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February 7, 2003

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

**RE: Comments of Idaho Consumer Owned Utilities Association (ICUA)
Regarding the "Draft Mainstem Amendments to the Columbia River
Basin Fish and Wildlife Program", Council document 2002-16**

Dear Members of the Council:

Thank you for the opportunity to provide these comments on draft proposed amendments to your fish and Wildlife Program. The Council and its staff is to be commended for taking some much-needed steps in their Draft Mainstem Amendments to the Fish and Wildlife Plan.

By way of introduction, ICUA is comprised of 21 rural electric cooperatives that provide a significant share of the funding for Columbia River Basin Fish and Wildlife mitigation. Collectively we serve a population of over 284,000 people in the state of Idaho. Our members and their customers are now grappling with sharply rising power cost in a harsh regional economy. Consequently, they have an intense interest in seeing their "ratepayer dollars" used in the best manner possible to enhance important fish and wildlife objectives. We continue to encourage you to look for the best science and to apply that science to recommend alternatives for fish and wildlife enhancement that have the utmost economic efficiency, in order to make limited ratepayer dollars go the furthest possible toward this end.

What follows is our answers to the questions posed by the Council in its notice dated October 28, 2002, as well as suggestions on issues not otherwise addressed in your initial notice.

I. Executive Summary

- Because of the importance of the Columbia River system to the health of our region, the Northwest Power Act intended the Council to serve a unique role. The Council is given 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". This reflects Congress' intent that limited ratepayer dollars be used in the best way possible.
- Our 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 45-50% and based on BPA reports 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. Funding must be cost-effective, and applied to the best science available. We urge the Council to create cost-effectiveness evaluation tools that follow on ideas of the Independent Economic Analysis Board and the NMFS Science Center, and could benefit fish and ratepayers. Groups or agencies receiving these funds must account for the efficiency of their programs.
- ICUA supports the Council's recommendation to replace the April 10 refill target with a refill date of June 30. This adds much-needed flexibility to water management during the winter season.
- The Council should consider revising its recommendation concerning Grand Coulee Dam water elevation 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. There may be a less costly alternative to this proposal.
- While the Council recommends no changes in spill operations, we urge the Council to reconsider this position, especially concerning summer spil. The Council's Draft, and current science, makes the following pertinent observations:
 - (1) Spilling water to the dissolved gas limits at some dams may be increasing mortality.
 - (2) Spillway passage is the most costly route, from a power 'lost opportunity' prospective, especially during times of high-cost energy markets.
 - (3) Differences in survival between spillway passage and other methods may be minimal in some instances, or at some locations.

- (4) Fish survival at each project particular project may or may not correlate to spill.
 - (5) Spill may have negative effects on returning adults.
 - (6) Spill needs to also correlate to river (or reservoir) temperatures, on a dam-by-dam basis.
- During these difficult budget times, we support other proposals to contain or reduce system operating costs including modifying certain spill levels at John Day, Ice Harbor, and The Dalles dams and eliminating spill for the Spring Creek hatchery fish.

II. CONGRESSIONAL INTENT: CREATIVE AND COST-EFFECTIVE

A. What the Law Requires

The Council's role in the region is unique, stemming from its statutory mandate "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." 16 USC 839 *et. seq.* (emphasis added) Fisheries measures are to be designed 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 [House] 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 program recommendations, the Council must "give due weight to" recommendations of the National Marine Fisheries Service (NMFS), the states or Indian tribes. 16 USC § 839(h)(7); *Northwest Power Act §4(h)(7)*. As you are well aware, you must also "explain in writing" your "statutory basis for rejecting recommendations of these various groups. *N. W. Resource Info. Center v. N. W. Power Planning Council*, 35 F.3d 1371 (9th Cir., 1994). The maneuvering room between these two "sideboards" is found in section 4(h)(6)(C) of the Act, directing that you "...utilize, where equally effective alternative means of achieving the same sound biological objective exist, the alternative with the minimum economic cost." *Id.* (emphasis added) Given the recent and dramatic power cost increases, it is important to again draw attention to this important statutory mandate.

B. Impacts on Ratepayers (Council Question 12)

A public power cost debate rages in the Northwest. ICUA concurs that "fish did not cause the recent rate increases." Conversely, as we begin a critical analysis of how we get our power costs back under control, fish costs should not be exempt from that analysis. There are differing operating costs and lost opportunity costs related to the various fish management and mitigation measures. Some measures that have relatively modest fisheries enhancements cause dramatic power cost consequences. **Those costs** are generally more easily measured than corresponding fisheries benefits. In the Council's report dated September 12, 2002 (2002-13), the Council indicates that ratepayers have paid over \$6 billion since 1978 for fish and wildlife mitigation in the Columbia Basin. (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 have written that the rates they face in the Northwest are some of the highest in the country at the same time that ratepayer funding of fish and wildlife costs have risen to 25-30% of their power bills.

Utilities serving these companies and millions of residential customers have seen recent wholesale power rates increase by 45-50% with another double digit increase just announced this same day. These rate increase are happening in the context of a national recession, with the Northwest leading the country with in its rate of unemployment

It is within this context that we find the Council's evaluation of "adequate, efficient, economical, and reliable power supply" inadequate. This section of the amendments focuses mostly on a review of 2000-2001 rates and economic conditions. Further, it recognizes the impacts of river operations on electricity rates, but then arbitrarily dismisses those impacts for purposes of the mainstem plan.

On the major questions of "Efficient" and "Economical", the Council recognizes that river operations for fisheries purposes have attributed to the "erosion of the Northwest's competitive advantage in electricity prices through the 1990s." (Draft Amendment p. 67, See also p.51 "The 'economical' objective is somewhat more questionable") While arguing that fish costs are "only one contributor", the draft does not pursue the matter, but appears to kick these issues forward to the upcoming Fifth Power Plan. At some point one "contributor" becomes the straw that breaks the camels back. The Council's analysis puts this question off for another day. ICUA believes that question should be addressed today, in the context of today's power cost crisis.

Concerning questions of "Adequacy" and "Reliability" the Council makes an effort to outline the short-term power supply status, but then determines that: "These issues cannot be resolved in the context of the Mainstem Rulemaking.

There are issues that are most appropriately left to the Power Plan." (see p. 66) ICUA disagrees. 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 to reliability -- not just of the Council's changes to current practice -- but of their entire set of recommendations that incorporate most current measures and amount to a cost of over 900 aMW of generation otherwise available to the region. And, analysis determining impact to the region need not be limited to current operations for fish and their impacts on the power supply. In the next section we address a better approach to determining mainstem options for the region-- an approach that can assist fish and power needs.

C. Cost Effectiveness

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.

In light of the recent budget difficulties at Bonneville ICUA strongly supports the Council's willingness to challenge programs that have little cost effectiveness or cost-benefit relationship. The Council should take the next step to aggressively pursue and create this much-needed tool for cost effectiveness.

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

- Recommendation 3: It is time for the Council to step up to the challenge of conducting real cost-benefit analyses with respect to fish mitigation measures. Development of such analyses should be a part of the Mainstem Plan.
- 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 19962001 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 limited funding (of \$139 million) in the direct program budget. We appreciate the efforts of the Council in this regard. And, we support Bonneville'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.

Comprehensive cost control is not a new concept to the Council. And, 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. Recommendations from those reports should be implemented.

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

¹ See Lessons from Existing Studies of the Economics of Fish and Wildlife Recovery Measures in the Northwest (IEAB, July 1997 at www.nwcouncil.org); see also *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)

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. In the Draft Amendment the Council takes a good step in replacing 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 (discussed 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 the one we are currently experiencing, where early melting and precipitation raise reservoir levels above targets. For example, very recently 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 potential effect of limiting generation operations in a 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 also key tool for regional generation in the fall, we urge a more thorough evaluation of retention time needs of these fish. There may 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 language that contained the misguided and unfounded call for an additional million *acre feet of water from the Upper Snake River*. In general, the lack of evidence linking flow augmentation to higher survival, especially in spring, argues for additional recommendations by the Council to relieve these existing flow requirements. As Karl Dryher (Director of the Idaho Department of Water Resources) said: "You can't make a bad year good by dumping water into the system," (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 augmentation that look at "within year" data and that also involve analysis of temperature, turbidity, release timing and water velocity do not exist. New research is beginning to study these serious questions surrounding flow augmentation at specific times, in specific river section or locations. 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 augmentation proponents often make much of migration speed as it relates to flow. But, as Giorgi states, "At least four variables 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." Also, 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. ICUA encourages the Council to continue to pursue the answers to this difficult question of benefits related to flow augmentation.

B. Spill (Council Questions 7-8)

The Council's Draft makes a strong case for changing spill operations along the mainstem. ICUA supports these statements, and we urge the Council to proceed further to make the actual recommended changes at this time. Among the points outlined by the Council are:

- (1) Spilling to gas caps of 120% at some dams may be increasing mortality (indeed, we would add that this policy requiring waiver of state water law is creating more harm than good)
- (2) Spillway passage is the most costly, especially during high-cost power 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 it's 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 even 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 any spill program are not listed under the ESA. These are Hanford Reach fall Chinook, and 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 other alternatives available (U.S. Fish and Wildlife has been working in this) that can further 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."

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. While the Council's recommendations rightly go beyond ESA concerns, 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 and is made up largely of advocates for current FPC practices, it will be of limited use.

During these times of budget constraints and rate increases, many customers of BPA find the FPC to be 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 managers, than it should be funded by those entities.

Rather, these important functions could be transferred to one of the major research institutions in the region. The Council is well-aware of these concerns. In our September 2000 comments to the Council on the Draft Fish and Wildlife Program ICUA addressed this issue. Our suggestion to you in the 2000 process is printed here.

[T]he 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 proposing 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.

Sincerely,

A handwritten signature in black ink that reads "Ron Williams". The signature is written in a cursive, flowing style.

Ronald L. Williams
ICUA, Executive Director

FIG 1
BPA Fish and Wildlife
Cumulative Expenditures
1978-2001

Dollars in Billions

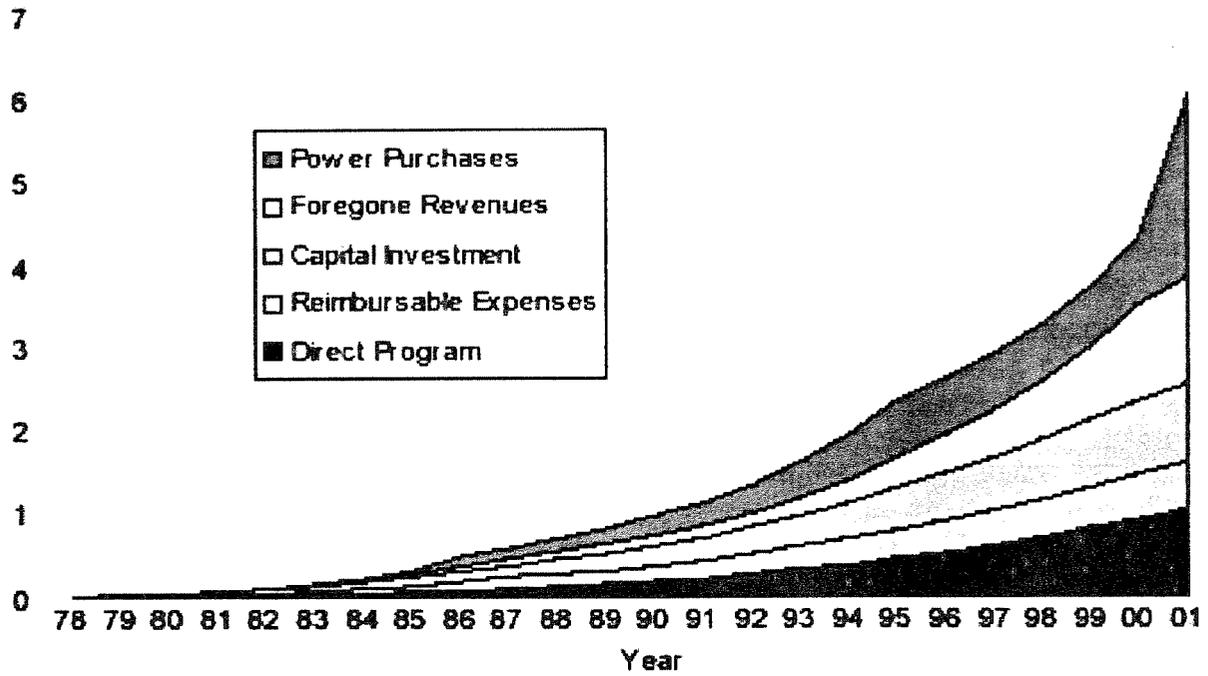


Exhibit A. Council's Report on BPA Fish and Wildlife Costs 1978-2001

50-Year Average Energy Impacts of Components

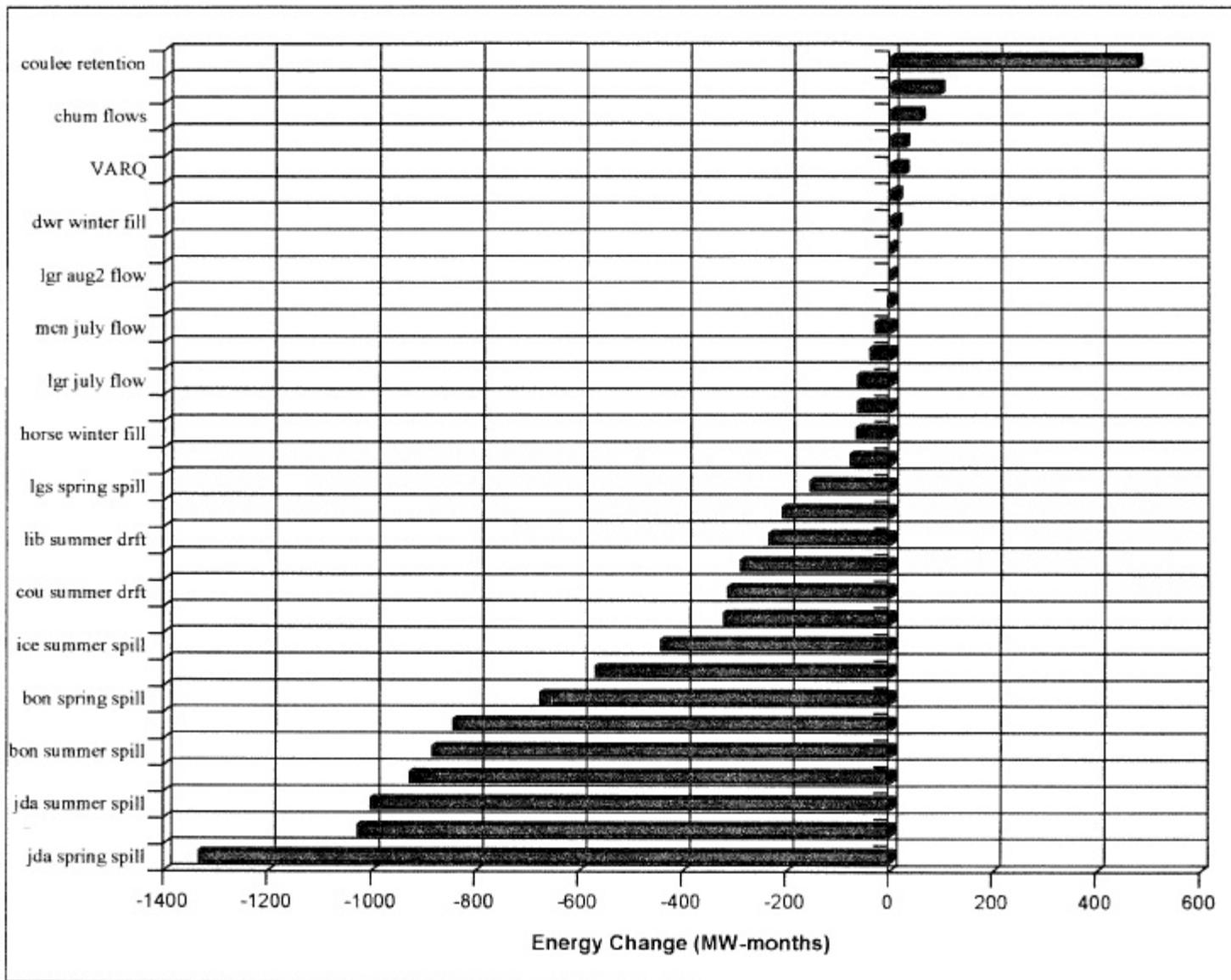


Exhibit B. Council Staff Analysis of Hydro Measures Impact on Generation

Change in Generation 50-Year Average

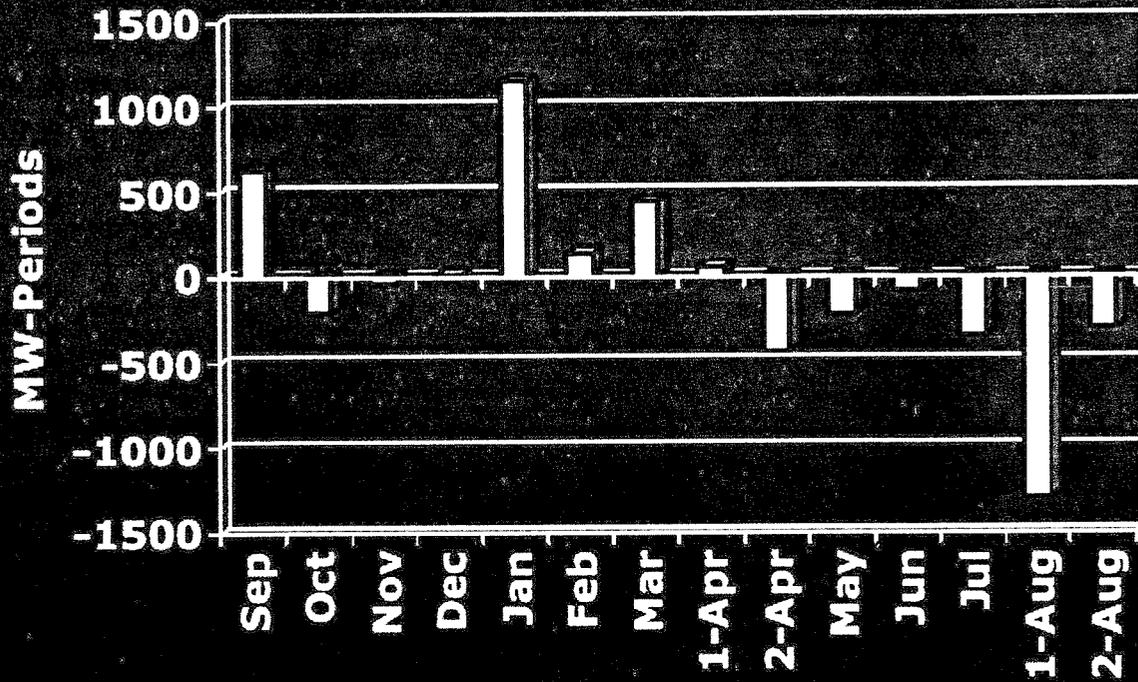


Exhibit C. Council Staff Analysis of Generation Impacts of Draft Amendments

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.