



February 7, 2003

Northwest Power Planning Council
c/o Mark Walker
851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204

RE: Comments of PNGC Power Regarding the “Draft Mainstem Amendments to the Columbia River Basin Fish and Wildlife Program”, Council document 2002-16

Dear Members of the Council:

The consumers who own the 15 rural electric cooperatives of PNGC Power provide a significant share of the funding for Columbia River Basin Fish and Wildlife mitigation. Collectively they represent a population of over 300,000 people. As they strive to cope with sharply rising power costs in a harsh regional economy, they have an intense interest in seeing their dollars used in the best manner possible to enhance important fish and wildlife objectives.

The law creating the Northwest Power Planning Council clearly intended the Council to serve a unique role as the region’s voice into river and power issues mostly managed by the federal government. The Council’s role is not as a fish agency or a power agency. It’s legal mandate is to look for the best science and to apply that to recommend alternatives for fish and wildlife enhancements that have the minimum economic cost-- to make limited ratepayer dollars go the furthest possible toward this end.

The Council and its staff is to be commended for taking some much-needed steps in the Draft Mainstem Amendments to the Fish and Wildlife Plan. There are other steps that should be considered as you finalize these amendments. Attached are our suggestions and answers to the questions posed by the Council in its notice dated October 28, 2002.

Thank you for your careful consideration of these comments. They are organized as follows:

- I. Executive Summary
- II. Congressional Intent and Cost-Effectiveness
 - A. Cost-Effectiveness Measures
 - B. What the law requires
 - C. Impacts on Ratepayers
- III. Suggestions on Specific Operations And Council Questions
 - A. Reservoirs and Flows: April 10, Dworshak, Grand Coulee
 - B. Spill: take the next step
 - C. Other Issues: Transport, Turbines, Fish Passage Center

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I. Executive Summary

- The N.W. Power Act gives the Council the mandate to look for the best science and apply it to find alternatives for fish and wildlife enhancement that have the “minimum economic cost”. Our commitment to fish and wildlife should mean that ratepayer dollars be used in the best way possible to achieve the highest impact for these species.
- The “adequate, efficient, economical, and reliable power supply” in the Northwest is at risk. Utilities serving millions of residential customers have seen wholesale power rates increase by 50% and expect to see an additional double-digit increase this year. Industrial customers write that the rates they face in the Northwest are some of the highest anywhere in the country.
- Ratepayers support protecting fish and wildlife. The Council reports that ratepayers have paid over \$6 billion in fish and wildlife costs in the last two decades. But, they need to know that funding paid through their rates is going to the best use. Funding must be cost-effective. We urge the Council to create cost-effectiveness tools that follow on ideas of the Independent Economic Analysis Board and the NMFS Science Center, and could benefit fish and ratepayers
- The Council takes some much-needed steps in their Draft Mainstem Amendments to the Fish and Wildlife Plan. These amendments move the region one step closer to more accountability and results-oriented funding for fish and wildlife programs.
- We support the Council’s recommendation to replace the April 10 refill target with a more reasoned approach that adds needed flexibility and ensures refill by June 30. We also support the Council’s move to stabilize operations at Dworshak Dam.
- The Council should revise its recommendation that mandates an elevation behind Grand Coulee Dam of 1283 feet from September through December. Because Grand Coulee is a key tool for regional generation in the fall, we urge a more thorough evaluation of retention time needs of these fish. Certainly, there is a less costly alternative to this proposal.
- While the Council recommends no changes in spill operations, we urge the Council to act on their statements supporting a change in spill, especially in summer. The Council’s Draft, and current science, makes the following observations:
 - (1) Spilling water to the dissolved gas limits at some dams may be increasing mortality.
 - (2) Spillway passage can be the most costly route, especially during high markets.
 - (3) Differences in survival between spillway passage and other methods may be minimal in some instances.
 - (4) Maximum level of fish survival at each project does not necessarily correlate to spill.
 - (5) Spill may have negative effects on returning adults.
- During these difficult budget times, we support other proposals to shave costs including: modifying spill levels at John Day and Ice Harbor, eliminating spill for Spring Creek hatchery fish, and accelerating installation of removable spillway weirs. Also, we question whether BPA funding of the Fish Passage Center is an appropriate obligation of the ratepayers.

II. CONGRESSIONAL INTENT: CREATIVE AND COST-EFFECTIVE

A. Cost Effectiveness

PNGC Power has a strong commitment to protections and enhancements of fish and wildlife in the Columbia basin. Because of the large investment in these measures through our power rates, we have a desire to see success in these programs. On page 67 of the draft, the Council Amendments recognize the need for some determination of cost-effectiveness of measures they recommend for fish. It states,

Given the high cost of some fish measures and the relative lack of information regarding their effectiveness in meeting biological objectives, it is imperative that efforts be made to assess and improve the cost-effectiveness of these measures.

These are good words that need some real action. In light of the recent budget difficulties at BPA, the Council should take the next step to aggressively pursue and create this much-needed tool for cost effectiveness. This will enable better fish and wildlife enhancement with limited funding.

In June of 2001 at the start of your drafting process for this Mainstem Plan, PNGC Power made several recommendations. Some of these addressed the cost-effectiveness need that is still lacking in the Council's amendments. For example:

Recommendation 8: Within evaluations of mainstem measures, the Council should look not only at the value of each measure, but the value of that measure relative to other available proposals.

Recommendation 9(a): Demand substantial scientific certainty before drawing conclusions regarding measures in the Mainstem. Theoretical assumptions regarding mortality or benefits of various measures are not acceptable in the real world where the livelihood of real people is at stake.

Recommendation 9(b): Increase accountability of all parties for real results by creating a tool for ensuring follow-up determinations of actual effectiveness to fish of the measures adopted in accordance with Recommendation 6 above.

In recent years by far the largest portion of fish and wildlife costs have been river operations costs. In the volatile year of 2001, river operations for fish accounted for \$1.5 billion of BPA's \$1.7 billion costs for fish and wildlife (See 1996-2001 Final Fish and Wildlife Accruals, www.bpa.gov). Each operation can be measured for its impact on generation, and some are much more costly than others (See Exhibit B. Council Staff Chart Showing Generation Impacts of Current Measures and Exhibit C showing impacts of the Council's Draft Amendment).

At the same time, the region is sorely lacking in the ability to quantify biological benefits from various mitigation measures. As noted in our recommendations above, the ability to compare the effectiveness of measures across the Basin would be an enormous step forward, not just in creating needed accountability, but also in leading us to better goal-setting for salmon recovery. Work starting down

this road, such as NMFS's Cumulative Risk Initiative (CRI) in Seattle, should be encouraged to proceed rapidly.

Comparing effectiveness of measures would be extremely helpful now as the Council works to help BPA prioritize funding of \$139 million in the direct program budget. We appreciate the efforts of the Council in this regard. And, we support BPA's need to control costs across the board during this financial crisis. The Council is playing a key role in prioritizing projects for funding. But, it has no comprehensive cost-effectiveness tool at its disposal.

This is not a new concept to the Council; a foundation exists for creating this tool. Council staff have conducted analysis at certain times that make use of cost-effectiveness principles; this was useful to guide the region during the 2001 drought. In addition, the Council is advised by the Independent Economic Analysis Board (IEAB). At least two of their reports address this issue directly and contain many recommendations:

-- "Lessons from Existing Studies of the Economics of Fish and Wildlife Recovery Measures in the Northwest" (IEAB, July 1997 at www.nwcouncil.org)

-- "River Economics: Evaluating Trade-offs in Columbia River Basin Fish and Wildlife Programs and Policies" (IEAB 99-1, February 2, 1999 at www.nwcouncil.org)

B. What the Law Requires

The Council's role in the region is unique. It is not one of an emotional advocate. It is not solely to protect power customers. It is not solely to protect fish and wildlife impacted from the projects. And, it is not even a balancing of the two. The law, the Northwest Power Act (NPA), says simply: do all of the above. The relevant part of §4(h)(5) is well-known, but bears repeating:

The program shall consist of measures to protect, mitigate, and enhance fish and wildlife affected by the development, operation, and management of such facilities while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply.

Does this section give the Council a mandate to recommend operations that focus myopically on fish protection? Clearly not. The objective is to devise measures that:

"are also reasonable and will not result in unreasonable power shortages or loss of power revenues...Such losses, however, should not be a burden on the consumers of the region...The Committee does not intend that these provisions be used to subvert the power objectives of this bill." (Representative John Dingell (D-MI), principal author of these provisions quoting from the House Commerce Committee Report, Congressional Record, H10683, November 17, 1980)

In making recommendations, the Council must consider, but is not constrained by, how the National Marine Fisheries Service (NMFS) or states and tribes view the world. The Act clearly provides for this, "If the Council does not adopt any recommendation of the fish and wildlife agencies and Indian tribes as part of the program or any other recommendation, it shall explain in writing..." NPA §4(h)(7).

More important, while the Council's measures should complement Federal, state, and tribal activities, it is instructed specifically to, **"...utilize, where equally effective alternative means of achieving the same sound biological objective exist, the alternative with the minimum economic cost."** NPA §4(h)(6)(C).

Congress has repeatedly called for a cost-effective approach to river management. The Council has a prime opportunity in these amendments to forward this concept to better fish and the economy.

C. Impacts on Ratepayers (Council Question #12)

To argue that "fish did not cause the recent rate increases" or "the water doesn't belong to ratepayers" misses the point outlined by Rep. Dingell in the quote above. The point is that, regardless of one's ideological view of the federal dams, these projects are authorized by law, and provide a large amount of the region's power, along with untold other economic benefits through transportation, flood control, irrigation, and recreation. Regardless of what river operations one believes might help fish, there is an opportunity cost of these measures to the Northwest economy. That cost can be measured.

In fact, the Council takes measure of the costs to electricity ratepayers in its annual report on fish and wildlife costs. In the report dated September 12, 2002 (2002-13), the Council reports that ratepayers have paid over \$6 billion since 1978 for fish and wildlife mitigation in the Columbia Basin. The last several years of costs have averaged over \$600 million per year (See Exhibit A.)

Our adequate, efficient, economical, and reliable power supply referenced in the Northwest Power Act can no longer be taken for granted. Several large customers of the Bonneville Power Administration have written that the rates they face in the Northwest are some of the highest in the country at the same time ratepayer funding of fish and wildlife costs have risen to become 25-30% of their power bills.

Utilities serving these companies and millions of residential customers have seen their wholesale power rates increase by 45-50% and expect to see an additional double-digit increase later this year. This is happening at a time of national recession in which the Northwest has consistently led the country with the highest rates of unemployment in the nation.

Of course there are many causes for these rate increases. But, in this dire context, we find the Council's evaluation of "adequate, efficient, economical, and reliable power supply" sorely lacking in the draft amendments. In fact, this section of the amendments focuses mostly on a review of 2000-2001. It recognizes the impacts of river operations on electricity rates, but then arbitrarily dismisses them for purposes of the mainstem plan.

On the major questions of "Efficient" and "Economical", the Council Draft recognizes the impacts of river operations on rates then it states, "there was some erosion of the Northwest's competitive advantage in electricity prices through the 1990s, some of which is attributable to the effects of fish operations." (Draft Amendment, p. 67). In addition, on page 51 the draft states, "The 'economical' objective is somewhat more questionable."

But, rather than pursue this question, the Council Draft argues that fish costs are "only one contributor". It then kicks the issue forward to the upcoming Fifth Power Plan. This is unacceptable

under NPA §4(h)(5). At what point does one contributor become the straw that breaks the camel's back? The Council raises the question, then puts it off for another day. And, it does so at a time when electricity prices are putting some Northwest customers out of business, and at a time when some utilities are seeing outrageous numbers of customers not able to pay their bills.

On Adequacy and Reliability the Council makes an effort to outline the short-term status, but summarizes the approach on p. 66: "These issues cannot be resolved in the context of the Mainstem Rulemaking. These are issues that are most appropriately left to the Power Plan." We disagree.

The Council has spent a great amount of time and effort to determine impacts to fish from various amendments. A similar effort should be made to determine the incremental impact of each measure not just to overall generation, but also to adequacy, efficiency, economy, and reliability. And, this should be done not just for the Council's changes to current practice, but for the entire set of assumed recommendations that incorporate current measures amounting to a cost of over 950 aMW of generation that would otherwise be available to the region. Only with this type of analysis can we begin to get a picture of what the real tradeoffs are in this region.

III. SUGGESTIONS ON SPECIFIC OPERATIONS AND COUNCIL QUESTIONS

Where science is uncertain, but costs are well-defined, the Council should take a close look at whether a measure is worth continued recommendation. The burden is not on the Council to scientifically disprove each theory of fish mitigation that others put forward. Rather, just as the Council may reject new proposals lacking evidence, the Council also may question existing methods that have failed to prove themselves over time. This is a matter of accountability.

A. Reservoirs and Flow (Council Questions 1 - 6)

April 10 Target -- We support the Draft Amendment by the Council to replace the April 10 refill target with a more reasoned approach to fill by June 30. The current water year provides a good example of why this change is necessary. Aside from the lack of proven benefits to fish from spring flow augmentation (see below), there is a serious water management concern here. While managing the system to hit the April 10 target, water managers become extremely constrained in a year like this one where early melting and precipitation raise reservoir levels above targets. Last week the system was very close to significant levels of unplanned spill that would not benefit fish and would be a costly loss of generation.

Dworshak -- We support the proposal forwarded by Idaho for a more even operation of Dworshak Dam. This meets several important goals for fish species and is consistent with the plan approved by the Idaho Legislature and Idaho Water Resources Board.

Grand Coulee Retention-- By contrast to the above, another Council recommendation has the effect of limiting operations in a potentially harmful way. This recommendation would mandate an elevation behind Grand Coulee Dam of 1283 feet from September through December to protect kokanee access and spawning. Because Grand Coulee is a key tool for regional generation in the fall, we urge a more

thorough evaluation of retention time needs of these fish. There should be less costly alternatives to the Council's new proposal in this area.

Flow Generally-- Research points to results that seriously question the need for flow augmentation at specific times and in specific locations. The answer to Council Question 5 is that the Council was entirely justified to reject calls for higher flow objectives. Moreover, we strongly support the Council's decision to drop prior Council language that contained the misguided and unfounded call for an additional **million acre-feet of water from the Upper Snake River.**

In a report to the Council dated January 31, 2002, entitled "Mainstem Passage Strategies in the Columbia River System: Transportation, Spill, and Flow Augmentation" Giorgi, Miller, and Stevenson summarized much of the existing science in the region ("Giorgi Report"). Flow aug proponents often make much of migration speed as it relates to flow. But, as Giorgi states, "At least four variable have been implicated as influencing the migration speed of sub-yearling (fall or summer/fall) chinook: flow, water, temperature, turbidity, and fish size. However, strong correlations among these predictor variables confound the ability to identify causative agents."

In his Supplement to "The Flow Survival Relationship and Flow Augmentation Policy in the Columbia River Basin" Analysis of New Results (November 11, 2002), James Anderson of the University of Washington analyzed data from the low flow year 2001. He found that, "the effect of incremental within-year changes in flow on juvenile fish survival are not significant."

In a report to the Council on December 11, 2002 NMFS scientists stated, "Above some threshold average survival appears to vary little, is relatively high, and does not correlate with flow." And, "The relationship between flow and survival at the lower range is not strong." Their presentation raised numerous questions that have yet to be answered as to whether science really supports much of the flow regime in place.

"You can't make a bad year good by dumping water into the system," said Karl Dreher, Director of the Idaho Department of Water Resources (Council's December 2002 meeting). In other words: showing that high natural flow years are good for fish is a very different thing from showing that human tinkering with flow in any particular year creates a measurable impact. This underscores the fundamental problem with flow data that relies on measuring good water years against bad ones.

Reliable studies to support flow aug that look at "within year" and adequately control for temperature, turbidity, release timing, water velocity, and fish fitness do not exist. So flow augmentation proponents turn the argument around and ask the region to prove the negative (that "flow aug" provides no benefit). This is a curious way to make policy when putting billions of dollars of potential power generation and irrigation at risk. The negative, the real cost to the economy, is a proven. Why not require those supporting this to prove that it helps-- not sometimes in some places for some fish, but for each specific application?

The burden of proof should not favor a status quo for flow and spill that lacked basis from the beginning and continues to confound. In general, the lack of evidence linking flow augmentation to higher survival, especially in spring, argues for additional recommendations by the Council to reduce flow requirements.

B. Spill (Council Questions 7-8)

We support the Council's Draft Mainstem Amendment in relation to its strong statements supporting a change in spill operations. But, we urge the Council to proceed further to make the actual recommended changes at this time.

We support these findings of the Council with respect to spill (p. 25 of Draft Amendment):

- (1) Spilling to gas caps of 120% at some dams may be increasing mortality (indeed this policy requiring waiver of state water law is creating more harm than good).
- (2) Spillway passage can be the most costly route, especially during high markets (as in 2001).
- (3) Difference in survival between spillway passage and other passage methods may in some instances be minimal (see Transport discussion below, low water years show much better survival for barged fish versus those left to spill).
- (4) Maximum level of fish survival at each project does not necessarily correlate to spill.
- (5) Spill may have negative effects on returning adults.

Each of these points of concern about spill outlined in the Council's Draft is the result of extensive research studying these issues (See Giorgi Report citing numerous authorities pp.30-59).

Federal Spill Proposals-- The Council has been briefed on several current proposals by the federal agencies that concern spill operations in 2003 and accelerated implementation of removable spillway weirs over several years. We strongly support those initiatives. The Council should take this opportunity to make its Mainstem Program recommendations consistent with these proposals.

Spill tests at John Day and Ice Harbor indicate that spill changes should be made there that may benefit fish for some of the reasons the Council outlines above. Also, accelerated testing and implementation of **Removable Spillway Weirs** at several projects has the potential to provide significant benefits for fish passage with less costly spill.

Summer Spill-- As discussed below in "Transport", for migrating Snake River juveniles eliminating spill may enhance survival as it creates better collection for effective transport. For the lower Columbia, the majority of fish that may benefit from the spill program are not listed under the ESA. These Hanford Reach fall chinook are some of the healthiest runs in the region. The Council should recommend that the region determine the exact impact of spill on these fish, and that the region decide what the goal should be for this costly operation. If the goal is to support listed fish, it is ineffective. If the goal is to support healthy runs of non-listed fish, there may be a better way.

Spring Creek Spill-- We recommend that the Council take a strong stand against an operation where ratepayers are expected to forego millions of dollars worth of generation to assist low value tule fall chinook past Bonneville Dam from a hatchery located just above the dam. This operation is not appropriate. There are alternatives available (U.S. Fish and Wildlife has been working in this) that can assist production of these fish without this wasteful level of spill.

Impacts on Adults-- An interesting note on p.20 of the Action Agencies ESA 2001 Progress Report was that “Survival of adult spring and summer chinook was approximately 99 percent per project, among the highest survival rates on record.” This tees up the question of whether significant reductions of spill at certain times can have significant beneficial impacts to returning adults. The Council is right to ask for increased studies in several areas relating to spill.

C. Other Issues: Transport, Turbines, Fish Passage Center (Council Question 9)

Transport-- The Council asks, “does transportation in the Snake River under low flow conditions provide significantly greater levels of survival than in-river migration?” The answer is clear: yes.

The drought of 2001 caused havoc with in-river migration of juveniles from the Snake River. According to the federal action agencies ESA 2001 Progress Report (May 2002) and the associated NMFS Findings Letter (July 30, 2002) several things were evident in 2001:

- In-river survival was well below average.
- Less than 10% of Snake River Juveniles migrated in-river
- Because direct survival on barges is very high, total system survival was above average during this low flow year (NMFS Findings letter pp.18-19)

Clearly there is mounting evidence to support transporting fish, especially in the Lower Snake, and especially in dry years. Additional studies, as the Council suggests, should be a high priority to gain better insight into transport in some instances in the lower Columbia.

Peak Turbine Efficiency-- Another lower Columbia issue involves the requirement that turbines be operated within 1% peak turbine efficiency. This operation costs several million dollars each year at McNary, and is of questionable benefit to fish not listed under the Endangered Species Act. This operation deserves more scrutiny for cost-effectiveness.

Fish Passage Center-- Another element of the Council’s plan deserving more scrutiny is the recommendation for the Fish Passage Center (FPC). The Council took a needed first step by having the FPC answer to an oversight board. However, if the board has limited powers it will be of limited use.

During these times of budget constraints and rate increases, many customers of BPA find the FPC a less than prudent expenditure of ratepayer dollars. This is not to say that the purpose of the FPC is not important-- it is. In fact, the handling of regional fish data is too important to remain in an agency that continues to advocate for state fishery interests rather than collect and analyze data as was intended (see FPC presentations during 2001 juvenile passage and numerous other examples).

If the FPC is to act as an arm of local fish agencies then it should be funded by those entities. For the rest of the region, these important functions could be transferred to one of the major research institutions. The Council is well aware of these concerns. In our September 2000 comments to the Council on the Draft Fish and Wildlife Program we addressed this issue. Our suggestion to you in the 2000 process is printed here:

...the concept of achieving greater oversight over the Fish Passage Center is a worthy one. Further, you should consider whether the existence of this entity in its current form is the best way to fulfill this need in light of the future demands for data handling that might be better assigned to a major university or the NMFS Science Center.

CONCLUSION

The mandate of the Northwest Power Planning Council for purposes of creating a fish and wildlife program is one of creativity and cost-effectiveness. The ratepayers of the region do not have bottomless pockets. They have seen their power supply become less and less economical in recent decades. The Council is presented with an opportunity to ask the tough questions on whether many of the river operations that the system has adopted are really the best use of scarce resources. We appreciate the Council's efforts in these amendments to make some needed changes and to demand better information. And, we urge the Council to take the next step to recommend system changes that are called for immediately.

Thank you for your consideration of these comments. We stand ready to assist you as you proceed with this important work.

Sincerely,

Scott Corwin
Vice President, Public Affairs and Marketing
PNGC Power

FIG 1
BPA Fish and Wildlife
Cumulative Expenditures
1978-2001

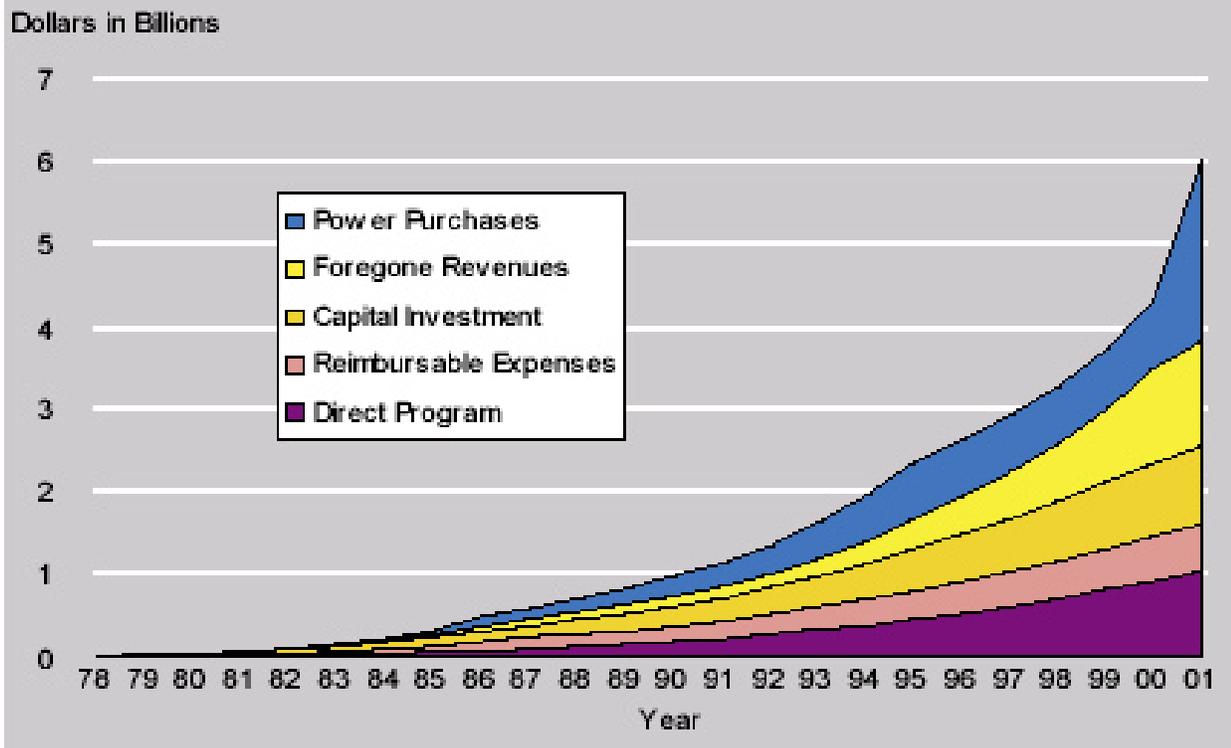


Exhibit A. Council's Report on BPA Fish and Wildlife Costs 1978-2001

50-Year Average Energy Impacts of Components

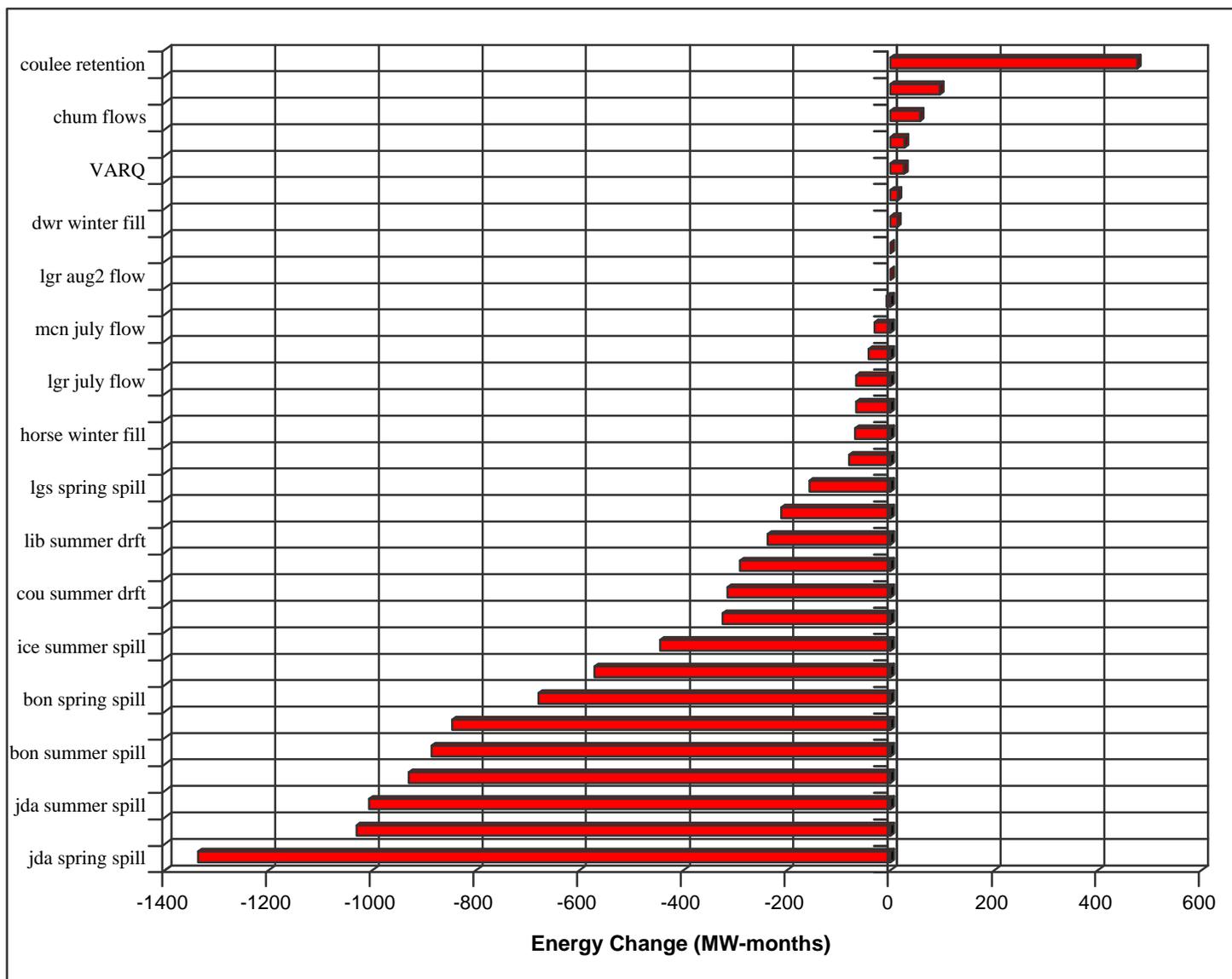


Exhibit B. Council Staff Analysis of Hydro Measures Impact on Generation

Change in Generation 50-Year Average

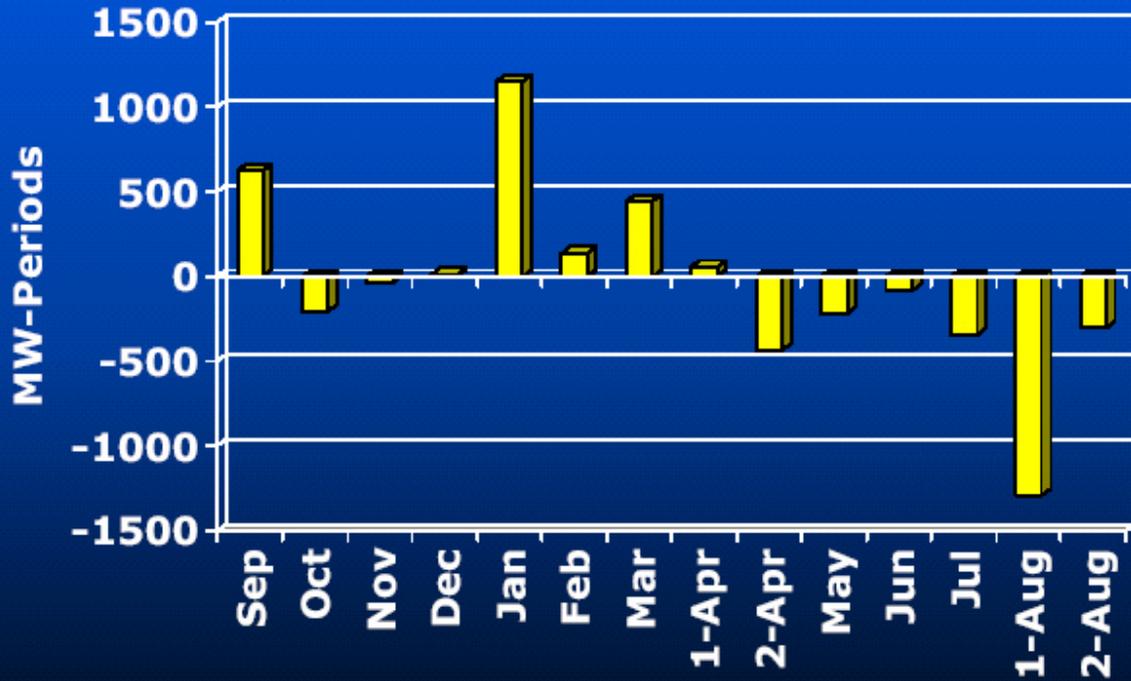


Exhibit C. Council Staff Analysis of Generation Impacts of Draft Amendments

While generation is gained in some areas, it is lost in others. The net effect is a gain of 41 average megawatts under this Draft Amendment. The estimated market value of this is \$ 8 million annually.