

**NORTHWEST POWER PLANNING COUNCIL
PROTECTED AREAS
RESPONSE TO COMMENTS**

September 14, 1988

Contents

List of abbreviations	1
Introduction	2
Summary and Responses to Comments	4
A. Conclusions underlying the rule	
1. Minimizing controversy in development	4
2. Mitigation	5
3. Impact on the power system	5
B. Effect on federal agencies	
1. Bonneville Power Administration	6
2. FERC	7
3. Other federal agencies	9
C. Scope of protection	
1. Anadromous fish	9
2. Wild resident fish	9
3. Non-wild resident fish	10
4. Wildlife and no net loss	10
D. Application to existing projects	12
E. The Protected Areas List, and other data base issues	13
F. Relationship to water rights, state river planning, and other interstate compacts	14
G. Effect on land	15
H. Amendments	15
1. Amendments in connection with state or tribal comprehensive plans	15
2. Amendments to add scenic and other areas	16
3. Minor technical corrections	16
4. Amendments that change protected area designations from protected to unprotected, and vice versa	16
5. Exceptional projects	17
I. Power plan issues	
1. The need for protection outside the Columbia River Basin	18
2. Determination of cost-effectiveness	19
J. Projects outside protected areas	19
K. Other environmental concerns	20

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

PH.D. THESIS

1962

Author

James H. Drenth

Department

Department of Chemistry

Thesis Advisor

James H. Drenth

Thesis Committee

James H. Drenth

Thesis Title

Crystallographic Studies of the Structure of the Protein

Myoglobin

1962

Author

James H. Drenth

Department

Department of Chemistry

Thesis Advisor

James H. Drenth

Thesis Committee

James H. Drenth

Thesis Title

Crystallographic Studies of the Structure of the Protein

Myoglobin

1962

SUMMARY OF COMMENTS

Introduction.

The Northwest Power Act directs the Council to develop a "program to protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat on the Columbia River and its tributaries."¹ Large habitat losses that have occurred in the Columbia River Basin as a result of hydroelectric and other development. The Council has estimated that 4,600 stream miles of salmon and steelhead habitat have been lost, not including losses of resident fish and wildlife habitat.² Significant habitat losses have also occurred in other areas in the region, and these losses have played an important role in declines of regional fish and wildlife populations. The Council must consider fish, wildlife, their habitat, and other environmental factors in developing its regional power plan.³

Past mitigation efforts have not been able to compensate fully for the effects of hydropower and other development. Indeed, the Council invited commenters to identify hydropower projects where mitigation has left a fish and wildlife population as well off after development as it was before, with no clear response. On the other hand, there have been significant failures in attempts to mitigate the effects of development – the loss of anadromous fish habitat beyond the Hells Canyon complex on the Snake River, is only a prominent example.

Not only is mitigation risky, it is expensive and time consuming. The Council's fish and wildlife program contains hundreds of measures that try to mitigate for the effects of hydropower at great expense. Bonneville estimates its program expenditures at about \$100 million per year, including both direct costs and lost revenues due to spills and the water budget. Yet it is still questionable whether the effects of the hydropower system can be fully mitigated.

Disputes over the possible effects of development, and the likelihood that mitigation may be successful, are common. Lengthy battles have been waged over the proposed development of major dams, and over the feasibility of reducing the fish and wildlife impacts at existing mainstem dams. Concerns over the cumulative impacts of small hydropower development in the Salmon and Snohomish River Basins have been intense. Indian tribes have claimed that habitat should be judicially protected in order to fulfill treaty commitments.

These disputes are not only disruptive, but they add to developer costs and utility rates, and leave the region less certain about its ability to develop new resources quickly when they are needed. One of the questions raised in this rulemaking is whether these costs and uncertainties could be lessened, and fish and wildlife better protected, by identifying in advance where fish and wildlife values are most critical, and development proposals are likely to generate the most intense opposition, so that development may be directed in less troublesome directions.

1/ 16 U.S.C. §839b(h)(1)(A).

2/ See Council Staff Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin, p. 89 (March 1986).

3/ 16 U.S.C. §839b(e)(2).

To protect the critical fish and wildlife habitat that remains, to avoid further expensive and divisive disputes over hydropower development in sensitive fish and wildlife areas, and to reduce costs and uncertainties in the region's ability to meet its power needs at least cost, the Council embarked on a process seven years ago to study areas where development would have substantial and irreversible adverse effects. The protected areas rulemaking is the culmination of a process that began in 1981, when the Council was asked by the fish and wildlife agencies and Indian tribes to protect high-value fish and wildlife habitat from new hydropower development. The Council agreed with the concept, but felt that this action should be based on better data and coordinated, regional review using a consistent set of criteria.

A data gathering and review process of unprecedented scale was organized with assistance from a Hydro Assessment Steering Committee. In 1984-86, Council staff organized an anadromous fish study, which gathered data from fish and wildlife agencies, Indian tribes, and federal land managers. Escapement records, hatchery information including release data, location of spawning grounds, and other information were assembled. In a parallel effort, the Bonneville Power Administration collected non-anadromous fish and wildlife data through the Pacific Northwest Rivers Study. State, federal, and tribal biologists applied a consistent set of criteria to identify critically-important habitat. These efforts produced a comprehensive, computerized data base on the region's rivers. Based on this information, the study participants recommended to the Council that: (a) habitat where anadromous fish are present, or areas in the Columbia River Basin where anadromous fish could be produced, should be protected from future hydropower development; and (b) high-value non-anadromous fish and wildlife habitat identified through the Rivers Study should be protected from future hydropower development.

Since the Council initiated this process, several things have changed. In 1987, the Council adopted the goal of doubling salmon and steelhead runs within the Columbia River Basin consistent with system policies (see Program section 204). A wide variety of production options will be need to achieve this goal. Protecting valuable fish habitat from damage caused by hydropower development would preserve an environment for wild and naturally spawning fish. These fish represent an important production option, and are expected to play a particularly important role in maintaining genetic diversity (see Program sections 203(a), 204(b), 204(d)).

In addition, new developments in the law have occurred that may influence the Council's judgment. Most notably, the passage of the Electric Consumers' Protection Act in 1986 changed the environment within which the Federal Energy Regulatory Commission makes its decisions on hydropower project licensing. These changes may be relevant insofar as the Council's action affects the Federal Energy Regulatory Commission.

In 1987, the Council released a staff issue paper that proposed that the Council designate the river reaches identified in the studies as "protected areas," where future hydropower development should not occur. In a six-month period for public comment, the Council had the benefit of a substantial public debate over the policy issues involved in the staff proposal, and over the information in the Council's data base. Broad support was expressed for the concept of protected areas. However, utilities and others contended that protected areas were unwise, and that the Council lacks authority to adopt them, particularly outside the Columbia River Basin.

At its April 1988 meeting, the Council entered a rulemaking process. The Council proposed to conclude that in protected areas where anadromous or wild resident fish were present, there is an unacceptable risk that hydropower development would destroy critical fish habitat, and therefore no hydropower development should occur. In non-wild resident fish and wildlife protected areas, the

Council proposed to conclude that mitigation is more feasible, and that hydropower development could occur only if it would not result in a "net loss" of non-wild resident fish or wildlife. These determinations would be implemented by federal agencies.

The deadline for written comment on the proposed rule expired July 8, 1988. The overwhelming majority of comments were from individuals who generally supported protected areas, but who suggested three changes (most of these commentators recommended the same three changes): (1) protect wildlife as strongly as the Council proposed to protect anadromous and wild resident fish; (2) allow expedited amendments to add as well as delete protected areas; and (3) broaden the criteria used to designate protected areas to allow protection for scenic, recreational, and other values. There also were a large number of comments from utilities, conservationists, and others, who raised a number of other issues, which we discuss below.

On August 10, 1988, the Council approved protected areas amendments that adopted many features of the proposed rule, and made several significant changes. In brief, the final rule adopted a single standard of protection for all protected areas: because protected areas represent the region's most valuable fish and wildlife habitat, hydropower development should not be allowed in protected areas, but should be focussed in other river reaches. The final rule does not apply to any existing projects. The Council adopted several procedures designed to ensure that protected areas, and the data that supports them, are kept accurate and up-to-date.

In what follows, we summarize comments on the major issues in the rulemaking, and the Council's response. We discuss questions of legal authority in connection with the specific rule provisions where these questions have come up.

Summary and Responses to Comments.

A. Conclusions underlying the rule.

The proposed rule made several explicit assumptions: (1) the viability of natural fish and wildlife depends on the quantity and quality of their habitat; (2) there have been substantial losses of fish and wildlife habitat in the region; and (3) mitigation efforts have not been able to compensate fully for the effects of hydropower and other development on fish and wildlife; (4) because of these risks to fish and wildlife, development in important fish and wildlife areas is likely to be controversial; (5) controversy adds to the cost of development, and leaves the region less certain about its ability to develop new resources quickly when needed. The Council also noted that protecting habitat would preserve an environment for wild and naturally spawning fish, which would play an important role in achieving the Council's goal of doubling salmon and steelhead runs in the Columbia River Basin. The Council proposed to find that protected areas are consistent with a sound, economical and reliable power system, as required by the Northwest Power Act.

Comments were received on some, but not all of these assumptions.

1. Minimizing controversy in development.

Congressman Swift commended the protected areas proposal as something that "can provide a boon for the development of environmentally-benign hydro projects, and substantially reduce transaction costs that would be otherwise incurred in needless administrative and legal battles over fish and wildlife issues." The FERC staff agreed that "cost and conflict minimization are important goals in

public policy formulation." Several other commenters pointed to the effects of an unsuccessful hydropower proposal at Kootenai Falls: "[I]t's a cost to the community, to the people that live there. It's just devastating to go through something like that.... It's been going on for ten years. If you can put a stop to that, you're doing a great thing." (Libby Rod & Gun Club). The FERC staff also noted that public agency costs in regulating hydropower development in several contexts must be reimbursed by developers. On the other hand, a commenter criticized the Council's desire to minimize factual disputes in hydropower licensing. The commenter urged that such factual disputes were a vital part of the FERC's hydropower licensing process, and this process would provide the appropriate forum for all environmental concerns. (City of Libby).

Response: The Council continues to believe that minimizing the social, environmental, and economic costs involved in hydropower development is an important goal. By doing so, the Council intends to foster the development of less costly power resources that are reliable, available, and environmentally sound.

2. Mitigation.

The assumption that mitigation has often been unsuccessful aroused little debate. A number of commentors offered specific examples of failed mitigation. No commentor disputed that the historical record shows that mitigation is risky. The Army Corps of Engineers maintained, however, that some types of mitigation are not particularly risky, but did not identify them. The Corps also criticized the "no net loss" standard for wildlife because they believe that mitigating for wildlife is extremely difficult.

There was dispute about the likely success of mitigation in future hydropower development. Some commentors said that the effects of hydropower development can be mitigated effectively, and that in some cases development may improve the environment for fish and wildlife. These commentors would also share the view that prohibiting hydropower development without regard to the likelihood of successful mitigation in a particular case would short-circuit development of mitigation technologies. On the other hand, there was considerable comment from fish and wildlife agencies and others in support of the Council's assumption that mitigation remains risky. At least one of the states noted that it proposed protected areas only in cases where state biologists believe that hydropower development could not be mitigated.

Response: The Council believes that the risks of mitigation are supported by the record. Commentors offered a number of specific examples where mitigation has failed, and this is consistent with the Council's experience. In effect, the Council is weighing the importance of the region's most valuable fish and wildlife habitat, and the risk that hydropower development would damage this habitat irreparably. The Council does not conclude that mitigation never can succeed, but only that there is a significant risk that mitigation will fail. The importance of these fish and wildlife habitats is such that these risks are too great.

Protected areas should not cut off the opportunity for experimentation with new mitigation techniques. Protected areas affect only a fraction of the region's stream reaches. Mitigation may be tested and perfected in areas outside protected areas. For anadromous fish, mitigation techniques may be refined at existing dams.

3. Impact on the power system.

There was little challenge to the proposed conclusion that protected areas are consistent with an adequate, efficient, economical, and reliable power supply. However, some commentators were concerned that the proposed rule will foreclose the region from developing future projects when the current surplus is over, and renewable energy resources will be needed. One utility stated that the proposal was unwise because it "totally ignores the quality of the site for hydropower." (Puget). The City of Klamath Falls made a similar point with respect to its Salt Caves project in Oregon, and the Western Montana G&T took a similar position.

Others supported the proposal, noting that more than half of the region's rivers would still be open to hydropower development, and that even protected reaches might be considered for development when energy demand is high and energy options are more constrained. Several commentators, including a power economist, suggested that the potential energy at stake in protected areas would not contribute significantly to the region's energy supply, but that the importance of protected areas to fish and wildlife would be enormous. Still others stated that protected areas would encourage the development of least-cost alternatives for future energy needs, and were an essential part of a comprehensive plan for the region's energy development.

Response: The Council reaffirms that protected areas are consistent with an adequate, efficient, economical and reliable power supply. Protected areas will constrain the energy options available to the region. However, in the Council's current update of the power plan it appears that substantial development of cost-effective hydropower can occur, even after taking protected areas into account. On the other hand, it does not appear that hydropower development in protected areas would be cost-effective. The potential energy at stake in protected areas would not contribute significantly to the region's energy supply in the near term, particularly because of the controversies such development is likely to spawn.

B. Effect on federal agencies.

1. Bonneville Power Administration.

We received few comments on the proposed rule's provision that Bonneville should not acquire energy from projects located in protected areas. We did receive considerable comment on the provision that Bonneville should not provide intertie access to projects in protected areas. These comments concerned the nature of the Council's authority, certain administrative problems posed for Bonneville by the proposed rule, and whether Bonneville should rely on protected areas to limit intertie access outside the Columbia River Basin. In addition, some commentators suggested that the Council should also address Bonneville's provision of transmission services generally.

a) Authority with respect to the intertie.

Many commentators supported the proposed rule's provision that intertie access should be reduced for projects located in protected areas. PNUCC, however, argued that the Council overstepped its authority when it addressed Bonneville's management of the intertie. PNUCC maintains that Bonneville should be left to determine how to use its authorities consistent with the fish and wildlife program, and that the Council should not take it upon itself to interpret Bonneville's authorities. Bonneville's written comments do not specifically address the authority question because its Long-Term Intertie Access Policy already relies on protected areas to determine intertie access.

Response: The Council's view regarding its authority with respect to the intertie has been expressed on a number of occasions, and has not changed. The Council believes that the Long-Term Intertie Access Policy's reliance on protected areas is consistent with the Council's power plan and fish and wildlife program as they apply to fish and wildlife in the Columbia River Basin. The Council continues to recommend that Bonneville adopt a similar policy with respect to protected areas outside the Columbia River Basin, as discussed further below.

- b) Should Bonneville rely on protected areas to limit intertie access outside the Columbia River Basin?

Several commentors supported the proposed rule's recommendation that Bonneville rely on protected areas limit intertie access outside the Columbia River Basin. They reasoned that protection for out-of-basin areas is essential to ensure that investments in enhancing fish and wildlife inside the basin are not depreciated. Bonneville commented that it did not intend to limit intertie access for projects in protected areas outside the Basin.

Response: The Council has received considerable comment on the need to protected out-of-basin habitat in order to protect fish inside the basin (see discussion below, at pp. 18-19). The Council is satisfied that there is an important relationship between fish protection in and out of the basin, and continues to believe that Bonneville should rely on protected areas outside the Basin to limit intertie access.

- c) Should protected areas affect access to Bonneville transmission?

The State of Washington suggested that the rule provide not only that the intertie should be managed in accordance with protected areas, but that Bonneville deny transmission service generally for hydropower projects in protected areas.

Response: The proposed rule did not address Bonneville transmission services, and the Council does not believe it has received sufficient comment to determine whether transmission should be included.

- d) Protected areas and administration of Bonneville's intertie.

Bonneville commented that the "no net loss" standard for wildlife and non-wild resident fish creates a serious problem for their administration of the Long-Term Intertie Access Policy, which decreases access to the intertie if a utility develops or acquires energy from a project in a protected area. Bonneville commented that it would rely on FERC to determine whether projects would be acceptable in wildlife and non-wild resident fish protected areas.

A commenter expressed concern that a utility might be penalized unfairly if, under PURPA, it were required to acquire power from a small hydropower facility in a protected area.

Response: In the final rule, nonwild resident fish and wildlife protected areas are treated as other protected areas. The Council believes this will eliminate the administrative problem Bonneville points to.

As to utilities who are required under PURPA to acquire power from facilities in protected areas, Bonneville's Long-Term Intertie Access Policy provides an escape valve. Section 7(e) of the Policy

allows utilities to request that Bonneville not enforce the Policy's fish and wildlife protections where the utility has been compelled to acquire the output of a project in a protected area under section 210 of PURPA.

2. The Federal Energy Regulatory Commission.

a) Characterization of FERC's obligations and authorities.

The FERC staff comments generally supported the proposed rule. They made it clear that they interpret this provision as recognizing FERC's "independent" responsibilities, but also recognized the Council's expectation that in the Columbia River Basin FERC will implement protected areas unless FERC's legal responsibilities require otherwise. More generally, FERC staff said "The Council should be commended for its efforts to develop the type of plan Congress intended in enacting ECPA to aid Commission evaluation of hydroelectric proposals." (FERC staff comments at p. 6).

Few commentators complained about the proposed rule's language regarding FERC. However, the National Marine Fisheries Service noted that the proposed rule provides that FERC "should" take protected areas into account, while every other measure in the fish and wildlife program says federal agencies "shall" take the program into account, and contains a program section defining what "shall" means. Friends of the Earth suggested that the proposed rule does not go far enough, and should call on FERC to refuse to issue preliminary permits for projects in protected areas. PNUCC, on the other hand, would soften the rule further.

Response: The Council has changed the wording of the proposed rule to clarify that the Council intends that the FERC's full obligations under the Northwest Power Act are called into play by the protected areas amendments. In all other respects, the final rule is identical to the proposed rule. The Council considered PNUCC's suggestion, but concluded that PNUCC's point that protected areas should be implemented only to the extent FERC finds substantial evidence to support them was misplaced. This concern is discussed in the following section. The Council believes it is for the FERC in the first instance to determine how to implement protected areas in FERC processes, including whether preliminary permits should be issued for projects in protected areas. The Council does not encourage developers to seek preliminary permits in protected areas.

b) "Substantial evidence" and FERC's obligations under the Council's program.

FERC staff emphasized that FERC must rely on "substantial evidence" in licensing decisions, and would give more or less weight to protected areas depending on the quality of the data that underlies them. The same concern was implicit in comments made by the PNUCC.

Response: The Council bases its fish and wildlife program measures on what it finds to be the best available scientific knowledge. The Council's power plan must find a reasonable basis in a rulemaking record. In formulating protected areas, the Council relied on a data base that was developed through a lengthy process of research, intensive and detailed review by fish and wildlife managers and other interested parties, and extensive public review in the course of the issue paper and rulemaking comment periods. Through this process, the Council has acquired what it believes to be the best available data on anadromous fish and high-value resident fish and wildlife habitat, which the Council believes will satisfy FERC's need for substantial evidence. The data base is available on computer disk or hard copy, and the Council will cooperate fully with FERC and all other interested parties to provide full access to these data.

The Council does not agree that any federal agency's legal obligation with respect to protected areas hinges on that agency's evaluation of the Council's rulemaking record. Once the Council adopts a final rule, the rule is subject to judicial challenge to test whether the information in the Council's record supports the final rule. Unless a court finds the Council's record lacking, the legal responsibilities of federal agencies with respect to the rule are fixed by sections 4(h)(10) and 4(h)(11) of the Northwest Power Act.

The Council has adopted procedures for the protected areas policy to correct technical errors in the protected areas list, and to keep the protected areas policy and data base current.

3. Other federal agencies.

The Bureau of Reclamation commented that the proposed rule was unclear about the Council's expectations for federal agencies other than Bonneville and FERC.

Response: The Northwest Power Act requires federal agencies that manage, operate, or regulate hydroelectric facilities in the Columbia River Basin must take the Council's fish and wildlife program into account at all relevant stages of their decisionmaking to the fullest extent practicable. The Council expects that the Bureau of Reclamation, the Army Corps of Engineers, and other such agencies will use their discretionary powers in accordance with the requirements of the Northwest Power Act.

C. Scope of protection.

1. Anadromous fish.

No commentor disputed the standard of protection proposed for anadromous fish *per se*. However, many utility commentors disputed the need for protected areas at all. They suggest generally that the probable effects of hydropower development on fish and wildlife are better judged on a case-by-case basis, rather than through a generic judgment. They contend either that the Council should intervene in particular FERC proceedings, or if that is not enough, the Council should establish criteria for fish protection that FERC could apply in particular cases. FERC staff, on the other hand, felt that protected areas would be useful to FERC in determining what projects are best adapted to a comprehensive plan for the waterway.

Response: The Council's plan and program supply a long-term, regional view that may be lost in FERC's determinations on particular projects. Protected areas reflect the Council's judgments regarding the region's power needs, the value to the region of minimizing conflict in resource development, the importance to the region of preserving its remaining high-quality fish and wildlife habitat, and the extent to which the region is unwilling to risk further fish and wildlife losses in exchange for more hydropower capacity.

The need for a systemwide perspective in hydropower licensing is particularly compelling with respect to anadromous fish, which migrate throughout many of the region's river systems and the Pacific Ocean.

Protected areas also constitute a list for Bonneville, FERC, developers, and others, of areas where significant fish and wildlife damage is likely, is judged by the region to be irreversible, and where the

likelihood of conflict is greatest. Developers should find it easier to develop projects by avoiding sites in protected areas.

2. Wild resident fish.

The proposed rule's strong protection for wild resident fish was supported by fish and wildlife interests, and particularly the Montana state agencies. Generally, they stressed the importance of resident fish in many parts of the region, and the particular importance of protecting the genetic resources of wild fish. On the other hand, the City of Klamath Falls, Oregon, which has a project outside the Columbia River Basin, criticized the proposed rule. The City contends (a) there is nothing in the record demonstrating the genetic uniqueness of the wild fish in protected areas, (b) there are better ways of protecting genetic resources represented by wild resident fish than prohibiting hydropower development, and (c) wild rainbow trout (present in the area of the City's proposed project) are less valuable than many other species, and should not be put in a high-value category. The City suggests that the rule be more narrowly drawn, or allow mitigation measures for certain wild resident fish species.

Response: The Council retained the proposed rule's strong protections for wild resident fish. The City of Klamath Falls' comments are based on the assumption that wild resident fish are protected solely because of their genetic importance. However, wild resident fish habitat in protected areas should be protected for reasons in addition to the genetic importance of wild resident fish. Resident fish habitat in protected areas has been identified as the most critical resident fish habitat in the region. The Council believes that projects in these areas should not be developed until after other, less sensitive areas have been developed. Development in these areas is likely to be controversial and costly, as the Salt Caves project demonstrates. From an energy planning point of view, projects of this kind are less likely to be available when they are needed.

3. Non-wild resident fish.

Fish and wildlife agencies generally supported the Council's treatment of non-wild resident fish. These commentators stated that under the Council's proposed definition of non-wild resident fish ("a population that relies entirely on artificial supplementation to maintain its population size"), no non-wild resident fish habitat is included on the protected areas list. Many other commentators including FERC staff, were confused by the Council's definition of non-wild resident fish. PNUCC suggested that the Council narrow this definition to provide more selective protection for high-value wild fish only.

Response: The Council deleted former section 1103(b)(3)(c) of the proposed rule because the record shows that there are no non-wild resident fish protected areas, as the proposed rule defined non-wild resident fish. Stream reaches protected for their resident fish habitat were identified as the region's highest-value resident fish areas, where the risks posed by hydropower development are the greatest. The Council believes that hydropower development in these reaches would pose unacceptable risks to the fish resource, and electric power from resources in such areas is unlikely to be available when needed. Because of this, the Council saw no reason to distinguish between the standard of protection that applies to resident fish and the standard for anadromous fish.

4. Wildlife and no net loss

Wildlife comments: Many commentators, including the Army Corps of Engineers, the City of Seattle, and state wildlife agencies who participated in developing the protected areas list, cautioned

the Council not to believe that mitigation for wildlife is any easier than for fish. Several fish and wildlife agencies said that they understood the Council's workplan to ask them to identify areas where hydropower development could not be mitigated; if they had understood that the Council was considering "no net loss," they would have expanded their lists.

A number of conservation groups urged that wildlife spend a disproportionate amount of their time in riparian areas, particularly in winter months, and that riparian habitat threatened by hydropower projects cannot be replaced. Any project that threatens to flood or dewater a riparian area poses an unacceptable risk to wildlife, said one commentator. Several agencies emphasized that they had recommended protection only for habitat where, in the agency's opinion, hydropower development could not be successfully mitigated. One agency said that it had taken a particularly conservative approach to its protected areas recommendations, including only the most essential fish and wildlife stream reaches where the highest concentrations of target species are found. (MDFWP).

Other commentators encouraged the Council to view wildlife protected areas as hydropower reserves that the region should not draw on until other, less sensitive areas have been put to use. As a representative of the Flathead Audubon Society said, at that point, "you sit down with all the parties and you say, well which ones can we let go? You know, perhaps there would be other technology at that time so we won't have to use those streams or better technology so that not so much damage will be done by development."

Some commentators believe that the effects of hydroelectric development are easier to mitigate for some wildlife, as opposed to anadromous and wild resident fish (Idaho, Flynn). However, the State of Idaho also stressed that inundation of riparian areas and big game winter ranges cannot be satisfactorily mitigated. The Colville Tribe said that although they would chose a more stringent protection for wildlife, the wildlife standard is reasonable viewed in the context of the entire rule.

"No net loss" comments: Many commentators said that a "no net loss" standard would encourage controversy and defeat the Council's objectives of sending clear signals to developers, minimizing disputes, lowering development costs, and minimizing uncertainty in the region's ability to meet its power needs at least cost. The National Wildlife Federation gave as an example the recent licensing dispute over a proposed dam at Kootenai Falls on the Kootenai River, where extensive studies of fish and wildlife and 60 days of administrative hearings could not conclusively establish whether the project would or would not harm fish and wildlife. Given what one commentator believes to be the unduly restrictive criteria the Council used to develop the protected areas list, the "no net loss" standard would "involve an unacceptable degradation of the best wildlife habitat remaining in the region." Some commentators argued that a "no net loss" standard would add little or nothing to fish and wildlife protections already offered under existing regulation. Several commentators noted that the "no net loss" standard overlooks the problem of cumulative hydropower impacts, where a single project may have effects that may be mitigated, but taken together with other projects, may be unacceptable.

A utility commentator criticized the no net loss standard as effectively prohibiting all hydro development because the rule implies that the loss of a single animal would be impermissible. PNUCC shared this view, and suggested that if this is the Council's intent, it should simply adopt a flat prohibition, which would be clear.

Response: Protected areas identify the region's most critical fish and wildlife habitat, and are intended to divert development away from those areas. Wildlife in protected areas are essential habitat for endangered or threatened species, or species of special concern to the relevant states.

Reasonable people may disagree over whether wildlife are easier to mitigate for than are fish, as is reflected in the record of this rulemaking. The Council believes that debates over the degree of risk posed by particular projects should occur over projects outside protected areas, where the region's most sensitive wildlife populations will not be at stake. The risk of failed mitigation is unacceptably high with regard to the region's most valuable wildlife habitats.

Because of the definitional problems posed by the "no net loss" standard, and because of the importance of protecting high-value wildlife habitats, the Council adopted the same standard of protection for resident fish and wildlife protected areas, and the "no net loss" standard was deleted from the rule.

D. Application to existing projects.

Many utilities supported the proposed rule's provision that new hydropower development at existing dams should not be affected by protected areas. Others argued that adding hydropower generation facilities to existing dams could be just as damaging to fish as a new hydropower project. Some commentors urged the Council to include existing dams in protected areas for consideration in relicensing for this reason.

Several commentors suggested that criteria other than issuance of a FERC license be used to determine whether a project is an "existing" project. One commentor who has invested \$500,000 in a project near Idaho Falls, and whose application has been accepted for filing by FERC said that an exemption should be created for projects "based on when the time study was started or a level of expenditures to date or perhaps based on the acceptance by F.E.R.C., of an application for filing....[Adoption of protected areas] at this late date may very well be the straw that broke the camel's back." (Idaho Falls Mayor). An Idaho Falls City Council member asked whether the Council intended to compensate developers for their costs and damages incurred prior to and as a result of a protected areas rule. FERC staff suggests that the Council consider "whether equitable considerations warrant different treatment" of some proposals that are well along in the licensing process.

The State of Washington urged the Council to exempt from protection projects with pending license or exemption applications that have written approval of all affected agencies and tribes, and and to clarify that this exemption extends to projects capable of producing power, and to projects on relicensing:

This measure shall not affect: a) any hydroelectric project that as of [date of Council's final action] has been licensed or exempted from licensing by the Federal Energy Regulatory Commission; b) any hydroelectric project that has a license or exemption pending before FERC as of [date of Council's final action] that has secured approval, in writing, of all affected agencies and tribes; c) any hydroelectric project which is on-line and capable of producing power as of [date of Council's final action]; d) any relicensing of hydroelectric projects.

Another commentor suggested that additional facilities at existing dams be supported only where the additional facilities do not enlarge an existing impoundment, drawing on PURPA's definition of "new dam."

One commentor asked that the Council clarify that the rule would not apply to hydro projects where capacity is added, hydro projects where additional generation facilities are added, and dams or structures currently without hydro generation facilities.

Response: Protected areas have always been concerned with preventing loss of valuable fish and wildlife habitat caused by new hydropower facilities. Mitigation for the effects of existing projects can be and are in many cases addressed in the Council's fish and wildlife program. The Council does not intend to depart from this focus on new facilities. For this reason, the Council determined that protected areas should not apply to existing projects and impoundments, relicensing such projects, modifications to existing projects, or to non-hydropower structures where hydropower generation is proposed. The Council does not wish to discourage owners of non-hydropower structures from seeking FERC approval of hydropower facilities where FERC license conditions consistent with section 1103(a) and (b) of the Council's fish and wildlife program and Appendix II-B of the power plan are adopted. The Council intends to address such additions on a case-by-case basis.

For proposed projects now being considered by FERC in protected areas, the Council recognizes that some applicants may have made substantial investments and have completed, or nearly completed, agreements with all interested parties, including relevant fish and wildlife agencies and Indian tribes. The Council also recognizes that FERC may be obliged to complete its processes on these applications. Nevertheless, the Council believes that in considering these applications, FERC should take protected areas into account where possible.

E. The Protected Areas List, and other data base issues.

The City of Klamath Falls criticized the resource value classifications contained in the Council's data base as reflecting subjective, sometimes cursory evaluations by fish and wildlife agency staff who may have had little familiarity with the river reaches involved. They also complained that the study ignored better data that the City has gathered on the Klamath River. Finally, they maintained that revisions to the data base have changed during the course of the rulemaking "under a technical correction mechanism that is apparently exempt from undergoing review or public input."

A number of commenters pointed out specific inaccuracies in the data base.

Regarding the protected areas list generally, PNUCC and some utilities suggested that the Council should not amend the protected areas list into the power plan and fish and wildlife program. Rather, they would have the plan and program establish criteria for identifying what habitat to protect (anadromous and high-value wild resident fish habitat, for example, and only in the Columbia River Basin), and the protected areas list would represent the Council's judgment of what areas satisfy the criteria.

Response:

Based on public comment regarding data accuracy, the Council approved a number of specific corrections to the Protected Areas List.

As to the process that generated the data base, the Council disagrees with the City of Klamath Falls. Before undertaking this rulemaking, a data gathering and review process of unprecedented scale was organized, with assistance from a number of agencies and individuals, and the Hydro Assessment Steering Committee. In 1984-86, Council staff conducted an anadromous fish study,

which gathered data from fish and wildlife agencies, Indian tribes, and federal land managers. Escapement records, hatchery information including release data, location of spawning grounds, and other information were assembled. In a parallel effort, the Bonneville Power Administration collected non-anadromous fish and wildlife data through the Pacific Northwest Rivers Study. Data were gathered on the resident fish and wildlife species located in river reaches throughout the region. State, federal, and tribal biologists applied criteria approved by the Council, to identify critically important habitat. In this process, the biologists assigned resource values to each river reach to provide a consistent, numerical basis for comparing river reaches in different areas. These efforts produced the data base that underlies this rulemaking, and is widely conceded to contain the best and most comprehensive data available. Klamath Falls has not disputed that the wild anadromous fish shown in the data base are present in the protected reaches of the Klamath River or any other river reach, nor has the City disputed the high resource values assigned to those reaches.

The Council welcomes suggestions or information to improve the quality of information in the data base. To this end, the Council asked for comments on the accuracy of the data base, and, in July 1988 mailed to all commenters a list of reaches for which data corrections were proposed. The Council took additional public comment on these reaches, and adopted corrections to the data base based on this process. For further refinements or corrections, the final rule contains several amendment processes that will involve substantial opportunities for public comment.

The Council did not adopt PNUCC's suggestion that the protected areas list be left out of the plan and the program. The protected areas list is intended to put the Northwest Power Act's legal force into the protection of habitat that the region considers most valuable. If the list were not part of the plan and the program, the list would lack this force, and there would be uncertainty over the identity of specific areas that merit protection. This would lead to the disputes the Council hopes to avoid by adopting the protected areas rule.

F. Relationship to water rights, state river planning, and other interstate compacts.

Several commentors were concerned that the Council was intruding into state water rights and planning prerogatives. An Idaho utility organization commented that the Council's protected areas process merely duplicates the process established by the Idaho legislature in 1988 for comprehensive river planning, ignores a legislative resolution that asks the Council to defer action until the state process is completed, and encroaches on state prerogatives.

However, the State of Idaho "acknowledged the Council's efforts in preparing a comprehensive rule that is sensitive to the specific problems in each state," and said that the proposed protected areas "should complement the planning efforts of the State." The State of Oregon also supported the proposal, which it views as "a ratification of current [state] policy," and consistent with the State's energy plan. The State of Washington commended the Council for "recognizing the importance of state comprehensive plans," and for recognizing "the States' role and responsibility throughout the protected area process."

The City of Klamath Falls criticized the proposed rule's provision that protected areas would terminate with respect to any reach where a "court or other competent authority" finds a conflict with another interstate compact. The City maintains that a conflict with the Klamath River Compact (between Oregon and California) is clear, and the City should not be required to obtain a separate determination of the conflict in order to avoid the effect of the protected areas rule. The Council received no comment on the Klamath River Compact other than from the City of Klamath Falls. The

State of Oregon made no comment on this specific issue, but supported designation of protected areas generally. The State of California made no comment, nor did the Klamath River Commission.

An Idaho utility group suggested that Idaho council members should not endorse any protected areas measure because Idaho has been denied membership in the Columbia River Compact, which coordinates fish harvesting in the Columbia River between Oregon and Washington. They reasoned that protected areas will restrict Idaho waterways to help fish that benefit downstream states who deny Idaho a role in regulating harvest of those fish.

The United States Forest Service, which is engaged in a forest planning process that would rely on state water quality and sedimentation standards, inquired whether the rule would affect this reliance. A forest products association expressed concern that protected areas would disrupt forest planning processes now underway.

Response: The Council appreciates the comments of the states of Idaho, Oregon, and Washington. As an organization of the four Northwest states, the Council has taken special care to build on the expertise and to recognize the responsibilities of relevant state agencies. The protected areas amendments are not intended to preempt state rights or prerogatives. The Council is not a federal agency; the Council's plan and program are addressed to federal agencies, and the Council has involved relevant federal agencies in the protected areas process as well.

As the State of Washington notes, the Council has committed to promptly initiate amendment proceedings and carefully consider revising protected areas if any of the states or tribes completes a comprehensive plan, river basin plan, or watershed plan. The Council recognizes that the states and tribes have particularly strong interests in resident fish and wildlife, which generally do not migrate beyond state or reservation borders. Recognizing this, the Council would pay particular attention to provisions of plans that address resident fish and wildlife.

The protected areas amendments do not authorize the appropriation of water by any entity or individual, affect water rights or jurisdiction over water, or alter or establish any water or water-related right. Nor are the amendments intended to alter state water quality standards or federal land management plans unrelated to hydropower development.

Protected areas do not amend, repeal, interpret, modify, or conflict with any interstate compact made by the states. The Council does not agree that there is a clear conflict between the rule and the Klamath River Compact, and has retained the provision deferring to a determination by a court or other competent authority.

The Council cannot accommodate commenters' concerns regarding the Columbia River Compact. The Council's obligations under sections 4(h) and 4(e) of the Northwest Power Act provide limits for the Council's decision. Nothing in the Act suggests that the Council could hold fish and wildlife measures hostage in order to change an existing interstate compact. Indeed, as the Northwest Power Act says, the Council cannot "alter, amend, repeal, interpret, modify, or conflict with any interstate compact made by the states."

G. Effect on land.

Several commentors suggested that the Council should recognize that it must plan for an entire watershed, and not just streams running through watersheds. They suggested that protected areas

should apply to the banks of rivers, and adjacent riparian areas. On the other hand, other commentors were concerned that the rule would limit logging or other land uses. Even though protected area designations would apply only to hydropower proposals, these commentors were concerned that the designations will be relied on by federal land management agencies, and also used in litigation by opponents of logging and other activities.

Response: The protected areas policy applies to banks and areas near stream reaches only if they would be directly affected by a proposed hydropower project. The Council has no authority to engage in broad-scale watershed planning, or to control logging or other land uses unrelated to energy development. The Council does not intend protected areas to alter federal land management plans. Protected area designations do not purport to balance all the factors that would be relevant to land management determinations, however, and do not bind land management agencies.

H. Amendments.

1. Amendments in connection with state or tribal comprehensive plans.

The states appreciated the Council's proposed commitment to undertake an amendment process upon completion of state comprehensive plans. The Colville Tribe and CRITFC encouraged the Council to recognize that Indian tribes, like states, are governments that plan and guide development on reservations. They recommend that the Council commit to initiate amendment proceedings upon submission to the Council of a tribal rivers plan for a reservation, as the Council proposes to do for state plans.

Response: The Council acknowledges its obligation to consider tribal recommendations in developing the fish and wildlife program, and has amended the rule to provide that if a tribe prepares a plan for reservation rivers, the Council would enter rulemaking to consider amending protected areas to reflect appropriate portions of the tribal plan.

2. Amendments to add scenic, recreational, or other areas.

A great number of comments supported designation of protected areas for values in addition to fish and wildlife values, such as scenic, recreational, and cultural values.

Response: In the protected areas context, where decisions may have implications for land and water use, the Council believes it is better for the Council to adhere to its clearest areas of authority and expertise, which are power and fish and wildlife planning. Whether environmental values such as scenic, recreational, archaeological, or other values should cause a river to be protected may be considered in state and tribal planning processes. In turn, the Council will initiate amendment proceedings to consider revising protected areas to reflect appropriate aspects of state [and tribal] plans.

3. Minor technical corrections.

While the commentors did not specifically suggest that the Council should adopt a process to deal with minor technical corrections, the kinds of comments received on particular reaches in the data base showed that the Council will continue to receive suggestions for minor corrections to the data base. While the Council normally authorizes staff to make minor corrections before a final rule is published, the Council determined that a continuing staff authorization to make such corrections as

needed in the the protected areas data base was desirable. These technical corrections would include typographical errors, more accurate information on river reach lengths, and new information about additional species identified at the reach. A correction to the data base for any of these reasons could be considered technical and could be carried out without further Council action so long as it did not change the protection to be accorded any area.

4. Amendments that change protected area designations from protected to unprotected, and vice versa.

The amendment procedure drew a number of comments. Many commented that if there is an expedited procedure for deleting reaches, there should be one for adding reaches. Others, including PNUCC, commented that the expedited process was administratively burdensome, and would distract the Council from more important matters.

In addition to comments on the technical amendment process, a number of commentors, including developers, state agencies, tribes, and members of the general public, suggested changes in the protected status of particular reaches, and, in some instances, entire sub-basins.

Response: The Council modified the amendment procedure to add four new elements: (1) Review and recommendation by appropriate state agencies and tribes before the Council takes up a protected areas proposal; (2) similar treatment for all proposed deletions or additions, regardless of whether the proposal is based on technical or non-technical grounds; (3) consideration by Council of proposed amendments at regular intervals, such as once a year; and (4) consideration by Council of proposed amendments before regular interval only upon showing of compelling need for earlier decision.

At its July meeting in Sandpoint, the Council determined that, before it would consider certain major proposed additions to protected areas, it would refer the proposed additions (the Bitterroot, Cowlitz, Powder, Pine Creek, etc.) to the appropriate state agencies and tribes for review and recommendation. Several considerations were discussed in reaching this decision, including (1) a desire to maintain a consistent method of evaluating possible protected areas, (2) a need for technical advice on the merits of the proposal from those most knowledgeable about the reaches, and (3) an interest in receiving recommendations from those who are currently managing the resource.

5. Exceptional projects.

The proposed rule stated that the Council would consider making exceptions for projects with exceptional fish and wildlife benefits. The background paper explained that "exceptional" was intended to make clear that the Council "does not anticipate making exceptions to the protected areas designations routinely. Only extraordinary situations would be considered by the Council." Under the proposed rule, there was no special procedure for exceptional project petitions; such petitions were to be considered like other amendments to the fish and wildlife program.

Some commentors supported the proposed procedure for projects with positive fish and wildlife benefits. Other commentors, such as PNUCC, felt that the proposed requirement that projects show "exceptional benefits" for fish and wildlife was too strict, and would not allow meritorious projects. Still another commentor said that the "exceptional benefits" requirement was a way of allowing projects which would generate controversy and risk to fish and wildlife.

Response: The Council evaluated a number of alternative standards, but determined that the "exceptional benefits" standard was the best suited to the Council's purposes. The Council does not intend to consider routinely whether particular projects pose acceptable risks for fish and wildlife, because this would involve developers, fish and wildlife interests, and the Council in the disputes the Council hopes to avoid. Rather, the Council intends to make exceptions from protected areas only in those infrequent cases where there is general agreement that a project promises real fish and wildlife benefits, and will contribute to the recovery of the region's fish and wildlife populations. It is possible that an upriver project might significantly augment downstream flows for fish, for example.

Although no commenter raised a question regarding procedure, the Council decided to provide a procedure for considering exceptions. This process resembles the procedure adopted for considering changes in protected area status.

I. Power plan issues

1. The need for protection outside the Columbia River Basin.

Many commentors supported the proposition that failure to protect fish and wildlife outside the Basin could increase commercial and sport demand for fish and wildlife inside the basin, particularly for anadromous fish. A Northwest recreational equipment cooperative pointed to research concerning a national park whose "boundaries were originally set too restrictively to allow the Park to maintain itself as an ecosystem. As pressures on the Park's perimeter have increased, wildlife populations within the park have begun to decrease." (REI). A sports fishing group in Montana noted that their local river already is feeling pressure from fishermen whose rivers have been adversely impacted by hydropower development. Congressman Lowry supported these concerns. Others expressed concern that fish produced in the Columbia River Basin would be fished in the ocean more heavily if out-of-basin stocks decline because of habitat degradation. One commentator explained that although the U.S.-Canada Pacific Salmon Treaty limits ocean harvest, it will be difficult as a practical matter to reduce harvest quotas, particularly where a reduction in Canadian or Alaskan harvest is sought because the Pacific Northwest chooses to allow its fish habitat to be degraded. There is a risk, said the commentator, that with relatively fixed ocean catch ceilings, harvest of Columbia River stocks could increase if fewer fish are produced outside the Columbia River Basin, and the region's investment in Columbia River fish and wildlife will be devalued. (Jensen). The same concern was voiced by the Columbia River Inter-Tribal Fish Commission. Several fish and wildlife agencies expressed concern that ocean harvest would suffer if fish outside the Basin are not protected.

The FERC staff was strongly supportive of the out-of-basin coverage of the proposed rule. The FERC itself has found the power plan to be a comprehensive plan, which it considers in licensing decisions outside the Columbia River Basin.

Congressman Swift said that "it is clear that the Council does have the authority to apply the Protected Areas Program, as proposed, outside of the Columbia River Basin." However, PNUCC suggested that the Council's authority does not encompass protected areas outside the basin. PNUCC also asked the Council to say that protected areas outside the Columbia River Basin are intended only to apply to Bonneville acquisitions, not to non-federal projects.

Response: The Council continues to believe that designating protected areas outside the Columbia River Basin will help minimize the expense and controversy involved in development, help guide development toward environmentally benign projects, and protect critical fish and wildlife

resources. The Council is also persuaded that protection of habitat outside the Columbia River Basin will help meet this country's U.S.-Canada treaty commitment to rebuild salmon and steelhead stocks. Finally, the Council believes that protecting habitat outside the Columbia River Basin will help avoid disproportionate harvest pressure on fish and wildlife in the Basin, thereby depreciating the ratepayers' investment in the Basin.

The Council relies on section 4(e) of the Northwest Power Act for the amendments to the power plan, which applies outside the Columbia River Basin. Section 4(e)(2) of the Act directs the Council to develop a "general scheme for implementing conservation measures and developing resources pursuant to section 6 of this Act to reduce or meet the Administrator's obligations with due consideration by the Council for (A) environmental quality, (B) compatibility with the existing regional power system, (C) protection, mitigation and enhancement of fish and wildlife and related spawning grounds and habitat, including sufficient quantity and quality of flows for successful migration, survival and propagation of anadromous fish, and (D) other criteria which may be set forth in the plan." Protected area designations reflect the Council's consideration of fish, wildlife, and environmental factors in developing the power plan. In addition, section 4(e)(1) of the Act requires the power plan to "give priority to resources the Council determines to be cost effective." 16 U.S.C. 839b(e)(1). As explained below, the Council believes projects in protected areas are unlikely to be cost effective. Finally, one of the purposes of the Northwest Power Act is to provide for broad regional involvement in the development of plans and programs to protect, mitigate, and enhance fish and wildlife resources, facilitate the orderly planning of the region's power system, and provide environmental quality. Protected areas reflect the importance to the region of protecting critical fish and wildlife habitat, the environmental values they represent, and the advisability of avoiding divisive conflicts over hydroelectric development in such areas. The amendments to the power plan go no further than the Pacific Northwest region defined by the Act.

The Council intends protected areas outside the Columbia River Basin to apply to Bonneville acquisitions. In addition, protected areas outside the Columbia River Basin are part of a comprehensive plan that the FERC considers in its licensing of non-federal hydroelectric projects.

2. Determination of cost-effectiveness.

Under the Northwest Power Act, "cost-effective" means a power resource that is (1) "reliable and available within the time it is needed;" and (2) no more costly than the "least-cost similarly reliable and available alternative measure or resource."⁴ The Council's power plan must give priority to cost-effective resources. In turn, Bonneville acquisitions must be consistent with the power plan.

No commentor disputed directly that projects in protected areas may be presumed to be unavailable when needed, because of their risks to fish and wildlife. However, some utilities commented that it would be arbitrary for the Council to make a broad determination of cost-effectiveness that fails to account for the costs and benefits of individual projects. They suggested that the Council must rigorously analyze "true costs and benefits" before making a cost-effectiveness determination. (Puget). In addition, the commentor noted that renewable energy resources such as hydropower must be accorded second priority in the Council's power plan.

4/ 16 U.S.C. 839a(4)(A)(i).

Commentors did not dispute that hydropower development proposals in protected areas would have higher development costs due to fish and wildlife controversies. The FERC staff noted that project developers would be required to reimburse the federal government for costs expended by the Departments of Interior, Commerce, Agriculture, and the Corps of Engineers for costs associated with administration of the FERC licensing process. Moreover, for small hydropower projects seeking PURPA benefits, developers are required to reimburse state and federal fish and wildlife agencies for their costs in setting terms and conditions on hydropower proposals.

Response: The Council chose not to make a final determination of cost-effectiveness until case-specific factors and economic analysis are presented. Nevertheless, because of the likely higher development costs of projects in protected areas, and the greater obstacles to development, the Council believes that projects in protected areas would probably not be cost-effective.

J. Projects outside protected areas.

Some commentors asked the Council to say that protected area designations do not imply that fish and wildlife values outside protected areas are negligible. Others argued that protected areas take care of the region's most important fish and wildlife habitat, and that projects in other areas should be treated as uncontroversial.

Response: One of the purposes of protected areas is to minimize the expense and controversy involved in hydropower development in the region. The Council's protected areas list is intended to protect all reaches where fish and wildlife values are so critical that development should not occur. Outside protected areas, fish and wildlife values have been judged not to reach this high level of concern, and hydropower development should not necessarily be prevented because of fish and wildlife concerns.

At the same time, protected area designations do not imply that fish and wildlife values outside protected areas can be overlooked. Section 1103(a) and (b) of the Council's fish and wildlife program, and Appendix II-B of volume 2 of the Council's power plan, contain significant mitigation and consultation standards for new hydropower developments. Moreover, projects outside protected areas still will have to go through the FERC process, where fish and wildlife agencies and Indian tribes will be able to impose mitigation conditions. There are a number of river reaches that did not satisfy the Council's criteria for inclusion on the protected areas list, and yet development may be controversial in some of these reaches. For this reason, developers still should consult relevant provisions of the Council's fish and wildlife program and power plan, and carefully coordinate their efforts with fish and wildlife agencies, Indian tribes, and others to identify acceptable sites.

In its current revision of the power plan, the Council is in the process of identifying the amount of cost-effective hydropower that can be developed in the region, where environmental and other criteria would be satisfied. The Council encourages development of hydropower of this kind outside protected areas.

K. Other environmental concerns.

A commenter opposed protected areas as reflecting a narrow concern for fish and wildlife to the exclusion of other pressing environmental concerns. Specifically, the commenter was concerned that by limiting hydropower development in protected areas, the Council would encourage development of energy resources based on fossil fuels that contribute to the "greenhouse effect." (Beak).

Response: The Council's power plan will continue to reflect a supply of available, environmentally benign hydropower. As economic conditions, technology, environmental problems, and energy demands change, the Council may consider questions related to protected areas. The protected areas rule reflects the Council's judgment that hydropower development should not occur in protected areas until other, more environmentally benign and cost-effective forms of energy development have been exhausted.