

# United States Department of the Interior

NATIONAL PARK SERVICE  
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

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## Memorandum

To: All Regional Directors; Director, Alaska Area Office;  
Manager, Denver Service Center

From: Director, National Park Service

Subject: Resource Management Plans and Resource Management Budget

The purpose of this memorandum is to transmit to you the revised guidelines which are to be used by the parks in preparing their Resource Management Plans (RMP). Additionally, I want to apprise you of a number of related matters: (1) the new schedule for completion of approved Resource Management Plans; (2) the approach to be followed in modifying existing approved RMP's to comply with the new guidelines; (3) waiver of the 30-day waiting period between completion of a Plan's environmental assessment and determination of a Finding of No Significant Impact; and (4) the overall strategy which we plan to follow in incorporating natural and cultural resource needs into our FY83 and later year budget processes. These four matters are discussed below.

- 1) Schedule. The original target date set for completion of approved Resource Management Plans was July 31, 1981. An additional four months will be provided to complete this work. Accordingly, all approved Plans should be completed by November 30, 1981, except as provided for in 2) below.
- 2) Exemption of approved Resource Management Plans from revision in FY 81. I recognize that in recent years a number of excellent Resource Management Plans have been prepared by the parks and approved by the Regional Directors. Where such approved plans now exist, they need not be rewritten in FY 81, provided they already include the essential data requested in the guidelines. The decision on whether or not to revise currently approved Resource Management Plans during FY81 is to be made on a case-by-case basis by the Regional Director. However, in each instance where the Regional Director concludes that rewriting is not warranted at this time, a new Overview and Needs section must be completed and is to contain all the material prescribed for this section in the revised guidelines. In addition, any currently approved RMP which is exempted by the Regional Director from revision in FY 81 is to be brought into full compliance with the revised guidelines during FY 82.

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3) Approval of a Finding of No Significant Impact. The present proposed draft NPS Environmental Compliance Guidelines (NPS-12) require that a period of 30 days be allowed between completion of an environmental assessment and the approval of a Finding of No Significant Impact (FONSI). This requirement is a self-imposed one, and is not mandated by either the Council on Environmental Quality regulations or the Departmental Manual Part 516. I hereby waive this 30-day requirement for Resource Management Plans. Regional Directors shall decide on a case-by-case basis the amount of review and involvement which should be sought from other agencies and the public.

4) Strategy for incorporating resource management needs into the budget process. The 1980 State of the Parks Report and other data which have been submitted by the field serve to emphasize the need for substantially increased funding Servicewide in the natural and cultural resource management areas. We have developed a time-phased strategy which responds to this funding need by incorporating important resource management requirements into the FY83 and later year budget cycles. This strategy has two essential parts:

Phase I involves the development of prioritized Significant Resource Problems (SRP's) by late March 1981. These Significant Resource Problems (documented on either 10-238's or 10-237's) will be used as a primary basis for requesting additional resource management funding in the FY83 budget submission. The SRP concept and the process by which SRP's are developed and prioritized is discussed later.

Phase II involves the development of comprehensive Resources Management Plans and use of these plans in formulating the FY 84 and later year budget submissions for natural resource and cultural resource funding support.

Significant Resource Problems. The term "Significant Resource Problems" refers to those particular natural and cultural resource management problems which have high importance and which warrant special attention and emphasis. The identification, documentation, and prioritization of Significant Resource Problems is a new initiative and is an integral part of the development of Resource Management Plans. The SRP process has the following three steps:

(1) Each park will prepare either a 10-237 or 10-238 on each of its most important natural and cultural resource problems. The information of each such important resource management issue must include a Problem Description (Describe the problem area. Identify the magnitude of any resource loss, the immediacy of the impact, and the origin of the problem); Mandates (Describe NPS responsibilities to respond to these problems as per legislation, Executive Orders, Service policy, management objectives, area planning documents, etc.); Actual and Anticipated Needs (Describe

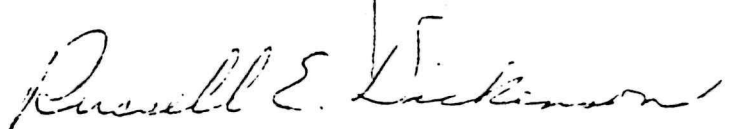
any actions that may be required to prevent or mitigate the problem. Consider activities of resources management, monitoring, and research); and Cost Estimates. Use form 10-237 for long-term, recurring project needs, and form 10-238 for "one time only" project needs.

Each park is to complete and submit its SRP's ranked in priority order to the Regional Office by February 1, 1981. It is not necessary or desirable to prepare an SRP on every identified resource problem in the park. In preparing the 10-237/10-238 for a SRP, the park managers should realistically analyze resource problems, articulate how the existing or potential situation will impact park resources, and qualify the extent to which the scientific, historic, or scenic values for which the unit was established is or will be violated. Each of the park's SRP's must be addressed with a separate 10-237 or 10-238. The SRP's are to be ranked and placed in priority order for submission to the appropriate Regional Office. The logic of the order of priority, if not apparent from the 10-237/10-238 write-up, should be discussed in a cover memorandum. I cannot overemphasize the importance of the SRP submissions. That package will serve to identify the park's principal resource management requirements for the FY 83 budget cycle. Those SRP's which are prepared in the most comprehensive and convincing fashion can be expected to receive the greatest support for funding increases.

(2) The Regional Office will assign a regionwide priority ranking to each of the SRP's received from the parks and will submit this ranked package of SRP's to the Associate Director for Management and Operations, WASO, by March 1, 1981. The Regional Office may wish to include in this package additional 10-237's/10-238's for SRP's which are developed at the Region level.

We currently are preparing a list of "ranking factors" which you may wish to consider in selecting and prioritizing your Significant Resource Problems. These suggested ranking factors will be forwarded to you later this month.

(3) The Regional Directors will meet with me at a Regional Directors' Workshop in late March 1981, to develop a Servicewide prioritized list of SRP's. These Servicewide prioritized SRP's will be used as the basis for formulating the Resource Management component of the FY 83 budget submission. In addition, the research needs which are described in each SRP 10-237/10-238 write-up will be used as one of the principal factors in structuring and prioritizing the research agenda for FY 83 and in preparing the FY83 research budget submission. It is our intention to place primary emphasis on those research activities which need to be carried out in order to deal with the Service's highest priority resource management problems.



Enclosure

## RESOURCES MANAGEMENT PROGRAM ANALYSIS AND PLANNING GUIDELINES

### I. INTRODUCTION

The Resources Management Plan (RMP) documents a park's resources and, based on the Service's Management Policies, legislative mandates, Executive Orders, management zoning and related planning documents, describes a comprehensive resources management, monitoring and research program for a park's natural and cultural resources. A RMP contains a description of the current resources program, provides a clear evaluation of that program, identifies inadequacies in activities and knowledge, and provides for the resolution of the inadequacies. Resources Management Plan development requires that the park manager evaluates the resources under his management; identifies specific deficiencies in or problems with the inventory, study, treatment, or interpretation of those resources; analyzes alternatives; and provides specific recommendations to correct important problems.

A RMP is an essential document for each park. It constitutes a contract with and by the superintendent to deal with important natural and cultural resource problems. It is a document which provides a basis by which actual accomplishments can be measured against resource management commitments. Because the RMP will be used as one of the fundamental elements in preparing budgets and in deciding how to allocate funding and staffing resources to parks, each plan must provide the following critical management decision-support information:

- Resource management problems and issues must be ranked in importance and the significance of each clearly stated.
- A proposed program for dealing with the most important and time-urgent resource management problems must be developed.



- The plan must carefully identify research needs; these research needs must be keyed directly to the individual high-priority resource management problems.
- A proposed schedule of accomplishments must be developed which demonstrates a commitment to real and measurable progress in dealing with the high priority resource management problems.

## II. FOR WHOM IS THE PLAN INTENDED?

The plan is designed for the use of the park manager and his staff and by senior Regional and WASO management personnel. In addition, because the plan will provide a comprehensive and critical analysis of a site's resources, it also may be of interest to concerned institutions and the general public.

## III. WHO IS RESPONSIBLE FOR PREPARING THE PLAN?

The Park Superintendent has the final responsibility for the preparation of the park's RMP. The park's resources management specialist (in title or in practice) is usually the plan coordinator and project manager. The Superintendent is expected to request assistance as needed from the regional office and elsewhere to assure an interdisciplinary effort in the preparation and/or revision of the Plan.

The Regional Resources Management Plan Coordinator, in consultation with regional cultural resources management staff, is responsible to the Regional Director for assuring that the proposed Plan is prepared according to established procedures and standards, and that resources management actions advocated are valid and in line with established policies and guidelines for management of natural and cultural resources. The Regional Environmental Coordinator should be consulted at an early stage regarding compliance with the National Environmental Policy Act (NEPA); he/she shall also

Review the proposed plan and NEPA compliance document before approval by the Regional Director. Regional Cultural Resources staff should be consulted with respect to compliance with Section 106 of the National Historic Preservation Act (NHPA) when actions are proposed which may have an effect on cultural properties.

#### IV. REVIEW PROCESS

Review and approval is the responsibility of the Regional Director, who shall also approve the appropriate NEPA document at the time he/she approves the plan. Any proposed action determined to require an EIS may not be approved until full completion of the EIS process. After regional approval, copies of the RMP will be submitted to the Washington Office Divisions of Natural and Cultural Resources for information and to Denver Service Center for the microfilm records in the technical information system.

#### V. NATURAL AND CULTURAL RESOURCES

The park RMP should be a comprehensive document to include both a natural and cultural resource section. For those few parks where professional review has documented the presence of only natural resources (Capulin Mountain) or only cultural resources (Theodore Roosevelt Birthplace), only the relevant section needs to be prepared.

#### VI. ENVIRONMENTAL COMPLIANCE

Because these Resources Management Plans may propose actions regarding (1) ongoing or needed resources management, monitoring and research activities, (2) the gathering of background data on which management decisions will be based, and (3) new activities that, individually or

cumulatively, may have potential for controversy or significant effect on the environment, an Environmental Assessment (EA) will ordinarily be required. The EA should be combined with the plan, with care taken to assure that the EA component is clearly and separately identified. Such documents shall be dual-titled; i.e., "Resources Management Plan and Environmental Assessment".

If the favored course of action under any Project Statement will require an Environmental Impact Statement (EIS), the Service has two options: (1) Defer approval of the entire RMP until the EIS is completed; or (2) Complete and approve other elements of the RMP with an EA, and schedule later preparation of a separate Action Plan (to be included as a RMP Appendix) on that subject area along with a related EIS.

If option two is chosen, care must be taken that proposals made in the RMP do not foreclose reasonable alternative actions in the later Action Plan and EIS. It should be noted that it often may be desirable for various reasons to develop a later Action Plan for certain important and complex problems, and that the environmental compliance aspects of these Action Plans may be adequately addressed with an EA. Thus the decision to produce a later Action Plan will depend in some cases on whether an EIS is required and in other cases on the scope of resource analysis and planning that is necessary.

Close consultation shall be carried on with the Regional Office to assure that other compliance requirements (endangered species, historic preservation, wetland/floodplain requirements, etc.) are handled properly along with NEPA compliance; and to determine the degree of consultation/coordination needed with other agencies and the public.

The present draft proposed NPS-12 requires a 30-day review period between completion of an EA and preparation of a FONSI. This is a self-imposed NPS requirement, which has been waived for preparation of RMP's. The Regional Director should decide, on a case-by-case basis, what amount of public involvement and review time are appropriate for each RMP.

## VII. PLAN REQUIREMENTS

The RMP will be comprehensive yet brief so that it can be readily revised and kept current. Final format should be a typed document housed in a binder that provides easy revision and annual updating. The annual revision may take place either on the anniversary date of the first approval or soon after the "research season" when changes in management, monitoring and research are determined, and prior to annual budget calls. Some areas may find that only the Five-Year Resources Programing Sheets will require revision. Any revision which proposes a new action not categorically excluded from NEPA compliance shall be accompanied by an EA or EIS, as appropriate.

The Cultural Resources component of RMP's will generally deal only with proposed actions which have already undergone NEPA and other legislative compliance. The same will also be true for certain proposed actions under the Natural Resources component. In such cases, the Project Statement should provide information on compliance already completed, and the proposed action should still be evaluated in the Environmental Assessment matrix so as to provide managers with a complete view of cumulative impacts. (Alternative actions need not be evaluated for such components.)

Each resources Management Plan must include at least the following parts:

COVER SHEET will usually show a dual title—Resources Management Plan and Environmental Assessment (or Environmental Impact Statement). It will carry the signatures of the recommending officer (Park Superintendent) and the approving officer (Regional Director). It also will carry dates and signatures of annual revisions and reapprovals.

TABLE OF CONTENTS that identifies all of the sections and subsections of the RMP/EA described below.

INTRODUCTION that explains the purpose of the Plan and its relationship to the area's General Management Plan (GMP) and/or Statement for Management (includes the resource-related Management Objectives).

RESOURCES MANAGEMENT PROGRAM is the heart of the RMP and includes two parts: a Natural Resource Management Program and a Cultural Resource Management Program, each of which contains a comprehensive summary section (Overview and Needs) and a series of Project Statements.

FIVE YEAR RESOURCE PROGRAMMING SHEETS which list all resource management projects ranked in overall priority of importance and which identify funding and manpower needs as required to carry out the recommended course of action.

#### NATURAL RESOURCES MANAGEMENT PROGRAM

The essential parts of the Natural Resources Management Program are an Overview and Needs section and a series of Project Statements:

##### OVERVIEW AND NEEDS:

This section is a comprehensive narrative summary and should be regarded as the principle decision-support component of the RMP. It should summarize



the most significant elements of the natural resources portion of the Plan and present a five-year strategy for accomplishing recommended resources management, monitoring and research actions. This section should articulate the basis upon which the priorities arrayed in the five-year program are determined. It should clearly differentiate between critical and less significant problems. It should include a schedule of proposed accomplishments, including required funding and staffing support, in sufficient detail so that actual progress can be measured against these commitments. Discuss each year's anticipated accomplishments in separate paragraphs under the headings of FY (1), FY (2), FY (3), FY (4), FY (5); substitute actual fiscal years for (1), (2), (3), (4), and (5).

#### NATURAL RESOURCES PROJECT STATEMENTS:

This section includes information on all of the park's ongoing and anticipated natural resources activities; any activity which involves manipulation of a park's natural resources must be included. Include not only those important issues or problems that may require the eventual development of full scale Action Plans (completed Action Plans are produced as an RMP Appendix), such as those for feral animal control, river system management, or native animal control, but also the more mundane tasks that occur on a regular or cyclic basis, such as vista clearing or hazardous tree maintenance, or water quality or ungulate population monitoring. All natural resources management actions previously proposed either as part of an approved GMP or Action Plan, must still be covered by an appropriate Project Statement and referenced to the appropriate GMP or Action Plan. For such previously-approved actions, only the proposed action need be evaluated in the Environmental Assessment Matrix display (no alternatives need be evaluated), unless the review of cumulative impacts in a particular resource category (e.g. vegetation) reveals

significant environmental impacts or unresolved conflicts in resource management or use; and in which the already-approved action is a pertinent factor.

Each resource management issue or problem within a park must be addressed within a separate Project Statement (See Attachment 1 for example) that includes four parts:

1. Park Code, Project Number, and Project Title: Park Code (four letters), project number (in no order of priority but not to be changed or duplicated once established, and each must begin with N for natural resources), and a project title (full title, although a shorter title can be used on the Programming Sheets) is necessary for project identification to be incorporated into the Resources Information Tracking System (RITS) at a later date. For example, the first natural resources project listed in Big Bend National Park's RMP would be numbered BIBE-N1-(title).
2. Statement of Issue or Problem: This subsection must discuss each issue or problem in a level of detail compatible with the seriousness of the problem and shall review past and current resources management, monitoring and research activities. Discussion should include consideration of all implications to the park's resources, and impact consequences known, including the health and safety of park employees and visitors. The relationships between the issues and problems and park mandates and objectives, as well as the park's area of environmental concern outside of the park, should be addressed as necessary. Include all issues or problems identified within the park.

3. Alternative Actions and Their Probable Impacts: Describe all alternative actions (including the recommended action) that could reasonably be considered for addressing the issue or problem. Describe also each alternative's strengths and weaknesses in light of the park's resource management objectives, legislative mandates, and narrative descriptions of the environmental impact(s) and other consequences of each alternative. These narrative descriptions of environmental impact should be thorough and complete, so as to support the EA. Include a No Action alternative in each Project Statement in which alternatives are being evaluated.
  
4. Recommended Course of Action: Identify and discuss in further detail the alternative(s) which is (are) recommended for implementation. Develop the strategy in a practical and systematic narrative and designate separate action categories of (A) Resources Management Actions, (B) Monitoring Actions, and (C) Research Actions, as required.

The four sections above represent a complete Project Statement for each topic (issue or problem) addressed within the park's Natural Resources Management Program. Further explanation of project priority, costs and time frame for accomplishment are addressed within the Overview and Needs section and in the Five -Year Resource Programming Sheets.

#### CULTURAL RESOURCES MANAGEMENT PROGRAM

The Cultural Resources Management Program is to deal with cultural resources in any area that has either substantial cultural resources or a significant cultural resources problem. The program for cultural resources is essentially a Preliminary Cultural Resources Management Plan as defined in NPS-28: Cultural Resources Management Guideline.

The essential parts of the Cultural Resources Management Program are an Overview and Needs section and a series of Project Statements that include:

#### OVERVIEW AND NEEDS

This section will define and briefly describe resources, how they are currently being managed and the level of existing knowledge for those resources. Items to consider should include but not be limited to:

- Status of E.O. 11593 Cultural Resources Inventory

- Status of Socio-Cultural Resources Inventory

- Status of List of Classified Structures

- Status of Museum Catalog

- National Register Listings (complete or incomplete)

- Adequacy of research for resources preservation

- Adequacy of research for management decisions

- Adequacy of research for interpretive purposes

Detailed or voluminous data can be included by reference to the CRMP.

Deficiencies in these areas will be identified as individual elements of the Cultural Resources Management Program.

This section will require considerable analysis of existing cultural resources management information, thoughtful evaluation of the physical condition of the park's resources, and the studied projection of research and management needs. It should be prepared before completion of the Cultural Resources Project Statements.

#### CULTURAL RESOURCES PROJECT STATEMENTS

This section consists of a series of project proposals that are designed to expand the park's information base and to correct deficiencies in the preservation and protection of cultural resources. All projects will be

documented with 10-237, or 10-238s as appropriate and will be entered into the budgetary program. The current Outline of Planning Requirements will assist in identifying projects, although additional entries should be added if deemed necessary.

Project Statements are problem-oriented and should be relatively specific. In the process of identifying deficiencies (or problems), parks should consider such resource management issues as collections, interpretation, protection, resource inventories, building or site treatment, historic scene, adaptive use, furnishings, and research.

Each problem area within a park must be addressed within a separate Project Statement that includes four parts:

1. Park Code, Project Number, and Project Title: Park code (four letters), project number (in no order of priority but not to be changed or duplicated once established, and each must begin with C for cultural resources), and a project title (full title, although a shorter title can be used on the Programming Sheets) is necessary for project identification. For example, the first cultural resources project listed in Big Bend National Park's RMP would be numbered BIBE-C1-(title).
2. Problem Statement: There should be a problem statement for all issues or problems identified within the park.
3. Alternative Solutions and their Probable Impacts: If proposals to be included in the Cultural Resources Management Program component of the RMP will already have undergone legislative compliance review and been approved, this section may not generally be included except to document compliance with Section 10b. Alternatives should be explored, however, where the matrix display in the environmental assessment shows that previously-approved actions may cumulatively



present significant environmental impact or un-resolved conflicts in resource management or use in any resource category (e.g., vegetation).

If alternative solutions are to be evaluated, they should include all actions (including the proposed alternative) that could reasonably be considered for addressing the issue or problem, along with each alternative's strengths and weaknesses in light of the park's resource management objectives and mandates, and narrative descriptions of the environmental impact and other consequences of each alternative.

These narrative descriptions of environmental impact should be thorough and complete, so as to support the EA. Include a No Action alternative for each Project Statement in which alternatives are evaluated.

4. Recommended Course of Action: Identify and discuss in further detail the alternative which is recommended for implementation and the rationale for its selection. This proposed action (plus any alternatives evaluated) should also appear in the matrix display of the environmental assessment.

The above four sections represent a complete Project Statement for each identified cultural resource problem area. Keep in mind that all projects must fit realistically into the 5-year program, although long-range research needs should also be identified. Because this RMP will be a continually evolving document, each project statement should begin on a separate page so that the Plan can be revised and updated.

In order for this Plan to provide adequate budgetary information, Project Statements should include all proposed undertakings that are resource manipulative and are contained in approved planning documents, but have not been funded.

## FIVE-YEAR RESOURCE PROGRAMMING SHEETS

Five-year Resource Programming Sheets (see attachment 2) must identify the time-phased funding and staffing needs required to carry out all actions prescribed in the Recommended Course of Action sections of the Project Statements. Dual Sheets are required; one set each for natural and cultural resources.

Natural Resource and Cultural Resource Programming Sheets must include all Project Statement titles listed in overall priority order of importance, together with the recommended resources management, monitoring and research actions included in each Project Statement. Attachment 2 indicates the proper format for displaying this information. Forms 10-237 and 10-238, resulting from this program, and designated in Package No., when appropriate, may either be attached to the Resources Programming Sheets or included within the Appendix.

VIII. ENVIRONMENTAL ASSESSMENT: Activities proposed within the Natural and Cultural Resource Program sections of the Resources Management Plan are subject to NEPA compliance requirements. As explained in Section VI of these guidelines, this compliance will generally be in the form of an environmental assessment (EA) which is combined with the RMP. The Council on Environmental Quality Regulations require, in 40 CFR 1508.9, that an EA include brief discussions of the need for the proposal, of alternatives, of the environmental impacts of the proposed action and alternatives, and listing of agencies and persons consulted. No format requirement is imposed. If each Project Statement in both the natural and cultural resource plan components is structured to adequately describe the need for the proposal and to include detailed narrative descriptions of

alternative actions and their environmental impacts, the EA should reference and summarize these discussions and serve to provide the reader with an insight into the cumulative impact of the various proposals and their alternatives. A matrix display format is suggested as being most useful for this purpose (see Attachment 3 for outline and sample).

The matrix display should be arranged by Project Statement, and should evaluate environmental impacts in such categories as: vegetation and soils, wildlife, water resources and water quality, wetlands and floodplains, cultural resources, air quality, aesthetic values, visitor use and interpretation, development plans, and "other". Under most Project Statements, the matrix should summarize impacts of the proposed action, no action and other alternatives which were evaluated in detailed narrative form within the Project Statement. The exception to this rule is for those proposed actions which have already undergone legislative compliance review and been approved for implementation (primarily cultural resource proposals). In such cases impacts of the recommended action shall still be evaluated in the matrix to facilitate an overview of the cumulative impacts of all proposed resource management activities; other alternatives need not be evaluated UNLESS the review of cumulative impacts in any resource category (vegetation, etc) reveals significant environmental impacts or unresolved conflicts in resource management or use, and in which the already-approved action is a pertinent factor. The general matrix format which should be used is shown in Attachment 3.

The EA matrix should be preceded by a lead-in discussion stating that it summarizes detailed narrative evaluations which may be found in the text of the individual Project Statements. Two other sections should follow the matrix in order to complete the EA:

(1) A separate discussion of any impact category (wildlife, vegetation and soils, etc) that appears to be significantly affected by the cumulative impacts of all proposed actions (not alternatives). This discussion should describe the anticipated cumulative impacts and any measures which will be adopted to mitigate such impacts to an acceptable level. As stated above, it may also be necessary to evaluate alternatives to already-approved actions in such circumstances.

(2) Listing of agencies and persons consulted in EA preparation.

If a Finding of No Significant Impact (FONSI) is appropriate for the EA, the FONSI should not appear in the RMP/EA itself, but should rather be appended by the Regional Director when he/she approves the Plan. A FONSI, as a final NEPA document, cannot be issued prior to compliance with Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, and Executive Orders 11988 and 11990 regarding floodplains. Annual Plan revisions involving an EA should be handled in a similar manner.

IX. APPENDIX: May include a variety of information but must include at least three things: 1) Information Baseline List or Checklist, 2) Area Bibliography, and 3) Approved Action Plans.

1) See attachment 4 for an example of a park's Information Baseline List. This document must provide an up-to-date listing of an area's available information. The area RMP provides the most logical place to include this data because it is an ever-changing, enlarging item, and no other park document provides that flexibility.

2) Area Bibliography provides the best possible reference on completed research and at the same time provides a perspective on available information to support the various phases of resources management. For parks with extensive bibliographies, this section may include only the Most Significant Bibliographic References.

3) Action Plans may include those documents that address Water Resources, Fire, River Use, Backcountry, Feral Animals, Minerals, Historic Structures, Ruins Maintenance, and a variety of other approved action documents prepared as specific management Action Plans. These documents usually deal with more significant actions, require more public review and may require an Environmental Impact Statement. Each Action Plan should be proposed or addressed within the appropriate Resources Management Program of the RMP. Project Statements should either address the strategy and time frame for arriving at an approved Action Plan or, if the action plan is already completed and approved, the actions called for within the pertinent Action Plan (or GMP).



Other Appendices may be added as needed for the particular park and circumstances. Useful topics may include Land Classification, Annotated Management Constraints, Collection and Locations, Summary of Ruins Maintenance, Resource Atlas, etc. Such appendices shall not propose actions, but rather support proposals which may be made in the RMP.

- X. PLAN PREPARATION: Procedures for putting the initial Plan and EA together and for annual revisions may vary, but the easiest and most productive one begins with a discussion by the park staff and invited participants about the resources, management activities, and research and monitoring activities. The discussion should include (1) a review of the area's Statement for Management, particularly the Resources Management Requirements; (2) the listing of on-going resources management activities and current and potential problems from both internal and external threats; (3) an analysis of those activities and problems in relation to short and long-term needs, including research and monitoring requirements; and (4) formulation of the information that evolves from the discussion into a written Resources Management Plan.

Attachments:

1. Sample Project Statement
2. Resources Programming Sheet
3. Environmental Assessment Matrix Format
4. Information Baseline List

## Attachment 1 - Sample Project Statement

### 1.1 GLAC-NL-Westslope Cutthroat Trout Management Program

#### 1.2 Statement of Issue or Problem:

Statement of Condition. Half a century of fish stocking in Glacier National Park has resulted in the establishment of exotic species in all major drainages. These intrusions have profoundly disrupted the natural order of aquatic ecosystems throughout the park; in some instances the disturbances have been catastrophic. Non-native species occurring in park waters include brook trout (Salvelinus fontinalis) Mitchell, rainbow trout (Salmo gairdneri) Richardson, grayling (Thymallus arcticus) Pallus, lake whitefish (Coregonus clupeaformis), Mitchell, and kokanee salmon (Oncorhynchus nerka) Walbaum. The lake trout (Salvelinus namaycush) Walbaum, is native to some waters of the south Saskatchewan drainage in Glacier National Park, but it has been introduced into several major westslope lakes.

The most visible impact resulting from exotic fish introductions has been their depressing effect on the native "westslope" cutthroat trout (Salmo clarki lewisi). This unique subspecies has been extirpated throughout most of its former range, and survives outside the park in fewer than a dozen small streams, mainly in western Montana.

Inside the park, native trout have come under stress through competition for food and space, and direct predation, as a result of exotic fish introductions. Indigenous trout have also hybridized extensively with hatchery-reared rainbow trout and introduced Yellowstone cutthroat trout (S. clarki sp.). It is not known whether genetically "pure" populations of westslope cutthroat trout still occur in Glacier National Park waters. The genetic status of resident cutthroat populations must be determined before an effective management program can be implemented.

Current Management Action. Sportfishing in Glacier National Park is managed by regulations governing seasons and creel limits. These rules are somewhat more restrictive than State regulations, which apply to lakes and streams outside of the park. Ice fishing is precluded by the June 15 through October 31 season, and several park streams are permanently closed to fishing to protect spawning stocks. Catch-and-release fishing is required on a few streams, also for the protection of spawning populations.

Fish stocking was discontinued in Glacier National Park in 1972, when it was determined that artificial enhancement of the park's fishery resources was no longer in keeping with policies of Natural Area management. No fish have been stocked in park waters since that time.

Results of Current Action. Regulations governing sportfishing in Glacier National Park are sufficiently restrictive to prevent over-exploitation of game species by fishermen. However, because many park waters are ecologically impaired, regulation of fishing pressure will contribute little toward their recovery. Exotic species cannot be

removed through liberalized fishing regulations, and manipulation of angler harvest will not diminish the influence of hybridization. Hence, reliance on sportfishing regulations constitutes a passive form of management, which, at best, will only maintain the status quo.

The quiescent position assumed by the National Park Service on the issue of fisheries management has created a public relations dilemma in several western parks, especially in regard to the question of fish stocking. This problem has not been especially acute in Glacier National Park, since considerable effort was made by park officials to explain the reasons for the elimination of fish stocking. There remains, however, a general lack of public appreciation for what the park is trying to accomplish in the way of native fish management. This uncertainty is a by-product of the present low-profile approach to fisheries management in Glacier.

### 1.3 Alternative Actions and Their Probable Impacts:

1. Continue Present Management. Under this alternative, the park fishery would be managed exclusively by regulations governing size and creel limits, open seasons, and special closures. Fish populations would be allowed to reach equilibrium essentially free from human interference.

This strategy fails to address major ecological disturbances, which have impacted aquatic systems throughout the park. Exotic species would continue to exert pressures against native fishes and genetic modifications of indigenous cutthroat populations would be perpetuated.

2. Prohibit the Taking of Cutthroat Trout. Cutthroat populations in waters which contain only native species of fish are not in danger of overexploitation by fishermen. Current regulations are sufficiently restrictive to prevent this from happening. However, lakes and streams which have been disturbed by the introduction of exotic fishes have a greatly reduced capacity for cutthroat trout production. Pressures from competition, and perhaps predation, may be of such magnitude as to render angler harvest inconsequential as a factor in cutthroat trout mortality. Accordingly, further limitations on the taking of cutthroat by fishermen would serve no useful purpose, except in special situations. Temporary restrictions would have some utility in waters which have been subjected to direct management action aimed at restoring or enhancing native fish production.

3. Renew Fish Stocking. Intensive fish stocking would no doubt improve sportfishing opportunities in Glacier. The extent of improvement would depend largely upon the species selected, and in the case of cutthroat trout, the size of fish stocked. The planting of "catchable"-sized cutthroats would assure adequate survival to yield a moderate return to the creel. This type of "put-and-take" proposition is expensive, though, and is clearly in conflict with contemporary interpretations of Natural Area policy. Even native species cannot be stocked purely for consumptive purposes.

Fish stocking is permissible for re-establishing species which have been extirpated from portions of their native ranges in the National Parks. However, there is not a certified brood stock of the Glacier Park strain of cutthroat trout available at a hatchery facility. Even if fish became available, uncertainties about the genetic make-up of resident trout populations do not favor a stocking program at the present time. It would be self-defeating to superimpose "pure" westslope cutthroats into suspected hybrid populations. Wherever practical, genetically modified populations should be removed before an effort is made to reintroduce the indigenous strain of cutthroat trout.

Undisturbed waters which harbor only native fishes do not need to be stocked since it can be assumed that these systems are producing cutthroat trout at or near their capacity. The addition of fingerling or catchable-sized trout would accrue short-term benefits to fishermen, but would contribute nothing to the production capacity of these waters.

4. Monitor Fish Populations. Various means could be employed to gather basic data on the composition and relative abundance of different species of fish in park waters. Possible methods include a creel census and fish sampling by nets or electro-fishing equipment.

5. Research. Research could be undertaken to probe the effects of disturbances to aquatic ecosystems. The most visible problems in need of investigations are (1) hybridization between native and introduced fishes, and (2) displacement of native species by exotic competitors and/or predators. It would also be helpful to gain a better understanding of species relationships and the general ecology of systems which have not been disturbed by human intervention. Information of this kind would contribute substantially to the management of native species, including the cutthroat trout.

6. Develop Restoration Plan. Passive management will not restore natural conditions to aquatic systems which have been severely disrupted by human activities. While some waters may be disturbed beyond practical recovery, many small drainages lend themselves to rehabilitation. For example, it may be possible to eliminate or substantially reduce exotic species in some of the smaller lakes, either through direct removal or changes in fishing regulations. Under ideal circumstances, it may also be possible to replace genetically contaminated cutthroat trout populations with the native strain.

7. Public Awareness. The public is poorly informed of the park mission in terms of aquatic resources management, and particularly fisheries management. A more determined effort could be made to enlighten park visitors on the subject of native fish management.

#### 1.4 Recommended Course of Action:

The first three alternatives are rejected for reasons stated in the previous section. Recommended actions derive from the remaining alternatives.

(A) Park waters found to contain genetically "pure" populations of native trout should be designated for special management to assure that "wild" populations remain in existence.

It is recommended that contingency plans be outlined for a restoration effort should research findings confirm that indigenous cutthroat trout are threatened or endangered in Glacier National Park. Consideration should be given to establishing a certified brood stock of westslope cutthroat trout. If donor populations can be located in the park and their genetic history validated by research findings, a small number could be transferred to a hatchery facility and maintained for the purpose of re-establishing indigenous trout in selected Glacier Park waters. The Creston Fish Hatchery could probably be made available for this purpose through cooperative arrangements with the U.S. Fish and Wildlife Service.

If pure populations of native cutthroat trout cannot be sustained at levels sufficient to insure their continued survival in waters historically occupied by the species, populations could be introduced into protected (physically isolated) lakes which have been ridded of exotic species. Naturally barren lakes should generally not be used as trout refuges, but should be perpetuated in their undisturbed condition.

A limited amount of aquatic habitat improvement should be undertaken to mitigate damages caused by devastating floods which have occurred during the past two decades. Prime spawning areas have been scoured, and impassable barriers have been created by fallen trees and other debris.

Minor changes in park fishing regulations should be considered. The purpose would be to increase the harvest of exotic species from park waters. Lake trout, kokanee salmon, and lake whitefish, especially, could be made more vulnerable under liberalized fishing regulations. A parkwide creel census is an essential prerequisite to any changes in fishing regulations.

Finally, an effort should be made to clear up some of the ambiguities and misunderstandings held by the public concerning the Service's goals in fisheries management. Attention should be focused on the scientific and esthetic significance of native fishes rather than their consumptive value. Increased emphasis should be given to this concern in the park interpretive program, and reinforced by park officials through various public forums.

Non-game native fishes removed inadvertently in conjunction with the elimination of exotic or hybrid trout populations should be reintroduced, providing they are indigenous to the aquatic community.

(B) A parkwide creel census should be initiated to secure information about the distribution of native and exotic fishes in specific drainages. Fishery resource surveillance should also be an integral part of basic data gathering activities performed in Glacier Park by fisheries biologists.

(C) Selected park waters containing exotic species of fish should be examined to determine the feasibility of rehabilitation.

Research should be undertaken to determine the extent of hybridization between native and introduced trouts. A prime objective should be to locate populations of cutthroat trout which have not been genetically


disturbed, if such populations still exist in Glacier.

Studies are needed to assess the impact of exotic fishes on the native aquatic biota. Special attention should be focused on species interactions, trophic relationships, and habitat requirements of both native and exotic species of fish. Emphasis should be on the cutthroat trout.

# RESOURCES PROGRAMMING SHEET

			<u>Natural</u>		<u>Cultural</u>		<u>Date</u>		<u>Page</u>		<u>of</u>				
<u>Park</u>	<u>Region</u>	<u>State</u>													
<u>Area</u>	<u>RPM</u>	<u>Pack.</u>			<u>YEAR 1</u>		<u>YEAR 2</u>		<u>YEAR 3</u>		<u>YEAR 4</u>		<u>YEAR 5</u>		
<u>Pri-</u>	<u>Ref.No.</u>	<u>No.</u>	<u>PROJECT TITLE</u>		<u>Action</u>	<u>NPS</u>	<u>Cost/</u>	<u>NPS</u>	<u>Cost/</u>	<u>NPS</u>	<u>Cost/</u>	<u>NPS</u>	<u>Cost/</u>	<u>NPS</u>	<u>Cost/</u>
<u>ority</u>					<u>Type*</u>	<u>M.Y.</u>	<u>\$1000</u>	<u>M.Y.</u>	<u>\$1000</u>	<u>M.Y.</u>	<u>\$1000</u>	<u>M.Y.</u>	<u>\$1000</u>	<u>M.Y.</u>	<u>\$1000</u>

PROJECT STATEMENT TITLE:NEED FOR THE PROPOSAL:

<div>ALTERNATIVE ACTIONS</div> <div>IMPACT CATEGORIES</div>	PROPOSED ACTION	NO ACTION	ALTERNATIVE	ALTERNATIVE	ALTERNATIVE	ALTERNATIVE
<div>**</div> <div>  </div>						
** Impact categories should be tailored to best suit your area and the range of impacts associated with the project.						



PROJECT STATEMENT TITLE: Westslope Cutthroat Trout Management Program

NEED FOR THE PROPOSAL: Native trout, Salmo clarki lewisi, have come under stress through competition for food and space, and direct predation, as a result of exotic fish introduction. The unique subspecies has been extirpated throughout most of its former range, and survives outside the park in fewer than a dozen streams.

ALTERNATIVE ACTIONS  IMPACT CATEGORIES	PROPOSED ACTION	NO ACTION	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
	Integrated re- search and restor- ation plan	Continue exist- ing regulations creel limits & seasons	Prohibit taking of Cutthroat Trout	Renew fish stocking	Monitor fish populations	Hybridization Research
Water Quality	Temporary, local degradation in habitat improve- ment area			increased fish- er interest may create local problems		Temporary local dedgred- ation may occur if chems. used
Visitor Use	Some curtailment of use in study area. Creel cen- sus delays.	Sportfishing programs will not be disrupt- ed	Visitor enjoy- ment may be reduced	Visitor enjoy- ment may be enhanced	Added creel census may delay a few fishers	
Native Fish	Some natives may be killed during research/rehabil- itation	Exotics will continue to re- duce native population	Minor, local- ized population enhancement may occur	Exotics will put added pres- sure on natives	Small numbers of <u>Salmo c. l.</u> may be taken for research	Small numbers of <u>Salmo c. l.</u> may be taken for re- search
Non-native Fish	Exotics may be killed in large numbers during research/rehabil- itation	Exotics will continue to ex- pand their range		Exotics will more quickly expand their range	Additional fish may be taken for research	Additional fish may be taken for research

PROJECT STATEMENT TITLE: Westslope Cutthroat Trout Management Program (continued)NEED FOR THE PROPOSAL:

<div> <div>ALTERNATIVE ACTIONS</div> <div>IMPACT CATEGORIES</div> </div>	PROPOSED ACTION	NO ACTION	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 5	ALTERNATIVE 6
					Develop restoration plan	Enhance public awareness
Water Quality					Localized, temporary turbidity may occur	
Visitor Use					Some curtailment of fishing may temporarily occur	Sportfishing use may be redistributed
Native Fish					<u>Salmo c. l.</u> populations will increase	
Non-native Fish					Existing populations will decrease	

BASIC THEMATIC MAP FILE

Regional Features  
Population Centers  
Political Subdivisions  
Land Use  
Outdoor Recreation Facilities  
Transportation, Communication, Utilities  
Overnight Accommodations  
Land Ownership

PARK SPECIFIC FILE

Topography. There is a U.S.G.S. map No. N2900 - W12040, 30X80 NPS dated 1969, scale 1:130,000 of Big Bend National Park, Texas. Available at Park Headquarters and Southwest Regional Office, Santa Fe, New Mexico. U.S.G.S. map No. 2858 - W10248.5, 49X59.5 dated 1970-71, scale 1:100,000; is available at National Park Concessions, Inc., Chisos Basin, Big Bend National Park, Texas. U.S.G.S. quadrangle maps Series V882, scale 1:24,000 dated 1971 are available at National Park Concessions, Inc., Chisos Basin, Big Bend National Park, Texas.

Geology. Geological map entitled, "Geology Map of the Big Bend National Park, Brewster County, Texas"; scale 1:62,500; produced by the University of Texas, Bureau of Economic Geology. This map is contained in an envelope attached to the inside back cover of a book entitled, "The Big Bend of the Rio Grande" Guidebook 7, Ross A. Maxwell, The University of Texas at Austin, 1968. Book and map are available at Headquarters, Big Bend National Park. Natural Resources Project N22, of this plan, addresses the need for additional geologic research.

Land Use and Ownership. Land Status and Boundary Maps, which denote status of lands within the boundaries of the park, are on file at Headquarters, Big Bend National Park and at Southwest Regional Office, Santa Fe, NM. Information regarding lands adjacent to the park may be obtained by consulting the plat maps, County Assessor's Office, Brewster County Courthouse, Alpine, Texas. Updated recent boundary changes are available at the Division of Land Acquisition, National Park Service, Santa Fe, NM.

Soils. A general soil map to the association level is available and titled "General Soil Map", Brewster County, Texas; compiled by the U.S. Soil Conservation Service cooperating with Texas Agricultural Experiment Station, Oct. 1973. Map No. 4-R-33, 113. The need for a more detailed study of soils within the park is addressed in Natural Resources Research Project N-20 of the Resource Management Plan.

Hydrology. Most of the hydrological features of the park may be discerned from any of the several U.S.G.S. maps of Big Bend mentioned above. A detailed hydrological map, current through Fiscal 1969, is contained in, "A Report of the Progress of the Investigation of the Water Resources of Big Bend National Park, Brewster County, Texas" by E.R. Leggat, U.S.G.S. Copies are available at the Southwest Regional Office, Santa Fe and Park Headquarters, Big Bend National Park. In addition, "Water Source Inventory", identified in the Resources Management Plan as Natural Resource Project N-1, is in progress. The study deals primarily with natural water sources (springs). Maps of spring locations are included in five large loose leaf binders available at Park Headquarters.

Vegetation. A vegetation map compiled by Dr. Barton Warnock, Sul Ross State University, Alpine, Texas and Walter H. Kittams, National Park Service, in 1970 is available at Park Headquarters. A revision to include the park road system was done in 1977 by Bill Jones, National Park Service. Other vegetation maps, drafted at Denver Service Center during the same period are also available. Also on file at Park Headquarters are a map of threatened plants, prepared by Dr. Warnock; and an overlay of Big Bend vegetation in the park map file which delineated four vegetative "Viomes" (Desert Scrub, Grassland-Sotol, Woodland, and Forest).

Wildlife. There are no overall wildlife maps of Big Bend National Park. Several schematic maps representing portions of the park have been prepared in conjunction with research reports by various investigators for individual species. (Example: Coyote, Deer - Mule Deer and Carmen Whitetail, Javelina). Copies of these reports are available at Park Headquarters, Big Bend National Park.

Cultural. A schematic large map showing archeological site locations and groupings is included in T.N. Campbell's report on Archeological Investigations within the Big Bend, and is available at Park Headquarters. This report summarizes Archeological work in the area dating from before establishment of the park. There has been no complete archeological survey of the park. See Archeological Resources Project A-2.

Recreation, Development, and Support Facilities. Maps of these facilities are included in an approved Developmental Concept Plan for Chisos Basin. Future development concept plans have been programmed for Rio Grande Village and Castolon. Each development concept plan is to be consistent with an approved Statement for Management, available at Park Headquarters.

NARRATIVE FILE

Climate. Detailed weather information, including temperature and rainfall averages by month, season, and year is available at Park Headquarters, Panther Junction. Summary sheets are mailed out to interested persons on request. Additional information in summary form is contained in the Resource Management Plan, available at the Park and at Southwest Regional Office.

Socio-economic Environment. Socio-economic factors were considered in the Chisos Basin Development Concept Plan and such studies will be available at such future time of development concept plans for other areas of the park.

Geology. Narrative treatment of the Geology of Big Bend National Park is best presented in the works of Ross Maxwell, first superintendent of the park, "The Big Bend of the Rio Grande, Guidebook 7" and "Geology of the Big Bend Area, Texas" published West Texas Geological Society, Publication #65-51, 1965. Both books available at Park Headquarters, Panther Junction.

Land Ownership and Use. In addition to the maps previously cited, documented information dealing with acquisition of lands within the park boundaries, as well as subsequent boundary changes is on file at Park Headquarters.

Soils. See previous reference.

Hydrology. See aforementioned Reports and Projects dealing with this subject, Basic Thematic Map File and Park Specific File.

Vegetation. There are numerous scientific papers, reports and books discussing the vegetation of Big Bend, available in the library and for sale by the Big Bend Natural History Association at the park. Notable among them are: "Plants of Big Bend National Park" (GPO 290pp), W.B. McDougall and O.E. Sperry, 1951; "Plants of the Big Bend National Park" (Mimeographed 24 pp), Barton H. Warnock 1967; "Naturalists 'Big Bend'" Roland H. Wauer, 1973.

Wildlife. As with the Vegetation of Big Bend, there are numerous scientific papers, research reports, and books discussing the wildlife, many are lengthy dissertations on individual species; others are general and inclusive. All are available at Park Headquarters. In the "General" category the following are worthy references: "Ecological Survey of the Big Bend Area" Texas A & M College, 123 pp., K.L. Dixon; "Preliminary Report on an Ecological

Survey of Big Bend National Park" mimeographed report for National Park Service, 55 pp., W.P. Taylon, W.B. McDougall, and W.B. Davis, 1944; "Ecological Survey of the Big Bend Area" administrative report to Texas Game and Fish Commission, 123 pp., C.C. Wallmo, D.O. Dixon, and W.G. Degenhardt, 1957; "Vegetation and Wildlife", National Park Service, typed report, Roland H. Wauer, 1969. In addition, an extensive card file on wildlife observations within the park is maintained by the park staff and is located in the park library.

Cultural Values. The Archeological and Historical (Cultural Resources) sections of this plan contain considerable narrative information. Copies of the "Archeological Assessment" of Big Bend National Park by C. Britt Bousman and Margaret Rohrt, Southern Methodist University are available at Park Headquarters and at the office of Cultural Resources, National Park Service Southwest Region, Santa Fe, NM. Historical studies and reports are also available.

Recreation Development and Support Facilities. See reference regarding Park Specific File.