



Mr. Stephen J. Wright
Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

April 7, 2004

Brigadier General William T. Grisoli
Commander and Division Engineer
U.S. Army Corps of Engineers
Northwestern Division
P.O. Box 2870
Portland, OR 97208-2870

RE: COMMENTS ON FEDERAL SUMMER SPILL PROPOSAL

Dear Sirs:

PNGC Power and its members, who are consumer-owned electric utilities throughout the Northwest, support cost effective salmon recovery measures and are pleased that the federal agencies have proposed to reduce summer spill operations for a three year period. While the March 30, 2004 document falls short of proposing a preferred full elimination of summer spill, PNGC Power believes the proposed reductions and the identified offsets are a good first step. Combined, the proposal represents a move towards greater efficiency in achieving regional mitigation goals. This is an opportunity to bring even more fish back to the river at greatly reduced cost.

PROPOSED REDUCTIONS TO SUMMER SPILL

In a joint executive statement dated August 26, 2003, the regional executives of the Corps, BPA and NOAA Fisheries stated that “under any survival estimates the costs [of the current summer spill program] appear exceedingly high relative to the biological benefit and that the agencies have a “responsibility to the region to devise an approach that is less costly...” We are appreciative of the federal agencies’ efforts to meet this obligation and believe that the preliminary proposal to eliminate spill in August and reduce it in July represents a step in the right direction.

As you know, the summer spill program is the costliest salmon recovery effort currently implemented and is only one of 199 actions in the 2000 Biological Opinion (BiOp) and was intended to protect juvenile ESA-listed fall chinook salmon migrating from the Snake River. While only a tiny fraction of the fish benefiting from summer spill operations are listed as threatened, the framework and language of the 2000 BiOp compels federal agencies to compare various alternatives to achieve survival performance standards for listed species. Support for accountability and better results is consistent with full implementation of the BiOp, with the

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recent statements of many of the region's elected officials¹ and with the agencies' responsibility to the region's electricity ratepayers. (Please find additional comments on summer spill and related offsets in the attached March 16, 2004 letter to the regional executives of BPA, NOAA Fisheries, USBR and the Corps.)

However, the proposed spill action still represents an estimated yearly cost to the region's ratepayers of \$30 million, with only very limited biological benefit to salmon. In light of the economic impacts of unnecessarily high electricity rates, it is important to present the following table:

	Fish benefiting from proposed spill action	Cost per fish benefiting from proposed spill action
ESA-listed Snake River fall chinook	2 to 20	\$15 million to \$1.5 million
Non-listed fall chinook	1,575 to 12,600	\$19,000 to \$2,380

THE PROPOSED OFFSETS

We believe that available mitigation measures can more than offset any impacts to fish from reduced spill. We support implementation of the two offsets highlighted in the proposal. Each of these offsets is based on a program that has enjoyed considerable and widely acknowledged success in the region. Additionally, each represents a considerable relative savings to ratepayers while providing similar or greater benefit to fish affected by changes to the summer spill program.

Furthermore, while we recognize that there has been some disagreement as to the overall *numerical* benefit to fish provided by these offsets, we note that their estimated effectiveness has been portrayed very conservatively in this proposal. We believe that these offsets alone fully mitigate for fish losses as a result of changes in summer spill operations.

- Enhanced Northern Pikeminnow management
 - We note that the estimated effectiveness of this program has been diluted considerably since it was first introduced as an offset. We believe the prior estimates to be more reliable.
 - Enhancement of this program will benefit all salmonid stocks in the river system.
- Hanford Reach stranding protection flows
 - This is a proven program that will further benefit healthy runs of Hanford Reach fall chinook.

¹ Please see the Four NW Governors' letter dated March 30, 2004 and the letters from NW Members of Congress dated March 12 and March 17, 2004 to the executives of BPA, NOAA Fisheries and the US Army Corps of Engineers.

- Importantly, Grant Co. PUD could not implement these stranding protection measures without assistance from BPA, and
 - BPA's assistance in this regard is provided with the clear understanding that it will be credited as an additional mitigation strategy.
- Finally, the fish that will benefit from this program are not ESA-listed, and are therefore not subject to BiOp related legal concerns. This stock is also harvested at nearly a 50% rate.

ADDITIONAL OFFSETS

In general PNGC supports offsets that maintain the federal agencies stated commitment to cost effective mitigation. Because we are not convinced that additional offsets are needed, spending \$2 - \$5 million on them per the proposal seems unwarranted. However, if the federal agencies feel compelled to select additional offsets they should be based on their ability to achieve the greatest biological benefit for the least cost. The following are additional offsets that could provide further mitigation for the effects of changes to the summer spill program:

- Commercial harvest reductions
 - Currently, the fall chinook salmon affected by changes to summer spill are subject to a total harvest of approximately 50%. Reductions in harvest represent the surest way to ensure that greater numbers of adult salmon return to their spawning grounds or to other fisheries.
 - This offset would benefit both listed and non-listed stocks of salmon.
 - A voluntary buy-out program would be the preferred approach.
- Avian predation research
 - While we recognize that results from this action may not appear immediately, the offset as originally proposed could result in an estimated additional 500,000 juvenile salmonids surviving to the ocean each year.
 - This measure has a proven record and would benefit all stocks in the river, including ESA-listed fish impacted by changes to summer spill.
 - We urge the agencies to seek actions on predation that might be implemented within the three year proposed time frame.
- Smallmouth bass management
 - We are curious as to why this mitigation measure was not included in the preliminary proposal, especially because it has been acknowledged that smallmouth bass prey on juvenile salmon. In fact, the Washington Statewide Strategy said that:
 - *“Non-indigenous predatory fishes such as...smallmouth bass...and native species such as northern pikeminnow (squawfish), have been found to consume significant numbers of juvenile salmonids.”*
 - We believe that targeted smallmouth bass removal could provide mitigation for juvenile salmonid losses due to changes in summer spill, especially for ESA-listed fish.

CONCLUSION

The goal and effect of the federal proposal for summer spill operations is to achieve similar or better biological benefits for salmon at less cost than the current summer spill program. While this proposal represents a positive first step in achieving greater cost accountability in the region's salmon recovery efforts, a full elimination of summer spill would mark real progress in that regard. PNGC Power believes that implementing programs that provide the greatest benefit to salmon at the lowest possible cost represents the best way to achieve sustainable results that will benefit the diverse yet similar interests of citizens in the Northwest.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin S. Banister". The signature is fluid and cursive, with a large loop at the end.

Kevin S. Banister
Manager, Government Affairs and Special Projects
PNGC Power

Attachment

cc: Governor Dirk Kempthorne
Governor Theodore Kulongoski
Governor Gary Locke
Governor Judy Martz
Robert Lohn, NOAA Fisheries
J. William McDonald, USBR
James Connaughton, CEQ
Northwest Power & Conservation Council

Steve Wright, BPA
Brigadier General William Grisoli, USACE
J. William McDonald, USBR
Robert Lohn, NOAA-Fisheries

March 16, 2004

Dear Sirs:

In a February 11, 2004, presentation, the federal agencies responsible for operation of the Northwest river system thoroughly documented the limited biological benefits of the summer spill program and outlined the obvious economic cost to the operation. They estimated summer spill to cost \$77 million dollars to benefit 24 fall chinook salmon listed as threatened under the Endangered Species Act. They also outlined a responsible set of alternatives to summer spill that can bring back more fish at a much-reduced cost to the region.

We are troubled that in his February 20, 2004, letter responding to that presentation, Dr. Jeff Koenings, Director of the Washington Department of Fish and Wildlife, presented disappointing, counterproductive arguments. We believe that the available information argues against the policy positions in Dr. Koenings' letter, and that the evidence supports immediately putting into place offset measures and curtailing the summer spill operation this year.

Attached is a memo prepared by our technical experts to clarify the facts surrounding the summer spill program and to highlight the efficacy of the proposed offset measures.

Sincerely,



C. Clark Leone
Manager
Public Power Council



R. Patrick Reiten
President and CEO
PNGC Power



Richard Adams
Executive Director
PNUCC

cc: Governor Gary Locke
Bob Nichols, Governor's Office
Larry Cassidy, Northwest Power & Conservation Council
Tom Karier, Northwest Power & Conservation Council
Jeff Koenings, Washington Dept. Fish & Wildlife

MEMORANDUM

From: Shane Scott – Sr. Policy Analyst, Fish & Wildlife, PPC
Jim Litchfield – Litchfield Consulting Group for PNUCC
Scott Corwin, Esq. – Pacific Northwest Generating Cooperative

To: C. Clark Leone – PPC
Dick Adams – PNUCC
Pat Reiten –Pacific Northwest Generating Cooperative

Date: March 11, 2004

Subject: Response to WDFW Director Dr. Jeff Koenings' letter to BPA
Administrator Steve Wright, dated February 20, 2004

In his February 20, 2004, letter to Bonneville Power Administration (BPA), the U.S. Army Corps of Engineers (Corps) and the U.S. Bureau of Reclamation (BuRec), Dr. Jeff Koenings, Director of the Washington Department of Fish and Wildlife (WDFW), outlines the policies of the WDFW regarding summer spill as an option to recover salmon in the federal river system. Unfortunately, he provides only criticisms of the proposed summer spill reductions. He does not offer constructive discussion of how to implement programs for salmon recovery more efficiently and effectively.

This memorandum is a response to that letter. In it, we will provide a summary of the issue; an analysis of related WDFW arguments; and a breakdown of proposed offset strategies.

ISSUE SUMMARY

The summer spill program is one of 199 actions in the NOAA-Fisheries (NOAA-F) 2000 Biological Opinion (BiOp) for the federal hydrosystem. The summer spill program was implemented to protect juvenile Endangered Species Act (ESA) listed fall chinook salmon migrating from the Snake River. The Corps says that over 90% of these fish are safely barged from the river each year. According to the recent evaluation by the federal agencies, the summer spill program produces a benefit of only 24 adult ESA-listed Snake River fall chinook salmon. It is evident that this is not a significant ESA issue.

Yet the federal and state fish managers and tribes are arguing to implement the BiOp required summer spill program to benefit *non*-ESA listed fall chinook. These fish are later harvested at a rate of over 50%. Mitigation for non-ESA listed salmon and steelhead stocks are addressed in the Northwest Power and Conservation Council's (Council) Fish and Wildlife Plan, not in the 2000 BiOp.

The Council is required by the Northwest Power Act to develop a plan to protect, mitigate and enhance fish and wildlife resources while assuring adequate, efficient, economical and reliable power supply. In April 2003, the Council issued its updated amendments to the Fish and Wildlife Plan. The amendments call for a study of spill at federal dams with the goal of finding alternatives to spill. The Council declared that it would

... work with the federal operating and fish and wildlife agencies, in consultation with the state fish and wildlife agencies and tribes and the Independent Scientific Advisory Board in a rigorous evaluation of the biological effectiveness and costs of spillway passage at each project and bring that information to bear in a systematic way in decisions on when, and how much, to spill. The goal of this evaluation should be to determine if it is possible to achieve the same, or greater, levels of survival and biological benefit to migrating fish as currently achieved while reducing the amount of water spilled, thus decreasing the adverse impact on the region's power supply.

In summary, opposition to reducing summer spill does not arise from needs to protect ESA-listed salmon and steelhead stocks. The opposition comes from fish management agencies and tribes using the requirements in the BiOp to protect a stock that is heavily harvested. The Northwest Power Act requires that mitigation for non-ESA listed stocks be balanced and efficient. The summer spill program is neither.

THE WDFW ARGUMENTS AND COUNTERPOINTS

1. WDFW asserts that reduction of summer spill would be inconsistent with the “aggressive non-breach” option currently being implemented.

This is not correct. The BiOp contains survival goals that assure recovery of ESA listed salmon and steelhead in the Columbia River. NOAA-F prescribed 199 mitigation actions in the BiOp to meet its survival goals. Summer spill is only one of these actions. The BiOp allows the Action Agencies (BPA, Corps and Bureau of Reclamation) flexibility to adapt mitigation actions based on the best available scientific information.

The BiOp does not require summer spill just for the sake of spill. The latest scientific information indicates that alternate mitigation actions will provide a benefit at least equal to the current summer spill program. The BiOp requires the Action Agencies to modify mitigation actions as necessary to meet survival goals. This flexibility also allows the Action Agencies to implement the most cost-effective mitigation actions necessary to meet the survival goals established in the BiOp.

2. WDFW asserts that the litigation surrounding the 2000 Biological Opinion is reason enough not to alter spill operations this year.

This is not correct. The current lawsuit is not about river operations required in the NOAA-F 2000 BiOp. The focus of the litigation is on the ability of the federal agencies to ensure that off-site mitigation measures are “reasonably certain to occur” per the regulatory standard. Sections 9.1 and 9.4 of the BiOp, among others, clearly allow the flexibility to change the combination of measures used as we learn more about the effects that mitigation measures and the federal hydrosystem have on ESA listed fish stocks.

3. WDFW asserts that the Governors’ June 2003 letter declares that the 2000 NOAA-F BiOp be fully implemented.

Again, full implementation of the BiOp may include alternative mitigation for the 24 listed adult fish impacted by reducing summer spill. The “Four Governors’ Letter” of June 2003 did not advocate blindly following the 199 actions in the BiOp at any cost. Rather, it embraced a comprehensive “All-H” (habitat, harvest, hatcheries, hydro) approach to salmon recovery and urged the federal government to take positive, measurable and cost-effective steps to benefit fish. Recent evaluations by the federal agencies show that similar or greater survival standards for juvenile salmonids can be met more effectively through alternate mitigation measures and are consistent with the Governors’ statement.

4. WDFW asserts that the hydropower policy goal of WDFW is to achieve no net impact for each salmonid species affected by hydropower projects.

Yes, this is precisely what the federal agencies are considering. They intend to mitigate – or more than fully mitigate – for any adverse effects resulting from reductions in summer spill. This clearly meets the WDFW policy of “no net impact”.

Moreover, Dr. Koenings refers to the hydropower policy defined in the *Washington Statewide Strategy to Recover Salmon* (Statewide Strategy), issued by the Governor’s Office of Salmon Recovery (Governor’s Office) in 1999. The Governor’s Office offers a hydropower policy goal to achieve no net impact for each salmonid species affected by hydropower projects. But the Governors Office also asserts that its first objective for salmon recovery is to develop a balance between salmon recovery and a healthy economy. The policy reads as follows:

Develop and implement a coordinated and balanced statewide strategy that moves aggressively toward the goal while maintaining a healthy economy.

The Governor's Office also acknowledges funds for salmon recovery will always be limited and decisions must be made to put them to the best use. In the section titled *Setting Priorities*, the Governor's Office says that

Given the nature and extent of the problems faced by Washington's salmon, the need for funding and other resources will always be greater than what's available. Decisions must and will be made to allocate available resources to specific activities and areas over time.

Summer spill is the most expensive mitigation measure implemented by the Action Agencies. The alternate mitigation strategies are scientifically supportable and will move toward balancing salmon mitigation with responsible economic management.

5. WDFW asserts that curtailment of summer spill will increase the downstream passage mortality for large numbers of Washington origin fish.

We do not agree. According to the Corps, in any given year over 90% of the ESA listed Snake River fall chinook are safely collected and barged from the river. The abundant non-ESA listed fall chinook from the Hanford Reach are barged at a rate of about 50%. Therefore summer spill provides a minimal benefit to both ESA-listed and non-listed salmonids at a large cost to the region.

As for the few fish that remain in the river, the actual increase in mortality is minimal. NOAA-F estimated the rate of survival for various routes of passage when it developed recommended river operations in the BiOp. Survival through the other passage routes through dams is very nearly as high as through spill in most cases. For instance, as shown in the agencies' impact analysis, survival of juvenile salmonids passing spillways is estimated at 98%; for bypass systems, 98%; and for turbine passage 90% - 94%. The current strategy in the BiOp is to achieve specified biological performance standards for fish listed for protection under the ESA.

Primary among Dr. Koenings' concerns is the mortality of Washington origin salmonids. Yet the vast majority of these fish are not listed under the Endangered Species Act, so his other concerns about the 2000 BiOp's requirements do not apply to these stocks. Regardless, the estimated increase in mortality is minimal and the biological offsets being considered will provide the needed benefit to ensure equal or greater benefit than summer spill.

6. WDFW asserts that offset actions are inadequate.

We disagree with WDFW's statement that the proposed offsets "offer very little real value." The offset actions to replace summer spill were developed cooperatively by representatives of federal and state fish managers, tribes, the Council staff and

utilities. Recent analysis shows that these offsets can provide an equal or greater benefit to all fish stocks adversely affected by the elimination of summer spill. The two offsets being primarily considered, increased Northern pikeminnow management and Hanford Reach Anti-Stranding operations, were developed by the federal and state fish managers who now criticize their effectiveness.

These and all of the proposed offsets are described more fully in Section D below.

ADDITIONAL SUPPORT FOR ALTERNATIVES TO SUMMER SPILL

A. The Biological Opinion includes flexibility in actions to meet the performance standards.

There is misunderstanding about the difference between the so-called “aggressive non-breach” alternative used in the Corps’ environmental analysis on the Snake River projects and what the region is currently implementing in the BiOp. The current strategy in the BiOp is to achieve specified biological performance standards for fish listed for protection under the ESA. The BiOp contains 199 actions in what NOAA-F calls the “Reasonable and Prudent Alternative” (RPA). In proposing these actions, however, NOAA-F is clear that significant uncertainties and gaps in our knowledge exist that make it necessary for there to be flexibility in implementation. In this regard, NOAA-F says

The results from these studies and monitoring should provide better understanding about the status of the ESU’s, about which measures work, and about which measures do not work.... Monitoring and evaluation may lead to revisions in measures the Action Agencies undertake to meet performance standards, or in the performance standards themselves...

NOAA-F recognized that it is impossible to prescribe specific actions with the large gaps in our scientific knowledge of what factors actually affect salmon survivals. The flexibility provided in the BiOp for the Action Agencies to adapt actions based on the best available scientific information allows the region to pursue those actions that are both biologically effective and cost-efficient. Section 9.1.6 of the BiOp provides as follows:

An annual, multiyear planning process to refine, implement, evaluate, and adjust ongoing efforts is critical to achieving the FCRPS hydro and offsite performance standards within the time frame covered by this biological opinion.

Specifically with respect to the hydro system, Section 9.1.2 :Hydro Actions, provides that:

NMFS may deem other combinations of measures sufficient to meet the performance standards and avoid jeopardy.

The flexibility provided by NOAA-F in the BiOp is particularly relevant to the use of spill to pass the only ESA listed fish – *i.e.*, Snake River fall Chinook -- that are in the river during the summer months of July and August. The latest scientific information clearly shows that there are extremely small biological benefits for the Snake River fall chinook from summer spill.

B. The federal agencies are using the best science available.

The federal agencies used a “simulated passage” model (SIMPAS) developed by NOAA-F in the late 1990s to assess the effects of spill reductions on salmon stocks in the Columbia River. SIMPAS produces an estimate of the difference in survival of a population of juvenile salmonids as they pass through different routes through a dam. The model was designed to allow policy makers to evaluate the relative biological benefits of alternative strategies for improving salmon and steelhead survivals through the hydropower system.

The SIMPAS model was the basis of the NOAA-F fish survival estimates that supported its recommended operations in the 2000 BiOp. SIMPAS has been used many times since then to evaluate the consequences of proposed operational changes. Thus SIMPAS is recognized as the best available tool for this type of analysis.

To quantify the number of adults produced by various operational scenarios, a ratio of smolt to adult return rate (SAR) is applied to SIMPAS results. The federal agencies decided to look at SARs of 0.5 to 4%. Therefore the model can provide a range of adult numbers from the exact same number of juveniles estimated by SIMPAS. For clarity, the region uses a mid-range SAR of 2%, resulting in a benefit of the summer spill program of 19,000 non-listed adult fall chinook salmon. While altering the assumption to a 4% SAR in the same model would result in a doubling of the number of adult fish assumed to be helped by summer spill, it would also have the effect of enlarging the entire population returning. The federal agencies estimated the total returning fall chinook number to be 384,000.

In addition, the recent federal agencies’ analysis is the most comprehensive and detailed yet conducted on the biological benefits and economic considerations of spilling water at federal dams on the Columbia and Snake Rivers during July and August. In this analysis, the federal agencies expanded the SIMPAS model to address all major fish stocks migrating during the summer months, in addition to the Snake River fall chinook.

C. Reductions in summer spill have very minimal impacts.

The expanded analysis clearly shows that the primary beneficiary of the summer spill operation is the abundant and non-ESA listed Hanford Reach fall chinook. Indeed, this analysis shows that the use of summer spill as a measure to improve Snake River fall chinook survival is particularly ineffective and inefficient.

Specifically, the federal agencies' analysis estimated that the elimination of summer spill would result in a loss of approximately 24 adult Snake River fall chinook from a returning run that was close to 12,000 fish over Lower Granite Dam last year. Elimination of summer spill would also reduce the estimated fall chinook run of 384,000 adult fish by about 19,000 fish, or less than 5%. On the other hand, these non-ESA listed salmon are subject to a 50% harvest.

Finally, the current summer spill strategy costs the federal system approximately 3,000 megawatt-months of generation, or \$77 million annually. When this figure is calculated to a per-fish cost, each ESA listed fish costs the Northwest more than \$3 million and each non-listed fish more than \$4,000.

D. The proposed offset strategies are valid and would work.

How were the offset proposals created? An *ad hoc* group composed of representatives from NOAA-F, BPA, Corps, the Council, U.S. Fish and Wildlife Service, WDFW, ODFW, university researchers, tribes and utility interests worked cooperatively to identify alternate mitigation strategies (offset measures). The intent was to mitigate for any increase in mortality that may occur as a result of reducing or eliminating summer spill.

This committee developed a series of principles to guide its deliberations. Briefly, these principles say that offsets should be cost effective, measurable, address all affected stocks, provide an equal or greater survival benefit to affected stocks, and apply to both ESA-listed *and* non-ESA listed stocks of salmon and steelhead.

The committee considered a wide variety of offsets such as increased flow augmentation, increased spill at certain dams, installation of structures at dams to provide a safer route of passage, increased control of avian and fish predators, increased production of hatchery fish, improvements to critical habitat, increased law enforcement and reductions of harvest through purchase of excess commercial harvest capacity. To demonstrate further the thoroughness of these discussions, the committee even discussed *dam drawdown and dam breaching*.

In summary, this *ad hoc* group of representatives from fish managers to utility interests worked cooperatively to develop sound and scientifically supportable

alternate mitigation options. Unfortunately, now some fish management agencies are declining to support the biological offsets identified through this process.

Offset Action 1 – Northern Pikeminnow Management Program Heavy-Up

WDFW asserts that the offset may provide some benefit if it is expanded in the lower river, but is negligible as currently drafted.

This is a proven program that can be enhanced further. Staff with the Oregon Department of Fish and Wildlife (ODFW) contracted with BPA to study the effects of Northern pikeminnow predation on outmigrating juvenile salmonids. The estimated mortality was so significant that BPA funds an annual program that pays a bounty to anglers that catch Northern pikeminnow. Both the ODFW and WDFW staff sites along the Columbia and Snake Rivers to register anglers and record their catch each day. Since inception, over two million pikeminnow have been removed from the basin with an estimated reduction of juvenile salmonid mortality of 25%. As a result, an estimated four million more juvenile salmonids survive to the ocean each year.

What's new in the offsets proposal? Currently, anglers are allowed to fish in waters only open to the public. Yet there are significant predator populations located in the immediate vicinity of the dams within the Boat Restricted Zones (BRZs). We propose that the federal agencies implement a more site-specific removal program in the BRZs. Notably, when juvenile salmonids pass a dam, either through a spillway, turbine or juvenile bypass system, they are typically exposed to significant turbulence. As a result, they are more likely to be disoriented within the BRZ and therefore more prone to be eaten. Removing predators in the BRZ will likely have a more significant benefit to the survival to juvenile salmonids than removing predators in the open water between the dams.

Offset Action 2 – Smallmouth Bass Control

WDFW asserts that removing smallmouth bass is not an efficient way to increase survival of juvenile salmonids.

Studies prove otherwise. Recent research by the Corps identified very large populations of smallmouth bass associated with dams, especially The Dalles Dam. A recent turbine survival study was cut short because test fish were being eaten by predatory fish before they could be retrieved. Additionally, smallmouth bass populations are dramatically increasing above the Lower Snake River dams.

Interestingly, in the Washington Statewide Strategy, the Governor's Office said that:

Non-indigenous predatory fishes such as walleye, smallmouth bass and channel catfish, and native species such as northern pikeminnow (squawfish), have been found to consume significant numbers of juvenile salmonids.

The ODFW and WDFW sell a large and ever increasing number of licenses to anglers who primarily target warm- and cool-water species. There is a constituency that targets smallmouth bass for recreation. Thus it is logical that these agencies would not support reducing smallmouth populations as an offset to summer spill.

Although implementing a bounty program or increasing the bag rate for smallmouth bass is unlikely, we support site specific removal of smallmouth from the BRZs around each dam to reduce predation on juvenile salmonids.

Additionally, smallmouth populations can be further controlled in other areas of high predation by varying the reservoir elevation during the spring. Drafting the reservoirs for a short interval in the spring would disrupt the reproductive success of smallmouth bass, thereby further reducing the population. This operation may also affect other non-native predatory species.

Offset Action 3 – Commercial Harvest Reduction

WDFW asserts that this offset is unrealistic, inappropriate and inconsistent with the Northwest Power Act.

No one suggests that tribal harvest be reduced to offset the elimination of summer spill. The fish managers' continual reference to tribal fisheries in this regard serves only to confuse and make the issue more contentious. Only the SE Alaska commercial troll fishery has been considered as an offset measure for two specific reasons. First, part of its catch is fall chinook from the Mid-Columbia River. Second, due to a variety of factors, the market for its fish is depressed. The proposal considered by the federal agencies was to buy fishing capacity from fishermen on a voluntary basis. At no time has anyone urged that this fishery be unilaterally reduced or eliminated.

Limiting the non-tribal commercial gill net fishery in the lower Columbia River can also be an effective strategy. Currently, the states and tribes evenly split the harvestable surplus of fish returning to the Columbia River. Of the non-tribal portion of the fall chinook harvest, about 40% is allocated to the non-tribal commercial fishermen and 60% to sport fishermen. According to the Northwest Sportfishing Industry Alliance, sport fishery in the Columbia River provides a significant economic benefit to the region, especially in fishing dependent communities.

Conversely, the non-tribal commercial fishery is inefficient and provides little economic benefit. There is a significant mortality of non-target fish in the commercial fishery,

including significant numbers of ESA listed salmon and steelhead stocks. When using a gill net to catch fall chinook, significant numbers of other non-target species are caught and killed. By reducing the non-tribal commercial fishery, the impact to non-target ESA listed fish is reduced. Hence more fish can be allocated to the sport fishery and more fish can be allowed to continue upstream to reproduce and further build populations for the future.

Offset Action 4 – Avian Predation Research

WDFW asserts that this offset would provide little or no value.

While the federal agency representatives may be unable to implement this offset measure until 2005, the offset as proposed would reduce the number of Caspian terns in the lower estuary by 2,500 to 4,500 pairs. This reduction would result in an estimated additional 350,000 to 500,000 juvenile salmonids surviving to the ocean each year. This measure has a proven record. Even under the restrictions imposed by the court under the Migratory Bird Treaty Act, relocation of terns from Rice Island to East Sand Island reduced predation mortality by 50%, saving four to eight million smolts per year.

Offset Action 5 – Pile Dike Removal

WDFW asserts that this offset would provide little or no value.

Removing pile dikes in the Columbia River estuary would reduce opportunities for cormorant perching and associated foraging for juvenile salmonids, reduce fish predator habitat, restore natural flow velocities, and potentially improve forage and habitat conditions in the immediate location of the removed pile dikes. It is a biologically sound goal to allow natural habitat forming processes to proceed unimpeded.

Offset Action 6 - Anti-Stranding Flow Fluctuations Limits in the Hanford Reach.

WDFW asserts that the program is not a valid offset because the program is already authorized.

This is untrue. First, BPA has not yet agreed to this measure and has no obligation to pursue it. For a future obligation to be conferred upon BPA as a result of past cooperation is a classic example of a good deed taken for granted. If BPA's participation creates mitigation benefits, it should receive corresponding credit.

The voluntary provision of flow fluctuation limits in the past does not establish a future requirement. Even if one accepts that invalid premise, Grant will be providing up to 7.7 million smolts in the future from its hatchery – far exceeding its current requirements. The excess smolts provided will specifically be for mitigation of unavoidable mortalities

related to the impacts of flow fluctuation. The combined effect of additional hatchery production and the proposed river operations program during the rearing period more than mitigate for the expected loss of juvenile fish from stranding.

In the Washington Statewide Strategy, the Governor's Office says that it will use "...collaborative, incentive-based approaches to recover salmon". Grant, working cooperatively with the other mid-Columbia PUDs, the Corps, BPA, the BuRec, WDFW and tribes developed an operation to reduce river fluctuations in the spring and therefore afford significant protection to juvenile fall chinook salmon rearing in the Hanford Reach. While Grant's Priest Rapids Project is immediately upstream of the Hanford Reach, reducing river fluctuations in that area requires cooperation of all the hydroelectric project operators upstream. The Hanford Reach Fall Chinook Protection Program, a new agreement likely to be ratified this week, officially expands the successful Vernita Bar Agreement to include measures to reduce flow fluctuations during the post-emergence rearing period of fall Chinook fry that have been voluntary up to this point. With this agreement, mid-Columbia River hydroelectric project operators are once again demonstrating a commitment to "follow the science." Not to allow some credit to BPA for voluntarily entering into an operation that will save a significant number of a salmon stock that is important to the state of Washington is a direct rebuke of the cooperative, incentive-based approach declared to be a goal in the Washington Statewide Strategy.

No party questions the biological benefit provided here. The program could result in long-term, legally binding obligations for protection of rearing fall chinook and with added protection relative to anything done in the past. For these reasons, the proposed program is a valid offset to be credited against the elimination of summer spill.

CONCLUSION

In their presentation dated February 11, 2004, the federal agency representatives thoroughly document the limited biological benefits of the summer spill program. They outlined the obvious economic cost to this operation. And, they outlined a responsible set of alternatives to summer spill that can bring back more fish at a much-reduced cost to the region. We find the available information argues against the policy positions in Dr. Koenings' letter of February 20, 2004. Indeed, the evidence supports immediately putting into place offset measures and curtailing the summer spill operation this year.