncontrollable oceanic conditions aside, it is difficult to appreciate the apparent lack of adequate controls on legal harvest rates, human induced mortality and in-river and estuary predation rates while tens of millions of dollars are spent on other projects. Many of these funded enhancements have been found on other river systems to be minor limiting factors with a minimal return on the investment.

In summary. It appears to me after reading the report that if the ISAB eliminated the speculative comments, assumptions and conjecture and the paragraphs with comments associated with words such as might, may, maybe, perhaps, should, possibly, likely and unlikely the report would be 10-pages long instead of 65 pages and it would more clearly answer the questions posed by the Council.

Sincerely,
Robert C. Nuzum,
Certified Fisheries Scientist.