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SUSITNA HYDROELECTRIC PROJECT: Fish and

SUSITNA HYDROELECTRIC PROJECT

FISH AND WILDLIFE MITIGATION POLICY

NOVEMBER 1981

REVISED MARCH 1982

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Prepared by:

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FISH AND WILDLIFE MITIGATION POLICY

1. INTRODUCTION

The fish and wildlife mitigation aspects of the Susitna project have been addressed through a Fisheries Mitigation Core Group, a Wildlife Mitigation Core Group, and a Fish and Wildlife Mitigation Review Group. The two core groups consisted of staff members of Terrestrial Environmental Specialists, consultants with expertise in special areas (caribou, furbearers, anadromous fish, etc.), and a representative of the Alaska Department of Fish and Game. The purpose of the two core groups was to develop the technical specifics of the mitigation policy and plans.

The purpose of the Review Group is to review and comment on the results of the core groups. Agencies represented on the Mitigation Review Group are:

Alaska Department of Natural Resources,
Alaska Department of Fish and Game,
U.S. Fish and Wildlife Service,
U.S. Environmental Protection Agency,
U.S. Bureau of Land Management, and
National Marine Fisheries Service.

A mandate of the Alaskan Power Authority (hereinafter called the Power Authority) charter is to develop supplies of electrical energy to meet the present and future needs of the state of Alaska. The Power Authority also recognizes the value of our natural resources and accepts the responsibility of insuring that the development of any new projects is as compatible as possible with the fish and wildlife resources of the state and the habitat that sustains them, and that the overall effects of any such projects will be beneficial to the state as a whole. In this regard, the Power Authority has prepared a Fisheries and Wildlife Mitigation Policy for the Susitna Hydroelectric Project as contained herein.

2. LEGAL MANDATES

There are numerous state and federal laws and regulations that specifically require mitigation planning. The mitigation policy and plans contained within this document are designed to comply with the collective and specific intent of these legal mandates. Following are the major laws or regulations that require the consideration and eventual implementation of mitigation efforts.

Protection of Fish and Game (AS 16.05.870)

The Alaska state laws pertaining to the disturbance of streams important to anadromous fish address the need to mitigate impacts on fish and game that may result from such action. The pertinent portion of item (c) from Section 16.05.870 reads as follows:

If the Commissioner determines to do so, he shall, in the letter of acknowledgement, require the person or governmental agency to submit to him full plans and specifications of the proposed construction or work, complete plans and specifications for the proper protection of fish and game in connection with the construction work, or in connection with the use, and the approximate date the construction, work, or use will begin, and shall require the person or governmental agency to obtain written approval from him as to the sufficiency of the plans or specifications before the proposed construction or use is begun.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) (42 USC 4321-4347) was designed to encourage the consideration of environmental concerns in the planning of federally controlled projects. Regulations pertaining to the implementation of NEPA have been issued by the Council on Environmental Quality (40 CFR 1500-1508; 43 FR 55990; corrected by 44 FR 873 Title 40, Chapter V, Part 1500). Items (e) and (f) under Section 1500.2 (Policy) of these regulations describe the responsibilities of federal agencies in regard to mitigation.

Federal agencies shall to the fullest extent possible:

- (e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.
- (f) Use all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.

Federal Energy Regulatory Commission

Federal Energy Regulatory Commission (FERC) regulations also refer directly to the need for mitigation actions on the part of the developers of hydroelectric projects (18 CFR Part 4). The following reference is quoted from Section 4.41 of the Notice of Final Rulemaking as it appeared in the November 13, 1981,

issue of the Federal Register (46 FR 55926-55953) and adopted. Exhibit E of the proposed FERC regulations should include, among other information,

...a description of any measures or facilities recommended by state or federal agencies for the mitigation of impacts on fish, wildlife, and botanical resources, or for the protection or enhancement of these resources....

The regulations go on to require details concerning mitigation including a description of measures and facilities, schedule, costs, and funding sources.

Fish and Wildlife Coordination Act (915 USC 661-667)

Item (a) of Section 662 of the Fish and Wildlife Coordination Act (FWCA) describes the role of the federal agencies in reviewing federally licensed water projects:

...such department or agency first shall consult with the United States Fish and Wildlife Service, Department of the Interior, and with the head of the agency exercising administration over the wildlife resources of the particular State wherein the impoundment, diversion, or other control facility is to be constructed, with a view to conservation of wildlife resources by preventing loss of and damage to such resources as well as providing for the development and improvement thereof in connection with such water-resource development. FERC will comply with the consultation provisions of the FWCA.

3. GENERAL POLICIES TO BE CARRIED OUT BY THE APPLICANT

3.1 - Basic Intent of the Applicant

In fulfilling its mandate, an objective of the Power Authority is to mitigate the negative impacts of the Susitna Project on the fish and wildlife resources. This goal will be achieved through comprehensive planning during the early stages of project development and through a program of ongoing consultation with the appropriate resource agencies. Since the Power Authority realizes that highly coordinated planning will be necessary to achieve this goal, a decision-making methodology has been developed to provide a framework for addressing each impact and the mitigation options available. This methodology outline also identifies the process for resolving conflicts that may develop between the Power Authority and the resource agencies. The FERC will resolve any disputes which the agencies and the Power Authority cannot resolve. It is the intent of the Power Authority to negotiate directly and resolve conflicts with the concerned agencies.

The mitigation plan will be submitted by the Power Authority to the FERC as a component of the license application. Prior to this, any draft mitigation plans will be submitted to resource agencies for formal review and comment. The final mitigation plan to be implemented will be stipulated by the FERC. The responsibility for implementation of the plan will be that of the Power Authority and will be carried out by the Power Authority or any other organization charged with managing the project as stipulated by the FERC.

3.2 - Consultation with Natural Resources Agencies and the Public

In order to achieve the above-mentioned goals, it will be necessary to provide opportunities for the review and evaluation of concerns and recommendations from the public as well as federal and state agencies. During the early stages of planning, representatives of state and federal agencies will be encouraged to consult with the applicant and the applicant's representatives, as members of the Fish and Wildlife Mitigation Review Group. Additional review and evaluation of the mitigation plan will be provided through formal agency comments in response to state and/or federally administered licensing and permitting programs.

The Power Authority will consider all concerns expressed by members of the general public and regulatory agencies regarding the mitigation plan. Input from the public will be given appropriate consideration in the decision-making process as it pertains to the direction of the mitigation effort and the selection of mitigation options.

3.3 - Implementation of the Mitigation Plan

The responsibility for implementation of the mitigation plan rests with the Power Authority. Prior to implementing the plan, an agreement will be reached as to the most efficient and effective manner in which to execute the plan. The agreement will determine which organization will serve to carry out various portions of the plan and will include stipulations to insure adherence to the accepted plan.

The mitigation plan will include a brief statement of each impact issue, the technique or approach to be utilized to mitigate the impact, and the goal expected to be achieved through implementation of these actions.

With the realization that a mitigation monitoring team will be necessary to insure the proper and successful execution of the mitigation plan and to determine its effectiveness, part of the plan will detail the structure and responsibilities of such a monitoring body. The successful organization and operation of a monitoring team will require both funding and commitments. These matters will be resolved through negotiation leading to mutual agreement among the various involved parties after the mitigation plan is complete and the necessary level of resources can be more accurately defined.

3.4 - Modification of the Mitigation Plan

As part of the mitigation plan, a monitoring plan will be established, the purpose of which will be to monitor fish and wildlife populations during the construction and operation of the project to determine the effectiveness of the plan as well as to identify problems that were not anticipated during the initial preparation of the plan.

The mitigation plan will be sufficiently flexible so that, if data secured during the monitoring of fish and wildlife populations indicate that the mitigation effort should be modified, the mitigation plan can be adjusted accordingly. This may involve an increased effort in some areas where the original plan has proven ineffective, as well as a reduction of effort where impacts failed to materialize as predicted. Any modifications to the mitigation plan proposed by the monitoring team will not be implemented without consultation with appropriate state and federal agencies and approval of FERC. It is the intent of the Power Authority to reach agreement with the resource agencies concerning modification of the plan prior to seeking FERC approval. The Power Authority will seek approval of the resource agencies, with FERC as the final arbitrator. The need for continuing this monitoring will be reviewed periodically. The monitoring program will be terminated when the mitigation goals described in the plan have been achieved or determined unachievable. Termination will be subject to FERC approval.

4. APPROACH TO DEVELOPING THE FISH AND WILDLIFE MITIGATION PLANS

The development of the Susitna Fish and Wildlife Mitigation Plans will follow a logical step-by-step process. Figure 1 illustrates this process and identifies the major components of the process. Also identified in this figure are the organizations responsible for each step. The following discussion is based on Figure 1 and uses the numbers in the lower right corner of that figure for reference purposes.

The first step in the approach (Step 1) entails the identification of impacts that will occur as a result of the project. Each impacted resource and the nature and extent of the impact will be defined. The fish and wildlife resources will vary identification and may include a population, subpopulation, habitat type, or geographic area. The nature and degree of impact on each respective resource will be predicted to the greatest extent possible. This step will be the responsibility of the Core Group of the Mitigation Task Force.

Following the identification of impact issues, the Core Group will agree upon a logical order of priority for addressing the impact issues. This will include ranking resources in order of their importance. The ranking will take into consideration a variety of factors such as ecological value, consumptive value, and nonconsumptive value. Other factors may be considered in the ranking if deemed necessary. The impact issues will also be considered in regard to the confidence associated with the impact prediction. In other words, those resources that will most certainly be impacted will be given priority over impact issues where there is less confidence in the impact's actually occurring. The result of this dual prioritization will be the application of mitigation planning efforts in a logical and effective manner. The results of the prioritization process will be reviewed by the Fish and Wildlife Mitigation Review Group. If additional impacts materialize, the plan will be modified as discussed in Section 3.4. This could also include a shift in the prioritization of impacts.

Step 2 is the option analysis procedure to be performed by the Core Group. The intent of this procedure is to consider each impact issue, starting with high priority issues, and reviewing all practicable mitigation options.

Mitigation for each impact issue will be considered according to the types and sequence identified by the CEQ (Figure 2). If a proposed form of mitigation is technically infeasible, only partially effective, or in conflict with other project objectives, additional options including project modification will be evaluated. All options considered will be evaluated and documented; this documentation will include an identification of the impact issue, mitigation options, and conflicts (if any) with project objectives. The result of this process will be an identification and evaluation of feasible mitigation options for each impact issue and a description of residual impacts.

Step 3 concerns the development of an acceptable mitigation plan. The feasible mitigation options identified through Step 2, and a description and explanation of those deemed infeasible, will be forwarded to the mitigation review group for informal agency review and comment. Any recommendations received from the review group will be considered by the Power Authority and the Core Group, prior to the preparation of draft fisheries and wildlife mitigation plans. These

draft plans will be sent to the Fish and Wildlife Mitigation Review Group for comment, revised and circulated to the agencies for formal review and comment. The plans will then be revised and submitted to the FERC as a component of the license application. The final fish and wildlife mitigation plans to be implemented will be stipulated by the FERC following discussions with the Power Authority and appropriate natural resource agencies.

Additional items that may be addressed by the Core Group include an identification of organizations qualified to execute the mitigation plan and recommendations concerning the staffing, funding, and responsibilities of the mitigation monitoring team. This will be done in consultation with the Fish and Wildlife Mitigation Review Group.

Step 4 will be the implementation of the plan as agreed to during Step 3. This will commence, as appropriate, following the reaching of an agreement by all parties.

During the implementation of the plan, which will include both the construction and operation phases of the project until further mitigation is deemed unnecessary, the mitigation monitoring team will review the work and evaluate the effectiveness of the plan (Step 5). To accomplish this goal, the monitoring team will have the responsibility of assuring that the agreed upon plan is properly executed by the designated organizations. The team will be provided with the results of ongoing monitoring efforts. This will enable the team to determine in which cases the mitigation plan is effective, where it has proven to be less than effective, and also in which cases the predicted impact did not materialize and the proposed mitigation efforts are unnecessary. The monitoring team will submit regularly scheduled reports concerning the mitigation effort and, where appropriate, propose modifications to the plan. If stipulated in the FERC license, such reports would be distributed to FERC and state and federal regulatory agencies.

In the event that plan modifications are recommended (Step 6), they will be reviewed by a Core Group and appropriate options considered (Step 2). The results of the option analysis will then be passed onto the Power Authority and the resource agencies for negotiation of modifications to the plan (Step 3). Following the reaching of an agreement on the modifications, they will be implemented (Step 4) and monitored (Step 5). Any modifications to the mitigation plan will not be implemented without consultation with appropriate state and federal agencies and approval of FERC. As discussed in Section 3.4, it is the intent of the Power Authority to reach agreement with the resource agencies concerning modification of the plan prior to seeking FERC approval. The Power Authority will seek approval of the resource agencies, with FERC as the final arbitrator.

Following satisfactory implementation of any plan modifications and documentation of evidence that the goals of the modification have been reached, the mitigation planning process and monitoring will terminate (Steps 7 and 8).

FISH AND WILDLIFE MITIGATION PLAN DEVELOPMENT AND IMPLEMENTATION

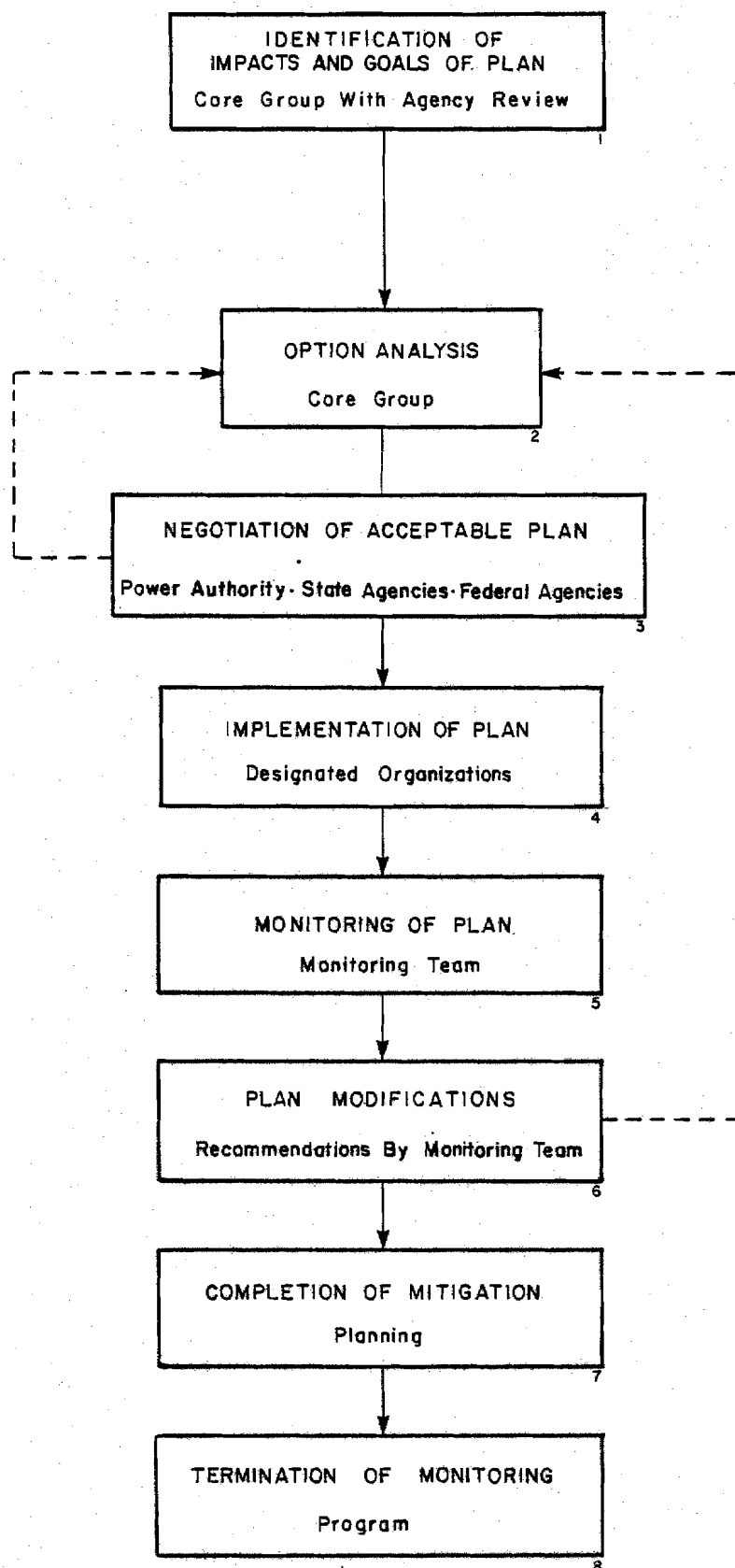
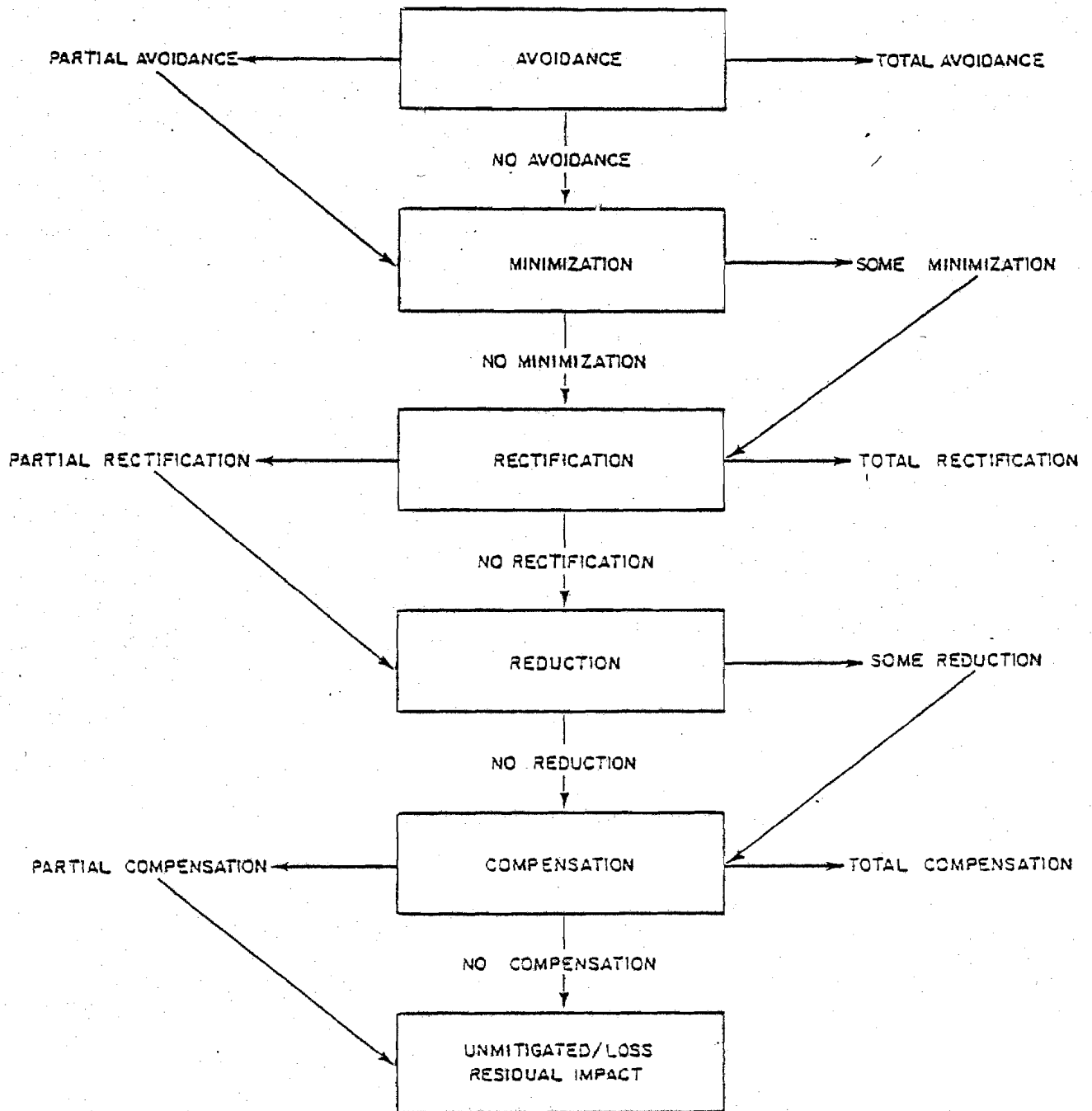


FIGURE 1

OPTION ANALYSIS



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