

ISSUE PAPER

HUNGRY HORSE MITIGATION PLAN

February 13, 1986

In September 1985, the Montana Department of Fish, Wildlife and Parks (MDFWP) submitted a proposal for the Hungry Horse Dam wildlife mitigation plan to the Northwest Power Planning Council, pursuant to Section 1004(b)(3) of the Columbia River Basin Fish and Wildlife Program. That section calls for Council approval of each wildlife mitigation plan before Bonneville or the appropriate project operator initiates implementation.

Prior to making that decision, the Council believed it was important to take the time necessary to review the plan with those parties that may be affected. To aid the Council in this review and in the identification of technical and policy issues, the Council released the Hungry Horse mitigation proposal for public comment in November 1985. In concert with the public comment period, the Council sponsored a consultation meeting to discuss the contents of the plan with the affected parties in December.

The written comments received in the public comment period were very detailed. Not only did commenters analyze the merits of the mitigation plan, but many commented on an array of basinwide wildlife policy issues they believe need to be discussed.

This paper discusses the more significant wildlife policy issues raised during the public review of the Hungry Horse mitigation proposal, outlines a staff proposal and describes various alternatives the Council may wish to consider in its decision on the Hungry Horse mitigation plan. The staff proposal calls for the Council to approve portions of MDFWP's habitat protection and habitat enhancement proposals for Hungry Horse Dam and to amend the decision into the Fish and Wildlife Program early in 1987.

The Council requests comments on the following questions:

- 1) Is the staff proposal the best way to address wildlife losses caused by Hungry Horse Dam? Do you have suggestions for better alternatives?
- 2) Should the Council continue to approach wildlife protection, mitigation and enhancement on a project-by-project basis?
- 3) Is full redress for wildlife losses caused by past development of hydropower projects the intent of the program and the Northwest Power Act?

4) What is a reasonable way to determine the portion of wildlife losses caused by development of a multipurpose hydropower project that are attributed to hydropower? Should the same approach be used for all projects? Or should different approaches be tailored to different projects?

5) Should Council decisions on wildlife mitigation plans be amended into the fish and wildlife program?

The schedule for discussion on this issue paper is as follows:

- o Council staff presentation of issue paper at the February 13-14, 1986 Council meeting in Boise, Idaho.
- o Issue paper consultation at 9 a.m. on March 6, 1986, at the Council offices, in Portland.
- o Public comment at the March 12-13, 1986 Council meeting in Washington.
- o Written comments are due in the Portland office by 5 p.m., Friday, March 21, 1986. Please submit written comments to:

The Northwest Power Planning Council
c/o Janie Percy
850 S. W. Broadway, Suite 1100
Portland, Oregon 97205

- o Council action is tentatively scheduled at the April 9-10, 1986 Council meeting in Montana.
- o Copies of the MDFWP Hungry Horse mitigation proposal are available through the Council office by calling Judy Allender at the toll-free number for Idaho, Montana and Washington, 1-800-222-3355, or the toll-free number for Oregon, 1-800-452-2324.

THE ISSUE

In October 1984, the Council amended Section 1004 of the Columbia River Basin Fish and Wildlife Program, and restructured the program's wildlife provisions. The amendment clarified the process for developing wildlife mitigation plans and called for Council approval of individual mitigation plans before Bonneville or the appropriate project operator began implementation.

In September 1985, the Montana Department of Fish, Wildlife and Parks (MDFWP) submitted its final proposal for wildlife mitigation at Hungry Horse Dam to the Council for approval. The MDFWP Hungry Horse mitigation proposal represents the first proposal of its kind to be submitted to the Council pursuant to Section 1004(b)(3) of the Fish and Wildlife Program. The submission of the mitigation proposal for Hungry Horse Dam concluded more than two years of analysis by MDFWP to determine net losses to wildlife and wildlife habitat attributable to hydropower and to develop mitigation alternatives to address the impacts of these losses. MDFWP staff members used professional judgment in developing a proposal for Hungry Horse Dam mitigation to follow the planning requirements outlined in the Council's program. Because this is the first such mitigation proposal to be reviewed, several policy questions are presented:

- 1) Should the Council continue to approach wildlife protection, mitigation and enhancement on a project-by-project basis?
- 2) Is full redress for wildlife losses caused by past development of hydropower projects the intent of the program and the Northwest Power Act?
- 3) What is a reasonable way to determine the portion of wildlife losses caused by development of a multipurpose hydropower project that are attributed to hydropower? Should the same approach be used for all projects? Or should different approaches be tailored to different projects?

These questions could be asked of any hydroelectric project in the basin, but the central question is whether each hydroelectric project is so unique that the answers should be tailored to each project.

The intent of this issue paper is to provide information to the Council and public on how these questions apply to Hungry Horse mitigation. Concurrently, the discussion may provide insights on how the Council could handle future wildlife mitigation plans submitted under the Fish and Wildlife Program. To further the discussion on wildlife issues and the Hungry Horse mitigation plan and to begin to build the foundation for a Council decision, this issue paper explores: (1) the history and status of the wildlife program; (2) development of MDFWP Hungry Horse mitigation plan; (3) description of basinwide wildlife issues; and, (4) staff proposal and alternatives the Council may wish to consider when making a decision on the Hungry Horse mitigation plan.

BACKGROUND

1. Initial Wildlife Program (1981-1984)

In 1981 the Council received initial wildlife recommendations from the Confederated Salish-Kootenai Tribes, the Idaho Department of Fish and Game (IDFG), MDFWP, the Oregon Department of Fish and Wildlife (ODFW), the U. S. Fish and Wildlife Service (USFWS), and the Washington Department of Game (WDG).¹ Some of these recommendations proposed specific mitigation and enhancement measures to be implemented at various hydroelectric sites throughout the Columbia Basin. However, the majority of the recommendations lacked the supporting information needed by the Council to include them in the fish and wildlife program. As a result, the Council chose to structure the wildlife program around a process to assess wildlife losses and develop mitigation plans to address hydroelectric impacts to wildlife and wildlife habitat.

As adopted in 1982, the wildlife program² called for Bonneville to fund a series of planning measures designed to develop wildlife and habitat mitigation and enhancement programs for hydroelectric projects in the Columbia Basin. Briefly, the program called for two planning activities. First, the program required documentation of past, present and proposed wildlife planning and mitigation programs at each of the hydroelectric projects in the basin. These documents were called "mitigation status reports."³ The second planning measure in the wildlife program was designed to lay the framework for wildlife mitigation and enhancement plans.⁴ Procedurally, this measure contained two components. The first component was predicated largely on the outcome of the mitigation status reports. It called for Bonneville to fund studies (after Council approval) to measure the losses of wildlife and wildlife habitat ("loss statements") at appropriate hydroelectric projects in the basin and to propose appropriate mitigation levels. After this component of the planning process was complete, mitigation and

1 Recommendations from IDFG, ODFW, USFWS, and WDG were submitted through the Columbia Basin Wildlife Technical Committee. They comprised recommendations for wildlife measures in the states of Oregon, Washington, and Idaho. Wildlife recommendations for the state of Montana were submitted by the MDFWP, the USFWS and the Confederated Salish-Kootenai Tribes.

2 Northwest Power Planning Council, Columbia River Basin Fish and Wildlife Program, Section 1004(b) (1982).

3 Ibid., Section 1004(b) (2).

4 Ibid. Program Section 1004(b) (2).

5 I.e., those projects whose mitigation status reports indicated a need to develop a loss statement prior to making recommendations for mitigation proposals to address net losses.

enhancement plans were to be developed. These mitigation and enhancement plans were to supply the Council with specific project-by-project recommendations for wildlife mitigation and enhancement actions.

2. 1984 Amendment Process

The 1984 amendment process generated a considerable amount of discussion regarding the Council's wildlife program. A total of 19 wildlife amendment applications were submitted by various agencies, tribes, groups and individuals for consideration by the Council.

Prior to 1984, the wildlife program did not provide a mechanism for implementing the recommendations contained in the mitigation plans. Several amendment applications addressed this issue. Most notably, amendment applications submitted by the Pacific Northwest Utilities Conference Committee (PNUCC), the Columbia Basin Fish and Wildlife Council (CBFWC) and MDFWP suggested the Council: (1) clarify Bonneville's role in funding Section 1004(b) measures and elaborate on the mechanics of proceeding from one measure to the next. (i.e. transition from loss statements to mitigation plan development); (2) take a more active role in approving the mitigation plans before Bonneville or the appropriate project operator commenced with implementation; and (3) allow for various Section 1004(b) planning measures to be bypassed if the affected parties could agree on a particular level of mitigation for a given hydroelectric facility.

The Council adopted these recommendations.⁸ The adoption of this new language clarified the funding responsibilities and mitigation planning process in the program. It did not change or disrupt the activities that had taken place in the wildlife program since 1983.

During the same amendment process, the Council received an amendment application from the U.S. Army Corps of Engineers (the Corps) that called for a substantial revision of the wildlife program. The Corps proposed a detailed program for protecting selected wildlife species by

6 For discussion of background information in this issue paper, only those amendment applications that requested the Council to modify the planning process of the original wildlife program (Section 1004(b)) will be discussed.

7 Amendment applications PN/1004(b)(1), pp. 2134-2152, CB/1004(b), pp. 2120-2133, MF/1004(b)(2), pp. 2185-2200, Northwest Power Planning Council Applications for Amendment, Section 1000, Vol. V (January 1984).

8 Columbia River Basin Fish and Wildlife Program, Section 1004(b), as amended.

9 Amendment application CE/1004, pp. 2095-2119, Northwest Power Planning Council Applications for Amendment, Section 1000, Vol. V (January 1984).

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establishing basinwide wildlife goals and objectives and incorporating them into management plans aimed at "good stewardship."¹⁰ While the Council found worthwhile many of the elements in the Corps amendment, it rejected the amendment because the proposed process deviated too much from the wildlife planning approach followed since 1983, and because it felt that many of the Corps suggestions could be incorporated into the statements of work developed by Bonneville for Section 1004 measures.¹¹

3. Current Status

Implementation of the planning measures contained in Section 1004(b) have been underway since 1983. A summary of wildlife planning measures at individual federal hydroelectric projects¹² in the Columbia Basin is shown in Attachment 1.

4. MDFWP Hungry Horse Proposal

Construction of Hungry Horse Dam was authorized by Congress in 1944 under P.L. 329 (58 Stat. 270). Construction of the dam began in 1948 and was completed in July 1953. The reservoir reached full pool level in 1954. Hungry Horse Dam and Reservoir, located on the south fork of the Flathead River, is a multipurpose project and is maintained and operated by the U.S. Bureau of Reclamation (BOR). Congress provided no funding to mitigate the effects on wildlife of the project.

The Hungry Horse wildlife mitigation proposal is the first in the basin to be submitted to the Council pursuant to Section 1004(b)(3) of the fish and wildlife program. The submission of the mitigation proposal to the Council concluded more than two years of analysis by MDFWP in assessing wildlife losses and in developing mitigation and enhancement alternatives to address the impacts of Hungry Horse Dam on wildlife and wildlife habitat. The following summarizes the process MDFWP used to develop the loss statement and mitigation plan for Hungry Horse Dam:

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- 10 The Corps defines "good stewardship" as those management practices that are used to support a wildlife species at a population level within a defined geographic area.
 - 11 Disposition of Applications, p. 6, Columbia River Basin Fish and Wildlife Program appendices, Appendix A (1984).
 - 12 For purposes of this issue paper only, federal hydroelectric projects are discussed. Several of the region's nonfederal utilities (Washington Water Power, Pacific Power & Light, Portland General Electric, Tacoma City Light, Seattle City Light, and many public utility districts) are working with wildlife agencies and tribes to implement or explore methods to develop wildlife programs for their facilities.

a. Loss Statement.¹³ MDFWP conducted a literature review to obtain all pertinent wildlife information for the region around Hungry Horse Reservoir; mapped and quantified major habitat types lost, using aerial photographic interpretation; developed a list of target species which incurred the greatest impact as a result of the reservoir, or which are of special concern to MDFWP because of their treatment or endangered status.¹⁴ MDFWP identified a total of 26 species that were affected. Thirteen of those were designated as "target" species.

b. Impact Analysis. MDFWP developed an impact analysis for each species or group of species represented in the target species list. The analysis was based on historical population estimates, species distribution information and acres of habitat that were affected. MDFWP developed both quantitative and qualitative loss estimates for each of the target species. Quantitative losses were derived by multiplying the estimated square miles of acreage lost to a species by an average square mile population density estimate for that species. Due to the lack of information on historical population densities, MDFWP could not determine quantitative losses for each target species. (where quantitative losses could not be determined, MDFWP assigned qualitative loss estimates.) Qualitative loss estimates stipulating low, moderate or high impacts (based on ecological and population criteria) also were displayed for each target species. A summary of the losses to target species affected by the development of Hungry Horse Dam is displayed in Attachment 2.

c. Mitigation Proposal. MDFWP mitigation proposal, underwent considerable public review prior to its submission to the Council for a decision. After initial review of the plan and discussions with MDFWP staff, the Council's staff asked MDFWP to revise the mitigation proposal to respond to several technical and policy questions not addressed in the proposal. MDFWP responded by revising the Hungry Horse mitigation proposal and resubmitted it to the Council in August 1985. Subsequently the Council released the revised mitigation proposal for public comment and sponsored a consultation to discuss the proposal with concerned parties.

The following summarizes the methods and assumptions used by MDFWP to develop its Hungry Horse mitigation proposal and discusses the projects proposed by MDFWP to mitigate the impacts.

d. MDFWP Assumptions. MDFWP used the quantitative and qualitative loss estimates as the basis for its mitigation objectives. MDFWP converted the loss estimates directly into mitigation objectives based on the fact that no previous wildlife mitigation had taken place at Hungry Horse Dam.

13 Bonneville initiated a single contract with MDFWP to complete Section 1004(b)(1)-(2) for Hungry Horse, Libby, and the Clark Fork hydroelectric projects.

14 Summarized from "Wildlife Impact Assessment and Mitigation Summary, Montana Hydroelectric Projects, Vol. III - Hungry Horse Dam" (October 1984).

Its overall mitigation goal is to replace all wildlife losses attributable to the construction of Hungry Horse Dam and Reservoir.

For quantitative goals, MDFWP's mitigation objective is to use habitat improvement projects to increase carrying capacity and replace the animals lost or to use habitat protection projects (conservation easements) to protect key habitats equal in acres to those that were lost to inundation.

MDFWP assumed that 100 percent of the wildlife losses were attributable to hydropower development and none to flood control (or other purposes of the project). In other words, MDFWP assumed that 100 percent of the losses are the responsibility of the hydropower ratepayers to mitigate. MDFWP based this assumption on its assessment that hydropower generated at Hungry Horse Dam constitutes its principal use and primary benefit to Montana. MDFWP believed the pool size for Hungry Horse Dam would have been much smaller if the dam had been constructed for flood control reasons alone.

e. MDFWP Project Selection. MDFWP focuses in its proposal on projects which it believed would benefit a number of target species; be cost-effective; complement MDFWP mitigation guidelines and long-range wildlife planning programs, the Northwest Power Act and the Council's Fish and Wildlife Program (including its land acquisition criteria¹⁵); and reflect many of the comments MDFWP received during consultation on its proposal. It used state of Montana mitigation guidelines to determine where projects should occur. These guidelines favor locating projects on lands where wildlife mitigation was compatible with the existing land management practices. MDFWP also placed high emphasis on mitigation projects designed to increase the carrying capacity¹⁶ for target species. Because the ability to increase carrying capacity is unknown and because it wished to establish quantifiable objectives, MDFWP assumed:¹⁷ (1) it is realistically possible to increase carrying capacity for all target species by one-third;¹⁸ (2) present densities are similar to those estimated for the area prior to impoundment; (3) replacement animals are the difference between the present density and a density value increased by one-third; and (4) the land area required to produce complete replacement of animal losses is calculated by using the following equation: $X = A/C(0.33)$, where:

15 Columbia River Basin Fish and Wildlife Program, Section 1004(d)(1), as amended.

16 The maximum number of organisms that can be supported in a given environment.

17 "Wildlife and Wildlife Habitat Mitigation Plan for Hungry Horse Hydroelectric Project," p. 10 (August 1985).

18 The value of one-third was based on professional judgment.

X = Unknown number of acres to be treated
A = Number of animals lost (target species goal)
C = Current density (animals/acre)

Primarily, this equation states that for each acre of habitat lost, approximately three acres require treatment to support the same number of target species.

In those areas where it was deemed inappropriate to increase carrying capacity (i.e., where enhancement would not succeed or yield sufficient mitigation) for a particular species, MDFWP proposed to protect critical habitat by acquiring conservation easements.¹⁹ When this management tool was suggested, MDFWP assumed that full credit on an acre-for-acre basis would be applied towards mitigation.

MDFWP accounted for overlapping benefits among species in each mitigation alternative, noting, for example, that mitigating for big game species would benefit other game and nongame species as well.

A table identifying the target species, and mitigation objectives proposed by MDFWP for Hungry Horse Dam is shown in Attachment 3.

f. Proposed Projects

Using the assumptions, methods and criteria described above, MDFWP identified seven mitigation projects to address the losses sustained to the identified target species. MDFWP has estimated the cost of implementing the seven mitigation projects over a 10-year period to be approximately \$11 million. The operation and maintenance costs after the first 10 years have not been determined. The mitigation projects fell into three separate categories:

Habitat Enhancement Projects. MDFWP has proposed projects for elk/-mule deer and ruffed grouse to enhance existing upland habitat and increase population (examples of habitat enhancement treatments could include prescribed burns, thinning, cover maintenance, etc.) These projects would take place on U.S. Forest Service lands identified tentatively by MDFWP and the Flathead National Forest. The two agencies would fund cooperatively (using their own funds) a staff position to oversee these projects. MDFWP proposes to implement and monitor these projects in stages to test its assumption that increasing carrying capacity will increase target species by one-third. Lands identified for enhancement are expected to need repeated treatments to maintain initial benefits.

Habitat Protection Projects. Three projects have been proposed by MDFWP to protect riparian, wetland and old-growth timber habitat through the acquisition of conservation easements. These projects are targeted for black bear/grizzly bear, waterfowl and terrestrial furbearers.

19 A management interest in land owned by another that entitles only limited use.

(Portions of the latter two projects also would feature habitat enhancement strategies.) The objective of these projects would be to replace animals lost through protection of productive habitats similar to those lost to inundation. Lands identified for easement acquisition include federal, state, and privately-owned lands. Acquiring conservation easements can be lower in cost than acquiring "fee title" and, MDFWP believes, achieves a substantially similar biological objective.

Habitat Management Projects. MDFWP has proposed two projects to develop management plans for aquatic furbearers (especially river otter) and bald eagles. Protecting or enhancing habitat was not deemed appropriate because these species will benefit from many of the projects listed above. MDFWP proposes instead to gather data on these species and to develop management plans to identify future management strategies for state and federal agencies to use. Ratepayer funding for these future strategies would not be sought.

g. Major Issues.

As earlier stated, the Council released the Hungry Horse mitigation proposal for a 30-day public comment period in November 1985. The Council received written comment from 24 individuals, agencies and groups. The comments varied in their analysis of the mitigation plan, but the majority of the comments favored approval of the mitigation projects proposed by MDFWP. However, a number of comments raised questions about basinwide wildlife policy. Many view the impending decision on the Hungry Horse mitigation plan as setting a precedent for Council action on future mitigation plans. The following policy issues were raised:

- o "Retroactive" Mitigation - Should wildlife mitigation be provided at federal hydroelectric projects where the project's statutory authorization did not mention wildlife mitigation and/or where the wildlife agencies never recommended or sought wildlife mitigation? Given the potentially substantial investment involved, did Congress expect the region to provide retroactive mitigation?
- o Hydropower Obligation - Who should pay for mitigation? To date, several methods for allocating responsibility for funding wildlife mitigation have been discussed. The Corps' "cost/benefit allocation method" is designed to allocate project costs/benefits not specifically attributable to one project purpose. As a result of using this method, Hungry Horse cost allocations are 70 percent hydroelectric and 30 percent flood control, and the benefit allocation is 78 percent hydroelectric and 22 percent flood control. The method of allocating costs based on Congressional purposes for an individual hydropower project would, according to information provided by Bureau of Reclamation, result in an allocation of costs at Hungry Horse of 66 percent for hydroelectric purposes and 34 percent for flood control, and navigation purposes. Under a percent of total returnable dollars from plant investment (Congressional

repayment allocation formula), the allocation breakdown would be 76 percent hydroelectric and 24 percent flood control. All of these would be alternatives to MDFWP's assumption of 100 percent attributable to hydroelectric purposes.

- o Amendment Process - Should Council-approved wildlife mitigation plans be amended into the fish and wildlife program? Amending mitigation plans into the program would give the public additional opportunities to comment on the plans and might give Bonneville added support in approaching Congress to approve the funding.²⁰ However, it also would require more time before mitigation actually begins.

A summary of the comments/issues raised on the Hungry Horse mitigation plan is enclosed in Attachment 4.

STAFF PROPOSAL

After reviewing MDFWP's proposed Hungry Horse mitigation plan and the comments received on the plan during the public comment period, the staff followed two important principles in developing the framework for a staff recommendation:

First, the Northwest Power Act requires Bonneville to use its fund and authorities to "protect, mitigate and enhance fish and wildlife to the extent affected by the development and operation of any hydroelectric project of the Columbia River." 16 U.S.C. § 839b(h)(10)(A). In the case of Hungry Horse Dam, no prior wildlife mitigation has taken place. Staff sees no legal support for the argument that "retroactive" mitigation such as proposed by MDFWP is not within the Northwest Power Act's mandate.

Second, throughout the extensive public review on MDFWP's proposed Hungry Horse mitigation plan, there has been general acceptance of the extent of wildlife and wildlife habitat losses identified by MDFWP and of the biological soundness of the mitigation projects proposed. Therefore, most of the issues surrounding the Hungry Horse plan are policy oriented rather biological.

Using the principles as a guide, the staff proposal consists of the following:

20 16 U.S.C. 839(4)(h)(10)(B) Bonneville funding for projects with an estimated life of greater than 15 years and an estimated cost of \$1 million shall be funded in the same manner as under the Federal Columbia River Transmission System Act.

1. Approve Bonneville funding and an implementation (action plan) schedule for the elk/mule deer, black bear/grizzly bear, waterfowl and terrestrial furbearer projects for Hungry Horse Dam, as proposed by MDFWP and modified by the Council staff.

For those mitigation projects included in the staff proposal (elk/mule deer, black/grizzly bear, waterfowl, and terrestrial furbearers), the staff tentatively selected the Congressional repayment allocation formula (see p. 10) as the method to determine the hydropower (ratepayer) obligation to mitigate losses. Staff does not believe that this allocation issue has been adequately analyzed and discussed. The staff welcomes additional comment on the hydropower allocation issue. The repayment formula does represent Congress's judgment of hydropower ratepayers' responsibility to pay for a specified portion of the cost of Hungry Horse Dam. By choosing this allocation method, the losses in terms of population numbers (elk) and acres (bear, terrestrial furbearers, and waterfowl) would be reduced to 76 percent from what MDFWP proposed, to account for the hydropower portion of the debt.²¹ Because wildlife is being considered on a project-by-project basis, the staff does not intend to imply the repayment formula automatically should be used to determine the hydropower responsibility in conjunction with any other project, or that it will constitute a precedent for future Council actions.

Using the repayment formula to determine the hydropower obligation would modify the MDFWP proposal as follows:

- o Elk/Mule Deer - Enhance big game winter range on Flathead National Forest lands adjacent to Hungry Horse reservoir to support an additional 133 elk. (MDFWP had proposed 175 elk.)²¹
- o Black Bear/Grizzly Bear - Protect 6,869 acres of riparian habitat and travel corridors through the acquisition of conservation easements. (MDFWP had proposed 9,038 acres.) 11,298
- o Waterfowl - Protect and/or enhance 802 acres of wetland habitat in the Flathead Valley. (MDFWP had proposed 1,056 acres.) 1,789
- o Terrestrial Furbearers - Negotiate cooperative agreements with state, federal and private companies to protect 10,330 acres selected old-growth forest stands. (MDFWP had proposed 13,638 acres.)

14,542

21 MDFWP proposed objective for the elk/mule deer project is to enhance 18,283 acres of winter range. The staff concurs with comments submitted by PNUCC that the objective of this project should be to support 175 (133 under the staff proposal) additional wintering elk along Hungry Horse Reservoir. The number of acres will remain flexible until the theory underlying carrying capacity is tested in the prototype project.

487 projects
82 x .74 x .76 = 0.46
offset negative repayment formula

2. Reject MDFWP's proposed mitigation projects for ruffed grouse, aquatic furbearers and bald eagles.

The ruffed grouse habitat enhancement project was identified by MDFWP to take place on adjacent lands to the elk/mule deer project. The staff believes that the elk/mule deer project will provide an appropriate level of protection for ruffed grouse habitat (MDFWP believes that 67 percent of the overall mitigation benefits for ruffed grouse will come from the elk/mule deer and bear projects).

The aquatic furbearers and bald eagle habitat management projects proposed the development of management plans by MDFWP to investigate strategies to benefit these species. The staff does not believe that studies to identify management plans constitute effective mitigation. This should be the responsibility of the management entity. In addition, aquatic furbearers and bald eagles will receive partial benefits from the waterfowl and bear habitat protection projects. Furthermore, the Montana Bald Eagle Management Plan, funded by the U.S. Fish and Wildlife Service, calls for maintenance of current habitat for bald eagles.

3. Amend the decision on the Hungry Horse mitigation plan into the Fish and Wildlife Program during the forthcoming amendment cycle.

The staff recommends the Council amend the staff proposal for Hungry Horse into the Fish and Wildlife Program during the upcoming amendment period ending in early 1987. The staff suggests a new table be added to Section 1004 and/or the Section 1504 action plan to display the details of Council decisions on mitigation plans (i.e., list hydropower project, wildlife losses, and mitigation projects/schedules to address losses). This table would be updated each amendment period to incorporate Council decisions on mitigation plans.

The staff believes the Hungry Horse mitigation should be amended into the Fish and Wildlife Program using the following schedule:

Elk/Mule Deer Project - The elk/mule deer project initially will be designed as a prototype to test MDFWP's assumptions of increasing carrying capacity. The total number of acres to be treated (enhanced) will remain flexible until the theory underlying increased carrying is tested.

The elk/mule deer project will be designed and implemented as follows:

Prototype Advanced Design (Year 1)

- A) Identify locations and numbers of acres to be treated in prototype.
- B) Identify enhancement approaches, biological hypothesis to be tested, treatment programs, schedules for implementation, and production targets and monitoring/evaluation design.

- C) Initiate interagency agreements (MDFWP & Flathead National Forest) stipulating responsibilities for the coordinator position and implementation.

Initiate Habitat Treatments/Evaluation and Monitoring - (Upon completion of advanced design)

- A) Implement habitat treatments, evaluate habitat response, monitor elk and mule deer responses. (Years 1-5)
- B) At the end of the five-year program (or sooner) MDFWP will submit results of the prototype testing, analysis of hypothesis tested, and recommendations for further action. At this time a determination would be made by the Council, in consultation with Bonneville and MDFWP, on the number of acres requiring further treatment and duration of Bonneville support (including operation/maintenance funds).

Habitat Protection Projects - (Black Bear/Grizzly Bear, Waterfowl and Terrestrial Furbearers)

- A First-year activities for each project would include interagency coordination, prioritizing potential mitigation sites and contracting for appraisals. Upon completion of these activities, negotiations for easements would take place.
- B Implementation of the projects would be staggered. The black bear/ grizzly bear project would begin in year 1; waterfowl project in year 2; and, the terrestrial furbearer project in year 3.
- C Where habitat enhancement techniques are chosen in place of habitat protection (waterfowl and terrestrial furbearer projects), the number of acres treated will be applied towards the cap limit.

62% of the obligation
68% of costs

Estimated Cost. The estimated 10-year cost of the staff proposal is \$7.4 million. Like MDFWP's proposed cost figures, this is an estimated cost and does not include operation and maintenance costs after the 10-year period. Staff welcomes comments on the question of whether ratepayer funds should be used for long-term operation and maintenance costs. 22

ALTERNATIVES TO STAFF PROPOSAL

- 1) Approve MDFWP's Hungry Horse mitigation proposal.

The Council could propose to approve the entire Hungry Horse mitigation plan as proposed by MDFWP. This alternative would obviously be

- 22 The cost estimate represents the hydropower ratepayer obligation based on the allocation method chosen by staff. The Council could suggest the Bureau of Reclamation secure funding for the non-hydro portion of the obligation.

viewed positively by MDFWP. Approving the full plan would provide maximum protection to those species impacted by Hungry Horse Dam. However, making a decision to approve the entire Hungry Horse mitigation plan is not free of problems. First, it must be understood that the Hungry Horse mitigation plan is primarily a conceptual plan. That is, many of the mitigation plan proposals are not totally defined. Merely approving the document without further guidance may lead to implementation problems. The staff proposal sets up a schedule for advanced design, implementation and monitoring for each project. This should aid Bonneville and MDFWP during implementation over the 10-year period.

Secondly, the Hungry Horse mitigation plan would have to be implemented in phases. If Bonneville funds major portions of the plan, the projects would have to be implemented in stages to account for funding and other practical constraints. The exact nature of how to lay out the different stages of implementation has not been defined by MDFWP. The staff proposal has developed an implementation schedule to define the scope of each project.

Third, the Council would be agreeing to MDFWP's conclusion that ratepayers should pay for the entire plan. While MDFWP argues that hydropower is 100 percent responsible for the wildlife and wildlife habitat losses at Hungry Horse dam, others such as Bonneville, PNUCC and BOR disagree. The Council staff is not convinced of the reasonableness of calling on ratepayers to mitigate all the effects of a multipurpose project.

2) Defer action.

The Council could defer a decision on the Hungry Horse mitigation plan for a short period of time until several of the basinwide wildlife policy issues are discussed in further detail. The Council also may want to consider a longer-term deferral of the Hungry Horse mitigation plan until all wildlife mitigation proposals in the basin are completed, in order to see the full scope of proposed wildlife mitigation measures.

A short-term deferral (under one year) could give the Council more time to analyze the wildlife policy questions raised during the public comment period on the Hungry Horse mitigation plan: need for retroactive mitigation, hydropower allocation schemes, wildlife program direction and amendment mechanisms. During this time period the Council could sponsor a series of workshops or consultations with the affected parties to discuss these basinwide concerns. A technical advisory committee could be formed to bring in experts to discuss and analyze technical issues and develop proposals for the Council to consider. The advantage of using one of these approaches is that it might bring the wildlife agencies and the Pacific Northwest Utilities Conference Committee (PNUCC), Bonneville and the federal project operators closer together on acceptable wildlife implementation solutions. The disadvantage is that any deferral (short

or long) places MDFWP in a holding pattern for implementing any measures at Hungry Horse Dam. The region's wildlife agencies and tribes do not want to see deferrals on mitigation plans because they agree with the program's direction. It is also not clear that deferral will result in any further consensus on wildlife questions/issues, as many already have been debated for over a year.

Waiting until all wildlife mitigation plans are completed before making a decision on the Hungry Horse plan would result in a delay of at least two years. Several planning documents (loss statements/mitigation plans) in the basin have not even been started (see Attachment 1). The advantage of a long-term deferral would allow the Council to see the full scope of wildlife mitigation projects in the basin at once, allow the Council to concentrate on anadromous fish concerns in the meantime.

3) Approve a limited portion of the Hungry Horse mitigation now; consider other aspects of the plan after basinwide wildlife issues have been discussed.

The Council could choose to approve a limited portion of the Hungry Horse mitigation plan so that MDFWP could start implementation this year. (Bonneville has approximately \$300,000 earmarked for implementation of Hungry Horse measures this fiscal year). By starting a portion of the plan now, MDFWP would not be completely delayed pending resolution of basinwide issues. The Council could approve implementation of the elk/mule deer or the black bear/grizzly bear project's (MDFWP's top priority project's). A decision of this nature would parallel the Council's decision on the Ural Tweed bighorn sheep project at Libby Dam. The Council did not know the full scope of the Libby mitigation plan when it made the decision on the bighorn sheep project.

The Council could consider using one of the techniques mentioned in Alternative 2 (consultations/technical committee) to begin discussing wildlife issues. After the direction of the program is further defined, the Council could consider the rest of the Hungry Horse proposal.

The disadvantages to this approach are similar to those expressed in Alternative 1, but are attenuated somewhat, by immediately making available partial funding.

4) Reject the MDFWP Hungry Horse mitigation proposal and rewrite the wildlife planning process in the program.

The Council could reject the Hungry Horse mitigation plan and rewrite the planning process in the wildlife program to address "systemwide" impacts rather than project-by-project impacts. The approach of addressing "systemwide" impacts has been suggested by the Corps. The staff disagrees with this alternative and suggests the Council continue a wildlife planning process that is based on a project-by-project basis. Rewriting the wildlife program would hinder mitigation planning efforts

underway at other hydroelectric projects in the basin (see Attachment 1). Wildlife planning efforts have been underway, using the project-by-project approach, for over three years. A project-by-project approach is more appropriate to wildlife because habitat was affected at the project site, in contrast to salmon and steelhead which pass through many hydro projects in their life cycle.

Rewriting the planning process again may appear to slight wildlife needs. Neither the Northwest Power Act nor its legislative history provide support for neglecting wildlife measures. In the legislative history of the Act, Congressman Dingell stated:

"...Finally, in developing the program, the council and BPA should not slight wildlife needs. The fishery needs are important. Much emphasis and consideration of this legislation was on the anadromous and other fishery resources. However, from the beginning of our consideration of the bill in the House, we have stressed the need to protect, mitigate the adverse effects on, and enhance both fish and wildlife." Cong. Rec. p. E5105 (daily ed. Dec. 1, 1980).

5) Approve the Hungry Horse mitigation plan (losses, animals/acres and dollars) proposed by MDFWP; allow MDFWP to implement wildlife protection, mitigation and enhancement projects anywhere it wishes.

The Council could approve the wildlife and wildlife habitat losses documented at Hungry Horse and the dollars associated with mitigating the losses and allow MDFWP to engage in projects anywhere in the state. In other words, allow MDFWP to reevaluate whether or not it wants to pursue the proposals identified in the mitigation plan at the Hungry Horse site or go elsewhere in the state and implement higher priority projects (mitigation or otherwise).

This alternative would give MDFWP another chance to develop wildlife projects that may be important on a statewide basis but are not specifically in the vicinity of Hungry Horse reservoir. In effect, it allows for offsite enhancement. 16 U.S.C. § 839b(h) (8) (A).

However, the Hungry Horse mitigation plan was developed by MDFWP using internal state mitigation guidelines which call for mitigation, as a first priority, to take place as close to the impacted area as possible. This seems to be the priority of MDFWP and of other state wildlife agencies as well.

6) Amendment variations.

If the Council decides to choose any of the alternatives mentioned above, it could amend that decision into the Fish and Wildlife Program early in 1987 in its regular amendment process. Amending whatever decision is made on the Hungry Horse mitigation plan would take into account the comments raised by Bonneville and PNUCC during the public

comment on the plan. This would give the public additional time to comment and possibly provide wider support for Bonneville to secure Congressional approval. The staff has included the amendment provision as part of the staff proposal.

Attachments.

Attachment 1.

STATUS OF WILDLIFE MITIGATION PLANNING
(FEDERAL HYDROELECTRIC FACILITIES)

PROJECT	STATUS REPORT	LOSS STATEMENT	MITIGATION PLAN	ADDITIONAL COMMENTS
Hungry Horse	Completed	Completed	Completed	Submitted to Council for decision in September 1985.
Libby	Completed	Completed	Being Revised	Mitigation plan to Council early in 1986. Bighorn sheep project approved by Council in 1984.
Albeni Falls	Completed	Not Started	Not Started	-----
American Falls	Completed	Not Started	Not Started	-----
Anderson Ranch/Black Canyon/ Boise Diversion	Completed	Complete March-1986	Not Started	All three projects under one Bonneville contract.
Cascade	Completed	Not Started	Not Started	-----
Dworskak	Completed			Loss statement/mitigation plan being developed by work group consisting of IDFG, Nez Perce Tribe, USFWS, the Corps, USFS, PNUCC and State Lands Dept.
Minidoka	Completed	Not Started	Not Started	-----
Palisades	Completed	Completed		Development of mitigation plan to start in Feb. 1986.
Cougar/ Lookout Point/ Dexter/ Hills Creek/ Green Peter- Foster/ Detroit-Big Cliff	Completed	Completed		Mitigation plan to encompass all projects. Expected completion date, March 1987.

Grand
Coulee Completed

Work group consisting of
WDG, PNUCC, BOR, USFWS, the
Upper Columbia United
Tribes formed to develop
mitigation plan. Group
will bypass extensive loss
estimate and proceed
directly into mitigation
planning.

Banks Lake Completed Not Started Not Started -----

Lower Snake Completed Not Started Not Started -----

Lower Columbia Projects Completed Not Started Not Started Work statement being
developed for loss
statement/mitigation plan.
May proceed with Bonneville
Dam as test project.

Attachment 2.

SUMMARY OF WILDLIFE/WILDLIFE HABITAT LOSS
ESTIMATES FOR HUNGRY HORSE DAM

Species (Group)	Impacts	Qualitative*	Loss Estimates Quantitative
Elk	Loss of winter range	High	175 animals
Mule Deer	Loss of spring and winter range	Low	645 acres spring range 3844 a. of winter range
White-tailed	Loss of year-round habitat	Moderate	---
Black Bear	Loss of year-round range; spring forage areas, denning sites	High	36-45 animals
Grizzly Bear	Loss of spring forag- ing areas; disruption of travel patterns	High	3-5 animals
Mountain Lion	Loss of year-round habitat; reduced prey base (deer and elk)	Low	--- Elk-175 animals-8749 a. of winter range Deer-645 acres of spring range-3844 a. of winter range
Furbearers			
Beaver	Loss of food source, dens	Moderate- high	125 animals
Muskrat	Loss of habitat	Moderate	---
River otter	Loss of habitat	Moderate	20-43 animals
Pine marten	Loss of habitat- displacement	Low- moderate	---
Mink	Loss of habitat	Moderate	---
Lynx	Loss of preferred feeding habitat	Moderate	---
Bobcat	Loss of habitat	Low	---

Upland Gamebirds			
Ruffed Grouse	Loss of year-round habitat	High	---
Blue Grouse	Loss of breeding habitat	Moderate	---
Spruce Grouse	Loss of year-round habitat	Moderate	---
Waterfowl			
	Loss of breeding habitat, nesting, broods for each species		
Canada Goose		Low	---
Mallard		Moderate	---
Wood Duck		Moderate	---
Barrow's Goldeneye		Moderate	---
Common Goldeneye		Low	---
Common Merganser		Moderate	---
Harlequin Duck		Low-moderate	---
Bald Eagle			
	Loss of winter habitat	Moderate-high	15 eagles
	Loss of breeding habitat	Negligible	---
	Effects on migration habitat use	Low-mod. (positive)	---
Osprey			
	Increased nesting habitat	Moderate (positive)	---

* Qualitative loss estimates of high, medium and low were estimated using the following criteria:

- Numbers of animals lost or displaced in relation to the overall population of the species in the region;
- Seasonal or year-round importance of the habitat lost for a particular species;
- Loss of sites important to the production and/or survival of offspring, especially to rare species;
- Ability of the species to establish populations in adjacent areas and the availability of these suitable areas; and,
- Effect on social or territorial mechanisms regulating populations.

Attachment 3.

SUMMARY OF MITIGATION PROJECTS PROPOSED
BY MDFWP FOR HUNGRY HORSE DAM

Project	Objectives	Location(s)	Other Species (Groups) Benefitted
Black Bear/ Grizzly Bear	Habitat protection on 9,038 acres via conservation easements (or fee-title acquisitions if necessary)	North Fork, Middle Fork, Swan River	Elk, Mule Deer, White-tailed Deer, Mountain Lion, Waterfowl, Mountain Grouse, Aquatic Furbearers, Terrestrial Fur- bearers, Bald Eagle, Osprey
Elk/Mule Deer	Winter range enhancement on 18,283 acres	Firefighter Mountain, Bob Marshall, Great Bear, other areas near Hungry Horse Reservoir	Black Bear, Grizzly Bear, White-tailed Deer, Mountain Lion, Lynx, Mountain Grouse
Aquatic Furbearers	To improve population and habitat management knowledge for river otter and other aquatic species	Northwest Montana	Bald Eagle, Osprey Waterfowl
Waterfowl	To protect/enhance 1,056 acres of wetlands	Flathead Valley Mission Valley	Aquatic furbearers, Bald Eagle, Osprey
Bald Eagle	To better manage existing breeding, migrating and wintering bald eagle habitat	Flathead River System (north of Flathead Lake)	Aquatic Furbearer, Waterfowl, Osprey
Terrestrial Furbearers	To manage/protect 13,638 acres of old-growth forest in NW Montana	Swan Valley other valleys	White-tailed Deer, Black Bear, Mountain Lion
Ruffed Grouse	Enhance 1,794 acres of aspen/birch forest	Adjacent to Hungry Horse Reservoir	Elk, Mule Deer, White-tailed Deer, Mountain Lion

Attachment 4.

STAFF RESPONSE TO COMMENTS
ON HUNGRY HORSE MITIGATION PROPOSAL

1. "Retroactive" Wildlife Mitigation.

Bonneville commented that one of the fundamental policy questions is whether the region wants to commit substantial amounts of money to provide retroactive mitigation to hydroelectric impacts on wildlife and wildlife habitat.

The Corps commented that the threshold issue is a determination as to whether mitigation should be required at hydroelectric facilities where there was no original authorization by Congress for wildlife mitigation and/or for which the wildlife agencies never recommended or subsequently sought wildlife mitigation. The Corps further commented that it does not believe the Council's current wildlife program, requiring mitigation plans for each project, results in measures intended in the Northwest Power Act. It believes a systems approach should be taken on all fish and wildlife matters. The Corps stated that the current measures for implementing mitigation plans avoid the requirements in the Act to "utilize where equally effective alternative means of achieving the same sound biological objective exist, the alternative with the minimum economic cost." It stated that the fish and wildlife agencies and project operators have no reason to work together to develop more cost effective "good stewardship" forms of wildlife protection. The Corps recommended that mitigation and enhancement under the Council's program should be used only to achieve some wildlife objective established by the wildlife agencies after all avenues are first exhausted (e.g., basic project authorization, Fish and Wildlife Coordination Act). It stated that the Northwest Power Act provides the way to organize existing and future wildlife needs into a regional program that integrates wildlife with fisheries and power.

PNUCC said it is in the process of developing a policy on wildlife programs. It listed several issues concerning retroactive mitigation it believes are necessary to resolve before the Council makes a final decision on the Hungry Horse mitigation plan.

Response. The Northwest Power Act requires Bonneville to use its funds and authorities "to protect, mitigate and enhance fish and wildlife to the extent affected by the development and operation of any hydroelectric project of the Columbia River." 16 U.S.C. 839b(h)(10)(A). The staff sees no legal support for the argument that "retroactive" mitigation is not within the Northwest Power Act's mandate.

2. Hydropower Allocation.

The Bureau of Reclamation (BOR) commented that it is not reasonable to attribute all wildlife and wildlife habitat losses at Hungry Horse to

hydropower. It stated that mitigation should be based on the allocation of costs established by Congress (34 percent to flood control and navigation and 66 percent to hydropower).

ODFW and WDG commented that because reservoir water levels are maintained to provide head for power production, all wildlife and wildlife habitat losses should be attributed to hydropower.

Bonneville commented that the losses identified by MDFWP for Hungry Horse are reasonable estimates but it is not appropriate to attribute all the wildlife and wildlife habitat losses to hydropower.

The Wilderness Society, North Fork Preservation Society, Montana Wildlife Federation and the Skyline Outfit all commented that it is reasonable to attribute all losses to hydropower development at Hungry Horse.

The Corps commented that it is not reasonable to attribute all wildlife losses at a multiple purpose project to power. It stated the costs passed on to the ratepayer must be consistent with the proportional allocation of total project costs to hydropower.

PNUCC stated that it does not believe the ratepayers should carry 100 percent of the responsibility for the wildlife program at Hungry Horse Dam. PNUCC cited the Corps' cost and benefit allocations and BOR's allocation from the original authorization on Hungry Horse as examples of guidelines that could be used to determine funding responsibilities. However, it stated it still is evaluating the question of allocation schemes. PNUCC further commented that BOR should expect to assume some responsibility (funding the nonhydro portion) for its project.

Response. Because Hungry Horse Dam is a multiple purpose facility, uses such as hydropower, flood control, recreation, fisheries, etc., have all benefited the State of Montana. For this reason, the staff is not convinced the ratepayers of the region should be held responsible for paying 100 percent of the mitigation for losses to wildlife and wildlife habitat. The staff proposal for consideration on the Hungry Horse mitigation plan uses the Congressional repayment formula (see p. 11) as the method to allocate the portion of loss attributable to hydropower (76 percent hydropower, 24 percent flood control). The staff has chosen the repayment formula because it represents Congress's judgment of hydropower's responsibility to repay a portion of the cost of Hungry Horse Dam. However, the staff does not believe that the allocation issue has been adequately analyzed and discussed.

3. Formula for Enhancement.

The Wilderness Society, Montana Wildlife Federation, North Fork Preservation Association, Skyline Outfit, ODFW and WDG all commented that with appropriate enhancement measures it may be reasonable to anticipate

an average increase of up to one-third in the carrying capacity of a land area.

Bonneville also commented that the formula developed by MDFWP appeared reasonable but stated that the accuracy of the assumptions used in the formula are unknown. Accordingly, Bonneville stated that the acres and cost figures expressed in the mitigation plan may be over estimated.

The Corps stated that the formula may have some utility but is only applicable to the manipulation and replacement of vegetation rather than meeting animal population targets.

BOR questioned the formula. It stated that by intensively managing one area, more benefits will result for wildlife populations.

Response. The staff has proposed that the formula proposed by MDFWP to enhance habitat be tested in a prototype project using the principles of adaptive management. See Program Section 1500 at page 108.

4. Mitigation Alternatives.

The Great Bear Foundation commented that it supports and endorses the recommended mitigation for the black/grizzly bears.

BOR commented that the mitigation alternatives seemed reasonable (with the exception of the bald eagle). However, it stated the Tex Creek Big Game Management Area in Idaho is a good alternative to the plan proposed by MDFWP.

The North Fork Preservation Association., Montana Wildlife Federation and the Wildlife Society commented that the mitigation options displayed in the plan are reasonable.

ODFW and WDG commented that the mitigation alternatives were reasonable but stressed that mitigation alternatives should be based on a habitat perspective rather than on animal numbers.

Bonneville commented that protection, mitigation and enhancement of wildlife affected by Hungry Horse Dam would be provided through MDFWP's proposed black bear/grizzly bear, elk/mule deer and waterfowl projects. It further commented that the Council should be cautious about the number of acres to be acquired through conservation easements until the availability of easements has been identified. Bonneville also stated that the state/land management agencies should be responsible for long-term operation and maintenance of lands for the elk/mule deer projects. Bonneville commented that it does not support studies to develop further management plans (aquatic/terrestrial furbearers and bald eagle projects). It also stated that ruffed grouse mitigation would be benefited through the elk/mule deer project.

The Corps commented that the list of target species was too high for a single project. It felt consideration should be given to grizzly bear, bald eagle, elk, Canada goose, harlequin duck and river otter.

The Montana Wildlife Association commented that it did not support habitat manipulation projects in the Bob Marshall or Great Bear wilderness areas. It suggested that an old-growth protection plan be developed between the state/federal agencies and private landowners. It also suggested that wolverine and fisher be considered in the mitigation plan.

The U. S. Forest Service, Flathead National Forest suggested using a portion of the implementation funds to acquire conservation easements within the North Fork land use plan area.

PNUCC suggested that for habitat protection projects (bear, waterfowl and terrestrial furbearer) a cap should be placed on the number of acres of easements proposed for acquisition. It suggested an upper limit of 10,000 acres. It suggested that the state/federal agency should assume the management funding responsibility for these lands. It also suggested the terrestrial furbearer project needs further clarification and that written agreements between state agencies will likely be required. For the habitat carrying capacity projects (elk, grouse, waterfowl and terrestrial furbearer) PNUCC commented that the following details needed to be specified in the conceptual plans. First, it suggested that the objective of the elk project should be to enhance habitat to support 175 wintering elk. It stated the number of acres should remain flexible (for all projects in this category) until the assumptions underlying increased carrying capacity are tested. Second, it suggested that the state of Montana and U. S. Forest Service should formulate written agreements concerning available lands and funding for the coordinator position. Third, PNUCC suggested that MDFWP incorporate student projects into monitoring programs for these projects and that the elk and grouse projects should be well coordinated since they will be developed on adjacent lands. For the management plan projects (bald eagle and aquatic furbearer) PNUCC suggested that MDFWP agree in writing that Bonneville's obligation will be negated upon completion of the management plans. PNUCC also stated that the scope of these studies needs to be identified and that the state should consider student projects to implement the studies. PNUCC also noted that the waterfowl and aquatic furbearer appeared to provide mitigation for both Hungry Horse and Libby dams. However, it felt the joint nature of these projects was not clear in the Hungry Horse mitigation plan.

F.H. Stoltze-Land and Lumber Company provided extensive comments on each of the proposed mitigation alternatives. Generally, it did not support funding or implementation for any of the proposed projects. For waterfowl, it feels the best way to handle the project is to work with Ducks Unlimited to acquire conservation easements in the Upper Flathead Valley. It suggested that the areas to be benefited should not be wetlands adjacent to existing wetlands already administered by U. S. Fish and Wildlife Service. It commented that the Montana Bald Eagle Management plan calls for maintenance of current habitat. It stated that

because the bald eagle is listed as an endangered species, the taxpayers of the United States should help pay for its protection and not just the ratepayers. It commented that habitat already exists for mountain grouse and that the populations fluctuations are more a function of weather than habitat. For terrestrial furbearers it commented that it did not support the concept of using Bonneville monies to pay the school trust funds in lieu of cutting timber in old-growth forests. It stated there is already over 8 million areas of land classified as wilderness or primitive in Montana where old growth timber is in abundance. For the aquatic furbearer project, it did not believe the studies needed to be completed. Regarding the bear projects, it commented that the dollars requested are completely unwarranted. It stated that \$425,000 a year is currently available to the state of Montana under Section 6 of the Endangered Species Act for grizzly bear enhancement. For the elk/mule deer projects it suggested that to increase winter range and carrying capacity, the laws should be changed to artificially manipulate habitat within the Bob Marshall Wilderness Area.

Response. The staff has taken these comments into account and has recommended that the Council approve Bonneville funding for the portions of MDFWP's black/grizzly bear, elk/mule deer, terrestrial furbearers, and waterfowl projects. (See response to #2). The staff has proposed the Council reject MDFWP's mitigation proposals for aquatic furbearers, ruffed grouse and bald eagles largely because mitigation for these species is fulfilled by other projects.

5. Cost.

The North Fork Improvement Association., supported drawing funds from the utilities to pay for implementation of the mitigation plan but did not feel the utilities should increase rates to cover this cost. It also expressed a concern over the possible loss of timber production, which could affect the school trust funds.

BOR commented the cost of the Hungry Horse mitigation plan was not practical.

The North Fork Preservation Association, ODFW, Montana Wildlife Federation and the Wildlife Society all commented that the cost of the mitigation plan was reasonable.

Bonneville stated that it was unable to comment on the accuracy of the cost estimates presented in the plan. Bonneville said it would seek borrowing authority for the easement/acquisition portion of the plan, if adopted. It stated that FY 1988 was the first budget year it could seek borrowing authority.

The Corps viewed the cost estimates for the plan as rough approximations based on a number of variables that have not yet been pinned down. The Corps suggested that a regional wildlife program based on numerical objectives would result in a plan that would be cost effective.

The Skyline Outfit expressed reservations about the high cost of the grizzly bear project given the targeted areas already contain substantial populations.

PNUCC commented that the cost figures in the plan should be recognized as rough estimates. It believed it was appropriate for MDFWP to provide 10-year cost estimates for planning purposes and urged the state to make a serious effort to keep the projects cost-effective.

Response. The staff recognizes that the cost figures displayed for implementing the Hungry Horse mitigation are rough estimates. Adaptive management approach should refine cost estimates and program effectiveness.

6. Amending the Program.

Bonneville commented that the Council should amend specific wildlife mitigation actions into the program. It felt this would give all parties more opportunity to comment on the particular action and strengthen its ability to justify and support potentially large expenditures before the Federal administration, Congress and Bonneville customers.

The Corps commented that if the Council ultimately decides that the Act intended more than just a mitigation approach for wildlife, particularly mitigation at projects where wildlife mitigation was not specifically authorized in the project legislation, then the Council should amend the program to encourage wildlife agencies and project operators to cooperatively develop and agree on cost-effective management plans to be submitted for approval.

PNUCC recommended that once a general policy is established for the wildlife program, the Council should adopt suitable portions of the Hungry Horse plan into the fish and wildlife program through a formal amendment process.

Response. The staff has recommended that the Council amend the Hungry Horse mitigation plan into the Fish and Wildlife Program early in 1987.

7. General.

Several individuals, groups and agencies, including Glacier National Park, USFWS, Flathead Wildlife Inc., the Wildlife Society, Montana Wildlife Federation, North Fork Preservation Association., the Skyline Outfit, ODFW, WDG, North Fork Improvement Association., Flathead National Forest and MDFWP, submitted comments supporting adoption of the Hungry Horse mitigation plan.

The Flathead Land Trust commented that it would like to see funding for MDFWP to prioritize their mitigation objectives so that focus can be placed on those areas of greatest need. It questioned the need for mas-

sive amounts of money to implement the Hungry Horse mitigation plan. It also suggested the Council may want to utilize their non-profit organization when funding habitat preservation projects in the upper Flathead River drainage.

One individual commented that he was adamantly opposed to spending money for any of the recommended projects. This individual commented that all of the proposed projects are already covered under proposed management plans for the Forest Service and added that population numbers for the target species in MDFWP's plan are at the highest levels in recorded history.

WDG commented that the mitigation objective in the plan which calls for protection of key habitats equal to those that were lost is unacceptable. It stated that protection of key habitat as a mitigation requirement should be based on protection of three acres for every one acre lost. WDG also commented that it is very unlikely that cooperative agreements with forest landowners will succeed.

The Montana Wildlife Association; commented that the Nature Conservancy should be utilized when acquiring conservation easements.

The National Park Service, Glacier National Park offered several technical suggestions on the mitigation plan and commented that much of the proposed mitigation is on lands that already have been targeted for similar projects. It stated that consideration should be given to lands that are not currently being managed for the same projects.

PNUCC and Bonneville expressed various concerns about the Hungry Horse mitigation plan but commented they felt MDFWP did a commendable job of investigating alternatives and identifying workable recommendations that will benefit a broad range of species.

Response. The staff appreciates these comments and has taken them into account during the development of the staff proposal.